Sitting in Limbo: Transformative Change through Drug and Alcohol Education at University.

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Abstract

Transformative learning has been described as an important theory to understand how adults can develop and change their perspectives through education. Adopting longitudinal approach, this Study investigated perspective change in students' beliefs about drugs and alcohol, through their experience of studying drugs and alcohol at university.

The research involved a longitudinal study of 35 students at three universities, with a focus on those students with lived experience of drugs and alcohol. This involved multiple case studies with a mixed methods approach to the collection of data, mostly qualitative, at three time points during the students' studies. In addition, data were analysed regarding the reflections of eleven teachers about the students' change in perspectives.

The findings indicate that students changed their perspectives with an increased willingness to accommodate different beliefs and became more flexible in their approach to drug and alcohol practice. One of the more significant findings suggests that students often retain personal beliefs about drugs and alcohol, which are contradictory to their changed practice beliefs. A feature for many students was that they frequently held contrary beliefs simultaneously, which over the time of the Study indicated a continuing accommodation of conflicting beliefs. The findings suggest this *liminal* state is more permanent than temporary.

It was identified by both students and teachers that a supportive environment, in terms of a community of practice, and being challenged, contributed significantly toward facilitating perspective change. It was also indicated that the key subject of 'Theories of Addiction' facilitated both a challenge and a change of perspective. Resulting from their studies, students increased their confidence in practice and personal development.

An important implication of this Study is the positive role university can contribute to the personal development of students and providing an educated, informed drug and alcohol workforce in the UK.

What makes this study an original contribution to the literature is that it reports on the impact of a university experience in the UK on the perspective transformation of beliefs among students with lived experience of drugs and alcohol.

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Acknowledgement

I wish to dedicate this thesis to my supervisor Professor Andy Furlong, who sadly died at the mid-way stage of my studies. I was his last and his oldest student and I wish to thank him for his support. I further wish to thank Professor Mike Osborne for taking me on when my supervisor died.

The participation of the students and teachers who took part in this study I wish to acknowledge and I am extremely grateful to them for sharing their stories of learning with me. This thesis I hope offers an insight into the determination and resilience of these students during their educational discovery and for some their recovery journey.

I have been writing this thesis for a long time and I want to thank and acknowledge the people who have made a real difference to my learning experience throughout the thesis.
I owe enormous thanks to Rose Marie Parr who has been instrumental in helping me finish and offered immense support over the years, continuing to believe in me. I want to give a big thank you to Tony McGowan who also provided a huge amount of support, guidance and encouragement. Finally, towards the end of my studies I am extremely grateful to Dr Muir Huston for his unconditional help and support.

Author's Declaration

"I declare that, except where explicit reference is made to the contribution of others, that this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution."

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Introduction

Since the turn of the century there has been increasing attention on the use of psychoactive drugs and the harms associated with their use (Babor, 2010 a, Babor, 2010 b), and drug use is considered globally as a major factor in overall death and disease (Degenhardt and Hall, 2012). In the last decade, there has been an increase, both in Europe and globally, in the prevalence of people presenting to health and social services with problems due to drugs and alcohol (European Monitoring Centre for Drugs and Drug Addiction, 2016, United Nations Office on Drugs and Crime Research, 2016).

In an overview of alcohol use and associated problems, the World Health Organisation (WHO, 2014) suggested that alcohol use can have negative health and social consequences for both the individual and society, with problem drinking being one of the leading risk factors for morbidity, disability and mortality. It is also has been noted that alcohol use in a population is related to income and that high-income countries, such as those in Europe, have the highest consumption of alcohol (WHO, 2012). Similarly, it is reported that illicit drug use is also highest in high-income countries (Degenhardt and Hall, 2012). It is proposed by Babor *et al*. (2010 a), that the higher the alcohol consumption in a country, the more alcohol related problems are experienced, such as increased liver-cirrhosis deaths. It is estimated that in Europe alcohol is the third largest risk factor of death and ill health and in the UK there are more alcohol related problems experienced in comparison to most other countries in Europe (WHO, 2012). It is noted that Scotland has higher rates of alcohol related problems than the rest of the UK (NHS Health Scotland, 2016). Both these international reports (United Nations Office on Drugs and Crime Research, 2016, WHO, 2014) are similar in suggesting that countries in Europe and North America have the highest rates for both drug and alcohol consumption and problems compared to the rest of the world.

In Europe, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2016) reported on the trend of increasing drug use in European countries for most substances and estimated that one in four European adults has taken illicit drugs. The health consequences most commonly reported are

infectious diseases and drug related deaths, which in Europe have increased in recent years. The mortality rates are highest in northern European countries and drug use is one of the main causes of death of young people in Europe, with opioid drug users the largest addiction group to access treatment services. EMCDDA (2016) estimated that illicit drug use in the UK has decreased in the previous 10 years, but the number of drug related deaths have increased. In Scotland, it is estimated that 28% of adult population have tried illicit drugs and that in 2016 the highest number of drug related deaths were recorded compared with previous years in Scotland (Information Service Division, 2016). Problem drug users often present with the consequences of their drug use to treatment services and in recent years, although the prevalence rate of drug use has not increased, the number of people presenting for the first time to treatment services have increased from previous years (United Nations Office on Drugs and Crime Research, 2016).

In light of the range and extent of consequences related to alcohol and drug use, several interventions to reduce and manage these problems have been proposed (WHO, 2012, WHO, 2014). The research evidence suggests that as part of an array of interventions treatment is one of the most effective methods of response (Babor, 2010 a, Babor, 2010 b). However, the quality of treatment services will depend on the knowledge, ability and skills of staff to deliver evidence based treatments and a range of services and interventions (Raistrick et al., 2006).

In the UK, the response to drug and alcohol problems has been outlined in several policy documents (HM Government, 2010, HM Government, 2012, Scottish Government, 2008, Scottish Government, 2009). These are different for alcohol and drug misuse; but, common across all the UK policy documents is a focus on the provision of treatment and specialist services as a main part of the response to both drug and alcohol problems. The response to drug and alcohol problems in the UK developed over the last 50 years with specialist treatment services, dominated by the National Health Service (NHS) in addition to the inclusion of social care and the expansion of voluntary organisations in the provision of specialist care (Babor, 2010 a, Mold, 2012, Mold and Berridge, 2008). Although specialist services were initially separate, in the last few decades there has been an amalgamation in the provision of services,

encompassing both drugs and alcohol (Babor, 2010 b, HM Government, 2010). In Scotland specialist treatment services provide combined help for both alcohol and drug problems (NHS Health Scotland, 2014).

This growth in the extent of drug use and services has implications for the addiction specialist workforce in the treatment of substance use disorders (WHO, 2010). The increase in illicit drug use in the 1990s, particularly with the upsurge in heroin use in the U.K., was mirrored with a rapid expansion of specialist drug services (MacGregor, 1994, Mold, 2012). The increase in service provision consequently resulted in large numbers of counsellors and drug specialists recruited to the drug and alcohol workforce. The drug and alcohol workforce historically was mostly recruited from people who had previous personal experience of alcohol or drug problems (Doukas and Cullen, 2010, Mold and Berridge, 2008). This group of people in the drug and alcohol workforce are sometimes referred to as *in recovery* or of having *lived experience* from drug and alcohol problems (Doukas and Cullen, 2009). The term *para-professional* is also used in the research literature, particularly in the USA, to denote an ex-substance user that works as a substance abuse counsellor (Mulvey et al., 2003). It has been estimated that many counsellors who are in the drug and alcohol workforce in the USA are in recovery (Brown, 1991, Sobell and Sobell, 1987) . There have been, however, no contemporary studies published about issues related to drug and alcohol workers in recovery in the UK, and a minimal amount known about the number who are in recovery within the UK drug and alcohol workforce. Therefore, almost all the literature in this field derives from the USA (Bramness et al., 2014).

Since 2000 there has been a demand to improve standards in the drug and alcohol field in the UK with an emphasis on the use of more evidence-based practice, with more accountability and the introduction of quality standards for services (Scottish Government, 2014, Wardle, 2013). These developments are linked to the wider development and use of National Occupational Standards in Health and Social care in in terms of good practice and professional education (Weinstein, 1998). Consequently, as part of a workforce strategy to raise standards there was a drive to ensure the workforce were competent, trained and with more emphasis being placed on workers being appropriately qualified (Scottish Government, 2010, Skills for Health, 2007).

The ability of a skilled workforce to deliver a range of interventions is important in the provision of effective drug and alcohol treatments (National Treatment Agency for Substance Misuse, 2009). The important contribution of staff attitudes and approaches to the provision of addiction services is outlined by the Scottish Government (2014) and one of the most important assets of drug and alcohol services is the staff and variety of roles they undertake in service delivery (Roche and Nicholas, 2016). Roche (2009) noted that with many changes in the drug and alcohol treatment field there were increasing demands on workers regarding issues of co-morbidity, young people, new drugs and increased presentation of multiple drug use. Duryea and Calleja (2013) reiterated the need for the drug and alcohol workforce to have a variety of skills and a wider knowledge of drug and alcohol problems. They suggested the drug and alcohol treatment field has changed in the last two decades, and that drug and alcohol specialists are required to be aware of many emerging issues, such as co-morbidities of mental health and many different counselling interventions like Motivational Interviewing (Miller *et al.*, 2002) and Recovery Orientated Care Systems (White, 2015).

There is evidence internationally that the availability of suitably trained and qualified specialist staff in drugs and alcohol work can have an impact on the efficacy of treatment services. For example, when considering addiction workforce issues in the USA, Hyde (2013) suggested that, “An adequate supply of a well-trained workforce is the foundation for an effective service delivery system.” (p2). It is therefore very likely that for most people accessing specialist services in addiction, the quality of the service they receive will be a function of the treatment staff they meet. Therefore, the quality of treatment service staff are integral to the quality of service provision (Mulvey et al., 2003).

The increased awareness of the growing range and extent of substance misuse problems in the UK led to recommendations for effective treatment programmes and in turn for effective counsellors with their practice informed by evidence based research (NICE, 2007). As a key part of the initiative to improve the quality of services for drug and alcohol users in the UK, service providers were encouraged to develop and encourage staff to obtain appropriate qualifications (Scottish Government, 2010, Wardle, 2013).

Drug and alcohol education and specialist academic qualifications for the workforce can have an impact on the type and range of services offered by a service. At an individual level higher education can increase the confidence of staff providing interventions (Babor, 2010 a). The important role of confidence as a key influence on the effectiveness of drug and alcohol workers has been highlighted by Cartwright (1980). In contrast, the lack of knowledge and skills can have a negative factor on an individual's ability and their confidence to practice in the addiction field (Allsop and Stevens, 2009). Gaining qualifications and increasing drug and alcohol workers' skills and knowledge are considered essential for the quality of services, as illustrated in a study of addiction service managers by Pidd *et al*. (2012), who reported that managers of addiction services preferred staff with higher educational qualifications.

Therefore, the main aim of education and training is to improve the skills and practice of the drug and alcohol workforce and in this regard education can be effective in raising the knowledge and skill level of workers. Consequently the quality of service provision would be improved with a greater range of services and potentially a reduction in drug and alcohol related harm (Roche and Nicholas, 2016).

The specialist drug and alcohol workforce consists of a wide range of professional groups that contribute to treatment services (Allsop and Helfgott, 2002, Mulvey et al., 2003). However, it has been suggested that most of the specialist drug workers in the UK are not qualified and have a lack of training (Boys et al., 1997). The section of the workforce in recovery, who in the past would have been involved in treatment services, mainly because of their lived experience of drug and alcohol misuse, are now normally required to gain some appropriate training and qualification to work in the drug and alcohol sector, both in the USA and UK. In the proposed development of the drug and alcohol workforce, the Scottish Government (2010) recommended that those with lived experience must be trained to enter the workforce. Therefore, to develop a career in the drug and alcohol field there is increasingly a perception of a requirement for a relevant qualification.

There is the potential for large numbers of the drug and alcohol workforce, especially those in recovery, entering higher education to gain a qualification to

aid employment in the drug and alcohol field. Research by Terrion (2012) and Scott *et al.* (2016), however, suggests that engagement in higher education has the potential to challenge the established beliefs of students in recovery. Students could potentially be unable or unwilling to assimilate or accommodate new knowledge, which is inconsistent with their personal beliefs about the nature of recovery. This perceived difficulty with accepting new ideas, that may be threatening to established beliefs, was noted by Kalb and Propper (1976). This possibly is due to the difference in approaches to learning, with those in recovery utilising experiential and subjective learning rather than objective and scientific learning styles. They suggested people in recovery tend to learn intuitively, gaining experiential knowledge as opposed to learning in an academic environment emphasising critical evaluation. Consequently, those in recovery, many who may also be involved with Alcoholics Anonymous (AA) (Alcoholics Anonymous, 2001) can experience higher education, not only as a challenge to their existing beliefs, but a threat to their personal recovery and identity (Bell et al., 2009, Brown, 1991). The AA model based on personal experience is the opposite of an evidence based and professional model approach, which values objectivity and critical appraisal (Payne et al., 2005). However, the process of learning through reflecting on personal experience is a larger issue in adult education as noted by Kolb (1993), especially with non-traditional adult learners (Bamber and Tett, 2000).

Mezirow (2009a) argued that as part of how adults learn and change through education involves the process of: examining new information; reconsidering beliefs that before having never been questioned; changing firmly held beliefs by considering new information and then changing behaviour; then, transformative learning has occurred. The outcome of this experience of education is a perspective transformation that gives a new understanding and new view of the world (Tennant, 1993). Some studies from the USA proposed that attending university may result in a transformative experience for those in recovery and that their beliefs and indeed their world view of addiction can change (Bell et al., 2009, Greene, 2015, Terrion, 2012). Koch and Balance (2001) noted that those students in recovery who endorse an AA model are not hindered academically at university, when exposed to critical appraisal and different perspectives of addiction. In this study, the potential paradigm clash of beliefs

and learning new knowledge was not found to influence academic performance of those students in recovery. However, the drug and alcohol treatment field in the UK is significantly different from the USA regarding attitudes towards AA, with UK drug and alcohol professionals less likely to accept or promote AA ideology (Day et al., 2005). Considering these differences, it is unclear if students in recovery in the UK, who may also subscribe to an AA model, would have the same experience of attending higher education as their counterparts in the USA.

The research suggests the experience of students in recovery participating in addiction higher education can be contradictory, with some studies suggesting a clash of beliefs and students in recovery being unable or unwilling to consider new concepts. Alternative studies suggest that education can be a transforming experience for those in recovery. There is, however, very little known about students in recovery within higher education from a UK perspective, as the evidence is exclusively from the USA.

UK government drug strategies (HM Government, 2010, Scottish Government, 2010) have encouraged those in recovery to enter the drug and alcohol workforce, with a key priority to have a trained workforce and with an emphasis on gaining qualifications to enhance practice. However, the education of specialist drug and alcohol professionals in the UK has received very little attention in research (Rassool and Oyefeso, 2007), and there is nothing known about the experiences of those in recovery at university in the UK. Although there are many studies on transformative learning in adult education there are very few studies on the possible transformative learning experiences of recovery students in higher education.

The current study is unique because there is no study in the UK that considers the experience of students at university in terms of the impact of education on their drug and alcohol beliefs and practice. The study aims to investigate any changes in students' perspectives of drug and alcohol beliefs, from attending a university course on drug and alcohol studies and consider the factors that facilitate transformative change for students. An interest will be on those students in recovery at university and their transformative potential.

The following research questions will be addressed in this study:

- How does the experience of students at university, especially those with lived experience of alcohol or drug problems, influence their perspectives about drugs and alcohol beliefs?

- What experiences of being at university are considered important, from both students' and teachers' viewpoints, in terms of factors facilitating a transformative change in perspective?

- What factors do students reflect on regarding their experiences of perspective change at university?

This is an exploratory study with a cohort of students at university specifically studying drug and alcohol as a main subject. The theoretical basis for this study is Transformative learning theory (Mezirow, 1991), considering the potential perspective transformation of drug and alcohol beliefs (Schaler, 1995). The study will adopt a longitudinal approach (Saldana, 2003, Van Ness et al., 2011) and a multiple case study design (Yin, 2009) using mixed data collection methods (Creswell, 2013, Creswell and Plano Clark, 2018) with semi-structured interviews repeated over time with the same participants as the main source of information. The semi-structured interview is guided by the Learning Activities Survey (LAS) as outlined by King (2009) and the approach to data analysis of semi-structured interviews will use the method of Iterative categorization (IC) (Neale, 2016). In addition, quantitative data gathered will be from the Addiction Belief Scale (ABS) (Schaler, 1995) and part 1 of the Learning Activities Survey (LAS) (King, 2009), which refers to the 10 precursor stages of Mezirow's theory of transformative learning (Mezirow, 1991).

I became interested in this topic area from a professional perspective of having been involved in teaching drug and alcohol studies at university for 11 years. During this period, I had contact with many students from different backgrounds and with different experiences and beliefs about the nature of drugs and alcohol. As observed by myself and colleagues, a frequently recurring theme

with students was the conflict between their beliefs and the new information they were being exposed to at university. This was especially acute with students in recovery, who had often learned about their recovery through self-help groups and consequently understood addiction through the teaching and beliefs linked to self-help groups, like Alcoholics Anonymous (AA). Sometimes this resulted in students feeling uncertain about their beliefs as they were exposed to different and conflicting viewpoints at university and for some their learning did not appear a comfortable experience, wrestling with two conflicting understandings about addiction. Other students, however, appeared to change their views and drug and alcohol beliefs quite dramatically. It was my observations of this potential for change in students' beliefs that provided the motivation for this study.

Thesis structure

The thesis begins by reviewing the relevant research and theoretical literature. The methodology of collecting and analysing is considered, the presentation of findings at three time points, Teachers reflections and finally, a discussion and conclusion.

The following short outline of chapters in the thesis are:

Chapter 1: Literature review

There are four main sections to this chapter, reviewing the research and literature pertaining to important points to be considered in this study. The first section will consider University Education in Drug and Alcohol studies, followed by Beliefs about Addiction, with a focus on the disease and free-will theories of addiction. The Addiction Specialist will then be considered and the last section will give an overview of Perspective Transformation theory, with the main elements described, a critical review of the theory considered and links explored with the addiction field.

Chapter 2: Methodology

In this section, the rationale for the chosen methodology of a mixed methods research design to analyse the study findings will be outlined. In addition, the methods used to conduct the study, how the study was carried out and how the information was gathered will be described. The participants, universities and the courses that were involved in this study will also be described.

Chapter 3: Students' Anticipation of studies

This chapter describes the nature and demographics of the students at the outset of their studies. The findings presented are from the basic demographic information reported by the students that was collected from self-completed questionnaires. In addition data from the Addiction Belief Scale (ABS) (Schaler, 1995), information from student focus groups and responses to open questions in the questionnaire are considered. The findings outline characteristics of students' beliefs and the findings from the focus groups and open questions from the survey questionnaire are presented.

Chapter 4: Students' Reflections During studies

The experience of students during their studies, considering the themes derived from analysis of semi-structured interviews, are reported. The exploration of students' experience of university and consideration of any changes to perspective transformation of drug and alcohol beliefs, together with the students' reasons for any changes will be considered. Data from first part of the Learning Activities Survey (LAS) (King, 2009) will be reported.

Chapter 5: Students' Reflections on Completing studies

This chapter will report on the students' reflections on completion of their studies. Their experience of any change in drug and alcohol beliefs and perspectives, facilitators of perspective transformation and any reflections of their university experience will be reported. In this chapter, the findings presented are based on semi-structured interviews and comparisons will be

made with the data collected throughout the study from: interviews ,the first part of LAS questionnaire (King, 2009) and the ABS (Schaler, 1995).

Chapter 6: Teachers Reflections

Teachers of the students involved with the study, their demographics and their views on drug and alcohol students' profile and the pedagogical implications of teaching drug and alcohol students are reported. The main findings reported are from semi-structured interviews conducted at the end of a teaching course. The findings of the research considering the teachers' views on student transformations and factors that may facilitate change are reported. In line with the students' research methods, the findings presented are based on a self-completed questionnaire, semi-structured interviews and the ABS (Schaler, 1995).

Chapter 7: Discussion

The first part of this chapter will consider the methods used in this study. Following this, the discussion of the findings from the students' anticipation of studies section, then the main findings regarding the research questions will be considered, with links made to the literature. These findings will relate to the experience of perspective transformation of student beliefs in drugs and alcohol, facilitating factors for perspective transformation and students' reflections on their experience of change. Students in recovery and comparison of the longitudinal data will be considered throughout the discussion. Based on the study's findings the implications for teaching of drug and alcohol studies at university and the theory of Transformative learning (Mezirow, 2009a) will be considered.

In this thesis, there is much terminology used from the addiction field and the language used in this thesis can appear contradictory and confusing. For example, the term recovery is used as a synonym for ex-substance users; paraprofessionals and people with lived experience of drugs and alcohol problems. Substance use is used in the discussion as a synonym for addiction and drugs and alcohol problems.

Chapter 1 Literature Review

1.1 University Education in Drug and Alcohol studies

The aim of this first section is to consider the provision of specialist education about drugs and alcohol courses at university. Firstly, a brief history of the emergence of drugs and alcohol studies at university in the UK and USA will be outlined. The national standards of drug and alcohol workforce in the UK will be outlined and the policy background in the UK for the training and education of the drugs and alcohol workforce. The nature and extent of university education in the UK will be reviewed referring briefly to Europe, but mainly to the USA. As the majority of research on this subject emanates from the USA (Bramness et al., 2014) and so this will be the focus of comparison with the UK. A profile of the teachers and students of drugs and alcohol courses and the impact of education on the student will be considered. Finally, this section will conclude with a review of recovery students' experience of higher education and comparison with non-recovering students.

The effectiveness of interventions in drug and alcohol treatments is a function of the drugs and alcohol counsellor's competence, knowledge, skills and expertise (Orford, 2008). As in the case of many professions, expertise is a combination of knowledge and practice with learning usually beginning from undergraduate studies at university, followed by training and the gaining of experience in practice (Squires, 2005). This process of gaining expertise is typically through firstly receiving education followed by gaining experience, or combining both academic study simultaneously with gaining practical experience. For some people who become drug and alcohol counsellors this process of learning, initially by gaining knowledge and then experience, is reversed. Some drug and alcohol counsellors learn to work in the drug and alcohol field through personal experience, or by experiential learning, and thereafter seek to formalize their personal knowledge though training or education (Boys et al., 1997).

The preparation of drug and alcohol counsellors has been moving to a more professional approach, in both the UK and the USA (Duke, 2010, Payne et al., 2005). There has been a shift in the preparation of drug and alcohol counsellors in the USA from the occupational, on-the-job learning, with some in-service

training; to a more formal, professional education and training process (Payne et al., 2005). In the UK, the approach to the preparation of drug and alcohol counsellors has been mostly through occupational training, combined with the requirement of acquiring underpinning knowledge of practice, in the format of obtaining a qualification linked to a National Occupational Standards qualification (Wardle, 2013).

In the UK, higher education courses, specifically on the topic of alcohol studies began to appear from 1979 at Paisley Technical College (Ewan and Whaite, 1982) and in the last 35 years there has been a growth in the provision of drug and alcohol courses at universities in the UK (Ashwood and Rowley, 2016). As of 2016, the estimated number of academic addiction courses at degree or postgraduate level in the UK was 25 (Pavlovská et al., 2016). More recently it is estimated there are 18 universities offering addiction specific courses, from Foundation to Master's degrees, in the UK (Society for the Study of Addiction, 2018).

In the USA by comparison, Keller and Dermatis (1999) summarised the development of addiction training in the USA, from a system initially based on a 12-step perspective to more didactic teaching in academic settings. However, the authors noted that despite this development most counsellors experience training as practice based and an expansion of more course work in academic settings was recommended. The development of training programs across the USA for people wishing to work in addictions commenced in the early 1970s and attracted many people with personal experience of addiction (White, 2000). The establishment of these training programs were intended to give the largely untrained workforce access to academic qualifications and this stimulated more academic based degree and graduate qualifications. It was further suggested by Keller and Dermatis (1999) that addiction training over 30 years developed from a self-help focus, to a profession of addiction counselling. In their assessment of addictions training in the USA they suggested that due to the development of generic counselling, all counselling organisations, including drug and alcohol services, were required to demonstrate competencies of practice. In the 1980s health care professionals became involved in the education of addictions, with each profession having developed a sub-specialty of its own courses and standards of addiction education. Specialist addiction counsellor training courses

in the USA developed in the 1980's following the production of national standards for addiction counselling, however, no national standard exists across all the USA, but differs from state to state (Banken, 1993). The development of university education in drugs and alcohol in the USA has mainly followed from the development of national standards for addiction counselling. However, in the UK, development of university education in drugs and alcohol has more of a focus on professional specialities. Consequently, most courses developed in the USA have been undergraduate degrees and in the UK most courses are postgraduate (Society for the Study of Addiction, 2018). There is, however, limited research on the nature and extent of addiction education and its development at university in the UK.

There is no universally accepted term for courses specific to drugs and alcohol or addiction and various terms are used by universities to denote this area of study. It would appear the absence of a clear term for alcohol and drug courses in the USA and the variety of descriptions used has resulted in courses that are not easily recognised by a common terminology (Taleff, 2003). In a survey of addiction courses in the USA, Edumudson *et al.* (2005) noted a wide variation and lack of consistency in the naming of addiction courses. This was, however, considered understandable by a sample of the teachers who thought this reflected the multidisciplinary nature of addiction. Many courses in Europe are also referred to as a combination of addiction, drug and alcohol or substance use/misuse studies/counselling and research (Miovsky, 2015, Pavlovská et al., 2016, Taleff, 2003). Miovsky *et al.* (2015) in the description of the history of addiction studies in the Czech Republic noted that studies in this area may be defined as 'addictionology', which was described as:

> Addictology, or addiction science, is defined in this study program as a distinct and independent field of scientific inquiry on addictive behaviours and the risk environment of substance use, aiming at scientific and professional excellence relevant to society. (p529).

This definition suggests an attempt to define the study of addiction as having a distinct knowledge base that is linked to professionalism, which is a precursor of establishing a distinct professional practice (Squires, 2005). The terminology used to describe of drug and alcohol studies is therefore important, as it indicates the content of studies, the approach to teaching and so can influence

student choice of study. In this, thesis the use of drugs and alcohol and addiction are used synonymously.

1.1.1 UK National Standards in the Drug and Alcohol Workforce

In the UK, the drug and alcohol workforce comprises a variety of professional and non-professional workers. Due to the increase in drug services and consequently the expansion of the drug workforce, the UK Government Drugs Strategy (HM Government, 2008) introduced occupational standards to improve the skills and knowledge of drug and alcohol workers (Mold, 2012). The introduction of national standards was a "professionalising strategy" for drug workers, which attempted to improve the quality of services by improving the skill and knowledge of the workforce (Duke, 2010). Indeed, the Government recognized the key role of drug and alcohol workers in improving the quality of addiction services:

> Developing a competent substance misuse workforce, including both generic and specialist practitioners, is crucial to ensuring a high standard of service delivery. (Home Office 2008, p47).

The development of National Occupational Standards set out to describe the functions of work roles in terms of the skills and knowledge required. In the UK, these standards were developed in the first instance because of the perceived lack of a trained and skilled workforce (Weinstein, 1998). The intention of raising standards was to give access to qualifications to a section of the workforce who were unqualified. The establishment of the National Vocational Qualification (NVQ) and the Scottish Vocational Qualification (SVQ) framework set out the levels of competence in a range of occupational tasks. The development of these standards in the UK, regarding Health and Social care standards, are outlined by Weinstein (1998) who noted the possible extension of NVQ's to include the professions and possible shared education and learning between the Health and Social Care workforce.

The Drug and Alcohol National Occupational Standards (DANOS) are a set of national standards regarding the relevant knowledge and skills for working in the drug and alcohol field (Skills for Health, 2014). These standards were developed by the UK Government with voluntary drug and alcohol organisations and

comprise elements of SVQ and NVQs in health and social care which identify a range of activities relevant to drug and alcohol work. It was intended that drug and alcohol staff should be required to demonstrate competence in core skills and selected units. Both, SVQs and NVQs are qualifications based on national standards and the competence is assessed by staff in the workplace, with external moderation. The Federation of Drug and Alcohol Professionals (FDAP) is a voluntary organisation that accredits practitioners, and practitioners to gain accreditation must submit evidence of competency measured by DANOS. There is professional registration from FDAP, who have developed a registration scheme, based on DANOS.

In contrast, academic qualifications are not a demonstration of competency, but of underpinning knowledge that could contribute toward the award of SVQ or NVQ. Generally, to seek work in the drug and alcohol field, prospective practitioners would initially be required to obtain a SVQ or NVQ. There is no requirement to gain an academic qualification to work in the field, however a few university courses combine both NVQ and academic qualifications to attract students and in England this takes the format of a Foundation degree. Policy initiatives in the UK emphasising higher education for the drug and alcohol workforce have been limited with the emphasis on skill development of the workforce via National Occupational Standards.

1.1.2 UK Policy for Training and Education of the Drug and Alcohol workforce

The importance of the Higher Education sector to the provision of educated and trained, professional staff to work in the drug and alcohol field was highlighted in the Government report: *Problem Drug us a review of Training* (Advisory Council on the Misuse of Drugs, 1990). This report recommended the requirement that training for a wide variety of professional groups should be developed at basic, advanced and specialist levels. The report also noted the need to support and involve non-statutory and non-professional staff in education and training. The report recommended: the establishment of a national training agency for substance problems; practical recommendations about course design, incorporating both alcohol and drug use into course content; and course evaluation and research. This was the first and the only

time to date, a report was published with a specific focus on training and the educational needs for staff working in the drug and alcohol field in the UK. Although the report stressed the importance of the need for education and training for staff working in the addiction field, it was noted by Farrell (1990) that similar recommendations had been made a decade earlier by the Advisory Committee on Alcoholism (1979). Farrell (1990) argued that the drug and alcohol field included many workers who do not belong to professional groups, but who would benefit from more than just in-service training. Regarding the development of these workers, it was proposed they would benefit from the development of skills from training and knowledge from education, which could also enhance their general career development.

The extent of training and education needs of the drug and alcohol workforce was also highlighted by Boys *et al*. (1997) in a survey of drug workers in England. This survey gathered information from 489 drug workers, on their educational and training experience, which was mainly skill based, with a dominantly counselling focus. It was reported that the workforce had a range of different qualifications and was made up of a variety of professionals, however one third of specialist drug workers had no qualifications and many had entered the field unqualified in drugs and alcohol, but had subsequently received some training when in post, mainly in counselling interventions. It was concluded the varying backgrounds of the workforce, such as psychiatry, nursing, and counselling, result in a lack of academic and philosophical coherence resulting from the different knowledge and skill needs of these different professional groups.

Farrell (1990) was critical of the lack of a developed national approach to training delivery and consequently the unplanned nature of training in the UK, apart from the attempts of training for specific specialist professional groups. Almost two decades later, Uchtenhagen *et al*. (2008) reported in a survey of addiction university courses in Europe that this fragmented approach to co-ordinating education in addiction was still present. They noted the provision of educational courses in any country are mainly provided by individual universities and colleges rather on the needs of the addiction workforce, and that courses often operated by free market competition rather than guided by a national structure or plan.

The UK drug strategy *Reducing Demand, Restricting Supply, Building Recovery* (HM Government, 2010) makes no reference about education of professionals. The Scottish drugs strategy *The Road to Recovery* (Scottish Government, 2008) noted the need for well trained staff and development of the workforce. Both these reports reflect a more recovery-orientated approach to alcohol and drug problems as advocated by Humphreys and Lembke (2014), but minimal mention was made of educational development of the workforce.

In 2010, the Scottish Government published a report *Supporting the Development of Scotland's Alcohol and Drug Workforce*, (Scottish Government, 2010) which set out the required skills and competence for drug and alcohol workers, but not the educational knowledge base. The Scottish report specifically recognises the potential contribution of people in recovery as part of the addiction workforce, proposing that people in recovery are considered expert by dint of their lived experience. This report also noted the importance of preparing people in recovery to be skilled and trained to enter the workforce, but no indication is made of educational requirements. The report highlighted various organizations that have roles in workforce development, however, there is minimal interest in the role of education, apart from consideration of minimum standards within SVQ qualifications and inputs to undergraduate degrees for various professions. Although the report acknowledged that the workforce required to be skilled and trained, there is a general implication that professional and education bodies will provide this training. The focus for higher education, is on basic undergraduate training for professional groups, who as part of their future role are likely to meet addiction problems. There are no recommendations for specialist drug and alcohol training and continuing education or how those in recovery, who are to join the workforce, will become skilled and trained beyond gaining a set of minimum qualifications and involvement in a few days in-service training.

This nature of training and educational provision in the UK for drug and alcohol workers was highlighted by Ashwood and Rowley (2016), who noted no standardisation in educational provision in drug and alcohol studies. Instead, there is a range of educational qualifications from different universities with different admission criteria and course syllabus. There has been, however, an attempt to develop a more coordinated approach to standardization of drug and

alcohol education for some professional groups, like medicine (Notley and Ghodse, 2014).

At a European level The Pompidou Group (2014) highlighted the importance to the workforce of involving ex-addicts, due to their experience and motivation, and further emphasised the requirement of providing training for people in recovery required to be addressed. It was noted by Uchtenhagen *et al*. (2008) and by Muscat *et al*. (2014) in their reviews of education and training policies across several countries in Europe, that Scotland had a systematic provision of continuing education and training for the drug and alcohol field. The Scottish Drug strategy (Scottish Government, 2008) recognised the need for education and training and the Scottish Government provided core funding toward higher education for professionals and for those working in the non-statutory and voluntary sector. However, this systematic provision was discontinued in 2014 and the emphasis shifted from a national, coordinated approach to advocate individual responsibility for learning and development. This financial support for specialist education and training was withdrawn in 2014, evidently for financial rather than educational reasons. At present in Scotland, in 2018, there exists a limited patchwork of competing further and higher education establishments offering a limited range of qualifications from generic SVQ's, university certificates and postgraduate degrees., The education of the drug and alcohol workforce in Scotland, similar to most other European countries, is now driven more by the market providers of courses than a strategic response based on workforce needs (Uchtenhagen *et al*., 2008).

In summary, there have been various government documents and policies in the UK that recommend the importance of training for both professional and non-professionals working in the addiction field. The role of higher education, however, has been limited mostly to the education of specific professional groups. There has been no research on the qualifications and experience of the drug and alcohol workforce in the UK for more than 20 years. There is no national or coordinated approach to the provision of drug and alcohol education and the research on education on drugs and alcohol at university in the UK is limited to one study. The importance of education and training for recovery counsellors has been highlighted as important to the provision of quality

services, there is however no research in the UK regarding the impact of education and training in drugs and alcohol for people in recovery.

1.1.3 The nature and extent of university education in drugs and alcohol studies

Although it is acknowledged that education and training are important to improving the drug and alcohol workforce, the involvement of Higher Education and the education of staff has not been a high priority for many treatment services outside of Northern America (Roche, 2009, Uchtenhagen et al., 2008). While the context of education, research and treatment services in the USA are not comparable with the UK or Europe (Bramness et al., 2014), the nature and extent of university provision for drug and alcohol studies in the UK will be outlined and set in the light of provision in Europe and the USA. The levels of drug and alcohol university provision are set out in table 1.

Table 1 University Educational System Specialising in Drug and Alcohol studies

UK	USA	Europe	Duration
Certificate in Higher Education			1 – 1 ½ years part-time
Foundation degree	Associate Degree		2 years full-time/part-time
Bachelor degree Arts/Science	Bachelor degree Arts/Science	Bachelor degree Arts/Science	3 years full-time
Postgraduate certificate			1 year – full-time/ 2 years part-time
Postgraduate Diploma			1 year – full-time/2 years part-time
Master's Degree Arts/Science	Master's Degree Arts/Science	Master's Degree Arts/Science	1 year full-time/ up to 3 years part-time
PHD	PHD	PHD	3 years full-time / 6 years part-time

At the 135 universities in the UK in 2014-15, 18 provided courses with a focus on drugs and alcohol (Universities UK, 2017). This however is not a complete reflection on the range of provision in UK universities, as several short courses or modules on drugs and alcohol are included in the make-up of a degree in a broad

topic area, such as, medicine, nursing or social sciences. Specialist courses in drugs and alcohol have been developed in some universities and there are 18 in the UK providing a range of courses at different academic levels: from modules, Certificates in Higher Education to Foundation and Higher degrees in drug and alcohol studies (Society for the Study of Addiction, 2018). Some of these courses pertain to specific disciplines, like medicine, psychology or mental health and 10 of these universities offer a qualification in drugs and alcohol to students from a variety of backgrounds. The Society for the Study of Addiction (2018) listed two universities offering a Certificate in Higher Education and two universities offering a Foundation Degree in the UK. Therefore, many of the courses are aimed at the higher level of education, such as masters' degrees, and so would unlikely attract non-traditional students, and perhaps those people with previous drug and alcohol problems, who perhaps have less academic achievements to gain entry to a Higher degree course (Christie et al., 2008).

In Europe, there are several university courses that exist for students who are undertaking study with drugs and alcohol as the main qualification. Recently a survey of university based addiction specific courses in Europe by Pavlovska *et al.* (2016), using an internet search to identify universities and a content analysis of their courses content, identified 34 universities in 8 countries. From these 34 universities, most provided masters (43.6%), bachelor's degrees (15.4%) and PhD (12.8%). Half of these programmes did not include a practice placement element in their course syllabus. The courses in drugs and alcohol were available to a wide variety of students, although some of these courses were only applicable to specific professional groups. The study, however, did not consider sub-degrees such as Foundation degrees or Certificates in Higher Education and there is no research about these courses in Europe or in the UK.

In contrast, Higher Education drug and alcohol courses in the USA have been described in a large survey by Taleff (2003), who noted that academic courses were offered at three academic levels, namely; masters', bachelor and associate levels. This survey involved 442 addiction specific courses with most courses (69%) named as associate courses, which are undergraduate degrees of two years' duration and less academically focused than a bachelor's degree. These associate courses are comparable to the Foundation degree in England and Higher National Diploma (HND) in Scotland, of two years' duration with a focus

on practical application and usually attract students from backgrounds with lower academic achievements (Herrera et al., 2015). In a another survey of academic provision in drug and alcohol studies in the USA, Edmundson *et al*. (2005), reported on 188 courses and found that there was no consistency in the type of academic award or the educational requirements for entry to these programmes and so drug and alcohol training was not consistent across the USA.

It has been suggested by Payne *et al*. (2005), that drug and alcohol counselling in the USA moved to a more educational, academic approach and that there are important differences between an educational approach and an occupational training approach. Training with a focus on practical issues and prepares the student for employment, but an educational approach the emphasises is on studying a broad range of topics and the development of critical skills to consider evidence based approaches to addiction. Training attempts to show students how to practice, with the purpose for the student to mimic and copy the skills of the teacher in the learning of specific counselling techniques. This type of on-the-job training can be linked to the concept of alcoholism and the teachings of AA, with the absence of critical reflection (Kalb and Propper 1976). An educational approach in comparison encourages students to critically evaluate their practice. Clarification in the role of training and education and the distinction between them had also been made by Roche (1998), who noted that essentially training is about a transference of skills with a minimal requirement for understanding and in contrast education considers a wider theoretical perspective. Although there can often be some overlap between the two approaches, the main difference is that they both have different purposes. Education is to encourage counsellors to be critical regarding their learning and the training approach aims to teach the counsellor to better engage in practice based rote learning.

The university education provision in the USA for drugs and alcohol is dominated by a science-practitioner approach, especially the counsellor training programme (James and Simons, 2011). This provision reflects the change in the treatment field, which moved from a system where counsellors learn their skill via personal experience, toward counsellors with an academic background or who are recruited from other professional groups, such as medicine. The reasons James and Simons (2011) gives for this change to more academically educated

counsellors are: a shift in policy to evaluating the quality of drug and alcohol services via the academic background of counsellors; the change to evidence based practice; and a change to licensed practice involving educational requirements.

Most of the surveys concerning the extent of university education in drugs and alcohol originate from the USA and very limited research from Europe and the UK. The difference reflects the provision of opportunities for university education in drugs and alcohol, which are much more widespread in the USA, especially for drug and alcohol counselling programmes. In the last few decades, there has been a move to expand the preparation for drug and counsellors with educational opportunities provided by universities in the USA. In Europe and the UK however, the university opportunities are different with half the courses offering practice placements and with a limited number of counselling type courses (Pavlovská et al., 2016). The drug and alcohol courses offered in UK universities, apart from those with a focus on specific disciplines like medicine or social work, offer qualifications that dominantly feature academic work, with some featuring a combination with practical experience. These findings in a study by Pavlovska *et al*. (2016) identified most courses in Europe are based on medicine, social or a psychology orientation and only half of all the courses in their survey of 25 universities offered a practice placement as part of their course structure.

A few universities in England and Wales offer Foundation degrees in drugs and alcohol. This level of degree was established in 2000 with the intention to integrate the academic work with work-based learning. Other universities in the UK offer Certificates in Higher Education in drug and alcohol studies, which are usually awarded after one year's study at a university. There are also degree and Higher degree courses in drugs and alcohol and some of these courses offer experience of work-based learning. It would appear that a model of teaching addictions in the UK in higher education is the science-practitioner model (Blair, 2010). This model proposes that students apply and integrate their learning into their practice, which is especially relevant to Foundation degree courses with their focus on work-based learning. These courses often involve practice integrated with classroom learning and thus give an opportunity to link with students obtaining SVQ and NVQs in addition to their academic qualification.

The university courses in the UK consider a variety of drug and alcohol theories in the teaching syllabus (Society for the Study of Addiction, 2018). The exception to this are those courses with a focus on specific professions e.g. medicine. The nature of the course topics in the university courses in the UK appears to involve an extensive range with the most frequent being research methods, theories of addiction, interventions with skill based work and treatment and recovery (Pavlovska *et al.*, 2016). These courses combine academic knowledge of the subject with the integration of skills-based work and the demonstration of assimilation of learning with practice, which aligns with the scientist-practitioner model of learning (Blair, 2010). Indeed, it has been suggested by Muscat *et al.* (2014) in a review of educational programs in drugs and alcohol in Europe, that the most effective courses are those that combine theoretical and practical experience.

Similarly, in the USA Edmundson *et al.* (2005) noted the variety of academic units, such as health and science, that hosted addiction courses reflecting the multidisciplinary nature of the addiction field. The format of mixing clinical experience and didactic course work is a feature of many courses in the USA (Keller and Dermatis, 1999). In a survey of drug and alcohol courses the USA Taleff (2003) noted most courses had a focus on drug and alcohol counselling. This survey found a distinction in topics between academic levels, with counselling and practical placements offered more at a lower academic level and research studies at a higher academic level, which is similar in the UK. A survey in the USA also reported the variety of drug and alcohol courses and that those at a lower academic level, namely associate level were much more prevalent than higher degrees (Edmundson et al., 2005), which is dissimilar to the UK. It was reported that many courses began as additions to complement established degrees and were taught at undergraduate level and thereafter developed into more specific addiction programmes. The content of these programmes reflected the variety of academic units the courses were developed in and so there was a large diversity to the content of the programmes.

As part of a survey of academic provision of addiction studies in the USA, Edmundson *et al.* (2005) additionally conducted focus groups with addiction educators and those working in the field. This survey reported on the variety of 188 academic courses on addiction, and the findings suggest the different

theoretical perspectives, reflecting the multidisciplinary nature of addiction, which is like the UK provision. Members of the teacher focus groups involved in this study considered the variation in theoretical approaches that underpin the curriculum both understandable and reasonable due to the variety of those professions working in the drug and alcohol field. However, the authors did suggest that if the drug and alcohol field was to develop as a distinct professional group, academic courses would require a degree of consistency in both the terms used to describe the courses and their content. The results suggested that the nature of the academic programmes, such as the type of award, the department that addiction courses were held and indeed title of the course was influenced by the university the course was situated in.

In both the UK and the USA, there is a variety of provision of university courses in drug and alcohol studies. This range from Postgraduate to Foundation degrees reflects the multidisciplinary nature and response to drug and alcohol problems and courses are available to a multidisciplinary group of workers. There is, however, no research in Europe or the UK on sub-degree courses on drugs and alcohol or on research about students in recovery accessing university. Most of the research indicates that the teaching approach at universities is underpinned by different theories and ideas in the drug and alcohol field and several courses are structured with a science-practitioner model of learning, offering a combination of theory and practical skills related to addiction practice.

1.1.4 **University Teachers of Drug and Alcohol Courses**

Teachers are considered one of the main groups of people who have contact and potential influence with the students while at university (Brookfield, 1991). Therefore, it is probable that the practice and beliefs of drug and alcohol teachers can also have an impact on what and how students are taught and consequently influence the beliefs and practice of their students (Broadus et al., 2010, Brown, 2004, Kember, 2000). The addiction beliefs held by teachers can be important to the teaching of addiction studies, as beliefs can influence the educational content of teaching and potentially impact on the willingness of students to consider different viewpoints (Broadus *et al.*, 2010). This is important because readiness to adopt evidence-based practices and consider a variety of treatment options has been linked to the beliefs of addiction

therapists (Moyes and Miller 1993) and personal experience of addiction can influence treatment decisions (Novotná et al., 2013). In the UK, there is no research on the attitudes and beliefs of those staff who teach on drug and alcohol specific courses at university. The influence of drug and alcohol beliefs will be considered later in more detail in the chapter on drug and alcohol beliefs.

In a study of 145 drug trainers in the UK, but not involving university teachers, Albery *et al*. (1996) assessed the attitudes and methods used to train primary care staff in addictions. The results suggested that training regarding attitudes was more important than learning skill or knowledge and that experiential methods were more important than didactic training. In a study of five addiction educator experts in the USA, Lee (2014) reported that they considered there had been significant changes in the drug and alcohol field in the past decade. The requirement for training and qualifications to work in the field of drugs and alcohol was becoming more important and that the array of tasks required by the drug and alcohol counsellor had become more complex. These changes in the drug and alcohol field were also noted by Roche (2009), who also considered the role of the drug and alcohol counsellor as being more complex.

From a review of the literature there was only one study identified which reported on the addiction attitudes and beliefs of university teachers of specific drug and alcohol education courses (Broadus *et al.*, 2010). The study of the beliefs and attitudes of 215 staff teaching drug and alcohol specific courses in the USA was reported by Broadus *et al*. (2010). In this survey, the attitudes of staff were measured with a modified ABI (Addiction Belief Inventory) questionnaire (Luke, 2002). The results suggest most staff see addiction as a coping mechanism and are ambivalent about labelling substance use a disease, with less than 20% endorsing addiction as a disease. However, most did not support individual efficacy to recovery, which is recovery without help or controlled use after treatment, a perspective which is consistent with a disease model of addiction. In this study, it is suggested teachers' beliefs were influenced by education, with higher educational background relating to a lower disease belief score. Teaching experience or working as an addiction researcher was also associated with lower support for the disease model. Alternatively,

those teachers with limited academic background, but with more practical experience were more likely to view addiction as a disease.

In summary, a few studies have indicated that teachers of addiction courses have a variety of beliefs about drugs and alcohol, but all limited, available data is exclusively from the USA. There has been no similar research conducted in the UK or Europe on the attitudes or beliefs of teachers on specific courses on drugs and alcohol at university. Consequently, there is minimal information on university teachers' preparation for this role, their backgrounds, academic qualifications or work experience in the addiction field.

1.1.5 Students Studying Drugs and Alcohol at University in the UK

It was noted by Mold and Berridge (2008) that more professional workers in the UK began to enter the drug and alcohol field from a variety of professions. This change reflecting a more professionalised workforce was also recognised in the USA (Culberth, 2000). This change in the drug and alcohol workforce is reflected with many of the educational university programmes in drugs and alcohol, catering for postgraduate courses for specific professional groups, e.g. medicine, psychology (Edmundson et al., 2005, Pavlovská et al., 2016). However, in the UK for the drug and alcohol counsellor who does not belong to a professional group, the route to gain a qualification to aid working in the drug and alcohol field is usually by gaining accreditation via National Occupational Standards (NVQ) or in Scotland the Scottish Vocational Qualification (SVQ).

Ashwood and Rowley (2016) suggested that entering the addiction workforce in the UK via Higher Education at university attracts two types of student: those wishing a new career and people already working in the field. They noted that those students pursuing a career in drug and alcohol counselling often have a personal connection to addiction. To date there is minimal knowledge about the addiction workforce in the UK who may have a personal connection to addiction. There is a gap in research as to why students in the UK choose to study addiction at university, the type of students or the number studying addiction who are in recovery.

The scarcity of research in higher education addiction studies in the UK has been highlighted by Rassoll and Oyefeso (2007). In a UK study of drug and alcohol specialist nurses they attempted to identify the effect of participating on an educational post graduate course about addiction, in terms of course satisfaction, impact on practice and students' interest in topics. The study used two self-reporting questionnaires from a sample of part-time students from successive cohorts. The results indicated some support for having an impact on the students' practice and the clinical placement aspect of the course was considered especially important to the students experience of different practice. Students' views stressing the importance of a practice placement when learning about addiction studies at university were also highlighted with students training to be medical doctors (Notley and Ghodse, 2014). Other areas considered important by students in both studies were class discussions and multi-professional shared learning.

In other studies participants also reported improvement in their knowledge, skills and a change in attitude to working with drugs and alcohol (Bell et al., 2009, Cartwright, 1980). The findings from Rassool and Oyefeso (2007), however, are limited as they did not access pre-and post-course data and therefore the impact of the educational course is unknown. The results do show support for work-based learning in conjunction with academic study. This implies the possibility that education courses may contribute to students' positive attitudes through gaining more knowledge, especially when linked with practical experience. As previously noted by Cartwright (1980) education alone has a limited impact on changing attitudes toward addiction, but is more likely in combination with practice experience and support. The change in knowledge, skills and attitudes reported in the UK studies was reported from the impact of training with generic health care workers. There are no research reports in the UK, apart from Rassool and Oyefeso (2007) involving specialist drug and alcohol workers, and the impact of an educational course on the students' beliefs and behaviour on practice. There remains a paucity of research in higher education about addiction in the UK.

In a review of the literature regarding substance users views on the training needs of drug and alcohol staff by Wylie (2010), the most important aspect for staff training as rated by drug users was the development of positive attitudes

and specific specialist knowledge of substance use. It was suggested that staff through further study in addiction had greater knowledge and consequently were more likely to display empathy and understanding. These findings that specific therapeutic techniques are less important to service users than the counsellor's approach implies that education and training coupled with attitudinal considerations are more important than procedural training. Thus, it is suggested that both greater experience and more knowledge of substance use are likely to result in a more empathic approach with positive attitudes. The implication of this study suggested the purpose of education for drug and alcohol counsellors is to develop a more empathic attitude, based on more in-depth knowledge of drugs and alcohol. There is no survey or research of drug and alcohol practitioner views about the need for addiction education in the UK.

In a more recent study from the USA, Balich *et al.* (2015) considered the impact of addiction education on the attitudes of 57 generic counselling students involved in a 15-week addiction course, that also involved experiential learning. The attitudes of students were measured with self-completion questionnaires, both at the beginning of the course and after the course had finished. At the beginning of the course it was found that some students had negative beliefs and attitudes toward working with substance misuse problems. The results suggested that the students' attitudes and behaviour changed significantly because of the education course and the use of experiential activities in the course.

The impact of addiction education appears to be a change in attitudes, beliefs and knowledge of the students, but there is no research in the UK on the impact on the beliefs of students. For students, the importance of linking education with practice was valued highly in terms of greater understanding and changing perceptions about substance misuse.

1.1.6 **Higher Education and Students in Recovery**

There are many studies regarding ex-drug and alcohol users attending university or college to study drugs and alcohol, but these studies are exclusively dominated by research from the USA (Doukas and Cullen, 2010, White, 2000, White, 2015). There is no research in Europe regarding students at university who are in recovery, apart from a non-specific note in the work from Ireland

about higher education and substance use by Butler (2010) and Woods and Butler (2011). These authors noted some recovery students within higher education, but their work was not exclusively about students in recovery and gives no detail about their experience at university. Therefore, exclusively research involving students in recovery in contact with higher education comes from the USA. The research about recovery students from the USA is mostly quantitative, often using questionnaires and surveys (Doukas and Cullen, 2010) although there has been some qualitative research with recovery students with a focus on the challenges of being at university (Bell et al., 2009), the experience of being a student (Terrion, 2012) and the impact of recovery on learning (Greene, 2015). To date there is no UK research on the experience of students in recovery attending university to study addiction.

One of the first training programs for ex-substance users combining the learning of practical skills and academic learning is noted by Laundergan *et al*. (1986) who summarised the characteristics of 100 former trainees of the Minnnesota Counsellor Training Programme, in the USA. This model of treatment programme consists of a multidisciplinay approach, but with an emphasis on the workings of Alcoholics Anonymous (AA). The counsellor training programme was a one year work and study programme and had an academic component. The study involved a self-completion questionnaire about the trainees' personal background, and the findings indicated that trainees mostly had a history of alcohol problems. They were likely to be involved in personal transitions in their lives, but it was noted that students had a personal commitment to work with alcohol problems and pursue a career in alcohol counselling. For example, the reasons for going into counselling, especially for those in recovery, was reported as gratefulness for recovery. It was reported that trainees noted an awareness of emphasis being put on academic training for the role of counsellor. The role of education was viewed as learning to gain employment and to professional identification and most trainees (81%) had pursued additional training, including in higher education after finishing the course. The trainees were judged after their studies to be highly motivated for change, both in their personal and professional lives, with changes in employment and relationships reported and giving up their personal substance misuse counselling.

Another study specifically about students in recovery was conducted by Brown (1991), who considered the influence of pre-professional socialisation, described as the acquisition of attitudes and beliefs learned before formal training, with 35 addiction counsellors. These counsellors with previous personal experience of addiction were referred to as "professional ex-s". The study indicated that professional ex-s considered their addiction experience and recovery to give them an understanding of addiction and to have relevance to their training to become counsellors. Brown (1991) noted that the counsellors wanted to learn through their training something that was concurrent with their own identity and that the pre-professional socialisation process impacted on their training by censoring information that was a threat to their identity. These students were therefore resistant to any information that conflicted with their own recovery experience. Recovery counsellors were more rigid in their belief in the disease model of alcoholism and more inflexible with treatment plans for clients (Aitken *et al.*, 1984, Brown, 1991). Doukas and Cullen (2010) suggested that the existing evidence supports the view that students from a recovery background often present with an inflexible approach and resistant to new learning and are overcommitted to one treatment model.

In contrast, in a study of counsellors' approach to treatment and the influence of education and recovery it was suggested that being in recovery did not necessarily lead to a less flexible approach to treatment, but to adopting a wide range of treatment practices (Stoffelmayr et al., 1999). These results are at odds with research that suggests being in recovery leads to a less flexible attitude and approach (Culberth, 2000, McGovern and Armstrong, 1987). In a comparison of professional and paraprofessional counsellors Aitken *et al.* (1984) noted the typical recovered substance user who entered the field to train as a counsellor was older, with minimal qualifications or academic training. It has been noted by McGovern and Armstrong (1987), in a survey of over 300 counsellors that there are basically two groups of counsellors; those in recovery with personal experience of addiction and professional counsellors with no personal experience. Those in recovery tend to be older and have less education and have a narrow repertoire of approaches to treatment. The distinction between two types of students - those with personal involvement with addiction,

and those with a professional interest - is also noted in the UK (Ashwood and Rowley, 2016).

Hohman (1998) used the terms *alcoholic* and *non-alcoholic* to consider differences of students studying at college for an alcohol and drug counselling certificate. In his survey of 180 participants, 116 defined themselves as alcoholic or an addict and comparisons suggested differences between the groups: the self-identified alcoholics had less education and income before entering the course; were more likely to enter the study program seeking personal growth, and hoped to gain employment because of their studies. Students from a recovery background also stated they wished to continue their studies in higher education on completion of their current studies. This research with students in recovery regarding their involvement with higher education notes the poor academic qualifications that they possessed upon entering university. Thus, it is more likely that they would become involved in undergraduate or entry level at university, rather than postgraduate studies. In relation to the UK the possible access route to higher education for people in recovery, who may have no academic background and are non-traditional adult learners, is a Foundation degree in England (Herrera et al., 2015). In Scotland, the access to higher education study for students in recovery would be through a Certificate in Higher Education. However, to date there is no research on the type of courses students in recovery access at university.

In a review of 16 studies about differences between counsellors who do and do not have personal experience of addiction, Culberth (2000) suggested there was a variation in training of these two groups. Those in recovery typically have minimal qualifications and counsellors not in recovery usually are degree educated. The results of this review suggested other significant differences between the groups with recovery counsellors being less flexible and more unyielding in their thinking and less willing to accept different viewpoints.

In contrast, White (2015) suggested that for counsellors in recovery the difference in levels of education by comparison with non-recovery counsellors had reduced due to the requirement for addiction counsellors to be certified for practice. He also proposes that differences in beliefs and the approach to new

information may be due to a difference in education levels and not the recovery status of the counsellor.

In another study in the USA, Koch and Balanco (2001) compared the academic performance of 700 students, who were comprised of two groups, over a five-year period studying on a sociology course about alcohol, drugs and society. One group of students included pre-professionals with personal addiction experience, who had an affiliation to 12-step philosophy and were studying to become addiction counsellors and the other set of students, with no history of addiction. The results indicated that having a prior belief in a 12-step model of addiction did not hinder academic performance and the assessment grades between the two groups were similar. However, this study only compares academic achievement and gives no indication whether students with a disease belief and 12-step affiliation had difficulty accepting different and competing beliefs to their own. It is possible students may understand different conflicting concepts and ideas from their own beliefs, but not necessarily integrate this new knowledge into their practice. From the educational theory of Piaget (1951), these results would suggest that student in recovery may undergo a process of accommodation of new knowledge, rather than an assimilation.

James (2011) compared addiction students with community counselling students regarding their attitudes towards research training. The results suggested that drug and alcohol studies students had a lower rating of interest towards research topics. The authors attributed this to the exposure of students to research at university and that many teachers were not actively engaged in research, thereby not promoting the topic. However, it may also be because drug and alcohol students tended to be older adults and so are more likely to be orientated toward a learning goal that has a practical application with their practice, in line with Knowles theory of andragogy (1984).

In contrast, the impact of the learning experience on a Masters level course at university for students in recovery from substance misuse is further reported by Greene (2015). In this small study, the findings suggest students wished to share their recovery experience or as the authors propose “the gift of recovery” and as the training progressed there was a synthesis of skills learned on the training with their personal experience. There was a change in students previously held

beliefs about addiction counselling resulting from practice experience, which resulted in students' self-efficacy increasing as their practice developed. There was a desire for their personal experience to be recognized and it would appear from this study that students' beliefs about drugs and alcohol treatment can develop in complexity during an educational course.

It has been proposed by Bell (2009) that students in recovery from addiction face many challenges while attending university. In a two year follow up study involving 15 students, with interviews throughout students' academic course, it was suggested that students' educational experience differed according to their recovery identity. It was suggested that two types of recovery identity were displayed by students' narratives of their recovery; recovery characterised by stability or by exploration. Students who reported a stability narrative of their recovery were less self-reflective and less likely to consider future personal development, as this may be a threat to their recovery. In this recovery story the past is incorporated into current understandings of the self. Exploration identities were considered more self-evaluative, more enthusiasm for learning and much more likely to change their values and beliefs and consequently their narrative recovery through assimilation of new knowledge. It was concluded that students with an exploration identity change in their addiction identity from addict to non-addict. It is further argued by Ecclestone *et al.* (2010) that the gaining of knowledge through education is also linked with identity development for the student and Bamber and Tett (2000) argued that for non-traditional adult learners the experience of higher education can be transformative.

Most students going to university experience numerous transitions, especially the separation from pre-university social networks and the establishment of new social networks (Houston *et al.*, 2009). For those students with substance misuse problems it is likely to be a different experience as indicated by Terrion (2012), in a study of recovery students experience of higher education. This study suggested that students with substance misuse problems did not identify as a typical student and reported challenges of integration with other students. It was noted that recovery students were likely to be older and had different interests from other students and did not undertake many student activities, which often related to drinking alcohol. In a recent study of identity and stigma of students in recovery at college in the USA, Scott *et al.* (2016) reported on the

students' feelings of not fitting in and not belonging at university, especially feeling left out when other students were drinking alcohol.

1.1.7 **Summary**

The main driver of policy in the UK for improving the quality of addiction services involves the development of the workforce, through improving the skills and knowledge of the addiction counsellor. The preparation of the addiction counsellor traditionally was from an on-the job training approach and this has developed to include a more formal skill-based approach, with the involvement of higher education and universities. The most common form of course format for drug and alcohol studies involves a combination of theory with practical experience. The impact of attending university for students is a change in knowledge, attitudes and beliefs, but for students in recovery at university the research suggests a more varied experience of identity and personal changes.

The experience of recovery counsellors within higher education exclusively comes from research from the USA. The research from the USA suggests that students in recovery come to education with low academic achievements and tend to be older than the usual students at university. There is the suggestion that recovery counsellors are inflexible in their beliefs regarding addiction and that this may interfere with their ability to utilize new information. However, there are contrasting views that recovery has no impact on academic performance and that any differences between recovering and non-recovering students are due to educational background and type of recovery identity.

This review has contributed to an understanding drug and alcohol studies in higher education. Firstly, there is a scarcity of research in the UK on the topic of drug and alcohol studies at university, even though the UK has the highest number of higher education courses in Europe. The UK government policies are supportive of training of drug and alcohol counsellors, but there appears to be limited support for the role of a co-ordinated approach to education of the drug and alcohol workforce. Most of the university-based courses in drugs and alcohol are at degree or higher degree level in the UK, with only limited course provision for lower academic qualifications.

Research regarding the impact for students on drug and alcohol education courses suggests increased knowledge, but the main changes reported are in student attitudes and beliefs. However, this research is from the USA and no research has been conducted in the UK. For students in recovery, the evidence for a change in beliefs at university is conflicting but again there is no research about this from a UK perspective.

1.2 Beliefs about Addiction

The focus of this section is to describe the beliefs about drugs and alcohol and the associated theories of addiction. It is important to consider beliefs about addiction as these give an indication of the views regarding how addiction is formed, continued and resolved. How one comes to understand and explain addiction in terms of beliefs, reflects how the response will be shaped. There are a range of different beliefs about the nature and cause of addiction with consequent responses, but this collection of different beliefs mostly fall into two groups of opposing views (Schaler, 2009).

This section will begin with a brief definition of addiction with an outline of theories of addiction. The discussion will then be on two opposing theories of addiction, namely the disease and free-will theories, and both these will be described and limitations considered. Associations between beliefs and the two main theories of disease and free-will will be considered. Initially, the Disease theory will be outlined and links with Alcoholics Anonymous explored, then next Free-will theories will be considered. The discussion will then include an appraisal of Eclectic theories of addiction, which do not fall into the two defined models. There will follow a review of the implications of holding beliefs for practitioners and this section will end with consideration of how addiction beliefs are measured.

1.2.1 Definition of addiction

For researchers and those involved providing care for people with drug and alcohol problems a puzzling question is often: why does one person develop problems with substance use and others do not? The question of how and why a person progresses from unproblematic to problematic drug and alcohol use are outlined in several models and theories. These theories, such as the Disease Theory of Alcoholism (Jellinek, 1960), which was a landmark publication and the concept of Free-Will (Schaler, 2009) aim to offer an understanding and explanation about the concept of addiction (West 2013).

There are a range of behaviours that Orford (1985) suggested can be termed as addictive, or “excessive appetites” and that addiction is not just about

substance use, but pertains to a range of behaviours. The general impression of addiction is of someone who is attracted to or who feels the need and compulsion to use a substance, or something, and that this need overwhelms the person's ability to resist the temptation to use. The term addiction has been used to refer to so many behaviours, such as relationships, gambling, the internet and drug and alcohol use, that the concept could be applied to almost any behaviour (Bailey, 2005). The notion that addiction is involuntary is a common perception of lay people and professionals and this view often implies that the source of the addiction is within the individual and caused by their biology or psychology (Heather and Segal, 2013).

Indeed, there have been many terms used to describe addictive behaviour and the compulsive use of substances and Orford (2001) proposed that the hallmark of addiction was the difficulty a person finds to moderate their behaviour despite the harm that it causes them. The idea of a key element of addiction being about a person having difficulty resisting is a theme repeated by West (2001) who described addiction as representing a behaviour that can cause harm over which an individual has impaired control. Although accepting that addiction can be used to describe several problem behaviours, in this review the use of the term addiction will refer to the problematic use of alcohol and illicit drugs.

The hallmark of addiction as proposed by Miller and Heather (1998) is of someone behaving in a way that is harmful, but they consider themselves unable to stop, even with the knowledge that their addictive behaviour is harmful. It is noted by Maddux and Desmond (2000) that the term drug addiction was replaced by the World Health Organisation (WHO) with drug dependence in 1968, yet both these terms continue to be used to describe the compulsive use of substances (Kalant, 2010). However, O'Brien (2011) suggests addiction is more concerned with a behavioural and psychological focus and dependence considered a more likely to be used when associated with physical dependence and pharmacology.

An alternative view of addiction proposed by Davies (1997b) is that addiction is a myth and that addictive behaviour is driven more by ordinary personal choice and so is like any other voluntary behaviour. He argued that addiction is not an independent state and a distinct phenomenon, but a set of attributions a person makes to explain behaviour, which is perceived to be out with their control.

Hammersley and Reid (2002) also suggested the concept of addiction can be considered a myth, which is sustained by a jumbled combination of, moral dilemmas, social language and the experience of psychological and pharmacological states.

Many clinicians and writers however disagree with the idea of addiction being manufactured and have argued for the existence of the distinct phenomena of the concept (Heather and Segal, 2013, Kalant, 2010, Sellman, 2010, West et al., 2013). Glasser's (1976) concept of 'positive addiction' proposes any understanding and definition of addiction needs to include the negative consequences a person experiences in addition to the rewards. This balance of negative and positive experiences as a feature of addiction is noted by Saunders and Allsop (1985) who claimed that addiction is typified by a person repeatedly behaving in a way that can be enjoyable and beneficial in the short term, but can accumulate negative consequences for the person in the long term. Similarly, Goodman (1990) defined addiction as displaying a combination of rewards and benefits with drawbacks and the hallmark being a "loss of control" and continued behaviour despite the negative consequences of that involuntary behaviour. The World Health Organisation (1994) also noted this involuntary view of addictive behaviour in the following definition:

> Repeated use of a psychoactive substance or substances, to the extent that the user (referred to as an addict) is periodically or chronically intoxicated, shows a compulsion to take the preferred substance (or substances), has great difficulty in voluntarily ceasing or modifying substance use, and exhibits determination to obtain psychoactive substances by almost any means.

This definition suggested the key elements of addiction are of repeated use and a sense of compulsion. The suggestion of having great difficulty resisting substances and an inability to control behavior depicts a loss of free will. This definition, however, is unclear if the reason for a deficiency of voluntary control over behaviour is primarily due to biological or psychological factors. It is noted by Heyman (1996) that the difference between voluntary and involuntary behaviour is at the very heart of the debate about the origin of addictive behaviour. Vohs & Baumeister (2009) have argued that a main issue in the definition of addiction is whether people believe they have control over their behaviour. They suggest that if individuals believe they have no control over

their behaviour then this is incompatible with a belief in free-will and thinking they have a choice about their behaviour. The concept of control is frequently referred to in many definitions and Karasaki (2013) proposed the most important issue in all theoretical beliefs about addiction is that of self-control and the issue of volition.

These various descriptors of addiction are relevant to many behaviours and have implications on how we understand addiction and the treatment options (Goodman, 1990). A common key concept in all descriptions is that, despite experiencing negative consequences a person continues with their behaviour, with the feeling of compulsion and that they feel they are unable to stop or restrain their behaviour. The main concept of contention is the opposing views of addiction, either being situated within the control of the individual and so actions are voluntary or addiction being driven by forces out with a person's control and thus involuntary.

1.2.2 **Theories of addiction**

A theory of addiction represents an explanation of key aspects of addiction and is considered by West (2001) to be explanatory rather than just a description representing key features. The terms model and theories of addiction, however, are often used interchangeably within the addiction literature (Hester and Miller, 2003). In this review, the term theory will be mostly used to refer to both models and theories of addiction.

Defining a theory considers a wider picture of understanding and explanation and this is emphasised by McMurran (1994) who argued that a theory should describe the processes of initiation, continuation, dependence, and the factors involved with change in addiction. This is like the definition by West (2001), who noted the key concepts that any theory of addiction must explain how it begins, develops and progresses and giving implications for interventions.

There are many theories to explain addiction that are outlined by Hester & Miller (2003) and West (2013) that range from suggesting someone who is deemed to have no control over their behaviour (Jellinek, 1960), to concepts that propose that addiction is a person's choice and they have free-will to

choose (Davies, 1998, Schaler, 2009), and theories that are a combination of both which attempt to integrate these diverse viewpoints (Hester and Miller, 2003, Kovac, 2013). From these various theories West (2013) proposed a classification of the variety of different theories into two main classes; those that consider addiction an 'automatic process', which does not involve reflective choice and is acquired unconsciously and those theories that focus on the role of self-conscious decision making. Many authors have also considered addiction theories as generally two opposing concepts of contrasting voluntary and involuntary behaviour (Davies, 1998, Morgenstern, 1992, Russell et al., 2011, Schaler, 2009, Weinberg, 2013)

There are however, aspects about the different theories of addiction that are similar, in that they emphasise the key debate to be focused on is the role of individual choice and self-control and whither addiction is voluntary or involuntary behaviour. This dichotomy to understanding addiction is not universally accepted and other theories suggest that addiction may be alternatively explained by combining these opposite concepts (Kovac, 2013). Hester and Miller (2003) refer to this combination of different explanations of addiction as 'eclectic models'.

As both theories of disease and free will appear to be dominant in the understanding of addiction they will be explored in more detail and then eclectic theories will be considered.

1.2.3 **The Disease Theory of Addiction**

The Disease Theory of addiction (Gartner et al., 2012, Jellinek, 1960, Leshner, 1997, Levine, 1985) explains why some people use substances problematically and develop dependency, with the assumption of addiction being understood as involuntary behaviour.

Levine (1985) noted the initial assumption in the 18th century considered people drank because they wanted to and not because of a disease. There was no concept of addiction at this time, but a key development considering excessive alcohol consumption a disease was a result of the Temperance Movement (Levine 1978). The Temperance movement considered the source of a disease

arising from the substance itself, which subsequently shaped the formation of addiction with the resulting loss of control over behaviour. This view considered addiction as a disease resulting because of substance use, rather than addiction developing from a predisposing factor belonging to the individual. Alcohol was considered an ‘evil’ substance that turned ‘good’ people into ‘bad’ people.

An alternative and opposite view of a disease theory was proposed by Jellinek (1960). This view suggests rather than the source of addiction being in the substance, the location suggested was in the pre-determined physiology of an individual, namely a disease. This change in the consideration of the role of disease, either as a driver or a consequence of addiction, has important assumptions about the role of control, the understanding of how addiction develops and implications for treatments. Jellinek’s (1960) version of the Disease theory considered that behaviour is beyond the control of the individual, which is different from the Temperance movement view that the disease of addiction was a development that originates due to decision making, which the individual has control. The disease model that is represented by the work of Jellinek (1960) proposed that addiction is caused by physiological changes that result from excessive consumption combined with a predisposing factor, such as genetics.

Heather & Robertson (2004) also noted the Disease theory of addiction developed with different emphasises on causes. One concept suggested that disease develops due to a physical predisposition and that problems thus arise due to some predetermined factor that is inevitable, such as genetics. Alternatively, another view was that because of years of excessive substance use the disease of addiction is eventually acquired. Thus, substance use may be a matter of personal choice initially in a person’s substance use career, but the disease state is acquired due to a combination of excessive consumption and predetermined factors.

The Disease theory progressed and developed into “the Brain disease model of addiction” (Gartner et al., 2012, Leshner, 1997), which also suggests addiction development as a combination of excessive drug use with predetermined factors. Indeed, Hall *et al*. (2017) suggests that this view of addiction as a brain disease reinforces, supports and justifies the disease theory of addiction.

According to the Brain disease model it is proposed that changes in the brain's reward system are due to substance use and that addiction 'hijacks' the brain's reward system (Leshner 1997). This view considers that drug use may initially be voluntary, but repeated use of substances erodes this choice, results in changes to the brain function and an 'altered biological response" (Edwards, 1976). This altered biological response to substances is deemed as permanent, and gradually results in a loss of control over behaviour with drug use becoming an overpowering urge and compulsion, rather than a choice. It then becomes very difficult for people addicted to substances to stop using them, which is due to excessive drug use hijacking the brains reward system. Therefore, people with addiction are different from non-addicted people in their response to substances which, it is suggested due to changes in neurobiology, that changes the brains reward system by reducing pleasure and increasing stress (Leshner, 1997).

This Disease theory of addiction, viewed as a chronic disease of the brain resulting in lasting abnormalities in brain structure, considers development of addiction only in certain individuals, who are predisposed physiologically to substance use (Bell et al., 2014, Dackis, 2005, Karasaki, 2013, Leshner, 1997). The American Society of Addiction Medicine (ASAM) (2011), outlined the developments in the idea of addiction as a brain disease and the importance of neuroscience research in understanding and explaining addiction. ASAM (2011) defined and described addiction as a 'chronic disease', that reflects the key assumptions of the disease theory, namely, an inability to control, craving, progression and highlighting individual differences. It is noted by Gartner *et al.* (2012) that this neurobiological view reinforces that addiction is an individual problem, with only a minority of people susceptible to the disease, which has a focus on medical responses. It is the highlighting of the differences between "addicted" and "normal" people that Miller and Kurtz (1994) suggested is a hallmark of a disease theory.

The explanation by Dackis and O'Brien (2005) suggested addiction is a result of a disease of the brain reward centre, by which addictive substances 'hyjack" the brain activities that deal with rational thought that leads to loss of control over drug intake. It is the compulsion aspect of addiction that Noggle (2016) suggested is due to chronic drug use on dopamine levels and the brains reward system, which results in a strong motivation to use drugs. These 'strong

motivations' make it difficult to resist temptation, "though not so strong as to be strongly irresistible" (p222). This, suggested a combination of voluntary behavior with overcoming addiction. In addition, Noggle (2016) suggested addiction results in the inability to resist temptation in the face of extreme negative consequences and the ability to resist temptation over a long period of time. It is these features that distinguishes 'normal' behaviour from addiction.

An interesting aspect of the ASAM (2011) definition of the brain disease model of addiction is the reference to 'spiritual manifestations'. This connection between brain disease and spirituality is relevant because it reinforces the link between disease theory and Alcoholics Anonymous (AA).

Alcoholics Anonymous (AA) is an international self-help organisation for people with alcohol problems that was firstly developed in the USA in 1935 (White, 2000). The main helping dynamic is people with mutual alcohol problems who are attempting recovery from alcohol problems through abstinence from alcohol. Pagano *et al*. (2011) suggested at the very heart of AA teachings is the idea that helping other people with alcohol problems in turn helps the helper recover themselves. This notion of helping the helper is highlighted in the 12 steps of AA principles. 'The wounded healer' is a term coined by White (2000) who suggested that if someone has had a problem with addiction then they are ideally suited, both in knowledge and conviction in helping others with an identical condition. Pagano *et al*. (2011) noted a variety of conditions, such as diabetes and mental health, where people who help others with similar conditions receive a benefit for themselves from this helping activity, such as personal meaning, increased self-worth and self-esteem. This 'calling' to help others is a feature in many helping professions and not restricted to just drug and alcohol problems (Duffy, 2012, Duffy, 2018).

The theory behind AA proposes change results from spiritual awakening or spiritual growth, which is suggestive of a sudden and dramatic change. Miller and Kurtz (1994) noted that the AA approach is often confused with and mistakenly attributed with other theoretical approaches to addiction, such as a medical or disease model. However, they note that the AA model is predominantly a spiritual model that emphasises spiritual factors in recovery. Kurtz (2002) noted the entanglement of an AA view with other theories, such as the disease theory,

and that AA by being non-dismissive of similar ideas in other theories, encapsulates all possibilities of explanation. Kurtz (2002) termed the disease theory as encompassing a "spiritu-bio-psycho-social" model (p161). Ferri *et al*. (2009) suggested that the 12 step approach is based on assumption that addiction is both a spiritual and medical disease. It is through this spiritual experience, that AA suggested is the main way to help people recover (Kelly et al., 2012). Kelly (2017), conducted a review of the mechanisms of behaviour change through AA involvement to find out what works for people attending AA. This study concluded that AA works by utilising a combination of a medical perspective, behavioural psychology, group work and religious /spiritual ideas.

However, much of the research summarised in Kelly's review (2017) was from the USA and it was suggested by Vederhus (2017) that the acceptability of AA in Europe by addiction treatment staff is less positive due to the spiritual/religious overtones in the AA doctrine. In a review of UK workers' attitudes toward 12-step groups like AA and Narcotics Anonymous (NA) Day *et al*. (2005) noted that the majority of addiction workers in their survey disagreed with the 12-step principles, which appeared related to the issue of spirituality and religious overtones. It was noted that this is in contrast with the treatment staff in the USA, which is influenced to a much greater extent by AA than in the UK (Russell et al., 2011). Also, Best (2016) reported that in the UK addiction workers reported having minimal contact with or knowledge of AA and being sceptical of the benefits.

Cook (1988) suggested the Disease concept of addiction is supported by AA, and Kurtz (2002) also implied there are links between AA and the disease model approach to treatment. Kurtz (2002) also noted that AA and its members use medical terms and the disease theory to reflect their beliefs and understanding of their experience. For example, in Alcoholics Anonymous (2001), which is referred to as The Big Book, the introduction is entitled '*The doctors opinion'*. Reinarman (2005) noted that key concepts of AA are alike and support the disease theory; like the emphasis of the distinction between the 'alcoholic' and the normal drinker. Miller & Hester (2003) however, noted that although Alcoholics Anonymous approves no particular theory, it often becomes confused with a disease theory approach.

Miller and Mahler (1991) noted the AA model of treatment and the disease model "have benefited each other reciprocally" (p40) and that the treatment of addiction often incorporates the main beliefs of both approaches. In the AA literature (Alcoholics Anonymous, 2001) alcohol problems are often referred to as having many dimensions, but at the start of *The Big Book* reference is made by the medical doctor to the cause of alcoholism as physical, an illness. Although not specifically stated that AA agrees with the disease theory there are implicit implications in the writings of *The Big Book* that suggest key points of the disease theory of alcoholism are consistent with AA teachings (Heather and Robertson, 2004). The idea of loss of control, which is an inability to control drinking, and the notion of the alcoholic being different from other drinkers are key to both AA teachings and to the disease theory. These similarities result in many members of AA believing they are suffering from a disease or the idea and the terminology of having a disease helped them understand their drinking problem (Raistrick et al., 2006).

The disease theory emphasis of the cause of problems stems from only a physical disorder rather than in combination with spiritual or psychological factors, as with the AA model. The implications for treatment and recovery is the contrast in emphasis with the focus of help being the primary role of God or medicine. However, there are points of agreement with the two approaches, such as the role of biological factors.

In conclusion, the principles and approach of AA are comparable with the Disease theory. The main assumption of the Disease theory is that addiction is considered an illness and so beyond the control of an individual. The development of the disease results in in a loss of control over substance use and once substances are consumed then there is an inability to control and moderate use (Hester and Miller 2003). This viewpoint considers the person a victim of a disease, who has lost the capacity for control and choice and continues the use of substances despite experiencing negative consequences, which suggests a compulsive element to addiction. Addiction is thus driven by involuntary action beyond the control and choice of the individual (Vohs and Baumeister, 2009).

Although it is acknowledged by Sellman (2010) that psychological and social factors can contribute to addiction, it is the overemphasis on biological factors

that is considered the most important by the Disease theory. This is similar to the 'tacit model' of mental illness illustrated by Kleinman (1987), which attributes the importance of physical determinants in the cause of a disorder and the cultural, social and environmental factors only influence the formation of problems.

1.2.4 **Limitations of the disease theory**

Concern over medicalisation of behaviours, such as excessive drinking, is noted by Szasz (1972), who proposed that illness can only accurately be described when affecting the body only and that addiction should not be considered a disease like other physical conditions. He refuted the claim that excessive drinking is a disease and argued there is a distinction between physical and mental illness. The problems of the mind he suggested referred to as ill only in metaphor and that excessive drinking as a behavior is not a disease, but a habit. He is suggested that addictive behavior is like any other voluntary behavior. The assertion that alcoholism is a disease and thus labeling of bad habits into diseases he suggested was a misuse of medical language that "is designed to make lies sound truthful and murder respectable, and to give the appearance of solidity to pure wind" (p84). Peele (1986), further argued that the evidence is inconsistent for considering addiction a disease, the idea of a genetic vulnerability is unsubstantiated and that any understanding of addiction must consider individual, social and environmental factors.

Davies (1997a) proposed that the language to describe addiction serves a purpose for the individual and society that allows attribution of problematic behaviour to a disease. The Brain Disease theory by Leshner (1997) proposed to explain both the cause of addiction as physiological and the person being responsible for their addiction. The concept of viewing addiction as a brain disease allows the individual to abdicate responsibility for their behaviour (Davies, 1998). However, the concept of responsibility and voluntary behaviour related to addiction Skog (2000) suggested presents a dichotomy in the Disease theory. The suggestion that the reason for addiction is the individuals' loss of control, contrasts with the main form of help advised by the Disease theory and AA, that is a reliance on will and the concept of self-control. The use of language and discourse of addiction that contribute to a view of addiction as a

disease is also noted by Reinarman (2005) who questioned the notion that addiction exists as a disease. More recently in a survey of neuroscientists Bell *et al*. (2014) noted that the Brain Disease theory of addiction is not universally accepted with this group of professionals and that this theory may be a drawback for recovery and motivation to seek treatment, as this theory restricts options for a range of interventions.

Hammersley (2017) suggested that addiction is socially constructed and rather than being biologically compelled, people under certain circumstances can change their addictive behavior. There is evidence that supports 'alcoholics' controlling their drinking (Heather and Segal, 2013) and heroin users consuming in a controlled manner (Shewan, 2005). Davies (2017) noted that explaining the pharmacology of drug action is not the same as to explain the reasons why people take drugs and criticised the Brain Disease theory as also being contradictory, with the suggestion that addiction is a combination of biology and personal responsibility: both voluntary and involuntary at the same time.

1.2.5 **Choice and Free-will Theories**

An alternative and opposite view of understanding addiction from the Disease theory is Choice theory, also known as the Free-will theory; both terms which are used interchangeably. Advocates of this theory (Heyman, 1996, Schaler, 2009, Skog 2000, Szasz, 1972, Vohs and Baumeister, 2009) have disputed and criticised the Disease theory. Basically, Choice theory considers addiction as resulting from a series of voluntary choices that are characterized by an individual's perception of self-control and responsibility. It is the emphasis on volition as the driving force behind addiction that is in opposition to the Disease theory with its emphasis on the role of biology. Choice theory has been sub-divided by West (2013) as Rational and Biased Choice Theory.

Becker and Murphy (1988) propose rational choice theory, emanating from economics, that considers an explanation of addiction that involves the choice or decision-making process. It is suggested the main driver of behaviour is the conscious choice of deciding, after an analysis of the options and consequences of acting. Thus, individuals weigh up the benefits and costs of carrying out a

behaviour and choose a course of action. This involves consideration of the perceived expectations of the outcome of making certain choices. Thus, addiction involves making a rational choice to continue using substances after considering the options and concluding the benefits from using being perceived as greater than the costs. Heather (2017) argued however, that ordinary choices are not like choices related to addiction, which are extremely irrational and self-destructive. He proposed that addiction comprises a combination of choice and the development of impaired choice, with the ability to choose becoming impaired over time. This choice can also be impaired through factors like stress and craving, but nevertheless he suggested addiction is a disorder of choice, rather than biology.

Rational Choice Theory does not always consider the difficulties in making decisions and that decision making is not simply an issue of logically assessing the benefits and negatives of making a choice (West 2001). The Rationale Choice Theory (Becker and Murphy,1988) has been criticised by Skog (2000) and Uusitalo *et al*. (2013) as explaining addiction in terms of making a rational choice and ignoring the role of emotions in making decisions. Skog (2000) also proposed that people make decisions about drug-use may not be well-informed nor make decisions by a rational process and that addictive behaviour is a form of emotional regulation. Other factors that impinge on decision making are considered by Uusitalo *et al*. (2013) who proposed the Affective Choice Model, which emphasises the important role of emotions in choice theory. They proposed that emotions do not totally overrule the decision-making process, but that they distort thinking and choice perceptions, which combine the impact of emotions and cognitive distortions. Uusitalo *et al*. (2013) also noted limitations that compares the choices and decisions made by addictive desires as comparable to everyday decisions and choices. They suggested, however, that possible difficult issues may present that are specific to addiction. Rationale Choice Theory does not consider any degree of difficulty in the ability to make independent choices. Kovac (2013) further noted the limitations of Rational Choice Theory as it minimises the role of temptation or consider a reversal of preferences for people over time.

The Biased Choice Theory as argued by Skog (2000) considers the important role of emotions and preconceived cognitions and beliefs that influence the decision-

making process to use or not use substances. It is not the incapacity to make choices but acknowledging that choices are influenced by strong desires and conflicting motivations. This process considers decision-making as being influenced by the changing preferences of a person over time in addition to a change in circumstances. Thus, addiction is a motivated choice to use substances rather than a physical consumption. The matter of choice is not simply a rational process. Skog (2000) suggested addicted people have less stable preferences and that it is common for preferences to change over time, therefore a person's choice is time and situation dependent and results from conflicting motives, beliefs and emotions. Skog (2000) argued that people always have a choice and are not forced to engage in addictive behaviour and the decision to use substances is a function of personal preferences e.g. desires, interests and beliefs, rather than a physical mechanism beyond a person's control. West(2013) argued that the understanding of addiction only within the context of choice omits aspects of addictive behaviour influenced by other factors, such as physiology.

The implications of Choice or Free-will theory suggests the ability to control, moderate or end substance use, which is in direct contrast with the Disease theory. These choices, Schaler (2000) suggested, are often a result of responses to life problems and it is considered that the environment has a greater influence on behaviour than brain pharmacology. The implications of this for recovery are that, when life problems are resolved problematic substance use will also change. Free-will theory does not suggest that a person choses to become addicted deliberately, but due to making a series of choices and decisions over time, which are important in the formation of addictive behaviour (Uusitalo *et al.*, 2013). In contrast, the Disease theory suggested that people are not free to choose and predetermined factors like genetics, brain circuitry and biochemical factors determine a person's actions with free-will an illusion.

1.2.6 **Eclectic theories**

It has been argued by Kalb and Propper (1976) that a combined theory cannot reconcile the respective basic concepts, which are contradictory. Both the theories of the disease and free-will conceptualize addiction as separate processes with the type of knowledge generated, the research taking place

within each perspective; and implications for treatments as quite separate (Davies, 1998). Although both perspectives can have explanatory power about the nature of addiction, Davies (1998) argued the combining these two outlooks of free-will and compulsion is problematic. Nevertheless, the contradiction between the disease and free-will theories has attempted to be resolved through an eclectic perspective, that combines concepts of both theories.

An alternative view of the cause of addictive behaviour being explained by the dichotomy of either a Disease or Free-will theory position is the combination of a predetermined cause with limited or partial freedom of choice (Hester and Miller, 2003, Kovac, 2013, Palm et *al.*, 2004). This position suggests that self-control is neither completely present nor missing and that physical or psychological vulnerabilities can render some people to be more susceptible to developing addictive behaviour.

The Disease theory suggests that prolonged drug use results in physiological changes that increase sensitivity to drug use and results in a reduction in other sources of reward. This view also implies that continued drug use does not relate to an understanding of choice or free-will as no one would choose to continue taking substances with the possibility of overwhelming negative consequences (Weinberg, 2013). Thus, the desire to use drugs, despite the decrease in effect, is considered pathological. The Free-will theory considers that all addictive behaviour is rational and rejects the claim that people lose self-control.

Skog (2000) has argued by that decision-making is not always considered rationale, but subject to and influenced by affective states, such as emotions, which motivate and influence addictive behaviour. Weinberg (2013) noted that reports of a sense of loss of control by drug addicts have been dismissed by free-will supporters due to a function of their own preconceived ideas. Weinberg (2013) argued that because of the frame of reference of both the disease and choice theorists, and the vocabulary of their understanding, it is difficult to imagine the possibility of any crossover between the concepts of self-control and loss of control. It is further proposed by Weinberg (2013) that understanding addiction does require considering the relationship with these two opposing concepts and the possible influence of choice and biology as influencing each other. In this regard, the explanation for the experience of addiction is not

simply pharmacological, but by considering the context and environment in which substances are taken. In this explanation, it is the wide range of interrelated factors that influence addiction.

The theories of Disease and Free-will are considered by Uusitalo *et al.* (2013) as having problems in that they do not give a full explanation of the issues of control and personal responsibility in relation to addiction. In their analysis, they concluded that "addicts" do have the choice and control over their actions, despite experiencing craving, and so they reject the assumption of the Disease theory that "addicts" do not have the ability to make independent choices. The Free-will theory is also considered limited by not taking full account of the potential difficulties of the "addict's" choices. It is suggested that people can understand the issues regarding their addiction and make informed decisions about their actions.

The concept that the combination of predetermined factors and freedom of choice play a role in addiction was also proposed by White (2003) who argued that addiction is a disease process that begins with choice and free will initially, but this is gradually eroded and the main driver for addictive behaviour is determined by physiological processes. This is like the concept of the Temperance movement, which considered a disease of addiction that developed as a result from poor decisions early in a person's addictive career, followed by the influence of the substance (Levine, 1985). Vohs and Baumeister (2009) suggested the merging of the conflicting viewpoints about the nature of addiction, as a disease and a product of free-will, with the use of the analogy of type-2 diabetes akin to the development of addiction. These authors suggested that addiction is not an inevitable consequence of biology, and that having a vulnerability can be modified by the choices that people make. The model of type-2 diabetes suggests that the development is not inevitable, but a function of lifestyle choices about diet and exercise. Having developed type-2 diabetes, which is a lifelong disease, this can be controlled by lifestyle choices and decisions. This analogy applied for addiction combines the influence of biological factors and the making of choices in the formation of addictive behaviour. Sellman (2010) also argued that lifestyle related development of diseases like hypertension and asthma are like addiction both "conceptually and phenomenologically" (p3). Kovac (2013) has argued that the Disease and Free-

will theories are not exclusive, and he proposed a multi-sourced model of addiction, in an attempt to integrate the conflicting theories. This multi model to understand addiction proposed the view that addiction is characterised by the complexity of presenting problems that are not fully explained by one or two models, but by considering a range of interrelated factors.

Combining different theories of addiction highlighted in the description of "eclectic" models of addiction are described as the combination of a wide range of different approaches to help respond to addictive behaviour (Hester and Miller, 2003). The authors noted the limited explanation of single models of addiction and proposed a Public Health model as an example of an eclectic model that attempts to integrate different models involving the factors of; the agent (the substance), host (the individual) and the environment. The assumption of this eclectic viewpoint is an emphasis on an individualised approach to the treatment of addictions. However, Miller and Hester (2003) noted concern about an "uncritical eclecticism" (p1) that results in an unfocused approach to treatment. Barnett (2018) has argued that the attitudes of treatment staff who support one theory of addiction did not exclude support for other theories. They suggest that staff can support several aspects of different theories simultaneously. However, Savic and Lubman (2018) argued that although a variety of theories can help with understanding of addiction and practice, the adoption of a universal addiction model they argue is impractical.

1.2.7 **Implication of Drug and Alcohol Beliefs for Practitioners**

Many factors can influence the willingness and motivation of practitioners to become involved in working with alcohol and drug problems. These factors include level of knowledge and education, previous experience and the working environment. One key factor highlighted is attitudes and beliefs, which can be divided into professional and personal attitudes (Roche, 2009).

In a study about beliefs of drug and alcohol treatment staff regarding the role of volition and the nature and responsibility for substance misuse problems, Palm (2004) employed a theoretical model by Brickman *et al*. (1982) of a substance misuse model of 'helping and coping'. This model by Brickman *et al*. (1982) initially proposed two assumptions, which suggest the difference between the

views regarding individual responsibility for acquiring and solving an addiction problem. This dichotomy is further sub-divided into four models based on perceptions of responsibility: a Moral model, when an individual is considered responsible for developing and recovering from addiction: the Enlightenment model considers the individual responsible for developing addiction problem, but not for solving the problem: the Compensatory model suggests individuals are not responsible for obtaining problem, but responsible for the recovery: the Medical model when a person is not responsible for the cause or the solution to the addiction problem. Brickman (1982) associated the philosophy of AA with the Enlightenment model, which suggests that individuals take responsibility for the development of addiction, but acknowledged the help of a 'higher power' to overcome it. Kurtz (2002) noted that AA considers the individual responsible for changing their drinking, which is contrary to the Disease theory or Medical model and more akin to the compensatory model of Brickman *et al*. (1982).

In the study by Palm (2004), the results indicated treatment staff present with a variety of medical, moral and social beliefs about the nature of addiction. Treatment staff present with views that consider people as partly responsible for the development and fully responsible for addressing their addiction problem. Considering Brickman *et al*. (1982) framework the views of staff present as a mix of Moral and Compensatory models and that overall there is not one dominating model of treatment belief. This study is important because it highlights the implications of considering the importance of choice and responsibility in relation to the different models of "helping and coping" with addiction. The study also notes that staff often present with a mixed set of beliefs about addiction.

An example of the integration of the Disease theory belief is highlighted by Morgenstien & Mc Crady (1992) in a study of 123 medical and psychology addiction professionals in the USA. These professionals who mainly reported using the Disease model to conceptualize treatment interventions for drug and alcohol problems, also favored using an integrated disease and behavioural perspective to instigating treatment interventions. This is like the findings of Ogborne's (1998) survey study, who both reported the endorsement of cognitive-behavioural interventions by practitioners who support a Disease theory approach, which is probably due to the common overlap of treatment

approaches. It has been further reported by Moyes and Miller (1993) that practitioners who endorse the main points of a Disease model ideology also tend to similarly intertwine these views with support for other theories, such as the Moral model of addiction. As noted by McCullough and Anderson (2013), the Moral model acknowledges the importance of personal choice, free will and the agency of the individual. This holding of two diverse viewpoints simultaneously suggests a rather complex picture of practitioners' beliefs.

Although Schaler (1995) noted that there are many perspectives and beliefs from different theories of addiction that professionals can hold, he proposed these eclectic views either ascribe mainly to a Disease or Choice model assumption. A similar view about the dichotomy of belief theories between the Disease and Free-will theories is supported by Russell *et al.* (2011). Karasaki *et al.* (2013) also argued that practitioners endorse mainly one theory orientating their practice, but also practitioners can often present with views that are a combination of different theories, and endorsement of one theory does not preclude holding another viewpoint. Although professionals' understanding of addiction can be diverse and reflect many viewpoints, it is suggested by Karasaki *et al.* (2013) that the common key issue in all theoretical beliefs about addiction is that of self-control and the issue of volition.

In summary, the beliefs of treatment staff are important as they reflect the probable approach to providing help and interventions. However, staff present with a mixed set of beliefs about theories and the consequent approaches to treatment. Nevertheless, underlying these mixed set of beliefs is the question of considering addiction as voluntary or involuntary and the implications for treatment. Almost all the research on practitioners' beliefs about addiction are from the USA and there is no research from the UK.

1.2.8 **Measurement of treatment staff beliefs about addiction**

There is a range of different views and beliefs about the nature of addiction, which are conveyed in a variety of theories (West, 2001). These theories reflect different understanding, treatment approaches and practices that derive from these different perspectives.

The importance of staff beliefs is noted for the influence on treatment decision making, which is highlighted in research reported on beliefs and treatment practice. For example, citing Harm Reduction work, Moyers and Miller (1993) noted that the ability and commitment to engage in specific treatment approaches is reflected in practitioners' beliefs. Those practitioners who endorse a Disease theory are less likely to support harm reduction methods. Another example of the impact of beliefs relates to the treatment approach of controlled drinking, which implicitly cannot be advocated by practitioners with a Disease or AA approach (Heather and Robertson, 2004). Therefore, consideration of the beliefs of treatment staff may help to improve treatment approaches possibly by matching staff beliefs that are consistent with treatment approaches. The implications for treatment staff holding certain beliefs about these theories is likely to reflect their approach to treatment (Miller and Hester 2003).

There have been numerous questionnaires exploring the measurement of the addiction beliefs of staff working in the addiction field. Moyers and Miller (1993) developed the Understanding of Alcoholism Scale (UAS) to measure the beliefs of practitioners about the nature and causes of alcoholism. The research to develop the UAS scale was based on 166 treatment practitioners in the USA. From this research, the main belief factors that emerged were: Disease belief, Psychosocial belief and an Eclectic belief. The Disease Belief Scale reflected considering addiction an illness and reflected disease theory, the principles of AA, and the brain disease concept of addiction. The Psychosocial belief scale indicated beliefs that addiction had its roots in psychological and social factors and the Eclectic belief scale, which does not relate to any specific theory of addiction, but reflects a flexibility of beliefs about treatment approaches. The results of the study suggested that practitioners holding a Disease model belief were more likely adherents to have had a personal history of substance use. Endorsement of Disease model beliefs was associated with less flexibility in the setting of treatment goals.

Humphreys *et al*. (1996) further advanced the UAS with the development of a modified shorter version, namely; The Short Understanding of Substance Abuse Scale (SUSS). The development of this scale involved a study of the beliefs of 329 addiction treatment staff in the USA. The main change from the UAS was the

wording to include substances, which replaced alcoholism, and the reduction in the number of measures to 19 from 41. The scale measured practitioners' beliefs concerned with three theoretical orientations, namely: A Disease model, Psychosocial model and an Eclectic approach like in the UAS. The findings of this study indicated that education had a significant influence on beliefs. The more education staff had received was related to holding Psychosocial or Eclectic perspectives and less education related to the Disease approach. In this study, the recovery status of staff reflected an affiliation to Eclectic beliefs. Studies by Leavy (1991) and Kolpack (1993) have also indicated that staff beliefs were more influenced by education than by recovery status. The findings of this study require caution about the potential use of the Eclectic model measurement, as this scale concerns a general approach rather than a specific theoretical belief (Humphreys, 1996). Like previous studies the higher level of education of workers was associated with holding Psychosocial beliefs and less agreement with Disease beliefs and greater age was associated with holding Disease beliefs (Humphreys *et al.,* 1996, Moyers and Miller 1993, Leavy 1991, Kolpack 1992).

Luke *et al.* (2002) developed the Addiction Belief Inventory (ABI), which was a measure of problem drinkers' personal beliefs about addiction. The framework for assessing the beliefs in this study however, was based on concepts of disease and 12-step approaches. The findings from this study in the USA, involving 536 clients of mental health and substance use services, indicated that both groups considered addiction to be a disease. In addition, that people who were labelled as addicted were considered as not able to control their substance use. The ABI is different from other measurements of beliefs, as the focus is on personal rather than practice beliefs. The study however, is limited by only reflecting a disease perspective and not involving practitioners.

Evaluation of a translated version of the SUSS in Europe was reported by Moggi *et al.* (2005) on a study in Switzerland with 160 treatment staff. In their study the utility of the eclectic scale was questioned and they concluded that it may be more helpful to only use two scales, namely the disease and psychosocial measures and exclude the eclectic scale. Most of the research, however, regarding the addiction beliefs of practitioners working in the addiction treatment field are from the USA (Shinebourne, 2007). More recently, Vederhus *et al.* (2017) conducted a study in Norway using a translation of the SUSS on a

sample of addiction practitioners, patients with substance use problems and the general public. This study did not use the eclectic scale of the SUSS, as recommended in previous studies. The findings of this study suggest patients and the public scored high on the disease belief and practitioners more likely to indicate psychosocial beliefs. However, this difference disappeared when age and educational achievement were taken into consideration.

In another study regarding measurement of addiction beliefs Schaler (1995) proposed the Addiction Belief Scale (ABS) to quantify beliefs about the nature of addiction. In a study of 295 treatment providers in the USA using this scale he attempted to assess beliefs relating to the Disease and Free-will theories. He suggested that addiction beliefs originated from personal experiences and the findings of this study indicated that practitioners who had a history of attending Alcoholics Anonymous were more likely to identify with a Disease theory of addiction. Similar findings regarding those practitioners with a disease belief were reported by Ogborne's (1998) survey of addiction treatment staff in Canada. This survey indicated that counsellors with a Disease theory orientation to treatment were older, certified counsellors, working in residential centres, had few academic qualifications and were involved in 12 step programs. The findings suggested that holding certain beliefs may bias toward certain treatments.

Russell *et al*. (2011) conducted a study of the beliefs of 591 addiction treatment staff about addiction in the USA and UK, using the ABS. The findings of the study indicated that belief in one model predicted disagreement with the other model, and so support the view that addiction beliefs of disease and free-will are in opposition. The findings from this study suggest a difference in beliefs between the USA and UK addiction treatment staff. Those from the USA were more likely to associate addiction as a disease and UK staff more likely to believe in choice and a free-will concept of addiction. Other differences found for those favouring disease beliefs included having a past addiction problem, being older, being members of a professional group, being in the treatment field longer, history of attendance at 12-step therapy and being abstinent. Those staff favouring a free-will belief presented with the opposite of these factors, e.g. younger, not belonging to a professional group, etc. Generally, the results suggested that the ABS indicated the disease and free-will beliefs of treatment staff were different

between the USA and UK. The role of cultural factors in shaping the beliefs about alcohol addiction counsellors was also explored in a study by Koski-Jannes *et al.* (2016), which compared addiction treatment staff in two different cultural contexts in Europe and the findings indicated that beliefs of staff were different according to their cultural context.

In summary, various questionnaire methods have been used to determine addiction practitioners' beliefs about the nature of addiction. This is important as beliefs can have implications for the commitment and competency of practitioners delivering treatment. Beliefs can influence practitioners' perceptions of people with addiction problems, and so may influence their approach to practice and the type of interventions used. It has been suggested from many studies that the beliefs of practitioners are related to several factors. One frequent factor is that a higher level of education for practitioners then the less likely to predict a Disease theory perspective. Another finding from the above studies is the influence of cultural factors related to beliefs in addiction, with practitioners' beliefs about the Disease theory much more likely in the USA and less likely in Europe and the UK. There is a gap in the research literature regarding a distinction between the personal and practice beliefs of addiction counsellors and there is very limited published research about addiction practitioners' beliefs in the UK.

1.3 Addiction Specialist

This section will begin with consideration of the specialist addiction worker and the addiction worker in recovery. A brief history of the development of the counsellor in recovery will be explored and the benefits and drawbacks will be considered. The extent and the rise of professional groups involvement in the addiction specialist workforce will be discussed and contrast between counsellors in recovery and professional workers in the addiction treatment field will finally be considered.

1.3.1 The Specialist Drug and Alcohol worker

The care and treatment of people with drug and alcohol problems is provided from a variety of professional groups, such as medicine, nursing, social work and psychology. This diversity of backgrounds reflects the various professional qualifications workers hold and although many workers have qualifications related to their professional field, these qualifications are not always in the specialty of drugs and alcohol (Boys et al., 1997).

Two groups of people working as specialists in the drug and alcohol field have been noted by Allsop and Helfgott (2002) and this distinction includes professionals and experienced drug workers who are unqualified. The factor that appears to define the drug specialist is the focus of working exclusively with drug problems and this can range from a professional with qualifications, like a doctor, or experienced but unqualified drug workers, like people in recovery from substance use problems. This difference highlights two contrasting groups of workers involved in specialist addiction care, namely; one group from a professional background with qualifications and those people with personal experience, but most likely unqualified. Vullie (2006) proposed four categories of workers that define addiction work, namely; addiction specialists who are employed full-time in addiction services; people who are not involved in specialist addiction services, but through their work coincidentally become involved in drug and alcohol work; and volunteers who operate in the addiction field; and members of society generally.

Duke (2010) noted key groups of workers who provide a range of services for drug and alcohol problems. These groups are; generic workers such as Doctors and Social workers who occasionally encounter substance abusers and specialist drug and alcohol workers who as their main role provide expertise in substance misuse. The range of the drug specialist workforce extends to those who are not in a professional group and have no qualifications, either professional or related to drugs and alcohol, but many have personal experience of addiction (Duke, 2010).

There are a variety of health professionals who are responsible for the care and treatment of drug and alcohol problems in many countries and much of the care is provided by non-specialist primary health care staff (WHO, 2010). In many countries, it is addiction specialists who are most often involved and identified with drug and alcohol treatment (WHO, 2010). Addiction specialists are a key component of responding to drug problems and a WHO survey of the prevention and treatment of substance use, addiction specialists were noted to have the most important role in all areas of the world in the treatment of drug and alcohol problems (WHO, 2010). In low income countries health care professionals, like psychiatrists and general practitioners, were most involved with the treatment of substance use problems. It is reported that in high income countries, such as the USA and Europe, there were no clear dominant group of professionals involved in treatment. The involvement of self-help groups like Alcoholics Anonymous (AA) and people in recovery from substance use working in the treatment of drugs and alcohol was reported in most of the countries. These groups were more prevalent in high income countries, in the USA and Europe, and in these countries, it is noticed they make a significant contribution to treatment services. It is recommended by WHO (2010) that the role of AA, self-help groups and people in recovery should be included in the general system of care of drug and alcohol problems.

Muscat *et al.* (2014) also proposed a similar range of workers involved with responding to drug and alcohol problems as previously noted by Vuille (2006) and Duke (2010) and suggested four main groups, namely: specialists in addiction; professionals who are occasionally involved in addiction work; voluntary workers in the addiction field; and general members of society. They define a specialist drug and alcohol worker as belonging to a professional group and who possesses

academic qualifications. Their description of a drug and alcohol counsellor as voluntary, although also specifically working in the addiction field, makes the distinction of being motivated due to personal rather than professional reasons. This implies, however, that specialist drug workers are not motivated by personal reasons. There is however, no research on the reasons why professionals become involved in the addiction field. Pavlovska *et al*. (2016) argued that the drug and alcohol workforce, can be divided into three groups, namely: those who are not interested in addiction work, but nevertheless are confronted in their work with the consequences of drug and alcohol problems; workers through their professional work are in contact with drug and alcohol problems and while this is not the main focus of their work they are interested in addiction issues; those workers who have a specific interest and specialism in working with addictions. A common factor in the variety of workers who are addiction specialists is the interest and commitment to working with addictions.

The work of Cartwright (1980) proposed the concept of Therapeutic commitment to explain the desire to work with people with alcohol problems. Cartwright (1980) argued that Therapeutic commitment consists of the factors of: experience in working with alcohol problems, support from colleagues and training and self confidence in working with alcohol problems. It was noted that workers who specialize in working with alcohol problems had more positive attitudes to alcohol problems because of access to the factors of therapeutic commitment. Thus, another important feature of the specialist drug worker is the possession of positive attitudes and confidence toward working with substance use problems. These findings of Cartwright (1980) are comparable to a study by Van Boekel *et al*. (2014) comparing three different professional groups' attitudes to working with substance use problems. In this study Van Boekel *et al*. (2014) suggested that that staff from specialist addiction services had a higher regard than GPs or psychiatrists for working with patients with substance use problems. Also, staff from specialist addiction services were more familiar with substance use problems, with more working contact and more confidence in their abilities; and were associated with a having a high positive regard for working with this group.

In addition to commitment Allsop and Helfgott (2002) suggested a key aspect of specialist staff in the drug and alcohol workforce was providing intensive

specialist services that treat multiple and complex needs. An extended role of the addiction specialist is the skills and knowledge for the management of people with complicated multiple needs and the provision of specialist care for more difficult cases was suggested by WHO (2010). However, in a previous study by Robertson *et al.* (2009) assessing addiction counsellors' competency to manage these complex cases, it was noted that counsellors reported limited skills, knowledge, negative attitudes and low self-efficacy toward working with complex cases involving multiple problems. The extent of people with substance use problems and complex and co-existing problems is high (European Monitoring Centre for Drugs and Drug Addiction, 2016) and it is highly likely that specialist addiction counsellors will have frequent contact with people with multiple problems.

In summary, concepts of the of the specialist drug and alcohol workforce suggest that this group is defined by having a specialist interest in working with substance use problems, which is their main role at work. It is not clear however how many specialist addiction workers have specialist qualifications in addiction. The specialist workforce consists of mainly two groups; professionals and people involved through personal experience, but there is no research about the extent professional workers are motivated to work in the addiction field due to personal reasons. The workforce is often characterised by having an optimistic attitude and commitment toward this work and by default are involved with complex and multiple presenting problems.

1.3.2 The Addiction Counsellor with Personal Experience of Addiction

The terms *"recovering"* and *"recovered"* are terms used as being synonyms with recovery, but the term *"in recovery"* is usually used to indicate people who in the past have had experience of drug or alcohol problem (Doukas and Cullen, 2009). People who have had a substance use problem identify their recovery from problematic use as either a continuing issue, as in *"recovering"* or *"in recovery"* or a past event noted as *"recovered"* or prefixed with an "ex-", as in ex-addict (Douglas and Cullen 2009). The use of these terms has connotations on how a person views themselves regarding their recovery identity. Either their addiction is an ongoing issue that requires constant vigilance or a past event

with which people have moved on and recovered from their problems (White, 2000). These contrasting views also highlight the different theories about understanding the nature of substance use problems. The Disease model and AA reflects the present and ongoing situation of being *"in recovery"* or *"recovering"* and so having never fully recovered. The term *"recovered"* suggests people have overcome their addiction and experience a change in their identity, which is more aligned to a free-will and personal choice model of understanding addiction.

The term *"paraprofessional"* is used in many studies in the USA and this usually, but not always exclusively, means a specialist addiction counsellor who has personally experienced addiction problems and has recovered from their addiction (Aiken et al., 1984, Brown, 1991, Doukas and Cullen, 2010). The assumption is that counsellors' in recovery, through their own recovery experience are ideally placed to be involved with treatment services (Kalb and Propper 1976). It is noted by Brown (1991) that some people in recovery have used their experience to pursue a career in the addiction workforce.

For people in recovery, some may enter the treatment field as helpers as this may help with their own recovery or to work out personal problems (White 2000). Culberth (2000) noted that historically substance use counselling was an unusual form of counselling because many counsellors were themselves in recovery from substance use. Miers *et al.* (2007) argued the career choices of other professionals are also influenced by personal considerations and the perceived sense of vocation to help others, often from similar circumstances, may not be just particular to drugs and alcohol. Indeed, the motivation for entering addiction counselling is sometimes suggested as providing a sense of helping others, as a sense of giving back, which can result in a feeling of increased self-esteem (Doukas and Cullen 2010). It is suggested by Curtis and Elby (2010) that involvement of people with previous addiction problems, participating in the provision of care and treatment for people with addiction problems, presents the prospect for the recovery counsellor mixing personal and professional identities. Duffy *et al.* (2012, 2018) argued that employees with a 'calling' are more likely to have a high commitment to their work and Skatova and Ferguson (2014) suggested student choice of university degree to study is a subjective personal decision.

It is suggested interventions were provided mainly by people with personal experience of drug and alcohol problems, with many in recovery themselves from addiction (Brown, 1991, Sobell and Sobell, 1987). People in recovery from substance use have been involved in the specialist treatment for substance abuse problems since the 1940s (White, 2015). Counsellors in recovery from substance use can reflect a wide group of people who have different beliefs, competencies, experiences and motivations for entering the treatment field (Hecksher, 2007). This is also suggested by White (2015) that there are many stereotypes of the recovery addiction counsellor and not all recovery counsellors are similar, but represent a diverse group. While it is acknowledged that the experience of recovery is varied, in this thesis the focus of interest is with students in recovery relating to former drug and alcohol users who subscribe to a belief approach that is aligned with the disease model or the teachings of AA.

Addiction counsellors as a special type of paraprofessional helper was first proposed in the Minnesota model of treatment for substance use problems (Butler, 2010, Payne et al., 2005). The Minnesota treatment model was developed in the USA in the 1960s and is largely based on the disease model of alcoholism and the 12-step principles of AA in its treatment plan. The role of the recovery counsellor in this programme is to work in abstinence-based treatment programmes, which are the focus of the Minnesota model. The development of the Minnesota model approach for the treatment of substance misuse in the 1960's involved a workforce that was exclusively people in recovery and so the expansion of this type of treatment resulted in a demand for people in recovery becoming involved in the workforce (White, 2000).

These early developments in the recovery workforce reflect the context of the USA. The developments were similar in the UK as initially the treatment services developed were focused on abstinence, based on a mixture of a medical and AA approach (Heather and Robertson, 2004). The experience of workforce developments in Ireland as outlined by Butler (2010) reported on the growth of addiction counsellors over 30 years and suggested that addiction counselling developed "ad hoc" with no theoretical direction, but was a mixture of a medical model and talking therapy. The initial treatment models followed the Minnesota model approach and drew on the teachings of AA with a focus on abstinence. The emergence of a "profession" in addiction counselling in Ireland evolved

gradually over decades and reflected the changing nature of understanding about addiction and changing policy initiatives toward addiction. Doukas and Cullen (2010) suggested treatment services in Europe were following the USA with a focus initially on an AA and 12 step approach to treatment progressing with a mixture of professional involvement, especially the medical profession, like the Minnesota model approach.

In the UK Farrell *et al*. (1990) noted that up to the 1990s a large number of the addiction specialist workforce did not belong to any professional group. In a survey of drug workers in England, Boys *et al*. (1997) reported that the drugs specialist workforce consisted of a variety of professional groups and that one third of specialist drug workers had no qualifications, and many entered the field unqualified. Hunot and Rosenbach (1997) in a survey that comprised 141 voluntary alcohol counsellors working in the UK reported on the profile of counsellors and note that most of the sample were women, middle aged and older counsellors were relatively more likely to have undertaken some training in counselling. It is of interest to note that motivations to work in the field mainly consisted of: employment, related to gain experience of counselling, altruistic, and having had personal experience. Therefore, the make-up of the addiction workforce in the UK may be different from the USA in that the proportion of recovery counsellors as part of the overall workforce may be less than in the USA. There is however no recent research regarding the nature or profile of the addiction workforce in the UK. In a recent conference on workforce development in the UK, many professional groups, such as medicine, social work, nursing, psychology were represented. Although not a specialist group in the same way, conspicuous by absence was specific reference to counsellors in recovery (Drink and Drug News, 2016), thereby highlighting in the workforce the possible distinction between these two groups of addiction specialist workers in the UK.

1.3.3 The Benefits and Drawbacks of Addiction Counsellors in Recovery

Laundergan *et al*. (1986) in a study of trainees of the Minnesota training programme noted the personal commitment of those in training with a history of alcohol problems and the motivation to be a counsellor being expressed as a

"gratitude for the gift of recovery" (P172). In addition to commitment and motivation, Stoffelmayr *et al*. (1999) noted the contribution recovering counsellors can make to treatment, with themselves not only by being examples of successful recovery, but also because of their ability to display empathy. It was acknowledged by White (2000) that people in recovery are an important part of treatment provision and that they have many positive qualities to contribute to the treatment workforce. White (2000) argued that recovering counsellors possess attributes such as specific knowledge, a high capacity for empathy, a personal commitment or a "calling" to helping others and a source of hope for the potential for recovery. Curtis and Eby (2010) also noted similar to the findings of Laundergan *et al*. (1986) that counsellors in recovery identified more with their work role and profession than professionals who were not in recovery, and consequently experienced a greater sense of purpose and motivation in their work. They noted the unique opportunity for professional and personal identities to align for counsellors in recovery. The suggestion is that recovery can play an important role in the treatment and care provided, and this is related to the probability of a greater sense of personal and professional commitment. The advantage of bringing a credibility to helping others and acting as a role model can be a resource for treatment services (Doukas and Cullen 2010). The perceived importance of involving people in recovery in the treatment field and the benefits that recovery counsellors can bring to services has been identified by the Scottish Government (2010). The source of the positive attributes can however often also be a disadvantage, as noted below.

It was suggested by Stoffelmayr *et al*. (1999), that professional counsellors are likely to use many treatment approaches, but those counsellors in recovery relied more on abstinence as the only treatment approach. Stoffelmayr *et al*. (1999) suggested if helped by AA or similar 12 step programmes this can limit the extent of treatment to one approach to recovery that is based on personal experience. In a qualitative study by Hecksher (2007) of 15 counsellors in recovery, the dilemmas created by combining the dual roles of a past substance user and that of counsellor were explored. The results of this study indicated that these two identities and their roles can have the potential for negative consequences. The conflict of personal and workplace ideologies that are incompatible can create difficulties such as the risk to effective practice or

relapse for the counsellor. There are potential difficulties experienced by counsellors in recovery with the possibility of relapse to substance use, resulting from over-involvement with the treatment and care to others (Doukas and Cullen 2010).

It was noted by White (2000) that people in recovery as counsellors have gradually declined in the USA from the 1980s to the 1990s, from 80% to 50% of the addiction workforce. This situation is highlighted by the example of a study by Mulvey *et al.* (2003) on the demographics of the workforce in USA. This study involved a survey of 3,267 treatment professionals from eight professional groups representing all the states across the USA. This survey gathered information regarding their background and qualifications. The information indicated that the treatment professionals were mostly white and middle aged and slightly more were female. Almost all professionals had a degree or higher degree and are certified or licensed. Treatment staff were educated to a higher level. However, no account was made of recovery status of the professionals. This survey highlighted the change from previous literature that indicated a dominance of recovery counsellors who were not qualified populating the workforce (Kalb and Propper 1976). The extent of recovery counsellors in the UK with specific addiction qualifications is unknown. It has been indicated, however, that there are people with personal experience working in the addiction field (Greene, 2015, Mulvey et al., 2003).

White (2015) further suggested that the extent of counsellors in recovery in the USA field appears to have received little attention in the recent addiction literature and most studies about the prevalence of recovery counsellors in the addiction workforce are dated. In a review of 39 studies of recovery counsellors in the USA workforce between 1960-2007, White (2015) noted a gradual decline in the recovery counsellor represented in the addiction workforce. He indicated that more recent studies are less likely to ask about recovery status and no recent survey data of recovery counsellors in the addiction workforce have been published the UK or the USA. It is unclear how many counsellors in recovery there are in the UK treatment system. However, in Ireland comparison of the extent of addiction counsellors in recovery with the USA, Butler (2010) suggested only 1% of Irish counsellors were in recovery as compared to most counsellors in USA.

In summary, the research indicates that addiction treatment professionals in the past mostly consisted of people in recovery with few qualifications. In the last few decades, the percentage of addiction specialists in recovery has been declining and there has been very limited survey information on counsellors in recovery working in the UK. There is also limited research regarding the extent of professionals who also may be in recovery, especially in the UK. Although this gives some information about the extent of the recovery workforce, most of the research is only applicable to the USA and the situation in the UK is unknown due to a lack of published research about the demographics of the recovery workforce.

1.3.4 **The Rise of Professionals in the Drug Specialist Workforce**

Since the 1970s it is noted that the dominance of people in recovery in the USA changed to a workforce becoming more populated by professionals (Kalb and Propper 1976, White 2000). The development of National and State training programmes for addictions in the USA, with subsequent accreditation bodies, and with the additional growth of university degree programmes was intended to give authority to the recovery workforce, which lacked academic qualifications (White 2000). The consequence of this development of accreditation and training was that the workforce moved toward a process of professionalisation. This ensured that counsellors in recovery changed their preparation to join the addiction workforce and moved toward gaining a qualification before joining the addiction workforce. White (2000) noted the transition in the role of the addiction counsellor in recovery from initially volunteers to paraprofessionals to certified specialist addiction counsellors. This transition has resulted in a loss of the attributes that are associated with the experience of recovery, namely empathy, the importance of commitment in counselling, as well as an over-reliance on the mechanism of skills and practice (White, 2000). A few surveys of counsellors in the addiction workforce in the USA suggested that many counsellors were in recovery, but the prevalence was unknown (Mulvey *et al.,* 2003, White 2015). In the UK Turner (1994) also suggested a similar move in the addiction workforce as in the USA from non-qualified addiction counsellors to professional drug workers and the involvement of more professional groups of workers, with nurses and social workers being increasingly involved in the mainstream care of substance use problems.

It was noted by Kalb and Propper (1976) and White (2000) the emergence of new groups involved in mainstream addiction work, who were trained professionals with a different approach, who operated on a more evidence based practice approach compared to people in recovery with their main qualification being personal experience. The differences in preparation for the role of addiction specialist, contrasting the value of personal experience with addiction to that of professional education is highlighted by Kalb and Propper (1976). They proposed that with the increasing involvement of professionals in the addiction workforce there is the potential for conflict between recovery counsellors and professionals. The heart of this conflict is about how knowledge is acquired. These two different approaches to learning reflect the different theories of addiction with professionals aligned with academic learning, research and evidence based practice and addiction workers with personal experience and occupational training linked to the Disease model. The different approaches to learning has potential implications for the recovery counsellor and their identity as suggested by Kalb and Propper (1976):

> for the professional, a challenge to traditional beliefs is often an academic issue for debate, but for the recovered alcoholic, it often becomes a threat to his sobriety, his stability, his job, and his very existence. (p644).

This long standing debate is still unresolved and Payne *et al*. (2005) also noted the change of the workforce from recovery counsellors to professionals reflected in the mode of establishing expertise in the addiction field. He pointed out one of the major differences between the two groups of counsellors is how they learn their job. The recovery counsellor mostly learns through on the job training in the workplace, which is practical with a focus on learning how to do the job. This training approach requires the learner to emulate what they are taught and replicate these learned skills. In contrast, the professional counsellor learns initially through educational approaches and is exposed to a range of topics about addiction and is encouraged to use critical skills to think about and analyse their practice. The acquiring of knowledge through critically evaluating different viewpoints is the antithesis of the AA and 12 step approach associated with recovery.

In summary, the move from learning based mainly on experience to that based on academic learning has implications for how recovery counsellors enter the field, and how they are prepared for the role of addiction counsellor. However, it is unclear how many of those in recovery entering the addiction field acquire qualifications. There has been an increase in the number of professionals entering the field of addiction studies, but it is unknown if any of these professionals may coincidentally have experienced problems with addiction. Kunyk *et al*. (2016) have suggested some professionals indicated that drug addiction can be a significant problem in the professions and so may indicate a motivation for this work.

1.3.5 Contrast between Counsellors in Recovery and Professionals in the Workforce

It is argued by Kalb and Propper (1976) that a key feature of all self-help groups and counsellors in recovery is an anti-professional viewpoint. In a survey of 307 participants comparing recovering and non-recovering counsellors in the USA McGovern and Armstrong (1987) indicated some similarities between the two groups. The issues of identifying counselling as a profession and the potential for relapse with recovering counsellors were viewed as similar with the non-recovering group. As noted in the survey, although the backgrounds of the counsellors were different, their approach to the disease theory was similar, but there was noted differences between the two groups. Recovering counsellors were older and with less education and were faithful to their traditional beliefs of the disease model of alcoholism. Indeed, the authors note that counsellors in recovery are often overcommitted to one treatment approach and resistant to new treatment approaches. Other differences noted were that recovery counsellors did not think they required additional training and were also less positive about non-recovery counsellors.

In contrast, a study in the USA by Leavy (1991) investigated a sample 223 of alcohol counsellors, both recovering and non-recovering , perceptions of problem drinking. There were no differences between the groups on their outlook on, and understanding of problem drinking. A possible explanation of this finding is that the general perception about problem drinking during this time was predominantly that addiction was widely recognised as a disease. The

disease model with AA affiliations dominated treatment approaches to substance use during this period and so there are unlikely to be major differences in the counsellors understanding of addiction.

In a review of 16 studies comparing counsellors in and not in recovery Culberth (2000) noted significant differences between the two groups. The results of the review suggested that recovery counsellors were less willing to accept different viewpoints and are less flexible in their treatment approach and were more rigid in their thinking. Also noted was that recovery counsellors were firmer in their belief of the disease model and were less willing to consider further training.

Another possible explanation of the differences in perception about drug and alcohol problems are highlighted between educated and less educated counsellors. A few studies note that typically the recovery counsellors are less educated than professionals (Bell et al., 2009, Edmundson et al., 2005). It could be that higher education can promote flexibility in thinking and the consideration of multiple factors in the understanding of substance use. This suggests differences in recovering and non-recovering counsellors may be explained in terms of difference in education levels. It could be that the core beliefs and actions of the recovery counsellor are challenged and potentially changed through education (White, 2015).

Smith and Liu (2014) compared the different profile of counsellors in the adoption of different treatment approaches. The profile of counsellors was assessed by considering the techniques used in practice and these corresponded with two main treatment approaches. A traditional treatment approach was associated with a 12-step philosophy and a cognitive behavioural approach linked to a psycho-social approach. The beliefs of counsellors were also assessed using the Short Understanding of Substance Abuse Scale (SUSS) (Humphreys, 1996) with two dimensions of beliefs assessed, namely disease model beliefs and psycho-social beliefs. Also noted were if counsellors were in recovery. The results indicated that counsellors used a mixture of techniques, but those in recovery were more likely to use both traditional and cognitive behavioural approach. The combination of both these approaches with counsellors in recovery is consistent with the findings of McGovern *et al*. (2004) who reported that these approaches are not necessarily exclusive and many aspects of

cognitive behavioural approaches are like the 12 step approaches and so do not present a clash of principles or beliefs. Thus it would appear that some recovery counsellors are accommodating new knowledge and techniques to add to their remaining traditional ones.

In summary, as identified in the literature there are a few differences between recovery and non-recovery counsellors, except that recovery counsellors tend to be older and less well educated. It is in relation to differences in beliefs, approaches to treatment and education that these differences are highlighted between the different categories of counsellors. Recovery counsellors tend to be over-committed to one belief or viewpoint about addiction and when new approaches do not conflict with existing beliefs, then the adoption of new approaches can be accommodated. What is not clear from the literature, however, is the extent that education can change the beliefs of recovery counsellors. All the research in this area is from the USA and no similar work has been published in the UK.

1.4 Perspective Transformation

The purpose of this section is to review the literature on Transformation learning theory, especially regarding higher education with links to drugs and alcohol. Initially an introduction concerning transformative change of perspectives will be untaken and then issues to be considered will be: a definition of perspective transformation, an outline of the main elements and influences and development on the theory; the main elements of the theory; key steps; and critique of the theory; methods to measure perspective transformation; and finally, the section concludes with consideration of the theory in the context of drug and alcohol theories. Throughout the discussion links will be made to concepts and research from the drug and alcohol literature considering similarities and differences with Transformative learning theory.

1.4.1 Introduction

There are many different theories and models of adult learning, but arguably one of the most influential is Knowles (1980) adult learning model of Andragogy. This model argues for many factors which affect how adults learn, such as the importance of learning by experience. Tusting and Burton (2006) suggested adult learning theory is based on a number assumptions about adults learning. The features of adult learning that are deemed important include: a progress of dependent learning to autonomy and self-direction; life experience and prior knowledge linked to new knowledge; goal-orientated with learning linked to tasks; learning that is relevant with the focus of learning on solving problems rather than subject learning. It is argued by Mezirow (1971, 1978), as one of the most significant figures in Transformative Learning theory, that learning can sometimes have a significant impact on changing a person's view of the world, with the result that they think differently about how they see the world, themselves and consequently act differently. This change in a person's perspective due to their educational experience has been proposed as the main role of adult education (Mezirow, 1991). It is this theory of Transformative learning by Mezirow (1991, 2000, 2009a), that will be the focus considered in this chapter with links made to other related concepts in adult learning and drugs and alcohol.

The focus on Mezirow's (1989) Transformative learning theory is considered the most appropriate literature to be reviewed for this study as it has similarities with theories of change in the addiction field (Moore, 2005). Transformative learning is possibly the most researched theory to explain adult learning, with a focus on the changes that happen with reference to the accumulation of experience, the construction of meaning and the role of reflection on the experience of change (Merriam, 1987). These factors involved with educational change have close parallels with giving up addiction and so it was decided that Transformative learning would be the best concept to explore perceptive change involving students with a lived experience of drugs and alcohol at university.

1.4.2 **Definition of Transformative learning**

Mezirow (2009a) referred to the concept Transformative learning as a theoretical description of the way learners change the way in which they see at the world, which he describes as their worldview. This theory of a dramatic change in world outlook or worldview was first suggested by Mezirow (1971,1978), based on a study of women's experiences of returning to higher education after a long period of absence. From this research, he suggested that a potential change of adults entering higher education was a transformation of their perspective on the world, their worldview. This perspective transformation was defined by Mezirow (1981) as:

> the emancipatory process of becoming critically aware of how and why the structure of psycho-cultural assumptions has come to constrain the way we see ourselves and our relationships, reconstituting this structure to permit a more inclusive and discriminating integration of experience and acting upon these new understandings. (p6).

Another similar definition highlighted transformation as an adult learning experience and awareness of personal assumptions was further described by Mezirow (2009) as:

> a critical dimension of learning in adulthood that enables us to recognise, reassess, and modify the structures of assumptions and expectations that frame our tacit points of view and influence our thinking, beliefs, attitudes, and actions (p18).

The definition by Mezirow (2009) noted the importance of adulthood to experience a transformative perspective, because adults have developed beliefs, assumptions and experiences, which are essential requirements to be reflected on to progress to a transformation in perspective. Both these definitions of Mezirow (1981,2009) considered similar concepts that appear to be at the heart of any change in perspective. For example, experiencing a change in thinking that occurs when a person finds that their knowledge and beliefs about a situation or topic are no longer appropriate, or do not give a complete and comfortable understanding of the topic.

In their review of adult learning Tusting and Barton (2006) noted the distinctive characteristics of adult learners are the key influences that personal experience and reflection have on learning. Taylor (2007) supported the key influence of experience to aid transformative learning by providing students with learning experiences they can personally relate to and reflect on. A distinctive feature of transformative learning from other types of learning is the adoption of new perspectives and the transference of these new thoughts and changes in understanding into actions. This emphasis on turning new perspectives into action is noted in Brock's (2010) definition of transformative learning:

> transformative learning is when a learner is struck by a new concept or way of thinking and then follows through to make a life change; it supplements more common types of learning such as acquiring facts or learning new skills. (p123).

Howie and Bagnall (2013), however, suggested some confusion about the use of the term, in that transformative learning appears to have an overlapping meaning, with a transformation experience affecting the learning and the learning experience influencing the learner. Illeris (2014) argued transformative learning is a kind of learning by accommodation and suggested that previous understanding becomes modified by adopting and merging with the newly gained knowledge. Hoggan (2016) argued that transformative learning is different from other forms of learning, as it is defined by change that is significant for the person and effects a major part of their way of seeing and understanding the world. This was described by Mezirow (1989) as a change in 'meaning perspective', which can be far reaching across many aspects of a person's life; and is a stable rather than a temporary change. It is these aspects that Hoggan

(2016) suggested need to be satisfied to describe the degree of perspective transformation that occurs, which he defined as the: “processes that result in significant and irreversible changes in the way a person experiences, conceptualizes, and interacts with the world.” (p71).

Hoggan *et al*. (2017) and previously Illeris (2009) both make the distinction between transformative learning and other learning theories, by referring to Piaget’s (1951) Developmental Model of Learning. In Piaget’s four-stage model, it is suggested children reach an understanding of the world by gaining new knowledge and the processes of assimilation and accommodation are used to describe different stages of cognitive development. Assimilation refers to gaining an understanding through experience and gaining knowledge, but not changing the underlying beliefs or worldview of the person. In this way, new information is added to existing knowledge and made to fit with a previous worldview and so people learn from the addition of more knowledge. By contrast, accommodation refers to changes in the underlying beliefs and person’s worldview, which are adapted to accommodate new experiences and new knowledge. Hoggan *et al*. (2017) referring to Piaget (1951) suggested the difference between learning by the addition of new knowledge and learning, which affects previous understanding and a person’s world view, are similar processes that occur in transformative learning. It is this accommodation of new learning and old knowledge that he argued as comparable to transformative learning.

In summary, a common factor to all definitions of transformative learning is a fundamental change in a person’s thinking and views about the world. This has been described as both a process and an event. Transformation results from new information combined with established knowledge, to change a person’s orientation. It is not solely the addition of more knowledge, but creating a new way of learning and thinking. The result of the transformation is an effect on action. Due to the different definitions however, it is unclear if the final step of action is required to define transformation or if a change in thinking, but not action is sufficient. Also, the finality of transformation and its irreversibility appears at odds with the utility of combining old knowledge to make the transformation.

In the drug and alcohol field, giving up addiction and forming a new perspective on life and changing to a new worldview is argued by Moore (2005) to be similar to transformation learning. There are similar debates about the definition of addiction and the all or nothing view of recovery (Doukas and Cullen, 2009), being either complete or partial, which is comparable to the definition of transformative learning. These similarities will be discussed further in this section.

1.4.3 The Main Influences and Development of Transformative learning theory

According to Kitchenham (2008) a main influence on Mezirow's development of Transformative Learning Theory (Mezirow, 1981) is the work by Habermas (1972). Mezirow (1981) interprets the ideas of Habermas (1972) to propose the concept of 'domains of learning' that describe three areas of change in meaning perspectives. These domains concern learning at a technical/ instrumental, communicative and emancipatory level. The technical/instrumental level relates to work tasks, which are practical and relate to learning about how things work. The communicative concerns relationships and learning about communication between people. Learning that is emancipatory consists of showing knowledge through personal self-reflection, considering roles and social expectations.

Drawing similarities with transformation perspective, Mezirow (1981) also alludes to the term used by Freire (1970) of 'conscientization', which suggests that the role of education is not only to help people come to terms with the world and their situation, but that education should also help people to be critical and question accepted ideas and assumptions that frame our experiences. However, Newman (2012) questioned this similarity, noting that Mezirow refers to an individual experience, whereas conscientization is a collective activity rather than an individual one. It is the emancipatory type of learning that Illeris (2014) reflects is akin to transformative learning and appears like a feature of a change in identity.

1.4.4 Main elements of Transformative Learning theory

Mezirow (1978) proposed a theoretical description of Perspective Transformation, concerning the steps adult learners undergo in changing their

world view as a result of their educational experience. Newman (2012) argued Transformative Learning Theory (Mezirow, 1991, Mezirow, 1994) has changed minimally since originally proposed and this is highlighted in the definitions by Mezirow (1981, 2009a), which indicate that the basic description and structure has changed little since its inception (Howie and Bagnall, 2013, Newman, 2014). The main features of Mezirow's (1978, 2009a) Transformative theory suggest that the process involves an adult learner moving through 10 phases or steps of transforming, cumulating in a perspective transformation.

These 10 phases are:

1. A disorienting dilemma
2. Self-examination
3. A critical assessment of assumptions
4. Recognition of connection between a person's discontent and the process of transformation
5. Exploration of new roles
6. Planning a course of action
7. Acquiring new knowledge and skills
8. Trying new roles
9. Building confidence and competence in new roles
10. Reintegrating with new perspective

Mezirow (2003) suggested that the process of a change in perspective transformation begins with experiencing a disorientating dilemma. This experience can lead to a person to change their frame of reference. Mezirow (2009a) described a frame of reference as a person's beliefs and habits based on taken for granted assumptions and expectations about the world, on which

habits of thinking are based. This frame of reference Mezirow (2009a) proposed is how people form their view of the world.

There are many features and accompanying terminology in the theory of Transformative Learning, but as part of the structure of the 'frame of reference' Mezirow (1991) proposed two main features, namely 'meaning schemes' and 'meaning perspectives'. A meaning perspective is a more general belief based on a person's experience that is used to understand and consider a new experience; a filter through which a person's views the world. Mezirow previously (1978) noted that a meaning perspective also included the cultural assumptions to which a new experience is assimilated and transformed by past experience and that a change in transformative perspective is related to a major change meaning perspectives. A meaning scheme involves the factors of beliefs, judgements and feelings, which shape a view of a specific topic, for example, some peoples' views on specific topics such as, alcoholism or illicit drug use.

Changing a frame of reference reflects a change in habits of mind and points of view, which Mezirow (2000) proposed explains the difficulty people have in changing their world view, because of their ingrained frame of reference. In an elaboration of terminology, the concepts of meaning perspective and meaning scheme were respectively refined as 'habits of mind' and 'points of view'. Perspective transformation could be considered as a change in worldview and a questioning of a given worldview, rather than as development of an existing worldview. Mezirow (2009) described 'habits of mind' as habitual ways of thinking and acting that are influenced by assumptions. Habits of mind consist of six dimensions (cultural, social, educational, economic, political, psychological) and these become expressed in a specific 'point of view', such as a belief or attitude that forms our understanding.

In a review of the literature on transformative learning Hoggan (2016) referred to a 'world view' as a way of understanding the world and how it works. He suggested this change in worldview could be represented in a few different ways, such as: a change in assumptions, beliefs and expectations; a change in the way experiences are interpreted; a more encompassing complex view is adopted and an awareness of something new and having a new understanding about a topic.

Illeris (2009), proposed the uniqueness of transformative learning and what is transformed is not the extent of knowledge gained, but the change in how we construct knowledge or learning by accommodation. It is suggested that how we know something is the difference between learning that only increases knowledge and transformative learning. It is not just what we know, but how we know it. The way in which we learn is related to our frame of reference, which involves not just the addition of new ideas or the substitution of old ideas, but the repositioning of our world view and frame of reference, to consider different ideas and viewpoints of others. Illeris (2014) further argued that the concept of transformative learning should be reconsidered from a change in cognitive constructs like 'meaning perspectives' and 'frames of reference' to a broader consideration of social aspects involving a change in a learner's identity. The idea of participating in learning that could precipitate a change in a person's identity, is analogous to identity change as a consequence recovery from addiction (Bailey, 2005).

There has been much attention on change in identity as part of recovery from addiction, and Orford (1985) proposed that transformation in identity from a drug user to an ex-user often involves abandoning aspects of their former drug user life, making a public proclamation of change and negotiating a new identity. Considering the experience of people who had attended Alcoholics Anonymous (AA), Cain (1991) proposed participation AA involved self-reflection and a transformation of identity. The formation and evolution of personal narratives of change, as an influence on recovery was reported by Koski-Jannes (2002). This research indicated that a person's ability to change their outlook on life and to view the world differently reflected changes in behaviour, friends and often the environment. In this study, citing the work of Harre (1983), the significance of adopting both a social and personal identity is suggested as relevant to giving up addiction. Further work on identity transformation in addiction comes from a study by Hughes (2007) of people recovering from heroin addiction. From this study, it is suggested that it is not just stopping drug use, but a reinvention of the self as a new person, a new identity, that is at the heart of giving up and enabling recovery from addiction. Also from this study the importance of personal actions is also considered in the context of the social influences such as, the involvement of others and the environmental influences

on identity transformation. Doukas and Cullen (2010) proposed that identity reconstruction also occurs as part of recovery. In contrast, however, Curtis and Eby (2010) argued that personal and professional identities can align and are not necessarily transformed. The transition of social and personal identity in recovery from addiction is further supported by Best *et al.* (2016) and using AA as a case study, it is argued that recovery is a change in personal identity that is socially influenced through changes in social circumstances, like the engagement with AA group. It is suggested the social identity from involvement with the AA group, in which the person adopts the beliefs and language of AA, is subsequently incorporated into the personal identity.

Transformative learning thus appears like the process of giving up addiction, in that in both cases it has been suggested change is initiated by a critical event, that change is a process, which involves stages. The literature is unclear if a critical event is essential to initiate change or if change can occur more gradually. Both concepts suggest a fundamental change in how a person views their world and with both a change in identity is a prominent feature of change.

1.4.5 **Key Steps in Transformative Change**

There are a number of points that would appear important to understanding the experience of transformative learning and that are necessary for transformation to occur (Mezirow, 1985). The experience of a disorientating dilemma, critical reflection and rational discourse can bring about transformative learning, either by experiencing one or some of these factors (Howie and Bagnall, 2013, Mezirow, 1991, Taylor, 1997). Synder (2008) also suggested three processes are required for transformative learning to occur: the context must be appropriate, which refers to the environmental and cognitive context including the importance of experience with which people frame their meaning perspectives; critical self-reflection; and the requirement for discourse. These factors are pertinent to the purpose of this Study, which is to consider: the impact of a university environment, as a potential disorientating dilemma, in precipitating transformative change in addiction beliefs; especially students with the cognitive context of a recovery background perspective. It is also relevant to understand students' reflections of what factors are considered important at university that can initiate transformative change in addiction beliefs. The three

factors of disorientating dilemma, critical reflection, and discourse will be now discussed as they appear to be the key aspects of the methods that can precipitate transformative change.

1.4.6 **Disorientating dilemma**

Mezirow (1985) argued that the catalyst for a change in perspective is the experience of an unexpected or traumatic event or a 'disorientating dilemma'. This was described by Mezirow (1981) as a critical event that has significance for a person:

> The traumatic severity of the disorienting dilemma is clearly a factor in establishing the probability of a transformation. Under pressing external circumstances, such as death of a mate, a divorce or a family breadwinner becoming incapacitated, a perspective transformation is more likely to occur. (p7).

Tennant (1993) suggested that the experience of a disorientating dilemma is the driving force for transformative learning, as this produces an awareness of a conflict in one's thoughts and feelings. When a person's recognition about this uncomfortable state of uncertainty occurs, it becomes necessary to reconsider and modify one's understanding, beliefs and impression of a topic. This state of discomfort experienced when confronted with new knowledge that is inconsistent with previous knowledge, is termed cognitive dissonance (Festinger, 1962). According to the theories of cognitive dissonance, when a person considers two contrary beliefs this produces a dissonant state for the person that can be uncomfortable. Consequently, the person aims to make sense of their current situation and reduce their discomfort. This can be done by critical reflection and involving a rational discourse with others through which a person then changes their view and thus transforms their frame of reference to be more consistent with their new perspective. Synder (2008) proposed the importance of personal and environmental factors in precipitation of transformative change. It is the context of these factors that are the subject of the current study, involving people who are presented with contrary beliefs, involved with discourse in the classroom setting and are considering a change in addiction beliefs.

It is proposed by Mezirow (1981,1985) the experience of an unexpected major life event might result in a change of perspective, but does not guarantee a change occurring. Cranton (2002) also suggested that change could be precipitated by a major life event , but also noted that change in ordinary events, such as becoming aware through discussion or being questioned about holding biased views could promote a transformational change. Taylor (2007) noted that this dilemma experience was likely to lead to the probability of a transformation in perspective occurring, but not always. The influence of context, both immediate and distant; and, personal and sociocultural factors are also important in determining the response to a disorientating dilemma. It was also noted by Taylor (2007) and supported by Malkki and Green (2014) that rather than a crisis or sudden event, it could be that the dilemma occurs over a longer period of time, that transformation is a slow process rather than a specific event. Taylor (2000) also suggested that some people may have a predisposition to a transformative experience and that this may explain why for some people dilemmas lead to change, but not for others. Similar issues of people being ready for change and the different impact of personal events are noted in the addiction field (Prochaska et al., 1992, Saunders and Allsop, 1985)

It had been suggested by Mezirow (1978) that this process can be upsetting for a person, causing pressure and anxiety that can precipitate a change in perspective. Furthermore, Berger (2004) noted change in a person's perspective is accompanied with confusion and a feeling of uncertainty, and without these factors would not begin to develop a new perspective. The disorientating dilemma would appear the trigger for the process of change in a transformative perspective and this is reflected in the uncomfortable way of thinking about a specific topic. The loss of satisfaction with previous knowledge and beliefs and the process of giving up old beliefs, before a new set of beliefs are adopted, is a stage in the process of change, which creates uncertainty and confusion. Perry (1970) in his developmental model of a change in thinking proposed a continuum through which students' progress in their learning at university, from a dualist, multiplicity to a relativism position of understanding.

Myer and Land (2005) referred to this uncomfortable way of thinking caused by adoption of new ideas as "troublesome knowledge". They cite the work of Perkins (1999) and refer to troublesome knowledge as: "Knowledge that is alien,

or counter-intuitive, ritualized, inert, tacit or even intellectually absurd at first glance." (p10, Land *et al.*, 2008). Troublesome knowledge is suggested by Myer and Land (2005) as associated with the idea of 'threshold concepts'. This term refers to concepts or ideas that present with a new way or a new insight into thinking about a subject. Like transformative learning, threshold concepts are suggested as involving, in addition to troublesome knowledge, the following conditions: a significant shift in a person's understanding and perception of a subject; they are irreversible and so when understood are not forgotten; and they are integrative and so make the person aware of the interrelatedness of a subject. It is further suggested by Myer and Land (2005) that threshold concepts are bounded; that they are a marker of boundaries into new ways of specific thinking.

Land *et al*. (2008) suggested that learning within each discipline involves not only learning new knowledge, but also, this is reflected in a changed use of language, of adopting a different discourse to fit with the new perspective. This new discourse will reflect each discipline. These critical moments of learning can be uncomfortable as they require the person to reposition themselves, both in their worldview of a subject, but also experiencing change emotionally and as a change to their self-identity (land *et al.*, 2008).

It is suggested by Mezirow (1978, 2000,2009) that, once a transformation has taken place, this process is irreversible and a person cannot go back to a previous way of thinking. In support of this position of irreversibility, Courtenay *et al*. (2000) conducted a study of peoples' experience of HIV to determine if participants experience in perspective transformation changed over time. In this qualitative study of 18 people followed up over a two-year period, it was found that perspective transformation was irreversible, and that once people had changed their perspectives, they did not regress to previous thinking about their condition. A similarity in the addiction field is the suggestion of irreversibility in thinking once transformation in giving up and recovery has occurred. The idea of being unable to return to a previous way of thinking and of the new understanding being permanent is noted in the use of language when giving up addiction (Davies, 1997a). It is suggested that drug users who give up drug use and change their understanding of addiction, also change their use of language and this change is irreversible.

It is at the point of a change in meaning perspectives that Berger (2004), in a study of different professions, described as the 'growing edge'. In this study, a 'liminal state' describes when a person is on the edge of a change about their view about the world. This changing of their meaning perspectives that have not quite changed results in a liminal state. This liminal state suggests that a person will alternate between new ways of thinking, but still retain some old ways of thinking. In the process of moving from one type of understanding to another Meyer and Land (2005) cite the notion of liminality. This refers to a state in-between two sets of understandings or in two minds about something. The disorientating dilemma initiates a revision of the meaning perspectives and this process can be disorientating for a person as they become aware that their current understanding of a topic is questionable. The state of liminality has a similar concept in the addiction field with Prochaska and Di Clemente (1983) Transtheoretical Model of Change. In this model, they suggested a stage of change called 'contemplation' which refers to a stage just prior to giving up addiction when a person has conflicting motivations about giving up addiction, which has comparisons to Berger's (2004) concept of on the edge of transformative change.

Malkki and Green (2014) noted however the potential difficulty that is experienced by a disorientating dilemma, by which a person changes from one set of cherished beliefs and ideas about the world to contemplating a different view of the world. Malkki and Green (2014) noted that in the liminal state a person's change in thinking is in progress, but not completed. The journey to the new state of thinking, that has been initiated by the disorientating dilemma, is not easily assimilated into a person's previous thinking. In this regard, the disorientating dilemma promotes a challenge to adopt a new perspective, but the letting go of old ways of thinking can be difficult and painful for a person.

A key concept in transformative learning is the role of the critical event or disorientating dilemma and this concept of a catalyst for change is familiar to the addiction field, with the role of a critical event in giving up addiction. Research regarding giving up heroin addiction by Stimson and Oppenheimer (1982) and routes to recovery from drug and alcohol use by Klingemann (2001) both indicated the importance of a critical event that propels people to change. However, in both these studies and with the Theory of Transformative Learning,

it is acknowledged that rather than an event precipitating change, change can be a slow progress. Indeed, it may not be the event in isolation that propels a person to change, but also the environment and the interpretation a person attaches to the dilemma, resulting in a change or not.

1.4.7 **Critical Reflection**

Mezirow (1991,1994,1998,2000) suggested critical reflection is a main factor in enabling transformative change. This occurs when a person examines events or their assumptions and beliefs and makes new meanings and understandings. Fetherston and Kelly (2007) noted that critical reflection is usually encouraged by an experience, like a disorientating dilemma that makes critical reflection necessary, and this critical reflection seldom occur unsolicited. The importance of critical reflection to recognising assumptions, taken for granted and distorted views, is considered central to how people change their minds and beliefs and consequent actions (Brookfield, 2010).

Mezirow (1991, 1998) engages with the concept of critical reflection and suggests that it can occur in three ways of reflection: on content, process, and premise reflection. These types of reflection differ from each other, with content reflection referring to the examination of a problem; process reflection considering problem solving approaches; and premise reflection, which he considers taking a much wider review in which underlying assumptions are considered and questioned. A popular approach within adult learning that emphasises the central ideas of reflection on experience is Kolb's (1984) Experiential Learning Cycle. This model of learning style proposes that it is the continuing experience and adaptation that is essential to learning which comprises a cycle of experience; reflective observation; abstract conceptualization, and active experimentation.

Schon (1983) also considered reflection on experience as a main part of learning and in addition proposes that practice itself can be reflective. It is suggested that practitioners learn through their practice, in situations where disorientating dilemmas occur, from which they are unable to resolve by their usual understanding and skills. Schon (1983) proposed that as a response, the use of reflection on these practice dilemmas can occur both *in action* and *on action*.

On action reflection refers to consideration of past events. Schon (1983) stated that reflection *in action* is thinking during a current experience or situation of practice, and that practitioners' can gain knowledge or *knowing in action'*, that helps to resolve dilemmas. The importance of experience and reflection in practice he considered a form of 'professional artistry' and essential to the development of professional expertise. Similarly, Squires (2005) considered the feature of professional practice as 'doing rather than knowing' , and the process that turns novices into experts is developed by a combination of experience, interpretation and the application of knowledge.

Jarvis (1987) is critical of this model of learning from reflection (Kolb 1984) as it omits a number of other influences on learning. He revisits this model and notes the importance of learning from the use of reflection combined with the interaction of experience, individual knowledge and the importance of the situational context. The crucial significance for learning proposed is critical reflection that gives a personal to understanding and new meaning to experiences. Jarvis (1987) suggested that when people have a new experience and their existing knowledge does not help them understand their current situation, there is a feeling of a need to learn. It was suggested that for a situation to become meaningful, people are required to reflect and seek other opinions and therefore he argued for the social environment's importance for learning.

In a similar way to Kolb's (1984) and Schon's (1983) concepts, Mezirow (1998) suggested that reflection is a main part of learning and that by assessing their experiences people may come to a new understanding. However, Taylor (1997) argued that an over importance of individual factors to Mezirow's theory (1981) in the role of critical reflection. He suggested the importance of the learning context, emotions and the importance of relationships as potential catalysts for transformative change, and that change can occur in some people without critical reflection. In further analysis, Taylor (2007) emphasised of the notion of critical reflection being too much initiated by cognitive and rational thought, rather than other ways such as emotional, spiritual, within context and from relationships. Subsequently Mezirow (2009b) accepted and recognised the important role emotion can contribute to learning.

Indeed, it has been proposed by Brookfield (2010) that the main form of learning practitioners can do when in practice is through reflective enquiry. This involves the worker exploring the assumptions about how they see problems and how they respond to them. Brookfield (2010) noted there is an important difference that distinguishes between reflection and critical reflection. Reflection is more superficial and fails to consider assumptions and the wider issues of practice. Critical reflection aims to identify our assumptions, meaning perspectives and schemes. Brookfield (2010) considered that it is critical reflection, which is necessary for uncovering and challenging assumptions, and the process of critical reflection he argues is comparable to transformative learning. In comparison of critical reflection with Mezirow's (1998) transformative learning he suggested a similarity that learning involves four processes that begin with:

- A disorientating dilemma
- Reflecting on assumptions
- Considering different perspectives
- Acting on reflections

The similarity to critical reflection is the process of how students work through their assumptions and beliefs when exposed to new experiences and new knowledge. Brookfield (2010) further expanded the model of Critical Reflection to consider the consequences and experiences of practitioners of adopting a critical reflective approach to their practice. These experiences include: Impostership - self-questioning the right and talent to become critically reflective; cultural suicide – the risk of being excluded from the cultures that have defined and sustained them; Roadrunning - learning that emphasises an increased ability to consider and tolerate different viewpoints, developing a willingness to challenge, but also of relapsing into previous thinking. It is this type of experience that Land (2008) referred to as a 'limbo state'; Loss of innocence- the acceptance of the complexity of learning; Belonging to a community - the importance of belonging to a peer learning community.

Lundgren and Poell (2016) reviewed 12 studies about critical reflection and noted the lack of agreement about reflection. They suggested four improvements to conducting research regarding critical reflection which mirror the proposals by Taylor (2007). These are: considering reflection from both the individual and organisation context, for example the learning context; triangulation of data collection, for example using verbal and written reflection data; Thematic development considering the individual and the environment; and consideration of the emotional aspects of change.

In summary, learning from experience would appear essential for critical reflection to occur. There are different types of reflection and the course of critical reflection is akin to the experience of transformative learning, which considers the examination of assumptions and not just reflection of information. The emphasis on cognitive processes for critical reflection has been questioned and if reflection is necessary for change. Other ways of promoting critical reflection have been proposed, such as the importance of emotions and relationships.

1.4.8 **Rational Discourse**

Another factor for the individual negotiating change is the significant meaning that they give to a situation. This meaning is not necessarily instigated from only an individual perspective, but that meaning for a person can come through interaction and verbal dialogue with others (Mezirow, 1994, Mezirow, 1998). Therefore, the personal interpretation of learning is related to social and community learning. Dialectical discourse involves discussion with other people focusing on personal and social beliefs in a critical manner and essential to this process is establishing a feeling of solidarity between participants (Mezirow 1996). Therefore, an important part of individual learning is through verbally interacting with other people.

In Mezirow's seminal study (1978) of women in America re-entering college education, he emphasised the importance of a supportive group for students' learning and development, where they can participate in expressing new thoughts and concerns. He also highlighted the factors of group support; sharing

personal experiences; self-exploration and exploring options in both personal and professional careers.

The importance of learning as a social experience and involving participation with other people, not just an individual experience, is proposed by Lave and Wenger (1991) with the model of a 'Community of practice'. This model considers 'situated learning', in which learners who are situated in a community are initially 'legitimate peripheral participants' and learn from the periphery. This resembles an apprenticeship model of learning, with a gradual involvement of learning from more experienced members, progressing to growing engagement to becoming a full participant in the community of practice. Indeed, Lave and Wenger (1991) as an example of legitimate peripheral participation in a community of practice cite learning within Alcoholics Anonymous, "AA, then, constitutes a community of practice, one in which newcomers gradually develop identities as nondrinking alcoholics". (p72).

The concept of a community of practice is particularly relevant to the drug and alcohol field with its emphasis on self-help group activity and communication. Also, the transition to higher education for students in recovery who are likely to be older, non-traditional students could be helped by a community of practice (O'Donnell and Tobbell, 2007). A major difference however is that often in the addiction field many people do not come from a community of practice that considers the practice of critical discourse important or indeed even necessary. Although Lave and Wenger (1991) cite AA as an example of a community of practice, the promotion of critical discussion Kalb and Propper (1976) argue is not encouraged.

As noted earlier Brookfield (2010) suggested the critical importance of belonging to a supportive community of peers who are having similar experiences of changing and doubting their previously held assumptions. The supportive community can act as a catalyst that promotes and sustains transformative learning and counteracts feelings of insecurity and uncertainty.

1.4.9 **Pace of Transformative change**

Mezirow (1981) argued there are two routes to transformation, a sudden or gradual series of transitions, but that the more common gradual form of development. Mezirow (1985) further suggested that transformative learning can occur in an individual manner with a linear direction, or periods of lapse, then of progress. He further suggested, that people can change in fits and starts and that change need not be progressive and transformative change is not a linear process, that does not always follow a sequence and not all the steps are required to experience transformative change. Mezirow (1985) also acknowledged that Transformative learning occurs over a period and so this suggested that changing is not an event, a specific trigger, but a process. These transformations may happen suddenly, such as the experience of a significant life event or gradually as a progressive series of small changes that lead to a transformation in thinking. This transformation may be fast or more slow and gradual and may be in the instrumental or communicative domain of learning. It is proposed by Mezirow (2000) that people are likely to move through these stages incrementally rather than with dramatic shifts. People in the process of changing may progress through the stages and then regress, before moving again, which can create a state of limbo (Land, 2008). A comparable model of change associated with the addiction field also emphasises change as a series of changes and relapses (Prochaska et al., 1992).

Mezirow (2009a) suggested two types of change to meaning perspectives, either epochal or incremental, and that changes may be sudden and dramatic, such as major life events, or a gradual series of insights leading to a transformation in thinking. The perception of a transformation experience is that it is a specific event or as Howie and Bagnall (2013) suggested: “Transformation implies nothing less than ‘light on the road to Damascus” (p821), not just learning and gaining knowledge or skills, but new learning that would not have happened otherwise.

So, although having the possibility of change happening suddenly the more common type of change appears to be that which occurs gradually over time. In a study to identify the phases of transformative learning Nohl (2015) proposed a gradual process of change. From analysis of biographical interviews of 25 people regarding their description of core life orientations it is proposed by Nohl (2015)

that transformative learning does not require a disorientating dilemma. The desire to change may be present long before change occurring and that change progresses through a series of steps or events before eventual permanent change.

In summary, it does appear that the transformative process commences with a disorientating dilemma and finally reintegrating a new perspective into a person's life and so at the end a person has undergone a transformation of perspective. In both the addiction field and transformative learning the idea of a sudden dramatic change event and a process of change is a common conception. Although there are instances of sudden events reported, it would appear to both fields that the progress to change is more likely to be a process.

1.4.10 Critique of transformative learning

Taylor (2007) commented on the growing international interest Transformative learning theory, since its proposal in the late 1970s. Nohl (2015) proposed that it is considered a major theory of adult learning and Hoggan (2016) noted the interest in this concept across the professions.

Collard and Law (1989), however are critical of the focus on the individual and the lack of social change theory, with the importance of individual issues in relation to context and collective action. Collard and Law (1989) proposed that change that relates to social and collective action are the only types to be considered transformational, and that individual development is both social and psychological. Tennant (1993) also noted minimal attention is paid to social issues of learning, like the role of community, the context of learning and the social side of learning and that too much of the focus is on the individual. The roles of culture, context and emotions are not well understood and there appears to be a contradiction concerning the self-directed nature of transformative learning with the importance of relationships and the social context of learning (Taylor, 2007, Taylor and Cranton, 2013). Newman (2014) noted the theory has a focus on the individual and although Mezirow (2003), makes note of social and cultural aspects to learning, these are not fully developed and the theory emphasis is more on an individual learning experience.

Tennant (1993) further argues that the concept of transformative learning is misplaced as nothing more than natural development or maturation. In support of this view Newman (2012, 2014) implies that the concept of transformation learning is flawed, too generalized and that the theory is nothing but good learning. The position argued is that perspective transformation is just a feature of normal psychological development and that possibly transformative learning does not exist, but is a feature of 'good learning'. It is the gaining of new knowledge that changes a person and that good learning has an impact on adult learning that includes: feeling apprehensive, gaining knowledge, a change in attitudes/beliefs and an increase in confidence. These qualities are like the outcomes of transformative learning and so Newman (2014), implies that transformative learning is no different from other types of good learning.

In a review of research and studies into transformative learning between 1999 and 2005, Taylor (2007) highlighted concerns about the lack of development or critique of the theory and that most of the research does not develop or challenge its basic concepts. Methodological concerns are further raised by Taylor and Cranton (2013) who cautioned against research that is conducted through replication of the theory and suggest that many studies confirm the description of the theory, but not an in-depth analysis about its theoretical progression and explanatory power. They proposed future research focus on five neglected areas: the context of transformative experiences; the role of empathy and emotions; distinction between the process and outcome of transformative change; the desire to change; and assessing the assumption that transformation is good.

Further, Mezirow's (1978) theory has been criticised by Taylor (1997, 2013) for too much dependence on the role of rationality and for the marginal attention paid to emotions, context of learning and the connection between personal and social change. Indeed, Clark and Dirkx (2008) argued that emotions play a crucial role in learning and how people make meaning from their lives. The role of emotions Pierre (2011) argued are the catalyst for transformative change. Taylor (2007) suggested the definition requires the inclusion emotional and spiritual elements, which are considered important factors to consider when a person changes their perspective. Taylor (1997) further criticises the definition because of the dominant role of logical and rationale thinking to the process of

transformation. The description of a change from a transformative perspective suggests that the person is aware of their way of thinking and reflecting with the key contribution of reason and conscious decision making (Taylor 2007). However, Mezirow (2009) acknowledges the emotional dimension and that transformation may occur out with consciousness and that "…intuition may substitute for critical reflection" (p28).

Taylor and Cranton (2013) questioned that transformative learning experiences always result in a positive outcome and Illeris (2014) noted that transformations can also be troublesome and refers to regressive transformation learning. This can be when a person finds learning demanding and challenging and does not have the capacity to cope with something new. In this situation, it is considered that a person may withdraw and regress in learning.

Hoggan (2016) in his review of the transformation change literature argued the term could refer to almost any change and thus has lost some of its original meaning as it can refer to any type of learning and a wide variety of learning outcomes. A wide range of outcomes are illustrated for transformative learning, ranging from changes in assumptions and beliefs to changes in behavior and identity. To distinguish the terms Perspective Transformation and Transformative learning Hoggan (2016) proposed the use of the term "perspective transformation" be used specifically to describe Mezirow's (1978) theory. Transformative learning is more usefully considered as a metatheory to refer to the variety of theories concerned with the factors that result in significant and permanent changes in the way a person understands and experiences, the world.

In a further development to revise Mezirow's (1978) theory Hoggan *et al*. (2017) suggested developments to the theory of perspective transformation with the addition of three concepts of continuity, intersubjectivity, and emancipatory praxis. Continuity is considered learning from experience as significant for transformation and that it is not independent of the past or from previous experiences, it is thus important to clarify how meaning perspectives have changed from the past. The idea of inter-subjectivity suggest that it is not only a rational process or an individual process. Emancipatory practice is about wider

social change and both the individual can benefit from change which has a consequent benefit for society.

Much of the critique of transformative learning theory concerns the over emphasis on cognitive drivers of change and there has been less attention to the role of emotions, environment and social factors in facilitating change. Too much focus has been placed on individual factors rather than social factors in change. The most crucial critique concern the very nature of the theory, that it is indistinguishable from adult learning and in response more succinct ways of definition have been suggested.

1.4.11 Methods to Measure Transformative Change

A number of methods and approaches have been used to gather data about Transformative learning and in a review of 10 qualitative studies Synder (2008) considered how researchers identified transformative learning in higher educational settings. All the studies were qualitative with interviewing the most common method, some studies involved questionnaires, some used self-report data, five studies used a longitudinal design, which was defined as a follow up of students for 3-4 months. Synder (2008) reported that some research has used Mezirow's theory to measure transformative change by utilizing Mezirow's 10 phases as a coding scheme to ascertain if transformation has occurred. The findings of her review indicated difficulty with suggesting a cluster of phases that identified transformative learning occurring. Synder (2008) suggested that rather than an-end point assessing if transformation has occurred or not, measuring a simple binary system of change or no change, it is suggested that the process of transformation should be the focus of study rather than if a person transforms or not. Synder (2008) recommended that future measures to determine transformative learning occurring should focus on the following factors: longitudinal and incorporates some follow up; use of field observations; an emphasis on the process and not considering if transformation has or has not occurred; use of self-report data which should be triangulated; the use of tested research theories; and consideration of the context of the study.

King (2009) reported on using Transformative learning theory in her research with adult undergraduate students in higher education. With the use of a

quantitative research design, she used a survey instrument to describe the 10 steps of Mezirow's phases, named the Leaning Activities Survey (LAS). To identify if transformation had occurred the information from the LAS (indicating 10 steps of Mezirow's stages and additional two free response questions) were used (see outline in methodology section). The use of the LAS can be followed up with semi- structured interviews with participants. From the use of the LAS in a research study examining educators experience in the use of technology, King (2009) reported the development of a Journey of Transformation Model, which is an adaptation of Mezirow's Model. This model proposed that rather than a single and specific learning moment the process of learning is more akin to a journey and a cycle of stages.

Brock (2010) reported on a study of 256 undergraduate students regarding the incidence of the 10 precursor steps of transformative learning as outlined by Mezirow (1978). The study used a modified LAS questionnaire developed by King (King, 2009) to determine if transformation had occurred. This involved the 10 questions relating to Mezirow and items and additional free response questions. The results indicated that the more precursor steps students remembered experiencing, the more they reported experience of transformative learning. The longer the students were at university, the more likely to report an experience of transformation and the more they learned, the more they transformed. The importance of precursor steps: disorientating dilemmas about social roles; critical reflection; and trying new roles, were most associated with transformative learning having occurred. However, most students in this study who used critical reflection did not indicate a change in their beliefs. This study indicated that a change in perspective could be sudden or gradual over time and Brock (2010) suggested that both types are important to explaining change. However, Howard and Bagnall (2013) are critical of the research on transformative learning theory and they propose research is produced that fits into the theory, develops elements of the theory, combines the theory with other theories and makes use of the theory for topics not related to learning.

In summary, much of the research is of a qualitative nature and concerns identifying change from Mezirow's 10 stages of change. There is reported difficulty in assessing the final stage of transformation and if a change in behaviour and action are necessary. It has been suggested that the focus of

research should be the process or stages of change. The current Study will use the LAS to identify change from Mezirow's 10 stages of change. The LAS is considered the most appropriate instrument able to measure the binary element of change, but also consider the process of change.

1.4.12 Transformation and Addiction

As previously proposed in this section, the theory of Transformative Change and Adult Learning have many features relevant to drug and alcohol field.

In a study of 34 students on an addiction studies course, Sevening and Baron (2003) compared Problem Based Learning (PBL) with traditional lecture based teaching. The PBL approach has a focus on real problems of practice, student self-directed learning, connected to previous knowledge and collaborative working, usually in small groups, which is like the features of adult learning as outlined by Knowles (1978,1980). The results of Sevening and Baron's study indicated that the students showed no difference for the type of course-teaching in their examination marks. Regarding students' course satisfaction, the findings indicated that students preferred lecture-based teaching to PBL. However, this study did not take account personal experience of learning and strongly held beliefs about addiction. Edmundson (2008) suggested there are general adult educational principles that can be applied to teaching for drug and alcohol specialist counsellors. It is suggested that teachers should promote an 'active learning', which involves providing students with the opportunity to learn critical thinking and reflection through engagement with class discussion, small group work and the use of practice placements.

The most noticeable links with the theory of Transformative change and addiction have been made by Moore (2005) regarding the theoretical basis of transformative learning theory (Mezirow, 1978) and the Stages of Change model, also known as the Transtheoretical model of change, related to the addiction field (Prochaska and DiClemente, 1983, Prochaska et al., 1992). The Transtheoretical model reports on the process of self-change and in relation to addiction outlines the various stages individuals can go through when changing their addictive behaviour. According to this model it suggests there are six stages of changing with accompanying 10 processes of change, which are the

specific tasks involved that help someone change addictive behaviour. The stages involved with changing addictive behaviour are; pre-contemplation, contemplation, preparation, action, maintenance, termination. Moore (2005) noted the differences and similarities between the two concepts of the Transformative learning theory (Mezirow, 1978), which suggests how learning changes people and the Transtheoretical model (Prochaska and DiClemente, 1983) about the other how people change by themselves. To explore a more holistic theory of transformative change Moore (2005) attempted to integrate both concepts. The first point to note however is that one is a theory and the other a model of change. The semantics of this difference suggest that the theory is more encompassing of a number factors regarding the nature of change, and a model a descriptive depiction of factors (West 2006). This difference is reflected in the focus of cognitive-behavioural factors in the Transtheoretical model, with the focus of change on an individual behaviour, like addiction. The multi-dimensional factors associated with Transformative Learning Theory suggest that individuals change their attitudes, beliefs and outlook or perspective across many domains.

Transformative learning theory and the Transtheoretical model of change are similar in their great popularity in their respective fields and have remained generally unchanged over the years (Davidson, 1992, Taylor and Laros, 2014). Despite many critiques of the limitations and problems of both constructs on many occasions they both remain extremely popular with practitioners in their respective fields (Collard, 1989, Davidson, 1992, Newman, 2012, West 2006). The main criticism of both is that although both acknowledge the role of social factors in facilitating the change process, the focus is predominately on the individual rather than social aspects of change.

Both constructs involve staged based aspects of change, as both suggest that several steps or stages are involved with change. Both concepts are based on an understanding that people may travel through all the steps, or a few, and that change is not linear with people progressing and regressing through the stages, or experience of relapse. Prochaska *et al.* (1992) proposed the cycle of change model as more akin to a spiral of change, and in a similar way Mezirow (1989) suggested change was a process, that occurs in stages, over a prolonged time and is not an event. In his review of studies on transformation change Taylor

(1997) noted that although Mezirow's stages are not always linear, change is always initiated with a disorientating dilemma, which could be an event or a longer-term process. Another similarity is that they both agree on the final stage of termination or transformative change where change is irreversible, but until then the process in both suggests involving a less straightforward route of losses and gains in a spiral of changing. In comparison of the processes of change and Mezirow's theory, Moore (2005) suggested the concept of consciousness raising (an increase in knowledge and awareness of problem behaviour), and of self- re-evaluation (an appraisal and assessment of a problem) in the cycle of change model are like the concept of critical self-reflection.

Moore (2005) proposed that both concepts are compatible and begin with a disorientating dilemma or a trigger event that results in a person questioning their beliefs. Moore (2005) proposed this corresponds to the change from pre-contemplation to contemplation in the cycle of change model. However, Prochaska *et al.* (1998) do not focus on a trigger event or catalyst of change and it is unclear from their model what initiates change. Indeed, in their research the role of a trigger event is conspicuous in its absence. Also, Moore (2005) suggested that these two theories can be utilised to assist someone through change and to design interventions for people at different stages of the change process and stages of learning. It is suggested that by understanding the phases people go through, then the helper or teacher can provide the right help at the right stage/step. However, the evidence for targeted change interventions using the Transtheoretical model of change in drug and alcohol treatment is not generally supported (Callaghan et al., 2007).

In another addiction study, Hansen *et al.* (2008) combine the Transtheoretical model of change (Prochaska and DiClemente, 1983) with Mezirow's (Mezirow, 1996) Transformative Learning Theory to suggest a framework highlighting the transition of people as they learn to move from addiction to recovery. From this small study, it was suggested both theories can be helpful to understanding the recovery process from addiction and in the study of nine people in recovery from addiction, she reported support for both theories. The findings suggest change from addiction to recovery involves a transformation perspective for the individual that involves the critical elements of discourse and self-reflection mediated through a group experience. The group experience was participation in

a Narcotics Anonymous (NA) group and it is this group experience which was proposed an essential contribution to personal transformative learning. Hansen (2008) suggested experienced members challenged viewpoints which resulted with new members changing their perspectives. However, this appears as substituting one frame of thinking with another rather than adopting a critical outlook on a world view or perspective. This is to be expected as Kalb and Propper (1977) point out that questioning and being critical is not the format of NA meetings. NA meetings are about encouraging discussion and gaining more information from more experienced members, rather than offering a critical examination of perspective. As noted by Newman (2014) there is a distinction between discussion and critical dialogue. The function of NA or AA meetings is to participate in discussion that is centred on sharing individual stories, making statements and clarifying and defending beliefs. In comparison, rational or critical discourse involves questioning and forming new understandings.

1.4.13 **Summary**

Both Transformative change theory in education and giving up addiction both concern far reaching changes in peoples' life's. A recurrent theme in the Theory of Transformative Learning is the assimilation of knowledge resulting in a new way of viewing the world. This change involves questioning assumptions and beliefs and through a progress of change a new perspective is reached. This process of change is comparable to descriptions of change and recovery in the drug and alcohol field.

The main themes of transformative learning suggest that change, may not be an all-or-nothing, but a process where people change, relapse to previous thinking and change again. The status of the disorientating dilemma is unclear and other disposing factors may have more significance, like the environment or readiness of a person to change. The pace of this change is more likely to be gradual and protracted rather than an event, although the emphasis on a specific trigger or event appears to be still attractive in explaining the reason for change.

One of the main features transformation is a change in identity for the learner and this is reflected both at an individual and social level. The importance of relationships, dialogue and a supportive environment appear to be important

catalysts in both initiating and maintaining transformative change. These features involving the trigger for change, the process of change, identity and the significance of others also have resonance with giving up drug and alcohol use.

The aspects of adult learning involving learning from experience, making sense of the world and the nature of change, that has similarities with the experience of people in recovery from drugs and alcohol (Doukas and Cullen, 2009). Students in recovery attending higher education tend to be older adults with past experiences of addiction problems (Terrion, 2012), and they may be at a stage in their life when they are receptive to transformative learning (Brock, 2010). However, whilst research has been conducted on many groups (Brock 2010), there are only a few studies related to drugs and alcohol and Mezirow's model of transformative learning (Hansen et al., 2008, Moore, 2005).

To understand the learning and change experience of students going through a course of study in drugs and alcohol at university, some of who may be in recovery from drug and alcohol problems, Mezirow's theory of Transformative Learning (Mezirow, 2009a) is considered pertinent to this study. This is because of the common processes of perspective transformation through learning and transformation experienced by giving up drugs and alcohol.

Chapter 2 Methodology

This chapter contains two sections which outline the background and nature of the research study and the method of conducting the study. The first section will outline the reasons for undertaking the research study, the research questions, the chosen research design and why this was considered appropriate to answer the research questions. The second section describes the method of conducting the study which includes, recruitment of participants, the research process, methods used to collect data, how the data is analysed and ethical issues.

2.1 Background and Reasons for the Research

My research question started from my previous employment, which was teaching drug and alcohol studies at university. I taught on a university specific course for drugs and alcohol for eight years prior to beginning this study and this allowed me the opportunity to listen and observe many students in a classroom environment. It was during my experience of teaching this subject that two themes repeatedly came to my notice during class discussions. Firstly, there was a diversity of students coming to the classroom with a variety of different beliefs about the nature of drug and alcohol addiction. Some students voiced strong beliefs and opinions about the nature of addiction and it appeared that as their studies progressed students appeared to change, modify their views, or be less committed and more uncertain about their drug and alcohol beliefs. Others did not change their perceptions. Secondly, some students often talked about their learning having an impact in terms of a wider change of perspective in both their working and personal lives. While some students talked about thinking differently, in relation to their ideas and beliefs about the nature of addiction and their practice, others appeared to be minimally affected by their learning experience. From my experience of teaching, and with a review of the literature regarding addiction beliefs and perspective transformation, the main question I reflected on for my research was: In what way does the experience of university change student beliefs, and why this change happens with certain students and not others?

2.2 The Research Question

The research questions are a response to the above observations and review of the literature, to better understand the effects on students' addiction beliefs when engaging in academic study within the drug and alcohol field. I wanted to explore if studying at university can precipitate a transformative learning experience and how students' perspectives about drug and alcohol beliefs are influenced by this transformation?

This study involved researching students undertaking academic study specifically in the topic of drugs and alcohol at three U.K universities. The aim of the study is: **to determine to what extent can participating in drug and alcohol education at university trigger perspective transformation, with a focus on students whose beliefs are rooted with a lived experience of alcohol or drug problems.**

My research questions are:

- **How does the experience of students at university, especially those with lived experience of alcohol or drug problems, influence their perspectives about drugs and alcohol beliefs?**

- **What experiences of being at university are considered important, from both students' and teachers' viewpoints in terms of factors facilitating a transformative change in perspective?**

- **What factors do students reflect on, regarding their experiences of perspective change at university?**

2.3 Research Strategy

Researching students' experience of change from participating in an education course can be investigated by contrasting approaches to conducting research, namely a quantitative or qualitative approach or from a combination of both. Bryman (2008), noted the contrasts and implications of adopting each approach, which respectively emphasise either a deductive or inductive strategy to

conducting the research. A deductive approach concerns testing a theory and an induction approach developing a theory. A further distinction in research of adopting a positivist or interpretivist approach in the study of the social world is noted by Bryman (2008). A positivist approach adopts the methods of science to study people by collecting data that is measurable and generating a hypothesis that can be tested. In contrast an interpretivist approach considers that an understanding of people must include a reflection of the meaning people give to social action.

Regarding our understanding and research of addiction, the distinction between approaches of positivism and interpretivism is also considered by Davies (1998). The assumptions arising from these two contrasting positions he suggested attempted to explain addiction, as either purely physical (positivist) in nature or resulting from volition and social interaction (interpretivism). Davies (1998) argued that the combination of these approaches as an explanation for addiction are incompatible, as each consider addiction from a different set of assumptions. However, by contrast Bryman (2008) reviewed the mixed method approach to research and concluded there are different ways of combining the two approaches, but they must be appropriate to the research question. These contrasting approaches have implications on how we view and respond to knowledge, but also how, in the study of social research and the field of addiction, data is collected and the findings analysed.

Considering only a quantitative and deductive approach to my research questions would have resulted from starting from questions that were specific and testing a hypothesis about an existing theory. This would involve the collection of measurable data, perhaps via a questionnaire or other instrument that gathered empirical data, which could then be analysed. However, I did not consider this alone was the approach that would best answer my research question, concerning identifying the possible perspective transformative change process experienced by students. A quantitative approach in isolation would not give me detailed information about students' viewpoints and elaborate on the meanings they may give for experiences of change through the course of their studies. The quantitative approach would generate descriptive data, but I wanted to know more about students' experience of perspective transformative change from their point of view. The information from a quantitative approach I considered

would be restrictive in focus and not allow the student to tell their own story of their experiences. Nonetheless a quantitative element using questionnaires as a component of the study was used to gather important background data, measure beliefs and the steps of change in perspective transformation.

A qualitative and interpretivist approach to the research, was considered essential to help best answer my research questions. Regarding conducting qualitative research in the addiction field, Rhodes and Coomber (2010) summarise some key considerations. Firstly, the research considers social action and what meanings people take from that action. In my study, it is the meaning that students make of their transformative experience that is of interest. Secondly, importance is placed on the process and so it is the manner of change that I wish to investigate in this study, not just if a student has changed or not, but it is the processes and student experience of change that is of interest. Thirdly, qualitative research considers studying people in their natural settings and so my research study takes place in the learning environment of university that students are situated. Fourth, it is important to consider the context of the study and in this regard the research on student perspective change is in the context of higher education. Fifth is the use of multiple perspectives to the research, and so in my study different assessment tools are used, and both students and teachers' viewpoints on perspective change are considered. Lastly, Ross and Coomber (2010) propose the process of 'progressive focusing', which considers the possible redirection of research ideas in response to the data gathered as the research progresses. In my study, the research altered as the gathering of data progressed and redirected the focus of the study. Initially, the research attempted to investigate all students at university, but this changed during the gathering of data, with a focus on those students with lived experience of addiction.

The study therefore makes use of a mixed method approach (Creswell, 2013) and the mixed method model that best represented the approach to this study was the concurrent triangulation design multi-level model (Creswell 2018). Although this design was considered the most appropriate way to obtain different, but complementary data, collected concurrently, it did not fully capture the longitudinal nature of the study. A more appropriate research design adopted to study the experience of change over time concerning the students' belief

perspective was a fully longitudinal mixed methods approach (Van Ness et al., 2011). An example of this design related to this study is outlined in figure1. This design was used to measure and corroborate findings and give an overall interpretation of students' experience of Transformative perspective change over time (Plano Clark et al., 2015).

Qualitative and quantitative data were collected at the same time periods so that a comparison could be made of students' responses. The findings from both sets of data were analysed separately, and the data integrated during the interpretation of the findings into one overall interpretation, relating to both the qualitative and the quantitative findings. The difficulty of understanding the experience of change using only words and numbers lead to a priority for interpretation of the qualitative data.

This longitudinal design was used to directly compare quantitative results with qualitative findings and the triangulation of results, categorised as student interviews; questionnaires; and the findings of the teachers'. The design was considered to give a better description of students' longitudinal experience of transformative perspective change and a more complete understanding than could be made from the use of only one set of findings (Synder,2008).

There are three concurrent data collection time periods in this study. Time 1 represents students' anticipation of their studies, and includes quantitate data from the ABS and a demographic survey as well as qualitative data from focus groups, open questions included in the demographic survey. Time 2 involved data collected during the students' studies with qualitative data from student semi-structured interviews and quantitative data from the LAS. Time 3 included data from students and teachers at the end of their studies and this involved collection and analysis of qualitative data from semi-structured interviews and quantitative data from the LAS and ABS questionnaires. After analysis of data separately, the interpretation of the findings helped answer the three research questions by comparing the qualitative interviews about perspective change with the students' perceptions of change, as indicated by quantitative data from the LAS and ABS, and comparison with the teachers' reflections.

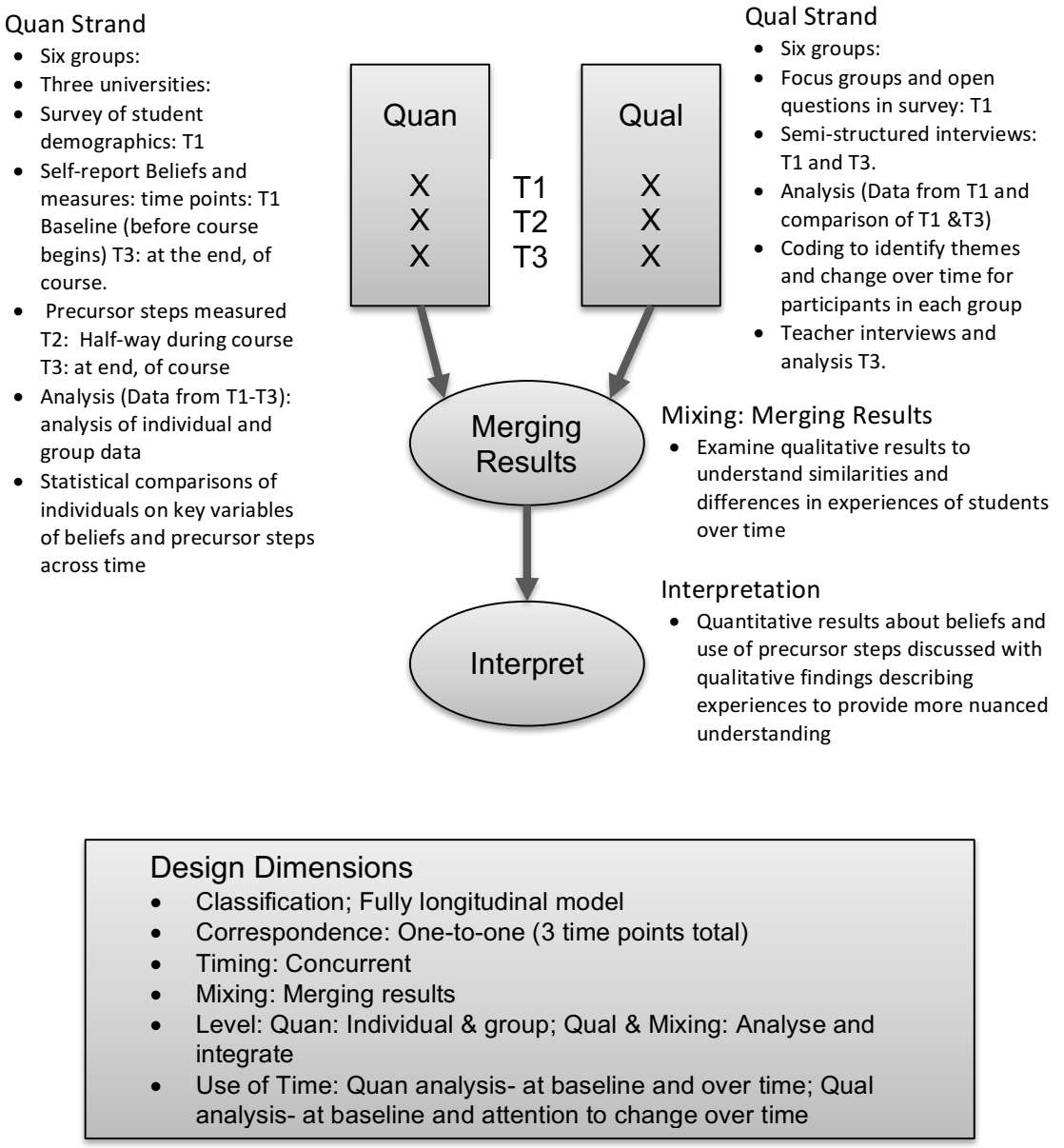

Figure 1 Fully Longitudinal Mixed Methods Design (Van Ness et al., 2011)

Considering the aim of my research and attempting to incorporate the principles of qualitative research by Ross and Coomber (2010), I decided that adopting a qualitative approach was the most suitable as the main focus of the research strategy. There are various types of research design within qualitative research and these differ depending on the main purpose of the study. Creswell (2013) outlines five traditions of qualitative research design with different purposes, namely biography, phenomenology, grounded theory, ethnography and case study, and noted that they also differ in data collection and analysis.

My choice of research design was inferred from the aim and purpose of my study, namely to understand students' experiences of change as they go through

the course of their studies in drugs and alcohol at university, with a focus on students with a lived experience of drugs and alcohol. The intention of my research was thus to study a specific group of students with:

> the desire to derive a(n) (up-)close or otherwise in-depth understanding of a single or small number of "cases", set in their real world contexts (Yin, 2014) p 4)

It was this general orientation that led me toward considering a case study design, however in planning to conduct a case study design there was a few key features of a case study to be considered. Yazan (2015) provides a discussion of three main methodologies of case study research comparing the work of Yin, Merriam and Stake and notes similarities within the three approaches. All approaches argue that the notion of boundaries is central to all definitions of a case, that case design initially requires some theoretical underpinning and that data collection is from multiple sources. However, there are differences in approaches to analysing and validating data. In my study, as noted by Yazin (2015), I combine features of all three approaches to help support my own design. Yin (2012) sets out three steps in designing a case study, namely the definition of a case, selection of case study design and the use of theory.

Firstly in the definition of a case, Yin (2008) p18) defines a case as:

> a contemporary phenomenon (e.g a case), set within its real-world context – especially when the boundaries between phenomenon and context are not clearly evident.

From this definition, Yin (2008) proposes that a case that is required to fit this definition should consider the why and how questions about the topic of interest. Regarding my research this equates to the question of why does perspective transformative change occur and how does this effect students. Yin (2008) suggests in the definition of a case it is important to consider what makes the case unique or special. In this context, the notion of boundary is further important, as the choice of what is to be studied and that the case is 'bounded'. Merriam's (1987) description of a case is "a thing, a single entity, a unit around which there are boundaries" (p27). The boundary can be considered as what distinguishes a case from those that are not a case and a case can be a person, a group or a program of study. In my study, the case in question is defined as the

cohort of students studying drug and alcohol at university, with an interest in those with lived experience of drugs and alcohol. In addition, Yin (2014) makes a distinction about the purpose of case study and that in any case there can be a combination of purpose. In my Study, the purpose is descriptive, in that my study outlines the experience of drug and alcohol education for students. It is also exploratory, as the study attempts to investigate perspective transformative change and finally the study is explanatory as it attempts to explain the main processes of change. Additionally, Yin (2014) proposed that in choosing a case study design the topic of interest, should be contemporary, in a real-life context over which the researcher has no control. Further, the case study should be longitudinal and use multiple sources of evidence. In my Study, education for those with lived experience of drugs and alcohol is a current issue as there has been recent recommendations and encouragements for this group to become more actively involved in the provision of drug and alcohol services (Scottish Government, 2010). I am studying the case in its context of study at university and I have no relationship with the students except from that of a researcher.

Secondly Yin (2012) , suggests a type of case design requires to be selected and in my research, I have chosen a multiple-case design, which looks at information from a group of cases that are similar. I have chosen multiple rather than single case design with the cases developed in parallel to replicate and confirm my research rather than contrast the cases. In my study, I have focused on six cohorts of students at three universities. The cases selected in the design of my study are a consequence of purposeful sampling to best identify those students with a lived experience of addiction.

Thirdly, Yin (2012) advocates in the final step in designing a case study approach the use of a review of the relevant literature about the case to adopt a theoretical perspective to guide the study and before collecting data about the case. Yazan (2015) notes the similarity of this approach with Merriam (1998), who sets out a guide for case study design. In this guide to a case study, Merriam (1998) suggested initially conducting a literature review, developing a theoretical framework, identifying the research question and selecting the sample to study. Considering the approaches of both Yin and Merriam, the theoretical orientation of the study was considered prior to the research beginning. In my study, to understand the change of the students during their

course of drug and alcohol studies, the research design and the theoretical approach considered was derived from a review of the addiction and Transformative learning literature. It is relevant to note a common criticism of a case study approach is that the findings are not necessarily representative of people in a similar position (Bryman, 2008, Creswell, 2013).

In the past few decades there has been an increasing number of research reports in the addiction field involving the use of qualitative methods (Agar, 2002, Neale, 2005). However, studies in the field of addiction are dominated by quantitative research and have not kept up to pace with the range of research methodologies from the field of social science (Rhodes et al., 2010b). In a review of published qualitative research in the addiction field Rhodes *et al.* (2010b) noted that most addiction journals publish little qualitative work. However, the limitations and failings of quantitative research are remarked on by Orford (2008), especially in relation to research on addiction treatment outcome and the dominance of randomised control trials. It is suggested by Orford (2008) that research in the addiction field has been "asking the wrong questions in the wrong way" and there is a reluctance of researchers to consider different research perspectives. Like the observations of Rhodes and Coomber (2010) about the importance of using qualitative methods in addiction research, Orford (2008) suggested that the addiction field should adopt alternative approaches to gaining knowledge and he proposed changes to future research methodologies to include a qualitative perspective. Orford (2008) suggested that future research should adopt a shift to emphasise the processes of change in people and understanding change processes in general rather than the efficacy of specific techniques. It is further proposed that these change processes should be studied in the long term and with much wider considerations of factors that may affect change in people. In addition, consideration of the diversity of research methodologies and the promotion of more qualitative research methods with much more collaboration with the research subjects to include their views.

These recommended changes by Orford (2008) in the approach to research in the addiction field, although centred on treatment outcome, have guided the approach to my study. From Orford's first suggestion for a focus on studying the processes of change, it is the intention of my study not to centre on the different techniques and methods of teaching at each university and compare

them, but to study the process of perspective change of students. It is not the specific techniques of educational delivery at university and their impact on the students, but rather the change processes that students may experience during their educational experience, that is the interest of this study.

In order to understand the potential change that students' experience through their studies, I have chosen to use the theory of Transformative Learning (Mezirow, 2000) as the theoretical framework for the multiple case study approach. Taylor (2007) suggested any potential perspective transformative change in students may take place over a longer period of time and so the longitudinal nature of my study hopes to capture any changes in students. In addition, many factors of the students' educational experience might influence change and so information is gathered from the perspective of students and their teachers. The other recommendation by Orford (2008), was for use of qualitative research methods to be adopted and so this will be the focus of my research with emphasis on students views of change, and qualitative data from interviews will be the main source of data used.

Taylor and Cranton (2013) noted that most studies in Transformative learning involve a qualitative approach and thematic analysis with interviews involving a small number of people and mostly using retrospective data. They point out that too much of the research in this field is dominated by this research approach and propose future research should focus on the possible use of positivist research, longitudinal studies and during when transformative learning occurs rather relying on retrospective information. As previously noted in the literature review, Synder (2008) and Lundgren and Poell (2016) also made recommendations for the research of Transformative theory, such as utilising a longitudinal approach and triangulation of data.

In summary, the research on transformative learning has informed the structure of my research study, which will be a mixed method approach with a qualitative approach dominant. The data will be collected concurrently at different levels involving a cohort of students tracked longitudinally over the duration of their studies, with qualitative data gathered before, during and after their university experience. The study makes use of triangulation of data, including the use of quantitative data, to support the self-reported qualitative data. Enquiring about

a change in perspective of drug and alcohol beliefs will be explored and finally my research will have a focus on the potential facilitating factors for students in the process of change.

The design for my study is the selection of a multiple case design study to understand students' perspective change through participating in higher education. The design considers the conditions of case study design: that the participants are unique and they are a bounded case (Yin 2012). I am involving a few bounded cases and the research explores transformative learning theory in a higher education context (Mezirow 2000). The topic of study has not been conducted in the UK previously and is contemporary due to the increasing involvement of those with lived experience being encouraged into gaining qualifications for working in the addiction field (National Treatment Agency for Substance Misuse, 2009, Scottish Government, 2010). From a review of the research literature the approach of my study will attempt to include: triangulation of data collection and consideration of emotions (Lundgren and Poell, 2016): relationships and the desire to change (Taylor and Cranton, 2013); social issues and the context of learning (Tennant, 1993); change as significant for the individual and the stability of change (Hoggan, 2016); and a longitudinal study, involving repeated measures spanning the students' educational experience while at university and using tested theories (Synder, 2008).

2.4 Method of Study

1.5.1 Recruitment of Participants

The selection of participants for this study was conducted in three stages. Firstly, universities were selected which may be appealing to people with lived experience of drug and alcohol problems. It was considered these might be universities that offered a lower level of academic award, such as a Certificate in Higher Education or a Foundation Degree as people in recovery from drugs and alcohol are reported to have very few academic qualifications and so may find it difficult entering higher education (Edmundson et al., 2005). One university offering higher degrees was selected to reflect the different levels of study of drug and alcohol in higher education in the UK, and so involve participants from a wide range of educational courses.

Another consideration was for universities which involved a practice-orientated learning environment, either through a practice-based placement or as part of the course that utilised practice-based work as part of the student's assessment for academic credit.

2.5 Universities involved in the Study

The universities involved in this study offer courses that feature a combination of academic work, with practical experience, often in terms of a student practice placement in a drug and alcohol service. This is a common feature of many specific drug and alcohol courses in the UK and the USA (Keller and Dermatis, 1999, Pavlovská et al., 2016). One university in the study (University A), although not offering a practical placement to students, included a reflection of practice linked to academic work as part of assessment and so students required to be in practice to access the course. All the universities thus had a focus on the practical aspects of addiction within their courses that involved skills based learning. Similar to courses in the USA the topic of research studies was more common at a higher academic level, namely Master level studies (Taleff, 2003). The UK however differs from the USA, in that sub-degree courses at a lower academic level, were much less frequently offered than higher degrees (Edmundson *et al.,* 2005, Pavlovska *et al.,* 2016). In the USA, a large extent of university courses provided are for a graduate degree and usually with a focus on counselling. However, in the UK the focus of drug and alcohol studies is on postgraduate or PhD study with only limited university courses providing foundation degrees or undergraduate study (Pavlovská et al., 2016, Society for the Study of Addiction, 2018). In this study, two universities offer qualifications at sub-degree level: A Certificate in Higher Education and A Foundation degree and one university at Postgraduate level.

The nature of the course topics in the university courses in the UK appears to involve an extensive range of topics with the most frequent being; research methods, theories of addiction, interventions with skill based work and treatment and recovery (Pavlovska *et al.,* 2016). The prospectus of university courses in the UK represent a wide variety of addiction perspectives, and so the courses do not appear skewed to any particular addiction belief or ideology (Hester and Miller, 2003, Society for the Study of Addiction, 2018).

The courses in this study include academic levels represented by a Certificate in Higher Education (equivalent to completing first year study at university), a Foundation degree (a feature of academic awards in England, involving two years of study) and Postgraduate qualification (postgraduate certificate, diploma and MSc). The universities involved in this study are: university A, a research-intensive institution in Scotland, provides a Certificate in Higher Education in Drug and Alcohol Practice; university B, a research-intensive institution in England offering students a Foundation degree in Addictions Counselling; university C, a teaching-intensive institution in Scotland provideing a Postgraduate diploma/MSc in Alcohol and Drug studies.

All the people that participated in this study were students who attended three universities to study drugs and alcohol and their teachers. Students and teachers self-selected to participate and both the students and the course teachers were contacted prior to the study beginning and given an information sheet that outlined the nature of the study. This information was also posted on the electronic web page for the students course prior to the researcher visiting the class. In the class, on the first day of the students' course the researcher was introduced by the course teacher, a verbal explanation was given by the researcher as to the purpose of the study and students were invited to participate.

2.6 The Research Process

This section sets out the different levels of the data collection, with the collection of data at three time points in the study, at the beginning, the middle and the end of the students' studies at university. Information was gathered in the first week of students' attendance at their course; half-way during their course of studies and finally in the last week of their course (see Table 2). An information sheet outlining the nature of the study was given to the students (Appendix 1). The students were then asked to participate in the study and signed a consent form if they choose to participate.

Table 2 Phases of Data Collection

	Data collection Times		
University	Beginning of course	Middle of course	End of course
A No of students	Week 1 28	9 months 19	18 months 15
B No of students	Week 1 27	12 months 18	2 years 15
C No of students	Week 1 56	6 months 21	1 year 5
Data collection methods	Survey questionnaire, ABS, Focus groups.	Interviews, LAS.	Interviews, LAS, ABS, Teacher interviews.

Initial demographic information collected was via a self-completion questionnaire, which was subsequently identified by a unique number assigned to it (Appendix 2). This ensured confidentiality of the information and allowed for future information gathered on each participant to be matched and compared. The questionnaire comprised of two sections. A section was designed to assess information on demographic information about participants, such as age, lived experience of drugs and alcohol problems, previous education, etc. The second section included a questionnaire about beliefs in addiction, namely the Addiction Belief Scale (ABS) by Schaler (1995) (Appendix 3).

On the information sheet and electronic notice prior to the study students were asked to participate in a focus group. At the first meeting after completion of the questionnaire the students were again asked if they would participate in a focus group. The focus group discussion explored the themes of motivation for enrolling at university and course expectations.

Half way through each of the courses the students were contacted by email (provided by them at the first contact and recorded in the initial questionnaire) to request a follow-up meeting. If there was no response within two weeks the students were sent another follow-up email. On meeting the students at half way through their course of studies, semi-structured interviews were conducted. Prior to the beginning of the interview students were asked to complete the questionnaire, regarding part 1 of the Learning Activity Scale (LAS) (King, 2009) (Appendix 4), and this was used to augment discussion. The focus of the interview discussion was on the experience of education and if any changes had taken place regarding students' perceptions and beliefs about drugs and alcohol (Appendix 5). The semi-structured interviews allowed freedom for participants to discuss further issues if required.

At the end of their studies students who were interviewed at the half way stage were again contacted by email and invited to participate in an interview. Another email was sent if students did not reply. This interview was held in the last class-based teaching week, and students again participated in semi-structured interviews and were asked similar questions, as in the format at the interview half way through their course studies (Appendix 5). In addition, the students also completed the ABS and part 1 of the LAS, as was completed at the beginning and middle of their studies.

The course leaders for drug and alcohol studies in the three universities were initially contacted by telephone, then by email to establish if they would be willing to participate in the study. Once approval was given by the programme leaders, the teaching staff at the universities were given written information about the study by email and then this was followed up by asking in person to participate in the study. All the teachers had a specific focus of teaching on drug and alcohol courses.

At the end of the university courses the teachers were approached and requested to complete a similar questionnaire to the students about demographic information and drug and alcohol beliefs (Appendix 6). Semi-structured interviews with the teachers also took place to investigate their views about student perspective transformation. (Appendix 7).

2.7 Student Demographics

The first cohort of students in this study commenced their studies at the three universities in the academic term beginning in the autumn of 2010 and a total 52 students initially participated in the study. From this group of participants 16 were from the University A (18 students initially commenced course, thus giving 89% participation); 14 students were from University B (a total of 17 students commenced this course of study thus giving a participation rate of 82%); and 22 from the University C (42 students commenced this course of study thus giving a participation of 52%).

In 2012, a second cohort of students were invited to participate in this research and from this second cohort; 12 from the University A (24 students initially commenced course, thus giving a 50% participation); 13 students were from University B (a total of 17 students commenced this course of study thus giving a participation rate of 76%); and 34 from the University C (36 students commenced this course of study thus giving a participation of 94%).

All the students were contacted half-way through their studies and 58 students, from the 111 initially contacted, agreed to be interviewed; 19 from university A; 18 from university B; and 21 from university C. At the end of the study 35 students were able be contacted and were interviewed; 15 from University A; 15 from University B; and 5 university C. In total 111 students initially agreed to participate in the study, with 35 eventually involved in all phases, giving a participation rate of 39%

2.8 Data Collection Methods

The main methods of data collection were semi-structured interviews, the belief questionnaire (Schaler, 1995), the LAS (King, 2009), focus groups and the demographic questionnaire used at initial student contact. Similar methods were used to collect data from the teachers, except for focus groups and the LAS.

The study's main source of gathering information was to consider in detail the students' views of their experience of perspective change in their beliefs about drugs and alcohol and if these have changed in relation to participating on an

educational course about drugs and alcohol. It was considered that the best way to gather rich data was to speak with students directly, and this approach was chosen as there is minimal research literature relating to students' experiences studying alcohol and drugs at university in the UK (Rassool and Oyefeso, 2007).

The main qualitative technique used in this study was a semi-structured interview with students, conducted throughout their time of study at university. These were in-depth one-to-one interviews conducted at two time points, at half-way through their course of studies and at the end of their studies. The students were encouraged to give their own views about what may have influenced a change in their perceptions and beliefs about drugs and alcohol. The format of the semi-structured interview with the students was informed from the Learning Activities Survey (LAS) format (King 2009). The LAS was used as a guide for the interview and the set of questions from the main sections of King's (2009) questionnaire were asked. The topics explored related to students' views of perspective change, triggers of change and reflections on change of drug and alcohol beliefs (Appendix 4). It was considered that by adopting the semi-structured interview approach, rather than administrating King's (2009) self-completing questionnaire, there would be an opportunity for a more detailed account of the students' meaning and views about change, than could be derived from a questionnaire alone. The decision to interview students at both stages was a new application of King's (2009) approach to the process of assessment of perspective transformation with the LAS. The interviews were audio recorded and later transcribed.

The data from the teachers consisted of two parts, by collecting information from semi-structured interviews, which were audio recorded and transcribed, and the use of self-completing questionnaires. The format of the semi-structured interviews was developed from the questions used with the student interviews and intended to reflect similar themes about the impact of student learning and transformative change (see appendix 7). The questionnaire gathered descriptive information about the education, professional and personal background in drug and alcohol services and the job remit of teaching staff. The addiction beliefs were measured with the Addiction Beliefs Scale (ABS) questionnaire (Schaler 1995). These research methods are like those utilised with the students. All the interviews were coded to ensure confidentiality and participants' permission was

obtained to audio record the interviews. The interviews were conducted in the private offices of the teachers within the universities. The interviews were conducted at the end of the academic year, at a convenient time for the teachers, within a few weeks before the students submitted their final assignments and the teaching on the courses had concluded. The courses lasted one year, 18 months and two years. The researcher conducted all the interviews.

The measurement of belief change in the addiction field is mostly assessed by using quantitative measures, via the use of questionnaires and commonly using Likert style scales (Schaler, 2009). The Addiction Belief Scale (ABS) was used in this study because it is based on previous research and well-used method to assess beliefs about addiction in the addiction field (Russell et al., 2011). This study will be a re-testing of this instrument. Further, it was decided to utilise the ABS because it measures the two main beliefs regarding addiction that are in opposition, namely a disease perspective and the concept of free will. In this questionnaire students are asked to respond on a five point Likert type scale indicating their agreement or disagreement with 18 statements (see Appendix 3). The belief category is attributed from the scoring of the ABS and has a cut-off point of 54, above indicating a disease model belief and below 54 a free will belief, which classified students into a dichotomous category of identifying with a disease or free will belief (Russell et al., 2011).

Prior to commencement of the study a pilot exercise using the ABS was conducted on a post-graduate class of students studying drugs and alcohol at university, in addition to the questions for use in the focus groups. None of these students were involved with the main study. This pilot study with 25 students indicated 7- 9min to complete the ABS, and the ease of use and understanding was also reported, although some of the terminology appeared dated e.g. use of the word ‘addicts’. Nonetheless no amendments were made since these issues did not appear to interfere with the ease of completing the instrument. The focus groups were conducted at the time of the first contact with students, within their first week of attending university, and these discussions were audio recorded and transcribed later. The pilot of the questions reported no misunderstanding of questions, so they were not amended.

The initial questionnaire for the study asked participants about three areas. Firstly, demographic details with some questions about age and sex and there was a set of questions about educational history e.g. level of education, degree educated or not, drug and alcohol education or training. Secondly, there were questions relating to students' personal drug and alcohol history. The questions included asking if participants worked in the addiction field and if so for how many years; the nature of their role; and if they were a member of a professional group. The personal drug and alcohol questions asked participants if presently or in the past they had had a drug and alcohol problem, if they were abstinent at present, if they had received treatment and if they had attended AA groups or had contact with AA. Finally, this questionnaire also contained three open questions about involvement in the field of addictions, reasons for attending university to study addiction and expectations from participating in the course (Appendix 2).

2.9 Data Analysis

The analysis mirrored the use of qualitative and quantitative approaches to collecting the data. Qualitative methods were used in this study to analyse the semi-structured interviews with students and teachers, student focus groups and open-ended questions from the initial demographic questionnaire. The information from the teachers' questionnaire was also analysed using qualitative analytical methods. Quantitative methods were used for analysis of data in the demographic questionnaire, the ABS and LAS.

The focus group data from students and interview data of teachers was analysed by a thematic analysis process as suggested by Clarke and Braun (2018), which is similar to a method of analysis outlined by Miles and Huberman (1994).This method outlined by Miles and Huberman (1994, p 9) suggests:1) making codes and linking to the data 2) making initial reflections 3) sorting and sifting the material to identify important themes, noting patterns, commonalities and differences 4) testing out initial findings by including them in subsequent data collection phases, 5) making generalisations 6) analysing the generalisations regarding the existing literature and theories. According to Miles and Huberman (1994) these methods are part of three core activities of qualitative analysis, namely data reduction, whereby the data is selected and transformed from

verbatim transcriptions via coding and the making of themes; data display involving the organisation of material into a compact form; and conclusion and verification which involves noting patterns and making explanations and testing any conclusions.

A method of analysis of qualitative data that is compatible with the methods outlined by Miles and Huberman (1994) and with a thematic analysis approach, was conducted for the semi-structured interviews of students. The method of analysis as illustrated by Neale (2016), namely Iterative Categorization (IC), was used for the interviews and this involved data reduction, display and conclusion following the process outlined by Miles and Huberman (1994). It was considered that Neale's (2016) method was a more practical, clear and a helpful method of analysis and did not require the use of specialist computer assisted software. An advantage of this technique is that, "a lone researcher can use IC to demonstrate the validity and potential repeatability of their methods." (p10). As a technique that is suitable for use with thematic analysis Neale (2016) describes the common process of:

> coding, identifying important phrases, patterns, and themes; isolating emergent patterns, commonalities and differences; explaining consistencies; and relating any consistencies to a formalised body of knowledge. (p2).

In the practical analysis for this process I followed the process as outlined by Neale (2016) and used Word documents to store the interview transcripts and the use of unique student reference numbers replaced personal information, such as name of the student. All the transcripts were read and re-read, which enabled me to become familiar with the data. After reading the transcripts, the material was organised firstly by developing a coding framework, based on deductive codes from the topic guide questions for the semi-structured interviews, which was derived from the questionnaire by King (2009). All the transcripts of the interviews were coded line by line and each individual student was given an identifier number for each code in their transcript, e.g. for name, university, etc. In this manner, a word file was produced for each code and all student comments for this code were collated in this one file, with any interesting quotes collated in a separate word file. All the coded files were analysed in this way and then a mind map analysis was conducted for each coded

file. Two word files were then created, a coded word file, which was kept for reference, and a new one used for analysis. In this new file, a split screen function was used for analysis. The file was read and key points were noted in one part of the split screen and when a transcript was completed the file with key points was kept and a new coded file was used in the same manner for further analysis. During the process of reviewing new data from each student the coding framework was amended to include inductive new codes and after 10 coded files were analysed and summarised the list of key points were reviewed. When all the coded files were analysed and summarised the key points were again reviewed noting the most common and unusual points and then regrouped and summarised into key themes. The final part of the analysis involved identifying and linking themes in the data with concepts in the literature and research on transformative learning as outlined by King (2009), which relate to students' understanding of transformative change, the factors that facilitate transformative change and students' reflections on the experiences of change. An example of this technique from the results analysis is set out in Appendix 8.

As the students were contacted for interview at two time points, namely half way and at the end of their studies the study could be considered a cohort longitudinal study design (Bryman, 2008). Both at the half way interview and at the end of course the information gathered was analysed separately, however it is the connections and repetitions between the two interviews that was considered important to highlight any perspective transformative change. The framework for analysing longitudinal qualitative data as outlined by Saldana (2003) was used to help explore the data between the two-time periods of the interviews. He suggested a framework of questions to help with the analysis of the data, which are grouped into framing questions, descriptive questions and interpretive questions. (See appendix 9)

The process of identifying perspective transformation used in this study was similar to that of Brock (2010) and King (2009), which is outlined as follows:

First, if no steps were indicated in the 10-step questionnaire (part 1 of LAS), students would be considered as not having experienced perspective transformation; Second, answering yes to the question *"since you have been taking courses at this university, do you believe you have experienced a time*

when you realized that your values, beliefs, opinions or expectations had changed?", then the description of this occurrence, was examined to confirm perspective transformation. Third, answering yes to the question *"Thinking back when you first realized that your views or perspective had changed, what did your being in university have to do with the experience of change?"*. The information from these sources was then used to decide if a student had undergone a perspective transformation.

In relation to quantitative analysis, the data gathered at initial contact during the survey of students, which outlined demographic details of students, was analysed using the SPSS package (IBM, 2013). At the first contact with the students and at the end of their course, the Addiction Belief Scale (ABS) (Schaler, 1995) was completed by students. These data were analysed using SPSS, to consider if students indicated a Disease or Free-will belief and if this changed during their studies. This was assessed if students had a total score over a cut-off point of 54 indicating a disease belief and under this score a free-will belief. In brief, the ABS forms 18 questions, with 9 questions about disease and 9 questions about free-will beliefs. The scoring of the ABS is on a scale from 18 -90 with the conceptual mean being 54. A scoring higher than 54 would indicate a belief in a disease model of addiction. The scale questions are assessed by the reverse score of the 9 choice items and adding this subtotal to the sum of the 9 disease items to get the total ABS score. A score higher or lower than 54 indicates a belief in the disease and Free-will model of addiction, respectively (Russell et al., 2011, Schaler, 1995). The sub-scale scores of the Disease and Free-will belief scores were also recorded and compared to illustrate which set of beliefs about addiction might have changed. This is a new approach to the analysis of the ABS.

The analysis of the teacher interview data, like the student interview analysis, used the approach by Miles and Huberman (1994). Codes and notes were collated under headings related to the questions of the interview and from these headings themes were developed that encompassed the codes. The themes consisted of; the characteristics of students; the nature and extent of transformative change within students and the factors involved in facilitating that change.

2.10 Ethical Issues

Some basic concepts of ethical issues involved in addiction research or indeed any social research are highlighted by Miller *et al.* (2010). These concepts include, voluntary participation, informed consent, risk of harm and confidentiality and anonymity.

Initially before conducting this study ethical approval was required by the University of Glasgow and many of the issues noted were raised through the ethical approval process. In my study, I attempted to conduct my research according to these key points and when initially beginning the recruitment of participants they were informed about the purpose of my research electronically, through their university course webpage, before I met any of the potential participants. On meeting the students in class for the first time I distributed an information sheet about the study and explained about the study verbally to the class (Appendix 1). It was stressed that participation was voluntary and that there would be no consequences to their studies if students did or did not participate.

The interviews had the potential to cause distress and it was important to be aware of the possibility of relapse for this particular group and the potential emotional impact of discussion about this topic (Doukas and Cullen, 2010). It was thus important that feelings of trust and rapport were established between the interviewer and the student to facilitate discussion about potentially sensitive topics that may occur, such as consequences of addiction.

It is particularly important to consider such issues when asking students to participate who may have a previous or present drug problem, as they may have concerns about the stigma of identifying themselves, so the importance of reassuring students that their anonymity would be protected was important. Students were all interviewed in a private room at the university and out-with class time, to ensure that their participation was not obvious to others. Most interviews took place at lunchtime and at the end of class.

There are also potential ethical issues in longitudinal research such as the small sample size of students and the limited number of universities in the study. This

may make students easily identifiable. These factors suggest the need to be extra careful about participants' anonymity when handling personal data in the long term and in the reporting of any data as it may be easy to identify from comments the participants and universities. In this regard, the data once collected were assigned a unique identifier number and personal details on all transcripts and questionnaires were destroyed. In the reporting of the results of this study the universities and staff will be anonymous.

Chapter 3 Students Anticipation of Studies

The aim of this chapter is to outline the demographics, beliefs and expectations of the student cohort beginning university to study drugs and alcohol. The quantitative data gathered was from the demographic questionnaire and the Addiction Belief Scale (ABS) (Schaler, 1995) (see appendix 2&3). These sources of data collection were used to give an understanding of the student cohort, in terms of their background characteristics, as there is limited information about students, and especially those students in recovery, studying drugs and alcohol at universities in the UK. The addiction beliefs of students were assessed at this stage to identify beliefs prior to university, and to compare with a future assessment of beliefs at the end of their studies, which will highlight any change in beliefs. The qualitative data gathered was from open-ended questions included in the demographic questionnaire and from the student focus groups. These sources of data were used to help illustrate the reasons and expectations students had for attending university. In this chapter, the quantitative data will be considered first, followed by examining the qualitative data from the open questions and student focus groups.

The data considered in this section were collected when the students first attended university, before becoming involved in discussions, debate or intensive dialogue about drugs and alcohol and before they became involved in preparation for any assessments. This occurred during the first week of their studies at university. All the students in each class group were invited to participate. Students were asked to complete the questionnaire that asked about personal demographics and drug and alcohol history (See Appendix 2) and the ABS (Schaler 1995) (See Appendix 3) and participate in a student focus group. Consequently, the results reported reflect a sample of students' demographics and beliefs about drugs and alcohol on entering drug and alcohol education at university, in the selected universities in the UK.

The software used to analyse the data inferentially was SPSS (IBM, 2013) and firstly descriptive statistics were conducted considering the distribution of the data with frequencies and percentages examined. To consider any associations between elements of the descriptive data, chi-square tests were conducted with the categorical data. In all the cases the expected cell frequencies were greater

than five, unless otherwise indicated. For parametric data, t-tests for independent samples was used to consider any differences in the means of variables of continuous data. One-way ANOVA tests were used to consider any statistical differences of means between any of the grouping categories that involved four groups of independent variables, namely; university, previous experience of working in the field, AA attendance and previous educational attainment and compared with the dependent variable of the ABS score and sub-sets of the Disease and Free-will scores.

In this study, the main variables compared are; sex, age, university attended, drug and alcohol lived experience and belief in addiction. Sex, age and lived experience are analysed as it is suggested in the literature (Russell et al., 2011, Schaler, 2009) they are likely to have an impact on beliefs. The presentation of these findings will be mainly in a narrative format and the detailed statistical output is not embedded in the text, but in Appendix 10.

3.1 Description of the Students

The students involved in this study were recruited from three universities, namely, university A with 28 students (25.2%); university B with 27 students (24.3%), and University C with 56 students (50.5%). Two cohorts of students from each university were approached to participate in the study, and thus overall six cohorts of students were involved in the study, in a four-year period from 2010 until 2014. The study sample included 111 students of whom 72 were female (64.9%) and 39 males (35.1%). A brief outline of the characteristics of the students is presented in table 1.

As presented in Table 3, the mean age of the sample is 36.05 years, the median is 36, SD 10.68 and the range is 40 from 19 years to 59 years. The mean age of females was 35.06 years and for males 37.87 years. The number of students who were educated at degree level prior to attending university to study drugs and alcohol were 61(55%) and 50 (45%) with no degree. For those students without a degree 33 (30%) had acquired a Scottish Vocational Qualification (SVQ) or National Vocational Qualification (NVQ) or a Higher National Certificate or Higher National diploma (HNC or HND).

In this sample of students, prior to beginning their university course, 60 (55%) had never worked in the drug and alcohol services whilst 25 (25%) had worked in services for less than 5 years, with 22 (20%) having worked for more than 5 years. For those students that had worked in services, the most frequent employment was as a non-specialist project worker (40% of the sample). Only 3 students (2.7%) were nurses and 2 (1.8%) social workers. The number of students that identified themselves as belonging to a professional group e.g. social work, nursing or in the caring sector was 20% with 80% not belonging to any professional grouping. The most frequent service for students that worked in the field was a combined drug and alcohol service 39 (35%). The most common treatment model of care was the provision of a combined drug and alcohol service (21 (19%)), with 10 students (9%) working for an abstinence only service and 7 (6%) for substitute prescribing services. Only 15 (13%) of the student group had participated in any basic information training about addiction and 96 (87%) students had no basic training in addiction.

Students indicated if they were currently abstinent from alcohol, with 30 (27%) indicated positively and 51 (45.9%) negatively whilst 30 students (27%) did not complete this question. Those students that indicated that they had a personal problem with drugs or alcohol was 34 (30 %) and those who did not was 76 (69%) and one student (1%) did not answer. The students indicating personal problems with drugs and alcohol (n=34) differed according to university, with University A with 8 students (23.5%), university B with 20 (58.8%) and university C with 6 (17.7%) students. There was 51 (46%) students who had no previous contact with Alcoholics Anonymous (AA) and 20 students (18%) indicated previous contact with AA. There were 16 students (14%) who at the beginning of their studies were in contact with AA. Many students did not answer this question 40 (36%) and many of these students were from university C.

Table 3 Characteristics of Students

Sex; Male female	N= 39 72	Total 111
University; A B C	N= 28 27 56	111
Age; Females Males	Years 35.06 37.87	
Prior educational achievement; Degree No degree	N= 61 50	111
Years worked in the addiction field; Never Less than 5 years More than 5 years	N= 60 25 22	107
AA contact; Previous Currently never	N= 4 16 51	71
Indicated Personal problem with addiction Indicated no Personal Problem with addiction Did not answer	34 76 1	111

In summary, the sample of students attending the three universities to study drugs and alcohol were mostly female with an average age in their mid-thirties, with roughly half the sample Bachelor degree educated or above. Most students attending university had never worked in the drug and alcohol field. For those students who worked in the drug and alcohol services most had only a few years' experience in this role, mostly in non-specialist services and only a small number had received basic training for their role. Most of the students indicated that they drank alcohol and did not have experience of problems with addiction in the past or at present. However, a third of students indicated having experienced problems with alcohol or drugs. The belief scores of the sample of students indicated the majority identified with a Free-will belief.

3.2 Students' Addiction Beliefs

The Addiction Belief Scale (ABS) (Schaler, 1995) was completed by 97 of the total sample of 111 students at the beginning of their course in the first week of their studies, with the mean score for the sample 48.9, SD 8.09, with a range of scores from 29 to 69. The ABS involves two sub-scales measuring a Disease and Free-will belief. The scoring of the ABS is norm referenced, with a cut-off point of 54 and above indicating a Disease Model Belief and below 54 a Free-will Belief, and categorised students into a dichotomous category of identifying with a Disease or Free-will belief (Russell et al., 2011). For this sample (n=111), 74 (67%) were assessed to indicate a Free-will belief and 23 (21%) a Disease belief, with 14 (12%) missing data.

3.2.1 Tests of association

A chi-square test for association was conducted between the categories of sex, age, university and belief. Chi-Square statistics are available in appendix 10.

3.2.2 Gender

There was found to be no significant association between men and women regarding university attended. Thus, no university in the study had proportionally more men or women and so the distribution was almost equal in all three universities. There was no significant association between men or women and being degree educated prior to attending university, although females were relatively more likely to be degree educated. There was found to be no significant association in belief category, with similar numbers of females and males indicating a Disease or Free-will belief.

The major association found between men and women was in the experience of personal problems with drugs and alcohol; current abstinence from alcohol; and, contact with AA. In all these factors, men are relatively more likely to be associated with having experience of personal problems, currently abstinent and in contact with AA.

3.2.3 **Age**

The average age of the sample was 36 and so this was considered as a binary category for age between older and younger students. There was a significant association between age and the university attended with universities A&B attracting older students. The younger age group of students were more likely to be degree educated and the older students more likely to have vocational qualifications. The tests of association indicate that the student group can be differentiated by age into two groups, with the younger group containing more highly educated students attending university C, and the older student group, with vocational qualifications, attending universities A&B. This is likely to reflect that university C is recruiting for a postgraduate course of study and universities A&B for undergraduate studies.

Older students were relatively more likely to be associated with previous experience of working in the drug and alcohol field and identifying belonging to a professional group. Also, in this sample of students there was an association between being an older student and the experience of personal problems with drugs and alcohol, contact with AA and being abstinent. However, there was no association found between age and belief scores.

3.2.4 **University**

There was a significant association between university attended and experience of working in the drug and alcohol field, with much of students at university C having never worked in the field. However, regarding students identifying themselves as belonging to a professional group there was no significant association with any of the universities.

Students who identified themselves as having a personal problem with drugs and alcohol were significantly associated with university attended, with University B having significantly more students identifying themselves as having problems with drugs and alcohol, being more likely to report abstinence and more likely to have had contact with AA. There was a significant association with non-replies regarding abstinence and AA contact and university C. However, there was no significant association between students at the different universities and their

belief category. The students from University C may have considered the questions about current abstention from alcohol and attendance at AA not appropriate or too sensitive in the context of beginning studying alcohol and drugs at university.

In summary, university C attracts students with a prior degree, but with limited experience of working in the drug and alcohol field and with minimal or no contact with AA. University A students are more likely to be educated with a vocational qualification and students from University B with the least qualifications. However, University B students were significantly more likely to be associated with experience of personal problems with drugs and alcohol, attended AA and were currently abstinent.

Neither the sex, age of the student or the university attended was associated with indicating an addiction belief category. The findings indicated students with or without a prior degree before coming to university, showed no significant association with addiction belief, either Disease or Free-will. There was no significant association noted between student beliefs and experience of working in the field of drugs and alcohol. For those students identifying belonging to a professional group there was no association with beliefs.

For those students indicating a personal problem with alcohol there was a significant association with belief category. Those students without a personal problem were relatively more likely to indicate a preference for Free-will beliefs whilst those indicating a personal problem relatively more likely to indicate a Disease belief. In terms of contact with AA and the beliefs of students, there was found to be a significant association, between those with no contact with AA and a Free-will belief. For those students indicating current abstinence from alcohol there was an association with beliefs, with those students indicating Free-will beliefs relatively more likely to be not currently abstinent.

In summary, for this student sample there is an association with age, personal problem with drugs and alcohol and university attended. Younger students tend to have degree-level education, but have minimal experience of working in or contact with the drug and alcohol field. This group are predominantly at university C. The older students are relatively more likely to less academically

qualified and with experience of working in the drug and alcohol field, having contact with AA and are more likely to have personal experience of drug and alcohol problems. In terms of addiction beliefs, those students with a personal problem, contact with AA and abstinent were more likely to indicate a Disease belief.

3.2.5 **Tests of Differences**

To determine if there were any statistically significant differences regarding the scores on the ABS, including the sub-sets of the Disease and Free-will sections of the questionnaire, an independent-samples t-test was conducted for each of the variables of sex, age, personal problem, abstinence and AA contact, to identify potential differences. Tests of differences displayed in Appendix 10.

There were no significant differences on the ABS and its Disease and Free-will sub-scales between:

- Males and Females
- For all students aged over and under 36
- Students indicating a personal problem with drugs or alcohol or not

However, there was a significant difference in the ABS scores for abstinence and non-abstinence (the effect size was moderate: Cohen's d 0.596; Diff in means 4.81; pooled SD 8.059). On the Disease belief, sub-scale a significant difference was noted between abstinent and non-abstinent, with abstinent group indicating a higher disease score. However, there was no significant differences noted between the groups on the ABS score with the Free-will scale. Therefore, the overall difference is due to a difference in the Disease sub-scale. There was a significant difference in ABS scores for those students with AA contact and no contact with AA, with AA contact indicating a disease belief (the effect size was large; Cohen's d 1.135; Diff in means 8.46; Pooled SD 7.452) and a significant difference on the Disease and Free-will sub-scales.

One-way ANOVA tests were used to consider any differences between the variables that had more than 2 independent groups, namely university, previous experience of working in the field, AA attendance and prior educational achievement. The dependent variable consists of the ABS score and the sub-scales of Disease and Free-will beliefs.

To determine if students' ABS scores were different according to university, namely university A (n=27), university B (n=26) and university C (n=44), overall ABS scores were compared for differences. The differences between the groups was statistically significant with university B students having the highest scores and university C the lowest for the ABS score. This indicates that university B students identify more with a Disease belief and university C with a Free-will belief. In relation to the Disease sub-scale score, the differences between the universities was statistically significant with students from University B having significantly the highest scores. In relation to Free-will sub-scale scores the difference between the universities is not statistically significant (see appendix 10). The group of students at university B have significantly higher scores on the ABS. A high score on the ABS indicates a stronger preference towards a Disease belief. When considering the sub-scales there is also a difference in the Disease, but not the Free-will sub-scale. This would appear to suggest that beliefs about Disease are relatively entrenched in students from university B, but there are no differences with students in other universities regarding beliefs toward Free-will.

In respect to students experience of working in the drugs and alcohol field, namely never worked (n=51), worked less than 5 years (n=25) and worked more than 5 years(n=19), total group=95, the differences between the groups working experience and ABS scores was not statistically significant. For students' Disease and Free-will sub-scale scores, the difference between the groups was not statistically significant.

Regarding students' AA attendance, namely previous contact (n=4), current contact (n=13) and never any contact (n=44), the differences between the sub-groups was statistically significant, suggesting that those students with previous and current contact with AA had higher ABS scores, indicating a preference toward Disease beliefs. Regarding students' Disease sub-scale scores, the

differences between the groups is statistically significant, again with those in current contact with AA having higher Disease scores. However, regarding students' Free-will beliefs, the difference between the groups fails to reach significance. These results suggest that those students with previous and current contact with AA are more likely to indicate Disease beliefs, but the Free-will score is no different from other students not in AA.

Students' ABS scores were considered in respect to their highest educational achievement, prior to commencing their drug and alcohol course. These groups were students with, school qualifications(n=16), Vocational qualifications (n=32) and degree and higher qualifications (n=49), total group=97. There was a significant difference between those groups, with the results suggesting that those students with lower educational qualifications were more likely to ascribe to a Disease belief and vice versa.

Students' Disease belief sub-scale scores indicated there was a significant difference between those groups; for students with school qualifications and those with a degree qualification. The findings indicate those students with a degree qualification are less likely to ascribe to a Disease belief. Student groups, with school qualifications and those with a degree qualification, indicated no significant difference with Free-will sub-scale beliefs.

Regarding the ABS scores there appears to be no significance difference between beliefs and sex and age of the students. Personal problems also failed to show significant differences in belief scores, which is surprising as other research studies reported a relationship with being in recovery and holding a Disease belief (Leavy, 1991, Luke, 2002). In terms of students that were currently abstinent from alcohol there was a significant difference in the overall ABS score and the Disease sub-scale score, but not the Free-will score. The one factor where there was a significant difference for the ABS score and both sub-sets of the Disease and Free-will scores was in relation to contact with AA. There was also a significant difference in addiction beliefs of students according to university, particularly between universities B, with students dominantly indicating a Disease belief, and university C indicating a Free-will belief. There was no difference in working experience and beliefs recorded. Students with current attendance at AA were significantly more likely to indicate a Disease

belief, but there was no difference with Free-will beliefs and other students not attending AA. For students with low educational achievement, there was a significant difference in ABS scores with those students with low academic achievements more likely to indicate a Disease belief, which is consistent with other research (Schaler, 1995).

In summary, the findings reviewed suggests the type of students attracted to university to study drugs and alcohol are mainly of two groups. The distinction between non-traditional adults, which include a sub-group of students with lived experience of addiction, and younger more educated students generally reflects the academic level of studies, with younger students involved in postgraduate study and older students in a sub-degree: Foundation degree or Certificate in Higher Education. This finding corresponds with research from the USA and the UK suggesting a dualist grouping of the workforce: of a highly educated professional group and a less educated group, more likely to be in recovery (Ashwood and Rowley, 2016, Payne et al., 2005). It is suggested form the findings that the majority students in recovery have similar characteristics as non-traditional adult learners (Bamber and Tett, 2000).

3.3 Open-ended Questions and Student Focus Groups

This section will consider the findings from the two qualitative data collection methods used at the start of this study, namely open-ended questions and student focus groups. Both these methods were conducted at the beginning of the study at the same time, on the same day, when the researcher first met the student groups. These meetings were all within a few days of students beginning their studies. The reason for incorporating this data was to help clarify students' reasons and expectations of studying drugs and alcohol at university, as it has been suggested that the desire to change may be a factor that contributes to perspective transformation (Taylor and Cranton, 2013).

This section will be in two parts, firstly, considering the findings from the open questions and then the focus groups in the second section. This section will include: the rationale for focus group method, the study design, data analysis and findings.

3.3.1 Responses to Open-ended questions

The open questions were included as part of the demographic questionnaire, which students were asked to complete at the beginning of their university course of studies (see Appendix 2). The questions were piloted with a class of students involved with postgraduate study of drugs and alcohol at university, who were not involved with the study. There were no amendments made to the questions resulting from the pilot. The related two open questions in the student questionnaire were:

- **What is your main reason for deciding to take this course of study?**

- **What expectations do you have about taking this course of study?**

The process of data analysis for the open questions used a content analysis approach as outlined by Bryman (2008), which involved counting the frequency of certain keywords and written comments given by the students and arranging these into codes and themes. All the comments were read and by looking for similar words and phrases, the data was coded manually by the researcher and organised into themes.

All the students in the 6 cohorts from the 3 universities involved in the study were requested to complete the questionnaire at the beginning of their studies. From the 111 students completing the questionnaire, 109 completed the two open questions.

In order of the frequency the main reasons students given by students for wishing to study at university and their expectations are outlined in Table 4.

Table 4. Students' Motivation and Expectations for University Study

Motivation	Expectations
• to enhance their practice • to gain knowledge • to gain employment • as part of a personal journey • to help others • to gain a qualification	• to become more knowledgeable • to improve practice • to gain confidence in practice • hope of gaining employment • expect preconceptions and beliefs to be challenged.

Analysis of the student comments to both questions were similar with the main themes being, the gaining of knowledge and improvement to their practice and so it was decided to report these findings together.

Typical of the numerous comments related to these themes of knowledge and practice were examples such as: *"to develop my understanding of what I think about addiction"* (subject 9), *"I really want to know more about what I am seeing daily"* (17), *"I wanted to gain more understanding of how people develop, I wanted to see if I could use my past to benefit my future"* (54), *"I didn't feel that I had enough knowledge or experience"* (61)

After gaining knowledge and improving practice the next frequent comments related to personal reasons. Some students indicated they expected their beliefs and preconceptions to be challenged: *"I expect to be challenged, to have my views questioned and developed"* (10), *"my views and opinions challenged"* (19), *"I expect my beliefs and opinions to be challenged"* (43). *"I expect to have my preconceptions of the topics challenged"* (74).

Many students commented on choosing to study at university as part of their journey of recovery and their personal development. This was related with a desire to help others and this is noted by student comments such as: *"to help people suffering with addiction problems and educate myself"* (34), *"I wanted to make something of myself"* (57). For some students, this was related to a sense of helping others: *"something to offer the field"* (22), and *"because of my*

personal history and hope to give to others what was given to me" (32). *"I believe this course will be life changing in many ways" (*36)

Common responses to both questions, was the hope of future employment: *"to find work in the addiction field"* (45), *"my expectations are two-fold. one is to find a career. secondly is to find ways to help people"* (71). As noted in this quote and others, the comments of some students fit into more than one category.

In summary, the desire for greater knowledge was linked for many students with improvement in their practice and gaining confidence. Obtaining a qualification was often mentioned in connection to future employment and career development. The choice to study at university was considered by some students as a process in a personal journey of self-development and additionally a reason for taking the course was the desire to help others.

3.3.2 **Student Focus Groups**

The experience of beginning a course of study or experiencing change, is not only understood at an individual level, but can also occurs from the interaction and discussion with others (Mezirow, 2009b). The use of student focus groups was considered an appropriate method to provide relevant data that would allow for the expansion of responses to the open questions included in the questionnaire. The use of focus groups is considered to give more breadth of understanding to students' choice of study and course expectations. This would be complementary to the information gathered on an individual basis, which although detailed does not necessarily provide for social or diverse views (Bryman, 2008). Gathering information about the breadth of student viewpoints is not always easy and the benefit of using a focus group is that participants can comment on each other's views (Bryman 2008). Kitzinger (1994) suggests that interaction in a group also allows participants to clarify and reconsider their own understanding and this technique might be useful to help students express more clearly their thoughts. Gathering this type of data, during the first contact with students was a way of obtaining information quickly and easily.

3.3.2.1 The Focus Group design

Tong *et al*. (2008) suggest three areas of importance for reporting focus groups, namely: research reflexivity, study design and data analysis:

3.3.2.2 Research Reflexivity

My role as a researcher was informed by my job as a university teacher on a drug and alcohol specialist course, during which I had over 10 years' experience as a small group facilitator. I also had previous experience of research with interviewing people and students about addiction. The focus groups were conducted by the researcher, who facilitated the group discussions and analysed the information gathered from these discussions. The relationship with the students established that I was a research student and my interest in conducting the Study was to further my studies. I was not involved with their studies regarding any teaching, marking or any part of their course work.

3.3.2.3 Study procedure

The research was conducted soon after commencement of the students' course. The questions were first piloted with a group of postgraduate students studying drugs and alcohol at university, with no involvement with the Study. There were no problems encountered with the questions and so they were unchanged.

The participants invited to take part were a purposive sample of students, at the universities which were involved with the Study. All students in each group were asked to participate. It was intended to select between 4 to 12 students for each focus group as recommended by Tong *et al*. (2007). However, the selection was opportunistic and convenient regarding the availability of the students, as they were asked face to face on first contact to participate prior to completing the questionnaire. The topics to be discussed during the focus groups were outlined by the researcher prior to the students being invited to participate.

It was explained that the research was part of the researcher's studies and that involvement would be confidential and not interfere with their own studies. Only the researcher and the participants in the focus groups were involved, and the

focus groups were conducted in a university classroom. The students' university teachers were unaware of the specific students taking part in the focus groups.

The format of the focus group was that the participants were encouraged to talk with each other with the main role of the researcher to facilitate discussions, prompt questions and clarify issues. The emphasis on encouraging group interaction and getting people to talk with each other exploring shared views is suggested by Kitzinger (1994). She deemed this useful for exploring topics concerning people's understanding, experience and attitudes and hopefully students could formulate ideas that have previously been unarticulated. It was considered important to maximise interaction and discuss contrasts in perspectives between participants because the students potentially came from different backgrounds and with a range of opinions and beliefs. The information from the focus group discussions was collected with the use of a digital audio recorder and all discussions were transcribed. The duration of the focus groups ranged from 12 to 20 minutes. Although this was a short duration of time for the students who were just beginning their course, it provided the opportunity for gathering information quickly about their expectations.

3.3.2.4 Data Analysis

The data from the focus groups were explored and analysed using a thematic analysis approach, which describes patterns and themes in the data concerning the viewpoints and meanings given by the students (Clarke and Braun 2018). An inductive approach to data analysis was chosen for this analysis, which involved reading and transcribing the data by looking for similar words noting interesting points and ideas (Miles and Huberman, 1994). The generation of codes used: "a process of coding the data without trying to fit it into a pre-existing coding frame" (p83). The information was coded manually by the author and the codes then organised into themes. The themes were reviewed in relation to the coded data and then refined. The selection of data examples was then used to highlight the themes and linked to the literature.

The questions used in the focus groups began by introducing broad questions as recommended by Tong *et al.* (2007), before asking a specific question to explore student views for their choice of course. The questions used were:

- **Why do people get involved in drug and alcohol work? (broad question)**

- **How do Alcohol and Drug counsellors learn how to do their job? (broad question)**

- **Why do you think students decide to want to undertake a course of study in Alcohol and Drug misuse in Higher Education at University? (Specific question)**

3.3.3 **Study Findings**

Six student groups were approached to participate in the research, from the three universities involved in the Study and six focus groups were conducted during 2010 and 2012. At university A, 10 students were involved in 2 focus groups, with respectively 4 and 6 in each group. At University B, 3 students were involved in 1 focus group and at University C, 12 students were involved in 3 focus groups, with respectively 5,4 and 3 in each group.

Thus, in total there was 25 students participating in six focus groups of whom 9 were male and 16 females.

From analysis across all groups two major themes were identified that centred around personal and occupation-related reasons for choosing to study at university. Within the personal reasons there were sub-themes: to expand knowledge, to gain confidence with practice, personal development and to gain experience. The occupational reasons had three sub-themes: a sense of legitimacy and validating practice; career development and gaining employment.

One of the major reasons voiced by students for attending university was to gain additional knowledge about addiction and many individuals confirmed this motivation for attending university:

> you know if you get a DVD, a thingy player and you look at your instructions you understand how it works. I mean I've got a mobile phone and I still haven't looked at the instructions, I still don't really know how it works. I can do it, you know I can get by with it, but if I looked at it I'm sure there's lots of things I could do and I think it's a

> bit like that. I think it's like reading the instructions, you've got a bit more knowledge to be able to do the job that you do. (female, university A)

This quotation highlights that for many students it is additional knowledge that they hope to gain from university to add to their existing knowledge base. Some students had some experience of contact with the drug and alcohol field and were currently or have been in practice. The purpose of gaining knowledge for many appears to relate to a desire to improve their practice and for some students this was considered as necessary for employment. However, for other students without the experience of drug and alcohol practice, this perceived gap in knowledge appears as the motivation to gain knowledge:

> I think to just have a better understanding. Like I know like if you haven't been through it yourself there's a little bit you don't understand … maybe if you haven't gone through it yourself you don't really understand like. I mean that's why I've gone in is to have a better understanding of it all really because I only have basic knowledge of it. (female, university C)

The gaining of knowledge for students within the context of the university provides a structured approach to learning, the opportunity to be exposed to different opinions and ideas about addiction and a validation of their practice. There appears a link between knowledge acquisition and gaining a qualification with increased personal confidence and a sense of legitimacy of practice as illustrated in the following quote:

> I think to have that self-belief in what you're doing it's quite nice to have the underpinning knowledge to think okay, well I've looked at lots of arguments here and I think this is the place that makes you do that. You could do it in your own time, but you kinda do it in a structured way here so that you go away and I think it's that sort of thing where you know well I've got the ……so I must know what I'm doing. (female, university A)

Gaining knowledge coupled with a qualification would appear to be a pre-dominant reason for some students attending university, and this is considered by some students as bestowing a legitimacy and validation of their current practice. For some students, there may be an element of gaining new specific knowledge that relates to their practice, but also attending university relates to their personal development. This exchange is illustrative of these issues:

(University C)

> female 1: you don't have an actual qualification to work in the field that you're working in. So, I think that's why people come into this, it's validating your position.
>
> male 2: Aye, it's a specific knowledge gap, isn't it?
>
> female 1: Yeah
>
> male 2: where it's about crossing that box thing, in a way of saying well that's why we do it, I've now got that knowledge to …
>
> male 1: I think also like personal development
>
> female 4: Yeah, exactly
>
> male 1: is one of the things that should be recognised.
>
> female 2: You just want to tick it off yourself and you know get the best, you want to feel, you want to achieve something.
>
> female 3: I think I realised how important a subject it was and that you do need specific knowledge and you do need to have really good training and it's okay to go to Uni as well as it allows you to do your job

The theme of self-development is noted in another group with links implied to practice, employment and professional development. Another exchange illustrates this sub-theme:

(University B)

> female 2: Self-development, it's expanding. It's just, it's expanding yourself. It's, we were actually talking, it's a huge area. You have to keep on, even when you are in the job there's always something else to learn.
>
> female 1: Yeah, certainly I would say personal development would be a huge one….
>
> male 1: The sheer career development as well.
>
> female 2: I think a lot of employers are looking for people, they're looking for staff that they already have to raise the bar a wee bit…

A distinction within the overall sample of students in the focus groups is that some have no practical experience, and consider the exposure to drugs and alcohol combined with gaining experience as a major reason for going to university. The combination of university and experiential learning is linked to future employment and possible career in drug and alcohol work.

> probably the reasons why we're on this course as well because I, I get learning experience in it. I've never worked in this field, so to get involved I'm going to have to get experience and the placement will help there and then the fact that I'm on this course will probably help, (male1, university C)

The findings suggest one of the main reasons for students choosing to attend university is to gain new and additional knowledge. Some students were seeking to gain additional knowledge because of their limited exposure to working in the drugs and alcohol field. A principal motivation for another group of students with experience and knowledge working in the field was to improve and legitimizing their practice through gaining a qualification. This highlights a clear difference in the student group. This legitimacy of practice appears linked to the students increased confidence in both themselves and their practice. This appears as both personal and professional development. Another, quite different group of students, who have no experience of working in addiction have chosen university to gain knowledge and more importantly practical experience as personal assets, linked to the desire to gain future employment in the addiction field.

A major reason voiced by many students for attending university was to improve their existing practice. For some students attending university was a way of validating their current practice or personal experience, with the legitimacy of a university education linked to employment prospects:

(university A)

> female 1: I think that's what we have just said is the basic foundation, which has got to be built upon, so you would come to improve your knowledge, improve your practice so the service that you provide is more substantial for the people.

female 2: So that you have the academic qualifications to back up your experience, something you've been doing for years, but academically I don't have drugs and alcohol qualifications.

researcher: So why is that important?

female 2: Because I've got nothing to demonstrate what I've been doing, what I know about what I've been doing. I mean most of the stuff I do, I self-study a lot, but I've got nothing to prove that, nothing.

female 1: So it is, it's the academic just to further you in the employment world because that's what employers expect you to have, not necessarily, you know, just having the skills and the ability.

female 1: But hopefully it would improve my practice, my understanding.

The link with education and employment prospects is further highlighted by this group of students and the barriers to long term employment and career progression of possessing no relevant qualifications. A development in the discussion is the perceived gap between the perceived different groups of addiction workers. Validation of practice and perceived difference in roles within the drug and alcohol field was repeated by other students in a few groups. The difference highlighted between students with experience and those with no experience, but having qualifications is highlighted:

(university B)

female 1: What it was, people just coming in now that, I mean some of my colleagues have worked in the addiction field longer than they've been born, but because they've maybe got, you know, more qualifications they come in and say no, you know, to somebody that's worked in the field 25 and 30 years, you know and I'm looking, thinking, you know, that there's no respect because the and I don't mean with your managers, but I mean with some of the new people coming in to the field because they're untrained and unqualified as they would put it and I'm looking at different colleagues who have worked in the field for 30 years thinking oh my God that's such a shame.

male 1: All the NHS, social services

female 1: Yeah, yep, yep, it's a shame.

> female 2: And within, I think you're saying education is a requirement from services. They're looking for you to have an education to qualify for your role, to show that you are able to do your role. So, it's not always about your own personal beliefs, whether you value education, but employers value education, so if you want to get ahead you need to get an education.
>
> male 1: If you want to do your job basically, if you want to do your job you need it.

The attendance at university was for some students linked to improving their practice and for some it is also a way of validating their current practice. There appears to be a voiced distinction between those students with current experience and those working colleagues with no experience. This distinction was reflected by students as the decision to go to university: as an impetus to begin a career or as career development.

The themes of personal and occupational reasons for attending university are not mutually exclusive and overlap, especially in relation to practice. The personal reasons for attending university for many students are linked to gaining knowledge, which is linked to the personal attributes of an increase in confidence and self-belief in their practice. In many groups, there was apparent unanimous agreement about the benefit of university and a qualification to legitimize their current practice. However, there was a distinction between the group consensus in different focus group discussions. Many students stated that they did not perceive their current skills and practice to be recognized by employers or other professionals. It was thus considered that a university education would legitimise their own worth and future career expectations. For other students, in groups more dominated with no practical experience in drugs and alcohol, attending university was to gain knowledge and access to the drug and alcohol field by gaining experience and a specific qualification.

There are limitations with the use of focus groups as outlined by Bryman (2008) and some of these were reflected during this Study. Firstly, the organisation was on an opportunistic basis and the time available for organising students to maximise participation was made during their lunch break. Unfortunately, not all groups were well attended with two groups with 3 participants and two groups with 4 participants and so the group size was small. This influenced the

group interaction and discussions and it was difficult at times to generate a diversity of debate. Also, given that the focus group was conducted at an early stage in students' course, usually in the first few days, the students did not always appear comfortable with small group interaction and for some groups this was reflected in the short duration of the discussion. This may have led to a consensus of discussion rather than an exploration of differences of opinions and students maybe did not challenge each other over contradictions. There was more agreement in group discussions than disagreements

There were differences noted between the two methods of data collection. In the written responses citing personal experience or a personal journey was more forthcoming as a reason for choosing to attend university. However, in the focus group discussions more general personal development related to practice and career development was a more common reason. The reason for this discrepancy might be due to the students being relatively unknown to each other and so they may be reluctant to share personal information with relative strangers at such an early stage in their educational experience.

In summary, both the focus groups and open questions sought to understand students' motivation and expectations of studying drugs and alcohol at university and the findings identified a range of views. In both methods, there was a similarity in the findings between the reasons for going to university and the expectations of a university education. There was a mixture of personal and professional reasons for students' choice to go to university, with the attainment of knowledge and the application of knowledge to practice considered important. The findings are like Herrera *et al.* (2015), who reported the attainment of knowledge contributed to the personal development of students undertaking a Foundation degree. A common reason for entering higher education across all groups was the hope of students obtaining a qualification and employment prospects.

A noted difference in the student groups explicit in the analyses, was between those students with lived and practical experience and those students with none. For those students with experience of drugs and alcohol the importance of personal interest, a desire and expectation to help others was more prominent in relation to gaining knowledge to improve and validate their existing practice.

These findings however, in comparison with other research regarding reasons for choosing a university education, suggest the motivations of students in this Study would seem generally to be no different from other university students' motivations for going to university (Duffy, 2012, Miers et al., 2007, Skatova and Ferguson, 2014).

Chapter 4 Students Reflections During Studies

The aim of this chapter is to consider students' views on perspective change of their drug and alcohol beliefs, during their university course experience. In order to assess a change in students' perspectives the main types of data gathered were qualitative, through individual semi-structured interviews with students and quantitative data, collected and assessed by means of the LAS questionnaire part 1 (King, 2009). In this chapter, the key focus will be on analysis of the students' self-reported reflections about their experience of perspective transformation.

The analysis of the qualitative data at first used a deductive approach, by means of a priori questions taken from the LAS questionnaire by King (2009), then new themes were developed from an inductive approach to analysing the data. The inductive approach to the thematic analysis is drawn from the iterative categorization method by Neale (2016), outlined in the section data analysis in the methodology chapter. The process of identifying if a perspective transformation occurred used the same process as outlined by King (2009) and Brock (2010) and is presented in the data analysis section of the methodology chapter.

The themes from analysis of qualitative data will form the structure of this chapter and quantitative data regarding precursor steps used in perspective change will be reported at the end of the chapter. From analysis of students' semi-structured interviews conducted during their studies, at the half-way point of their course, three major themes are proposed to account for the students' experience of change:

1. Perspective change in beliefs: by students who reported a change; those students who reported some change and modified their beliefs; and those that had no experience of changing their beliefs.

2. Facilitation factors regarding the promotion of perspective change.

3. Student reflections of experiencing change, considering the impact of a change in students' personal, professional beliefs and practice.

4.1 Perspective Change in Drug and Alcohol Beliefs

From the analysis of students who had changed the three themes identified will be addressed in this section to include the sub-sections of: change in perspective; modified change; and no change in perspectives.

4.1.1 Change in Perspective

At the half way stage of their studies 58 (52.3% response) students could be contacted and interviewed and 53 (47.7%) were not able to be contacted, from the 111 students recruited at the beginning of the study. From the 58 students who could be contacted and interviewed, 33 (56.9%) indicated experiencing a transformative perspective change of drug and alcohol beliefs and 25 (43.1%) indicated no change to their beliefs. From analysis of data from the interviews the most commonly reported types of changes students experienced were: Critically reflecting and questioning their own beliefs and understanding of drugs and alcohol; being less judgemental and more tolerant of other views; developing an open-minded attitude, accommodating different viewpoints.

4.1.2 Critical reflection

For most the students who reported a change in their perspective about drugs and alcohol beliefs, a prominent theme was the experience of being self-critical and questioning their beliefs and perspectives. Questioning could be related to personal beliefs, for example about their own recovery from drugs and alcohol or about the nature of their practice. The questioning of personal beliefs for many students resulted with experiencing a feeling of uncertainly about their practice and self-identity. This unsettling experience of feeling confused about established knowledge was a frequent comment by many students, especially those in recovery. The following quotes highlight for many students the mixture of questioning personal beliefs and practice:

> I have questioned the way I now work with people about my ideas, my social roles, it's made me question lots of things about, about myself and my role. (13, university A)

> the version of recovery was maybe through what I learned and what I lived, but obviously, the whole recovery question is now up in the air. That's what I've found. (15, university A)

Many students who reflected on the experience of changing their beliefs reported moving from a limited, but assured understanding, to an uncertain position and a state of confusion regarding their new beliefs. The uncertainty generated through exposure to new knowledge caused a self-questioning of beliefs. The following quote highlights for many students this period of a transition, resulting in a feeling of uncertainty regarding their understanding of drugs and alcohol:

> Yeah, looking back I'd probably say with hindsight that my view on addiction and behaviour associated with that was narrowly focused, you know, that's it, it's this way or it's that way, end of, you know. So, it was black and white and what this course has told me everything's up in the air, nothings black and white. You know, so it's reinforced that. Almost every class, you know, question everything, you know. Is it this or is it that, you know. (10, university A)

A recurrent comment in the interviews was reports of perspective change about drug and alcohol beliefs. Although students reported a change in their beliefs about how they would approach their practice, this change was not shared regarding students' personal beliefs. The reported dual perspectives, cognitive dissonance and resolving this is highlighted in the following quotation:

> when we did the harm reduction unit, having to read through the literature and then sort of challenging, sort of reflecting on my views and my beliefs and having to change them because they, you know, because they felt wrong. You know, for me it was all about 12 steps and abstinence and that's wrong, you know. It's right for me, but it's not right for other people, you know, (43, university B)

The above quotation highlights the importance of critical reflection and self-questioning in the process of transformation in students' beliefs about drugs and alcohol. The process of formation of new beliefs appears to be through critical appraisal of established beliefs, resulting in a period of uncertainty and then adaption to this uncertainty. It appeared however, that two different sets of beliefs emerged from the student interviews with some students recognising their beliefs regarding drug and alcohol practice had radically changed, often from a limited to a more embracing perspective. Nevertheless, it was reported

that beliefs about drugs and alcohol from a personal, subjective perspective had not changed.

4.1.3 **Less judgemental**

A common theme that occurred in interviews regarding changing perspectives was students becoming more tolerant and less judgemental of other people's beliefs and viewpoints. This awareness of being judgemental, appears linked to the limited beliefs about drugs and alcohol which students possessed prior to attending university. The self-reflection on beliefs is noted in the following quotation:

> Yeah, yeah, it's challenged me to look at me, the way I see other people and stop me from being quite so judgemental of others. Everything in the past for me was cut and dry, you know, either they were on the right side of the line, my side or they were on the other side (32, university B)

The above quotation highlights the limited, black and white, dualistic beliefs and assumptions of many students and the experience of self-awareness of these beliefs and assumptions. This process of change is consistent with Perry's (1970) concept of Developmental change, moving from a dualistic to a diversity perspective. This change of becoming more tolerant and less judgemental, is reflected in the different approach to practice and to the student's personal life:

> cause I'm from an addiction background I had strong views towards my family members who were in the drug world and then, you know I started to think about all, you know, …*rather than* holding such strong opinions on them for their actions, you know, I can empathise with them more. I can, I can take a step back away, not be so judgemental on their behaviour, you know. (54, university B)

4.1.4 **Open-minded**

Students reports of becoming moving from a limited viewpoint was reflected with becoming more open minded, acknowledging other ideas and accommodating different beliefs. This resulted in the development of a more complex outlook about drugs and alcohol and the following quotations highlight this change from a restricted to adopting a more open minded perspective:

> I think I've become more open to looking at something from all angles. I'm less likely to dismiss things based on my personal opinion, so yeah, I would hope that I've, I'm viewing things differently. (2, university A)

> … being in recovery there's certain things I've thought about, but not, not as much as like coming and learning what I've learnt. You know, so that has challenged, it has challenged some of the beliefs that I had you know…. I mean, I guess I've become a lot more broader minded, yeah, I would say a bit more broad-minded. (34, university B)

Many students reported their previous views of interventions were of one single approach, but since attending university have adopted a more open-minded position about practice and interventions for drugs and alcohol. They appear to change their beliefs about their consideration of practice, as illustrated in the following quotation:

> I was very 12 step when I came here, I mean the 12-step fellowship saved my life, I sort of, I was a little bit closed minded around some of the harm reduction, methadone, parking up people on methadone and stuff and my views around that stuff have shifted a lot. (43, university B)

Analysis of the changes reported of being more open minded dominantly comes from those students with a Disease belief. Although much less in number, there are examples of students with a Free-will belief modifying their perspectives by becoming more tolerant of a Disease perspective and changing their views. This is highlighted in the following quotation:

> …my beliefs about the, the disease model have changed slightly as well. I wasn't … sort of sure whether that was right or wrong and I was very sort of sat on the fence about it whereas I've more of a clearer understanding of that now and although I haven't formed an exact opinion I think I'm nearer to being more flexible about it rather than dismissive of it as I was before (55, university B)

4.1.5 **Modified change**

It was apparent from the interviews that some students were unsure about the extent university had changed their perspective about drugs and alcohol beliefs, but they did report having wider appreciation of different viewpoints. This was recognised as students having more knowledge and a greater awareness of drug and alcohol issues, but with limited change on their beliefs. The following

quotations refer to this accommodation of more knowledge and process of changing:

> I wouldn't say they've changed but they could be in the process of changing…. so it's more of a kind of I haven't really changed the behaviour, but it brought up a lot of things for me that I can think about. (62, university B)

> No, I've not changed my beliefs. They've maybe, okay maybe they have changed a wee bit, but they've not like, I've always, I mean I've got family and friends who have used drug and alcohol, so I've always sort of had a sorta understanding to an extent, but I've got a better understanding now, so although it's not changed, it's not different, it's changed a bit. (27, university C)

These quotations indicate the self-awareness of change and in-between state of changing beliefs experienced by some students, which illustrates an experience similar to a state of liminality (Land, 2008).

4.1.6 **No Change in Beliefs**

Several students expressed a different view of their course experience not having radically changed their beliefs about drugs and alcohol and many of these students indicated preference for a Disease belief. Nevertheless, even for these students there were small changes to their beliefs, mostly about accepting different perspectives on practice:

> Has my belief changed? No, they didn't, they haven't, but I'm more open to accept other people might think differently (41, university B)

For students who had no change to their beliefs, they reported feelings of uncertainty and apprehension regarding questioning their established beliefs at the beginning of their studies. The following quotation notes this reflection about changing long held beliefs:

> I wouldn't say they'd changed. I was a bit, I was a bit wary in case I change, in case I change my way of thinking or whatever on something that had been, done me for so many years and there was a wee bit of that at the, at the beginning and then when I sorta opened my mind and realised that there's no real, there was no real conflict, I don't think I've changed a great deal. I don't think I've changed, you know, I, probably at the beginning and it was more trepidation rather than

> anything else, you know. I was a bit wary just in case my ideas were changed. (77, university A)

> I don't really think they've changed as such, I just have more information so say well this is why I feel like this and I'm not just being, you know, it's not stereotypical or just like I have, they have changed in a way that I now understand how I think like that and I know the evidence that kind of backs it up. (19, university A)

These above quotations by students who did not change their beliefs had a disease perspective, however many students who did not change their beliefs predominantly had a Free-will belief. These students who did not change their views often had no background in drug and alcohol practice:

> but I wouldn't say it's changed in any way because I've come in sort of with a blank sort of mind, you know. I've just come in, I had, you know, I've got no real experience in that at all, but I never really came in with any sort of background to it or anything or any sort of beliefs or anything so. (47, university C)

In summary, different views about change were expressed and a few students reported no change in their beliefs. Many students however, considered that there had been some changes or modification to their beliefs, but not radically changed. A main finding at this stage is there appears to be an accommodation of new ideas, but without abandoning old beliefs. Students report being more receptive to new ideas and options for practice, for example Harm Reduction techniques, but continue to identify with Disease and AA model beliefs that imply a practice of advocating abstinence. The dual nature of beliefs was expressed by students as: a personal subjective belief and an objective practice based belief.

4.2 Facilitators of Perspective Change

The findings of this Study suggest, there were a variety of reasons students attributed as influencing factors changing their perspectives and beliefs. From analysis of the student interviews there appeared to be four influencing factors that contributed to students changing their drug and alcohol beliefs, which were:

- Being Challenged

- The learning environment
- Academic tasks
- The Teachers

4.2.1 **Being Challenged**

For many students, the experience of having their beliefs challenged and questioned was a new experience for them. The challenge to beliefs, reflecting on practice and exploring different ways of thinking about practice did not appear to be a feature of everyday practice for this sample of students prior to coming to university. It was being at university and the experience of feeling challenged, which acted as a catalyst for considering a change in drug and alcohol beliefs.

The clear majority of students described the catalyst for precipitating a perspective change of beliefs was through the challenge to their cherished, established beliefs. This perceived challenge to beliefs could arise in three ways: students critically reflecting and who challenged themselves through gaining more knowledge; challenge from others; and challenge through interactions with the teacher. The following quotation illustrates a change of beliefs through having beliefs challenged by reading:

> that book really, really challenged my views on that and yeah, so that's the obvious one that springs to mind. You know, big fellowship man and it saved my life and I'm really open to it if people want to use methadone or if people don't want to obtain abstinence or if people want to go to SMART Recovery, then that's their choice, you know and I wouldn't have spoke like that a year ago, you know. I have changed my, you know, views around, (43, university B)

In addition, students were often challenged by other students in the class, which was most often reported through being involved in class discussions. The following quotations give examples of being challenged in a class by students, but in an environment that is supportive:

> …in the classroom you were continually challenged, you know, so why did you say that, why did you give that answer, not necessarily in

> those words, yeah, but always in a positive way, yeah, like I never feel threatened or hurt. (32, university B)

> it's challenged me and my beliefs and my opinions and then I've also looked in the class at other people and got to know them and why they became involved in the field and how we all challenge each other within this environment. Yeah, and our opinions, I can see people are the same as me, their opinions and beliefs, that are maybe very strongly held are challenged and changing through coming to University and it wouldn't have happened if you just stayed in your job role I don't think. (student 17, university A)

Challenge by the teacher appears to be another aspect that precipitates reflection and a consideration of changing beliefs. The importance of the teacher is noted in the following quotation:

> everybody challenges everybody in here. So, I think that that, I don't, I don't think it's just the course content, but the course content definitely gets discussion going and I actually think that there's more, I actually think if you look at, like when we look at therapist effect, you've got like tutor effect (17, university A)

The involvement in discussion with others in class debates was a common way for students to challenge and self-reflect on their beliefs. The findings suggest one way students resolve the conflict of new knowledge contrasting with established beliefs was through engaging in discussion, in a safe environment. These findings are consistent with the concept of learning in a 'community of practice'(Lave and Wenger, 1991). For some students, this challenge was experienced as unsettling and uncomfortable, but others reported challenge in a positive way, which they embraced through time:

> It is unsettling, but I actually quite, I didn't like being unsettled. See first semester I absolutely detested it. I found it really difficult, whereas this semester I actually like it. I like that feeling of unsettled. (16, university A)

For the clear majority in the sample the overriding catalyst for students undergoing a perspective transformation was challenge and this is consistent with perspective change theory (Mezirow, 1991).

It would appear from these quotations that an important factor of challenge was the environment of the university. Exposure to a range of people, particularly those with different beliefs and backgrounds, have opened students to

alternative ideas that have challenged their own perspectives. For some students, the university also provided a safe place to be challenged and explore their beliefs, without fear of ridicule or animosity. This finding suggests that by feeling safe at university this gives permission for students to be more adventurous with exploration of their beliefs, and so hasten any potential for a change of beliefs. This conducive environment for change is consistent with other research concerning the role of challenge and perspective transformation (Cranton, 2002, King, 2004, Lave and Wenger, 1991).The important aspects of a challenge to foster change combined with the interaction occurring in a safe supportive environment at university, are two prominent themes in this sample of students. The following quotation highlights important aspects of both these factors:

> I don't think you can come to a degree in addictions counselling and not change… because I've come here and I'm exposed to it more, so I'm not in, not in normal life am I going to sit in a room with 15 other people and spend a week with them doing lectures and discussing models of care. (39, university B)

4.2.2 **The learning environment**

A recurrent theme in the findings that was often reported in conjunction with students being challenged was the role of the learning environment. This was reported by students as making a significant contribution to a change in beliefs. It was found that the class learning environment, contributed to the overall quality of learning experience and helped the students consider a change in their perspectives. The university environment involved discussion with a variety of students and being exposed to different viewpoints. There is evidence for the interaction of students and interchange of ideas in the class discussions and debates. This was conducted in a non-threatening environment, with a variety of people and opinions, thereby giving students exposure to different viewpoints. This is noted as contributing greatly to students considering a change in their beliefs, which is highlighted in the following quotations:

> Before I was kind of like narrow minded, okay, this is my view on this, this is my view on that, but now it's more like I need to take a back seat because there's all these different people who have all these different ideas, and all these different views and who's to say I'm right, and theirs make sense and I can say oh, that could make sense,

> you know, and it's I guess that's, that's how you, how I've changed my thought, my thoughts and my opinions, you know.(54B)

> the people that are also in the classroom with you are people who are from very, very different backgrounds, very, very different expertise and like I said, it's a classroom environment. It's a very informal one where you're able to talk to the people around you, talk to them in breaks and out and about as well. (74, university A)

The above examples concur the work of Lave and Wenger (1991) regarding "situated learning", which proposes that changes in a person's attitudes are due to their exposure to new situations and the influences of others. This approach stresses the importance of learning in a context and learning through participating and engaging with others in a "community of practice", which is defined as:

> Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an on-going basis. (Wenger *et al.*, 2002, p.4)

A key feature of these cohorts of students as suggested by Wenger (1998), is that they share the key characteristics, namely: a common background; a specific knowledge and interest with experiencing problems with alcohol and drugs; the student group are involved in frequent discussions, sharing information and forming relationships that help them learn from one another; this group of students are learning a common approach to intervening with alcohol and drug problems. The groups of students in this Study were made up of a mixture of students from a variety of background, with a mixture of experience in the drug and alcohol field. It was this variety of experience and beliefs that students frequently commented about as useful.

4.2.3 **Academic tasks**

From analysis of the findings there is clear evidence from this sample that conducting academic tasks contributed to a change in students' perspective. Many students clearly identified that the work around assignments, including reading and writing, were important factors contributing to a change in perspective, as illustrated:

> …when you're putting it down in black and white and you're making sense of it all, and so many authors write different things about the same subject and it's what, it's only when really it makes sense in your own head, when you put it together (12, university A)

The reading, studying and researching for assignments was reported by students as resulting in being exposed to new knowledge and different viewpoints. It was frequently reported by students that the task of having to consider: contrasting perspectives for the assignments; analysing and evaluating both sides concepts; frequently contrasting theories; and making comparisons as undertakings that contributed greatly to a change in thinking. This is highlighted in the following quotation:

> so, having to write the assignment I then had to really try and think objectively for both sides of the argument and present both sides of the argument, contrast both sides of the argument and I was able to then look at it and think, do you know what, I don't, I have just kind of sit on the fence because I could easily argue both sides of the argument. But the thing with it is there are both, there are and I know there is for most things in life, but they're, in this case the evidence does show that that there are two arguments. So yeah, the assignments and research alongside the lecture has helped me change. (57, university B)

It is relevant to note the findings highlight that in the course content, the topic of 'Theories of Addiction' was frequently reported by students as the subject which most challenged them to consider different beliefs. The following quotation highlights the importance of the subject for student perspective change:

> With the theories and the models, it's helped me to understand maybe why I work in a certain way and to look at my work practice or to understand how maybe other people work in certain ways or to help me to understand as well if a client believes they got a disease it helps me to, to look at how best to work with them as well. (69, university A)

For many students, there is a strong link with the course topics, academic learning and the application and relevance to their practice. This link was reported as being beneficial to students' learning. This was obviously most notable with students who were on practice placements at the time of interviews, but other students reported the benefit of coursework to improving their existing workplace practice. The topics mentioned as helpful in their

studies were those topics directly related to their practice. The practical skill based topics, such as Motivational Interviewing (MI) (Miller et al., 2002) and counselling skills were the most popular:

> I think the skills that I'm learning, so the forms of, the models of counselling that I'm learning about I do put into practice. So very much the MI that I've learnt I'm trying to use. So that's been, most of it's been quite helpful, (66, university B)

The importance of the work placement and linking with academic assessments was frequently reported as contributing to increased confidence in practice. This may relate to an increase in knowledge and ability to link new knowledge and theory within the practice setting. Another potential benefit of the practice placement is the strengthening of a community of practice in the alcohol and drug field. Applying this concept of practice placement learning for students, Lave and Wenger (1991), argued the important role of socialisation involving experienced and new learners in the formation of identity formation for the student. Similarly, students have an opportunity in the placement setting by interacting with other practitioners in the drug and alcohol field to form an identity as a drug and alcohol practitioner. This link with theory and practice was strengthened using assessments regarding reflective practice and students improved their practice skills with the aid of feedback from more experienced practitioners. Nevertheless, although skill based learning benefits from an apprentice style learning approach and learning from more experienced colleagues is a key aspect of a community of practice (Lave and Wenger, 1991), it was argued by Kalb and Propper (1976) that this not conducive to adopting a critical approach in the drug and alcohol world.

4.2.4 **Teachers**

Many students commented on the influence of the teachers. The teachers' motivation, knowledge of subject matter and the ability to challenge in a non-threatening manner, were considered teacher attributes that the students noted as helpful:

> I think the enthusiasm of the lecturers definitely, the tutors have been you know quite formidable really, so yeah that's kind of challenged me into, you know. (42, University B)

> It's just about the teaching and being able, you know, from what we've learned and to be honest the tutors are very good role models I think in the subject that they're teaching. Yeah, I think that's been an inspiration as well. (70, University A)

4.3 Reflections During the Experience of Change

Analysis of the findings indicated two main themes of student reflections of change during their studies: personal change involving a sense of maturity and "growing up" and for those students in recovery from their own addiction problems, a sense of personal development, as an important stage for their recovery journey; a sense of improvement in self-confidence and self-belief and students reported feelings of pride at their achievement of being at university that reflected in an increased self-esteem. There was also evidence for students' reflections on their practice and key aspects of this was their increased knowledge, confidence about practice, having more empathy and consequently interacting with the drug and alcohol client group differently.

Students frequently commented on how their studies had resulted in a sense of maturity and "growing up" regarding their behaviour towards other people and instigated self-reflection about their own behaviour. The impact of the experience at university appeared to have a personal impact on students' view of themselves and insight into their identity. Students spoke of having changed their view of themselves with being more peaceful, optimistic and more confident in their abilities. The group of students who reported personal change were dominantly, older and often with personal recovery from drugs and alcohol. In comparison, the younger students commented on reflecting on their past behaviour and attitudes about drugs and alcohol, but not of personal change. The following quotation notes this sense of maturity as a development linked to the tasks and skills learned while at university that was expressed by many students:

> the tools that we have been given here, general critical analysis, reflecting of why am I doing the things I'm doing, I have to be congruent, I have to, the word maturity, I think maybe would be more appropriate. I have to grow up here. I'm not talking on an intellectual level, why, we have to grow up emotionally. (41, University B)

Students reported having transferred the skills of critical analysis learned at university, to consider their personal lives and becoming more self-aware. Statements like *"being honest to yourself"*, *"learning about yourself"* and *"I am a lot more grown up"*, reflect the personal journey of change and self-introspection that participating in addiction studies at university can have on students, especially those in recovery and the more mature students in this sample. These students perceived that reflection was important for their own personal development and that reflection about themselves was an important stage in their recovery. In addition, these students reported critically reflecting on their beliefs and becoming less dogmatic in both personal and professional issues connected with recovery from drugs and alcohol and more open-minded to other ideas and opinions.

Several students also note that while university had changed them, by the gaining more knowledge about drug and alcohol issues, it was the impact on students' personal development that was cited by many students as an unseen consequence of learning. This feeling of personal development is noted in these quotations:

> I came on this course in relation to my work, but what the course has probably done for me, it taught me a lot about myself cause I've come through the addiction with myself, so it's kinda helped me in my personal journey I think, a lot more than it has helped me for my work at, at the time being, at the time being. That's, that's where I'm at. (78, university A)

> I've changed my thought, my thoughts and my opinions, you know and so I've benefited not only in academic, but in my social life and in my understanding of myself. (54, University B)

These quotes also highlight that for many students' in recovery, more knowledge and awareness has resulted in reflection and reinterpretation of their past beliefs, which was reported by students as, 'a journey' or 'growth'. The findings would suggest that university it is not just the gaining of facts and knowledge, but becoming more reflective and open to different ideas, with students learning about their identity. The connection with maturity, recovery, open-minded, change of beliefs and growth is highlighted in the following quotation:

> I've changed a lot personally. I've matured a lot, you know, I'm sort of, you could, some people would call it quite early recovery, I came into recovery off of the streets, out of institutions and you know, so I sort of grew to a level, sort of 4 years and then got stuck and then I came to University and I've come out of the 12 step world and out of the NA world and I've started to mix with normal bods if you like, you know and I've changed a lot I think. I've grown massively, you know. I've become more professional. I've become more mature. I've become much more open-minded, you know. I've become much more less opinionated, less dogmatic about my views. (43, University B)

Many students reported recognition of their personal development, which was reflected with increased self-belief and self-worth and for some being more optimistic in their outlook about themselves and their studies. This interaction of self-worth and optimism is highlighted in the following quotation:

> I kinda value myself a lot more than I did before I come here. It means a sense of pride and a sense of achievement, yeah and it also means that it's like I can go on to achieve so much more, I believe that I'm going to achieve so much more (58, University B)

Many students reported feeling much more confident with increased self-esteem from their studies and more optimistic about their ability to complete the course of study. Having progressed half-way through the course they report less anxiety as their understanding of academic study increased and they developed a feeling of credibility and legitimacy about being on the course. The challenge of academic skills, such as the demands of reading and writing, the amount of effort required and the initial low confidence in these tasks was reported as challenging mostly by students at universities A and B. These universities typically had older students with no experience of academic life, and most had never studied at a higher education level before. These students reported that studying at university level, as being difficult to cope with, as illustrated in the following:

> Well for me the whole essay thing was a challenge cause this is all new to me, you know, cause I never had a, you know, a lot of education when I was younger, so for me this was a massive thing, will I be able to do it, can I write an essay. So, for me personally it was a massive challenge, the whole thing has been (67, University A)

> In some ways, it's been a massive challenge for me, just actually getting through the processes of studying, learning how to study to

> this level and that's been really quite, quite a challenge for me. (32, University B)

These findings are consistent with other research which reports the difficulties faced by non-traditional adult learners who are new to studying in Higher Education and had low confidence in ability relating to academic demands of university (Christie et al., 2008).

For many students in this Study it is their sense of identity as a student at university that was questioned by themselves. Often the students remarked about how different they felt from their own pre-conceived ideas of being a "typical" student. This difference often was expressed in age, but also in terms of comparing to younger students the activities and lifestyle conducted while at university. Perhaps another sense of feeling different from other students and the wider university environment was that the courses of two of the universities in the Study, namely A and B, had the courses, both physically and administratively, out with the main university structures. The sense of detachment is particularly noted in no-traditional adult learners and is illustrated in the following quotation:

> something that is very much of note over the whole thing from start to finish with the induction at the University is that we are quite separate from the University itself. There isn't, you know, I get a lot of e-mails as an academic rep saying what do you think of this and what do you think of that and I instantly dismiss them because they are not applicable to us in learning ways or social ways or any of those other things, so you kind of feel a bit removed from the actual University. (36, University B)

Many of those students in recovery, being at university was considered a personal journey and a sense of personal development. This reflection of a sense of personal development for students is highlighted in the following quotation:

> I wasn't expecting to come on this course and change the way that I interact with people about how my behaviour affects other people, about preconceived ideas or beliefs or values that I had in the past because I thought they were all fine. … and that's probably the most important thing that I can take away from this course so far is the change. (61, university B)

Many students clearly identified as having increased confidence since attending university and this was for both older and young students, but in different ways. The older students reported an increase in self-belief and becoming more confident, much of which was related to personal development:

> It's given me more confidence in myself as a person. It's definitely given me more confidence in my own abilities (55, University B)

There was also an increased confidence in working practice with relating new knowledge and applying to actual practice. For students with previous experience in drug and alcohol work, the validation of their skills through university was also a boost to their confidence. For this group of older students, the additional confidence gained from success at academic study, half way through their course, resulted in a lessened anxiety about their ability to finish their course of studies.

For both older and younger students with less experience of drugs and alcohol, there was an increase in confidence relating to actual practice, especially confidence related to skill based work. This was related to the link with the practice placement and application of class based leaning of concepts and skills and the ability to replicate in the practice setting.

Several students reported feelings of pride at their achievement of being at university and this also reflected on their view of themselves with a feeling of self-worth. It is notable that these students were older in age, having no previous academic achievements. For these students attending university has been a personal achievement and these feelings of self-worth are highlighted in the following quotations,

> it's like oh my golly, panic, even going in the door and then we went up to our, the second session, going up to the actual campus we were out taking all our pictures going look at us here. No wonder security was following us about I think, we're like oh, oh. But it's just, that's so, so good, kinda in a lot of ways it's like a lifelong dream. It's a major achievement, even although its first year and it's a ……., it doesn't matter. (12, University A)

> University, I mean, just my self-esteem, yeah, getting, being allowed to come to …., yeah, fantastic achievement, you know, my family and stuff. My reading, my use of grammar, vocabulary is improved no

> end. I read loads of books nowadays, I never used to. I'm involved in groups outside of the university, political stuff. I'm more confident and my writing, my IT skills, a lot of improvement in a lot of areas in my life. (58, University B)

There appears to be many changes that students reflect on from their university experience. There is a feeling of maturity, improved relations with family, a sense of pride in coming to university, a change in behaviour towards others, a sense of personal development and continued journey of recovery for some. It appears that impact on students have been not only academic and cognitive, but also personal and emotional changes.

4.4 Precursor Steps of Perspective Change

At the half-way stage in their studies 58 students completed the first part of the LAS questionnaire (King, 2009). These precursor steps in the LAS (King 2009) refer to the 10 precursor stages of Mezirow's (1978) Theory of Transformative learning (appendix 4). The identification of perspective transformation is outlined in the methodology chapter, in the section on data analysis.

At the halfway stage the most common of precursor steps reported were a disorientating dilemma (69.1%), especially regarding actions, self-examination (63.3%) in respect to questioning of worldview and recognising discontent shared (61.8%). The frequency of reporting the steps are outlined in Table 5.

Table 5 Precursor Steps reported During Studies

Transformative learning Precursor steps	N=58 (% of case response)
Disorienting dilemma (about actions)	69.1
Disorienting dilemma (about social roles)	52.7
Self-examination (questioned worldview)	63.3
Self-examination (maintained worldview)	40
Recognised discontent shared	61.8
Explored new roles	47.3
Critically reflected on assumptions	30.9
Tried on new roles	54.5
Planned action course	45.5
Acquired knowledge/skills	41.8
Built confidence/competence	43.6
Reintegrated into life	41.8

At the half-way stage of the course from the cohort (n=58) those students classified as having a perspective transformative change (n=33) reported experiencing a mean of 7.09 (SD 2.59) precursor steps used and those classified as not changed (n= 25) a mean of 3.60 (SD2.82) steps used. An independent sample t-test was conducted to determine if there were differences in the number of precursor variables reported between, those that were identified as changed and not changed. There was a significance difference between these two groups, t(56)=4.885,p=0.005, with those reporting perspective transformative change indicating use of significantly more precursor steps 3.491(95%CI,2.05 to 4.92), which is consistent with previous research in this area by King (2009) and Brock (2010).

It is of interest to note the frequency rated by the students of experiencing a disorienting dilemma. As previously noted, an example of this could be the topic 'Theories of Addiction' or it is possible that the whole university experience and 'good' learning acts as a catalyst for change (Newman, 2012,2014). The findings about precursor steps will be discussed in more detail in the next chapter and with more detailed links to the literature in the discussion chapter.

In summary, the findings in this chapter suggest the early experience of being at university appears to have the effect of students reflecting and considering their belief and perspectives regarding drugs and alcohol. For those students who subscribed to a Disease perspective a change in thinking was reported initially as an unsettling experience. Several students stated that they no longer agreed with their previous views and had become more open minded and tolerant to other ideas and opinions. This was particularly with students identifying with a Disease belief, who often reported coming to university with a limited and dualistic perception of drugs and alcohol. The impact of education on students with a Disease belief, making them more receptive to other viewpoints is also noted by White (2015). The development of changing from a simplistic to a more complex view about drugs and alcohol is consistent with development theories of transformative change (Mezirow, 1996, Perry, 1970). This change in perspective for some students, initiating them to become self-aware and critically reflect on their established beliefs resulted in them becoming less dogmatic and being more open-minded. A key catalyst in this experience of change was the topic of

‘Theories of Addiction’ and being challenged early in their studies, which was most evident from other students and the teacher. Challenge was also initiated by academic tasks that facilitated critical reflection, however it is with the interaction with other students and engaging in discourse in classroom discussions and debates, which was found to be particularly relevant to initiating a change of perspectives. This finding supports pervious research that specialist addiction students valued class discussions involving a variety of opinions, as particularly useful for learning at university (Rassool and Oyefeso, 2007).

Student reflections during their course of studies indicate, the benefit for students personally and for their practice was frequently reported feelings of increased confidence. It would appear this relates to their increased knowledge and skills and the ability to link new knowledge, theory and skills in their practice. The opportunity for reflection and consideration of their practice was considered as helpful with both their own personal development and establishing relationships with clients. The association with gaining new knowledge linked with personal development is in agreement with the work of Ecclestone(2010). The acquisition of new knowledge has also made students reflect and question their previous practice and fostering a change in their attitude to clients and explore the different options for their practice. The finding is consistent with previous reports by Tennant (1993) that an educational experience can initiate a new understanding and transformation of perspective.

Chapter 5 Students Reflections on Completing Studies

The aim of this chapter is to present student reflections from the end of their studies on their experience of perspective change in beliefs about drugs and alcohol. This will then be compared with the analysis of students' experience of perspective change during their studies, at the half-way point in their course.

The layout of this chapter will be like the previous chapter with the main sections to be addressed: Perspective change in drug and alcohol beliefs, facilitators of perspective change and students' reflection on the experience of change. The chapter will end with comparisons of data in the Study. At the end of the students' studies a total of 35 students, from the three universities were interviewed. This cohort of 35 students had been involved at all points of data collection from initial contact at the beginning of their studies, during their studies and at the end of their studies. Both during and at the end of their studies the same 35 students were interviewed about their experience of transformative change.

The methods used to assess a change in perspective are similar to those used at the half way stage (see introduction to previous section), with the exception of the comparison section, which used the framework of Saldana (2003) to consider the qualitative data between both sets of student interviews. There will also be comparison made of the quantitative data collected from both the beginning and end of the Study with the ABS (Schaler, 1995), and the half-way and end of studies form data collected by the LAS (King, 2009).

5.1 Perspective Change in Drug and Alcohol beliefs

At the end of their studies the clear majority of students (n=31) identify some changes to their perspective about drugs and alcohol beliefs, however it was noted a small number of students (n=4) were assessed to have made no significant changes. The findings from both will be considered in the following discussion.

For those students who had changed the main themes developed from analysis of the data were the type of changes that involved; developing an open perspective, mixed beliefs, critical reflection. Analysis of the students who had not changed suggested a prominent theme of reinforcement of beliefs. These themes will be developed in this section.

5.1.1 **Developing an Open Perspective**

For many students who had changed, being broader minded about perspectives and consideration of more options in their practice was a main finding in this Study. This change involved being more open to different perspectives about drugs and alcohol and consequently acting differently in practice. This change is consistent with reports of change at the half-way interviews and is illustrated in the following quotation:

> I think I've become more open-minded, definitely. I think when I started I first thought that 12 step abstinence recovery was the only, the only sort of lifelong way to live and I think over the couple of years of researching and just reading around the subject a lot more and coming into contact with more people who might still be on Methadone, for example, I've definitely come to realise that there are other ways. Yeah, there are other ways other than just 12 step recovery, so not just abstinence based. (student 40, University B)

This quotation highlights a major theme for many in this cohort of students, the change from a fixed, singular view about understanding and responding to drugs and alcohol, to adopting a broader, more complex, encompassing view. This change of perspective and adoption of a more encompassing view of drugs and alcohol was particularly expressed by many students who were in recovery and had a history with Alcoholics Anonymous (AA). The students' reaction to practice had also changed as they reported no longer imposing their own personal treatment goals, but tailored their practice and interventions to the client. These changes common to many students are illustrated as follows:

> I mean, I came into this from a 12-step perspective, in recovery myself and I thought that it was the only way to go. That's been a big change for me. My vision of recovery has widened out a lot, you know, there are different paths to the same outcome. That's a big change for me. Whether that makes sense, but I see that there's not a one size fits all, it's what I've learned here in all the various

> modules we've been doing. There are so many options for people to take. (32, University B)

5.1.2 **Mixed Beliefs**

Although many of the students emphasise adopting more open perspectives, there are students who also describe having developed a mixed set of beliefs, with different personal and practice beliefs. There is a sense that for students with a recovery background the difference between personal and professional beliefs created a conflict which was an uncomfortable experience. The following quotations note the personal struggle between established beliefs and new knowledge and the resultant crisis in identity for students:

> I remember going through a bit of a struggle and of, I remember it sort of playing with my head a bit, sort of and I remember around that time for my own recovery I had to step my meetings up because I was reading all this stuff that was justifying controlled drinking, for example and it was playing with my head as I was doing it, big time and I remember thinking no, I've got to separate my own recovery from what I'm reading. This isn't for me. This might be for some, but it's not for me and I know that logically. I've experienced it, but there was something around that time that made me feel very uncomfortable and I think I just had to get to a point of acceptance that some people could do that. (40, University B)

> I was quite scared. I was sort of like fuck this, I don't, I don't want, no, I'll pretend I didn't hear that one cause it was about challenging what I thought, it was about challenging what made me who I was. (39, University B)

These quotations indicate the separating of personal beliefs and conflicting information about drugs and alcohol. Many students commented on understanding different concepts and being open to different perspectives and adapting these different views into practice, but personally having a different set of beliefs. This is a prominent feature of this group that report a change in beliefs. Although most students reported a change to their perspectives by adopting more open perspectives and changing their behaviour in practice, there remained a separate, personal belief about drugs and alcohol that was not radically changed by their university experience, in the second part of the students' studies. The change in perspective for students, particularly with an AA background, was most pronounced when considering a Harm Reduction approach to practice, which is the antitheses to a Disease belief.

From the findings, a complex picture emerges of students developing a mixed set of beliefs. This involves a personal belief about drugs and alcohol held simultaneously with a practice belief, which was not consistent with their personal beliefs. For many students who reported a change to their beliefs there is also no indication of abandoning their prior beliefs. This was reported by Schaler (2009), regarding addiction workers who support theories that are not consistent and more recently Barnett *et al.* (2018) who indicate that often the drug and alcohol workforce hold contradictory, multiple beliefs about addiction. Illustration of a mixed set of beliefs is highlighted in the following quotation:

> as I questioned my ideas I realised I no longer agree with my previous beliefs. I mean, that's very true, but then the next one is also true, I realised I still agreed with my beliefs, so it's a little bit of both really, you know. A lot, a lot of it, as I questioned that and almost pulled it apart and threw it on the floor and had a look at it, my beliefs, some of them, it almost reinforced some of that stuff, you know. (43, University B)

The change in beliefs about practice, from a singular view to a more open perspective, highlight that for many students the incorporation and addition of new knowledge and ways of working, rather than the abandonment of old ideas. This new knowledge appeared to result in a broader perspective about options for practice and the adaption of practice for students was not inconsistent with retaining established beliefs. The findings of this Study suggest that students compartmentalise between personal and practice beliefs. Karasaki (2013) argued that most addiction workers adopt a "hybrid approach" to beliefs about practice and this was consistent with the findings of this Study. Rather than substitute established with new perspectives, there was an acceptance of their influence of both. This is illustrated in the following quotation:

> There is still an element, when I think about it, of what I used to believe and what I do believe, I've not went, know, that whole shift, I believed this and now I believe that. There is still like almost one foot in the camp of past beliefs and that. Know, there's still ambivalence there and I think that will always be there because, my experience is you just can't wipe out of what your upbringing was and what core values were installed within you…. you know, I just can't dismiss that, so there is a lot of still trace elements of what I used to believe still influence of what I say and what I think. (10, University A)

5.1.3 **Critical Reflection**

The findings suggest for many students the experience of changing their beliefs involved the process of critically reflecting and questioning their established beliefs. Becoming critically reflective about beliefs and their practice was a change reported by students that involved adopting a new approach that was guided more by the process of questioning. This finding was more obvious than the previous interviews and could possibly be linked to the increased student confidence with their knowledge and practice. This is illustrated in the following quotations:

> I think it's made me more confident to question things you know because there's not always one answer. You know it's sort of opened my mind that we can all do things differently and maybe everybody's doing things right, but it's not like there's just one way of, if that makes, there's no just one way of working, there's loads of different options out there for people, which is why I question. (67, University A)

> I guess that's one of the things that I've learnt, one of the most prolific things that I've learnt on this course is the ability to be able to question and be okay to do that, to sort of question, not take everything on face value, the whys, when's, where's and how's of everything (55, university B).

5.1.4 **No Change in Beliefs**

From analysis of the findings a few students (n=4) indicated no perspective change in their beliefs about drugs and alcohol during their course of studies. This group were students from university A (2/4) and university B (2/4), with equal numbers of men and women (2 men/ 2 women). Two of the students had indicated they have had a personal problem with addiction. Two students indicated a free will belief and two a disease belief, at end of their studies. Three of this group were aged over 36 years (3/4), with only 1 educated to bachelor degree level, 2 with no experience of working in the drug and alcohol field, one student with over 5 years' experience and one less than five years working in the addiction field.

This group looked like a mixed age group students, with limited previous educational experience and a mixed practical experience of working in the

addiction field. Half of this group had a previous addiction personal problem and at the end of their studies most students had a free-will belief.

The major finding for this diverse group of students was reinforcement and strengthening of beliefs held before attending university. For this small number of students, it was reported that there was no substantial change to their beliefs or perspectives about drugs and alcohol. Half of these students had a background formed through personal and professional experience and had diverse set of beliefs prior to coming to university. The effect of their academic course experience appeared to have minimal impact on fostering a change of perspective or change to practice. The course experience was reported by these students as an effortless learning journey and with their beliefs not being challenged. These students commented on a lot of learning of new knowledge that was consistent with their established beliefs and consequently these students reported their beliefs as being reinforced by university. The following quotation highlights this reinforcement of beliefs and practice:

> I think I'm quite an open-minded person anyway. I think I've grown to be quite open-minded through my own life experiences, so and I, I tend to be quite pragmatic and I've been described as being pragmatic and you know, I've been in management for donkey's years and worked with all sorts of people in all sorts of environments, so I tend to be quite open-minded. (36, University B)

While a small number of students appear to have no change to their beliefs the course experience was reported as resulting in some changes, such as a greater knowledge about drugs and alcohol, increasing confidence, reinforcement and a greater self-awareness about their practice. However, there is no significant change in beliefs or practice and the nature of changes described do not fit with the definition of transformative change described in the literature by Mezirow (2003) and Hoggan (2016) as a change in meaning perspective. The reinforcement of beliefs rather than a change of beliefs is highlighted in the following quotation:

> I've been on a journey and I've been, I've been on a journey that's taken away, taken me away from my beliefs and the more that I've read and the more that I've been encouraged to read the more I've come back to myself and found that I'm, how would you, how would

> you put it, I was, I've just been on a journey and all my thinking has changed and then sort of come back. (77, University A)

The quotation highlights the development a greater understanding of different beliefs and practice, but without a change in personal beliefs about drugs and alcohol. The perception of reinforcement of old beliefs is noticeable with people that have not changed, however this may also extend to people that have reportedly changed. The following quotation notes the greater understanding without a change in beliefs:

> I think what happened on the course, it was things I was doing I probably, I wouldn't change, but I had the understanding behind it. I just don't think that a lot of things that I do have changed, apart from I have that understanding behind it now. I mean, I'm trying to think if maybe there are some things that might be different, but at the heart of it I think things haven't changed in that respect. (13, University A)

5.2 Facilitators of Perspective Change

At the end of their studies the cohort of students, who had changed, reported several factors which contributed to their experience of a change in perspective. The main facilitators which students perceived as influencing a change in perspective were broadly consistent with the findings at the half-way stage interviews, namely: the learning environment, academic tasks, the teacher and a mixture of reasons aiding change.

5.2.1 **The learning environment**

From analysis of the data one of the most frequently reasons reported for facilitating change was the interaction with other students in class. This was mostly through class discussions, listening to others and class bonding were all noted as helpful with facilitating change. Students further emphasised that it was the exposure to different viewpoints which was most helpful in helping change their beliefs. The exposure to different views appears as a factor in developing a more open perspective and with an impact on practice is highlighted in the following quotation:

> the class because you're getting the opportunity to mix with people who work with different client groups, who have different maybe value bases and opinions, who and it's that opportunity within class to

> get ideas out there and discuss things and hear different points of view and take stuff on board and take that home with you and have a think about it, or take that back to your workplace and have a think about it (5, university A).

Many those who comment on being exposed to different views further refer to challenge from other students, with different perspectives from different backgrounds, as being helpful in consideration of different perspectives.

The impact of the classroom environment which involved discussion and debate in class was commented on as helpful and some students also reported that listening to others in class as helpful. The size of the class, which was typically small numbers with under 20 students in each class, may have been a factor facilitating a conducive environment to consider change. Students commented on the helpful aspect of group support during discussions and debates. The importance of a supportive environment, promoting safety and trust within the group, allowed students to challenge each other and have their beliefs challenged. This peer support was noted by Lave and Wenger (1991) as a key aspect of a 'community of practice', and this feeling of support by students is illustrated in the following quotations:

> The group we're with is important because it's such an, it can be a very personal and vulnerable subject so the cohort is important (66, university B)

> Just what a good experience it was for me. I really, you know, appreciate and I appreciate everyone else's contribution as well. I think that was a big part in learning. (3, university A)

5.2.2 **Academic tasks**

In the second part of the course students cited many academic tasks as important facilitators for a change of beliefs. Consistent with the half-way interviews, the exposure to new knowledge is reported by students as an important influence in the modification of beliefs. Most helpfully rated by students was reading that exposed different and variety of perspectives, such as writing and researching involving the task of gathering information especially for essays. It was the academic tasks related to the exploration of different viewpoints that students commented on as influential to considering a change in

their beliefs. The following quotation highlights the impact of learning on contributing to changing beliefs:

> the writing we do on the course is reflective, so you know, by writing that I'm able to say, you know, I was very fixed in my beliefs and I was very closed down around certain things, however I can now see that different perspective to things, you know. So that almost solidifies that. That makes that, that congeals that, you know, by writing it. It's all very well me thinking something, but when I write it as well it's a bit like a …, you know. It solidifies it more for me. (43)

The findings suggested the aspect of writing critically and reflectively about their practice in the second part of their studies was an influence with considering different perspectives and so changing their own beliefs. The writing in the second part of the courses was more critical as noted:

> you have the assignment you're then encouraged to reflect on it more and you know and I'll come across kind of you know, you're encouraged then to go and look into research and then you know you've got some research that says you know maybe you should be integrating abstinence and harm reduction and then you're like oh, this makes sense. (62, university B)

At the end of their studies students generally reported that the links made academic tasks and integrating with practice in their placement or workplace were important for them. Particularly highlighted was skill based learning, such as Motivational Interviewing (Miller et al., 2002) and this was also particularly noted by students who reported no changes to their beliefs.

> I think it's the combination of putting the experience alongside the evidence it's kind of made me then have to balance my, my beliefs that's kind of made me look at one side of the picture and the other side of the picture…. so, the combination of them both has kind of helped me build a bigger picture rather than just my bias of actually that experience tells me this is right. (57, university B)

5.2.3 **The teacher**

Many students clearly note the role of the teacher and the style of teaching as an influence on them changing their perspectives. This could be due to the teacher's transmission of new knowledge and introducing new perspectives and the style that new information is presented or that teachers directly challenge or confront student beliefs.

Several students considered the teaching which encouraged them to question and analyse, as being instrumental to a change in beliefs. In this respect, the role of the teachers was considered an important factor contributing to changing beliefs. The relationship between the teacher and class environment is highlighted in the following quotation:

> I don't feel that I couldn't say anything or feel stupid at saying anything or you know I feel that everybody's getting, feel like heard and we kinda talked about that one day at lunchtime that there's nothing stupid to say and you're never ever made to feel stupid. You're really supported and encouraged and respected to say whatever and it, it's fine with **** and really that's made it so much easier. (68, university A)

There is a general acknowledgement by the students of the influence of the tutor facilitating a supportive learning environment and in addition to the group facilitation skills, the qualities of experience and enthusiasm also was reported as a noteworthy factor for the students learning experience.

5.2.4 **A Mixture of reasons**

Many students further commented on the general university experience, involving several factors in their studies, not just one factor, with all the component parts of: class influence, teacher, essays, reading and challenges, as impacted most on influencing a change in their beliefs. The reported importance of the synthesis of factors is highlighted in the following quotation:

> it's, it's the whole thing really. It's almost like strands of a rope that have been put together, the knowledge, the tutor debates, being around different people with different ideas, the, you know, the writing the essays, doing the research, you know, it's almost like strands of a rope that have made that, you know, made those changes stronger, you know. (43, university B)

5.2.5 **Reflection on the Experience of Change**

At the end of their studies students reflected on aspects of change at both a personal and practice level. The findings indicate that many students who reflected on change from their studies commented on a feeling of increased confidence and a sense of maturity. Increased confidence was reflected as a change in both students' self-esteem and their perceived improvement in their

capability as a practitioner. In this section, the main themes of change to be discussed from the analysis are: an increase in confidence and self-esteem and a sense of maturity, with both these changes reflected with a change in practice. Another theme developed from the students' comments was on the pace of belief change.

5.2.5.1 Increase in Confidence

After completing their studies most students commented on feeling a sense of achievement and increase in confidence and this is reflected in their expressed enjoyment in learning, the desire to continue with their studies and confidence in their overall abilities. This is illustrated in the following quotation:

> well first of all as an individual, it's helped my self-esteem. It's helped my growth as an individual. I'm not coming from a background of education, so therefore from that point of view that's been a major shift for me. So that's number one, it's opened up possibilities that I probably never felt I had before. That's number one. (11, university A)

Because of completing their studies students reported feeling a sense of pride and achievement in their abilities both at a personal level and academically. The following statements from students reflect this sense of achievement of their increased self-esteem and confidence in relation to both academic study and their personal development: *"the sense of achievement personally, I find that I take great pride in that"* (15, university A); *"I think I've gained confidence, sense of achievement."* (34, university B); *"it will give me immense self-satisfaction that I have done this."* (40, university B); *"It's, it's been an experience that at one point in my life I did not think I'd be able to do. So, it's quite an achievement for me, massive"* (78, university A)

The quotations indicate optimism and increased confidence expressed come from students who are non-traditional adult learners, with no prior experience of higher education. A frequently commented aspect is the emotions related to a sense of achievement that students experience though finishing their studies. This finding reflects other research in adult education about the positive effect education has for students' confidence (Knowles, 1980) and the emotional process of learning at university (Christie et al., 2008). For some students, it was reported that the new knowledge learned through their studies affirmed their

existing practice, their view of themselves and their beliefs about drugs and alcohol. This affirmation consequently increased their confidence in their abilities and a feeling of acting more professionally.

The following quotes from students highlight how they perceived their practice before university as unstructured and unconfident in their practice. However, through their studies their existing practice was affirmed and this increased their confidence in their abilities. The following quotations illustrate the transition from an uninformed to informed, confident practitioner:

> I understood better what I was doing. Sometimes before that I had no idea what I was doing and I was working instinctively and after the course or during the course I had evidence of this and I could see, well that works. (2, university A)

> When I go into speak to someone now I know that I've actually really studied and looked at the evidence and what's behind addictions. I don't just go in and think well this is, I mean, a lot of times you kind of were doing it on a wing and a prayer in a way and it was, what I have learned is it was actually a lot of the stuff we were doing is the right way to do it, but you didn't really always know that and it didn't sit very comfortably with me. (13, university A)

The confidence expressed by students about being more knowledgeable would appear not just acquiring information to replicate practice, but to use their new knowledge to challenge and change practice. The findings suggest some students were transforming their new knowledge into confidence to challenge and the knowledge from their studies has appeared to give them a legitimacy to challenge, question and attempt to change practice. This aspect of the change in students' confidence was reflected with being more critically reflective and to more question themselves, their clients and colleagues. It is the increased confidence and being more comfortable about questioning that is more a feature of the second stage interviews. The following quotations highlight that students are utilising new learning, with a confidence to be more inquisitive:

> This course changes you as an individual, you become more self-aware. I am probably a bit more, I don't know if cynical is the right word but I question things more now, whereas before it was easy just to go in and take things at face value now I kind of always look at two sides of the picture (57, university B)

> But as I've got more confident with my understanding and what my knowledge that I've gained and I've started thinking I don't agree with that, I think this, which is good, which has been good for me anyway. (39, university B)

5.2.5.2 Sense of Maturity

A recurrent theme of the interviews was comments that students experienced personal change because of their studies. A self-awareness of change was reported as feelings of growth, maturity and confidence about themselves with a sense of a change in identity. The following quotation illustrates the impact of learning on students' personal lives:

> there's things that I am learning that are beneficial for me to maybe apply in my work practice, but at the same time there's benefits I'm getting, but I'm may be even applying some with what I'm learning to my own life. So, for, it's like a top up on top of the knowledge that I've already got and I guess life, learning is a lifelong process, so I am learning stuff as I'm going along, which I can apply to my own life as well. So that's sort of like continued professional development, it's also an interpersonal growth as well. (34, university B)

For students reflecting on their university experience it is the outcome in personal change that is considered more eventful for students, rather than the academic change of being more knowledgeable about drugs and alcohol:

> it's not so much the academic stuff, you know, it's the personal, interpersonal, intrapersonal stuff that has really made the difference because it's … for somebody who's in recovery, yeah, somebody who's, who comes to university after, after being addicted to alcohol and drugs at a later age in life, it's not the academic stuff, it's, it's the, it's the personal and emotional stuff that really has made a difference. (58, university B)

There is a suggestion from some students that they have considerably changed aspects of their thinking and behaviour in relation to both their personal and practice lives. For these students, the nature of personal change has been reported as quite dramatic with a growing confidence and optimism in their abilities. The following quotations illustrate, the impact of university experience on the development of a deeper self-awareness and personal change experienced by some students and how a change in drug and alcohol beliefs also reflected in personal growth. This finding is consistent with the change in 'world view', which is characteristic of transformative learning (Hoggan, 2016):

> if you'd asked, told me in 2 years' time you're going to have changed a lot of your beliefs that you were given as a child and you're going to be this different person, you're going to be able to go out with your family and be able to get engaged in conversation and say actually I don't actually feel that way anymore and be okay with that, I would have laughed at you or cried and said oh don't say that and I'm okay with it now. I think that's where there's been the biggest self-awareness that I can change, I can deal with things that I didn't think I could. (57, university B)

> my whole 2 years is, it's been, like I say, it's been a journey of discovery really for me, discovering who I am, what I want, questioning the, being able to question my own beliefs, my own ethics, which is my core as such and be able to make judgements more efficiently, evidence based judgements rather than flippant agreements or disagreements. I think the thought processes have changed, the way that I view things are slightly different now. (55, university B)

5.2.6 **Pace of Belief Change**

The findings indicate that on reflection many of the students talked about the gradual development of change during their studies, others talked about change happening early in their studies and a few commented being aware of change occurring at the later stage of their studies. The findings suggest that for most students there was no "light bulb moment" of change in perspective, however a few students do relate change to a specific event. Nevertheless, most students report an awareness of a change in their beliefs as a gradual process as their studies progress, thus experiencing change as progressive and maybe as a series of events rather than a sudden shift or a specific event. The development of change is noted in the following quotation:

> there were individual incidents that all added up together and to kinda give up an end product, but there were definitely, there was a few very clear moments throughout the course where it was like a eureka moment kinda thing….. there wasn't just one huge one, it was you know like some were more significant but they all came together to give this very broad overview of the course itself. (74, university A)

Several students comment on challenges to beliefs occurring quite early in their studies, with topics such as theories of addiction and exposure to different viewpoints in discussion. Episodes of experiencing change very early during their studies appeared to some students as a light bulb moment. These might be considered critical moments or Threshold concepts as referred to by Land

(2008). However, the perception of a light bulb moment did not negate the contribution of other factors contributing to a change in perspective as illustrated in the following quotation:

> I read a book by a guy called Jeffery Schaler called Addiction is a Choice and yeah, I do remember clearly that light bulb moment when it just kinda went wow, I really need, I really need to open my mind a bit more, you know….
>
> So, it's, it's the whole thing really. It's almost like strands of a rope that have been put together, the knowledge, the tutor debates, being around different people with different ideas, the, you know, the writing the essays, doing the research, you know, it's almost like strands of a rope that have made that, you know, made those changes stronger, you know. (43, university B)

There is some evidence to suggest that reflection on practice, especially via the writing of a reflective essay is important in raising the awareness, or perhaps reinforcing a change in beliefs. This is consistent with the role of reflection and perspective change as argued by Mezirow (1998). A small number of students note that only at the end of their studies, through reflection, were they aware of a change in their perspective. This was often influenced by engaging with critically reflective task, as outlined in the following quotation:

> I would say not until the end, probably not until the last kinda nearing, going into the last piece of work that I was doing because it was quite reflective as well, so it made me sit back and sorta reflect over the course as a whole, over what I had learned, over my practice and how that had changed within the year. (5, university A)

In summary of this chapter, a key feature of change, which is consistent with the half-way interviews was students reported a change in beliefs to consider a much wider view of drugs and alcohol, becoming more open minded and tolerant about the diversity of beliefs. These findings are consistent with the work of both Perry (1970), concerning change from a limited to a adopting a diverse perspective and Mezirow (2009) who noted the process of transformative change was associated with adopting a wider perspective. The findings from the final interview indicated that many students, who reported to have changed, also talked about retaining aspects of their established beliefs, and so, these

students described a combination of established and new perspectives. There was also a small group of students who reported no significant change of established beliefs and like the students who had changed, a dichotomy of beliefs between having personal and practice beliefs are described by those who have not changed. These findings support the suggestion by Karasaki et al. (2013), that identifying with one belief does not exclude relating to another belief.

For students who have experienced some form of belief change it appears most have commented on a few key factors assisting the process of change. Like previous interviews, students reported an important factor facilitating change as being exposure to different beliefs. The importance of dialogue with others in a class discussion with the exploration of different perspectives and direct or indirect challenge, helped belief change. The class environment that was supportive and challenging at the same time, was a relevant factor to the facilitation of a change of belief. An important factor with providing this supportive environment for considering change was the role of the teacher and particularly commented on was the teachers group facilitation skills. Another factor cited by students was reflection, particularly on the link between theory and practice and reflecting on this by writing. There is a suggestion by many students of the elective nature of the university experience, involving the exposure to new information, being challenged about personal beliefs on addiction, the supportive classroom environment and the importance teacher, that collectively support a change of beliefs. This involvement of a plethora of factors supporting a change in belief appears to be consistent with Newman's (2012,2014) argument that it is 'good' learning that contributes to belief change.

On completion of their studies students' reflections, in addition to perceived changes in their drug and alcohol beliefs, experienced a change in self-awareness and self–perception. One of the most prominent changes from the second part of their studies was students increased confidence in their practice, which appears in response to their increased knowledge. The increased confidence is further reflected their critical reflection of practice, with students being much more self-assured and confident about challenging and questioning themselves and others about practice issues, which did not happen prior to their

studies. This aspect of challenging practice issues also extended to students questioning their own beliefs.

There is also evidence from many students that when reflecting on their studies report a change in their perceived sense of maturity and a deeper self-awareness. Some students reported adopting a different perspective on their practice and in their lives generally, with a perceived change in 'world view'. The evolution in the students' identity toward the end of their studies reflects the transitions described by Ecclestone (2010), which she argued occur from before and after learning experiences that combine identity development with professional development. Looking at the development of change the majority students commented on the gradual nature of change, with the occurrence of some critical moments, which is consistent with the suggestion of a Journey of change (King, 2009).

5.3 Comparisons of Data During and at End of Studies

The purpose of this section is to explore the connections and repetitions between the data gathered at the end the students' studies and with the other time points in this Study, namely at the beginning and half-way. The focus being the analysis of any changes in students' perspectives about drug and alcohol beliefs during the time of their studies.

Three pieces of data were collected from students at the end this Study and comparisons were made with similar pieces and data gathered earlier in the Study. This section will present, Firstly, 1) the Addiction Beliefs Scale (Schaler, 1991) was completed by students at the very beginning of their studies and again at the end of their studies. Secondly, 2) Precursor steps of Transformative change, utilising Part 1 of LAS (King, 2009), which measures use of precursor steps of change, was compared at both the half-way stage and end of the students' studies. Thirdly, 3) semi-structured interviews were conducted at both the half-way stage and end of the students' studies, which will focus on changes in drug and alcohol beliefs with note of students in recovery, what facilitators facilitated a change in beliefs and the students' reflections on change of beliefs.

5.3.1 **Addiction Belief Scale (ABS)**

In this section, the data analysed was collected at the beginning of the students' studies, in the first few days of attending their course, and at the end of their studies, usually in the last week. At both times students completed the Addiction Belief Scale (ABS)(Schaler, 1995), the detail of the ABS is outlined in the section methods to collect data in the methodology chapter.

At both time points the same 33 students completed the ABS. At the end of the course 15 students were from university A and 15 from university B and 3 students from the university C. For this sample (n=33) 28 (84.8%) student scores indicated a free will belief and 5 (15.2%) a disease belief. In comparison with the sample at the beginning of the Study, respectively there are a greater number of students identifying with a free will belief 84.8% at the end as opposed to 67% at the beginning and proportionally less students with a disease belief 15.2% as opposed to 21% at the end of their studies.

A paired sample (or dependent) t-test was used to compare the belief scores at the beginning and the end of the students' studies indicated a significant difference in overall belief scores. Most students indicated a Free-will belief score at the end of their studies (the lower score indicating a Free-will belief) and this trend had increased from the beginning of the students' studies, suggesting that students developed more open perspectives as their studies progressed. The subscales of the ABS indicated that for the Disease model sub-scale there was a significant difference between the time points, with the disease score being significantly lower at the end of the Study. Alternatively, the Free-will score was significantly higher at the end of the Study. However, although the group data indicated a change in the direction of addiction belief scores, for many students there was no change in the belief category of Disease or Free-will, between the two-time points (see appendix 11). For the students who indicated a change in belief category (n=9), most had changed from a disease to a free will belief (n=6), but a few changed from a free will to a disease belief score (n=3). The range of scores for those students who changed to a Free-will belief category ranged from a difference of 9-18, with a mean of 14.5. However, for those students indicating a move from a Free-will to a Disease score on the ABS the range in scores is 4-5, with a mean of 4.3.

For those students who indicated a personal problem with drugs and alcohol at the end and beginning of their studies (n=16) the majority did not change their belief category during this Study (n=12). For those students who did indicate a change in belief category (n=4), the majority changed from a Disease to a Free-will belief (n=3), with one student's score changing the category from a Free-will to a Disease belief. Students at the beginning of their studies who were in contact with AA (n=10) did not change their belief category and for the small number that did indicated a change in belief(n=3) changed from a Disease to a Free-will score.

In summary, there appears to be a significant change in the direction of this sample of students' beliefs, from a Disease belief to more consideration of a Free-will belief. However, for most of the students there was no change in their belief category of Disease or Free-will. For those students who indicated a change in belief category, most had moved from a Disease to a Free-will and with these students there was a large change in scores. In comparison, for those students who changed from a Free-will score to a Disease score, the change in scores was small. These findings indicate a change in most students' beliefs at the end of their studies is more likely to present in a Free-will direction.

5.3.2 **Precursor Steps of Transformative change (LAS)**

This section outlines the nature and extent of reported perspective change by students in this Study, as indicated by their use of precursor steps of change. The students participating in the Study completed the first part of the LAS questionnaire (King, 2009), which refers to the 10 precursor stages of Mezirow's theory of transformative learning (appendix 4). The findings Indicated the precursor steps of change experienced at end of their studies, are reported on in this section and compared with similar findings at the half way stage in their studies.

At the end of their studies 35 students could be contacted and it was considered from the findings that 31 had experienced transformative change (74.3%) and 4 (25.7%) experienced no dramatic changes. There were 76 students that could not be contacted from the 111 students at the beginning of the Study, giving an attrition rate of 61%. The number of students participating at both half-way and

the end of their studies are different (58 and 35), but it appeared that respectively a greater number of students reported experiencing perspective change at the end of their studies (74.3% as opposed to 56.9%).

At the end of their studies, the most common precursor steps reported were: a disorientating dilemma (82.9%), especially regarding actions, recognising discontent shared (80%) and both self-examination (questioning worldview) (71.4%) and tried new roles (71.4%). The frequency of reported precursor steps at the end of student's studies is outlined in Table 6.

Table 6 Frequency of reported Precursor Steps at End of Study

Transformative learning Precursor steps in order of 10 (Mezirow)	N=35 (% of case response)
Disorienting dilemma (about actions)	82.9
Disorienting dilemma (about social roles)	62.9
Self-examination (questioned worldview)	71.4
Self-examination (maintained worldview)	31.4
Recognised discontent shared	80
Explored new roles	68.8
Critically reflected on assumptions	34.3
Tried on new roles	71.4
Planned action course	57.1
Acquired knowledge/skills	57.1
Built confidence/competence	65.7
Reintegrated into life	60

Comparison of the reported use of precursor steps between both the time points is outlined in Table 7, with the precursor steps ranked in frequency of the top three for each period. The three most frequently experienced precursor steps indicated by students at both times were generally similar, namely; a disorienting dilemma (about actions), recognised discontent shared and Self-examination (questioned worldview).

Table 7 Comparison of Precursor Steps reported During and at End of Studies

Transformative learning Precursor steps – mid-way in studies	N=58 (% of case response)	Transformative learning Precursor steps – at end of studies	N=35 (% of case response)
Disorienting dilemma (about actions)	69.1%	Disorienting dilemma (about actions)	82.9%
Self-examination (questioned worldview)	63.3%	Recognised discontent shared	80%
Recognised discontent shared	61.8%	Tried on new roles	71.4%
		Self-examination (questioned worldview)	71.4%

There was a slight difference in the frequency of precursor steps used at the end of the course compared to the half-way point. At both times, Self-examination (questioned worldview), which refers to a critical reflection of assumptions is noted as important. However, at the end of their studies students reported more frequent use of the precursor step, recognised discontent shared, which refers to recognition of other people who also question their beliefs. Another precursor step, tried new roles, referring to the importance of adopting new roles to strengthen transformative learning occurred more in the second part of students' studies.

Analysis of the small group of students who were considered to have not changed their perspective about drug and alcohol beliefs at the end of their studies, indicated that at both times of data collection the students did not indicate use of 2 precursor steps, namely: *"As I questioned my beliefs, I realised I no longer agreed with my previous beliefs or role expectations"* and *"I felt uncomfortable*

with traditional social expectations". This finding indicates that a key factor for those students that did not change was the absence of critical reflection.

5.3.3 Time Comparison of Precursor Steps and Transformative Change

5.3.3.1 Half-way through Studies

The number of precursor steps that students reported as experienced, at both half-way and at the end of their studies, was different if students indicated they experienced a perspective change.

For those students at the half way stage, who could be contacted at the end of their studies (n=35), there was no significant difference between the two groups, those who had indicated a change (n=26) or no change(n=9), with the number of precursor steps reported used at the half-way their studies, t (33) =-1.66, p=0.126. The changed students had a mean score of 7.08 and no changed group a score of 4.78. There was no difference in the number of precursor steps reported between the groups, -2.299(95% CI, -5.36 to 0.77).

At the end of their studies, students who had changed at the half way stage (n=26), indicated a mean 8.08 (SD2.69) steps at the end and for those who had not changed (n=9) a mean of 5.56 (SD 2.83) steps at the end of their studies. This indicates that students who had changed half way through their course continued to change gradually, indicated by an increase in the number of steps used. For those students who indicated they had not changed half way through the course, there was also an increase in the number of steps reported at the end of the course.

5.3.3.2 At the end of students studies

At the end of the students' studies, from the students contacted (n=35), 31 indicated a change and 4 students not to have changed their perspective. An independent sample t-test comparing those who had changed and not changed at the end of the course, with the number of precursor steps experienced at the half way stage indicated no significant difference between the groups on the number of precursor steps experienced, t (33) = -0.167, p=0.876. There was no

difference in the number of precursor steps reported, -0.298(95%CI, -5.46 to 4.87). Changed students experienced a mean of 6.45 (SD2.95) steps and not changed students a mean of 6.75(SD3.40) steps.

However, at the end of their studies those who had changed reported an increase in the number of steps experienced to a mean of 7.81 (SD2.82) and those that had not changed a mean of 4.50(SD1.91), which indicated a decrease in the number of precursor steps experienced. There was a significant difference in the number of precursor steps experienced between those that had changed and not changed, as measured at the end of the course, t (33) = 5.32, p=0.005. There was a significant difference in the number of precursor steps reported, 4.46(95%CI,2.75 to 6.17).

To determine the differences in the number of precursor steps reported by the two groups (the changed and not changed group as measured at the end of students' studies) at the two-different time points a paired sample t-test was conducted. For those students that had changed there was a significant difference between the precursor steps reported between the two-time points, t (25) =-4.79, p=0.005), with the difference of mean number of precursor steps reported -1.962(95%CI, -2.80 to -1.11) and for those that had not changed, t (8) =2.44, p=0.04) with the difference in precursor steps reported, 2.00(95%CI, .11 to 3.88). These results indicate that students who report experiencing perspective change increased the number of precursor steps experienced as they progress with their studies. However, those students who have not changed, indicated a decrease in the number of precursor steps experienced as they progress with their studies.

In summary, from the reported experience of precursor steps, the most frequent used was the experience of a disorientating dilemma, especially about actions. Self-examination about changing a world view and recognizing that discontent was shared with others was indicated by most of the students. At the end of their studies students also reported that trying new roles was an important precursor step. This finding could relate to the format of teaching, as during the second half of their studies was when students were engaged in practice.

The findings indicate that for most students the longer they remain in their studies the greater possibility of experiencing a perspective change, indicated through the greater use of precursor steps. For those students indicating a perspective change it appeared that they experienced more use of precursor steps compared to those not indicating perspective change at the end of their studies, but not at the half way stage.

It would appear from the findings regarding the use of precursor steps that three groups of students experience of perspective change have emerged from this Study;

1. There are students who experience a perspective change at the half-way stage through their studies and continue this change at the end of their studies, who report experiencing many precursor steps and continue to report the experience of more precursor steps in the second half of their studies.

2. There are a small number of students who had not changed half-way through their studies, but in the second half of their studies reported more precursor steps experienced and consequently indicate that they moved to experienced perspective change.

3. A third group of students indicated that they had not changed throughout the course of their studies, either half-way or at the end of their studies and that the number of precursor steps experienced indicated a decrease between half-way and the end of their studies.

5.3.4 Semi-structured Interviews at Half-way and End of Studies

From the analysis of the interviews regarding students self-reported experiences of change, at the end of their studies, it was concluded that students had two experiences of perspective transformations. The clear majority of students reported having some experience of perspective transformations and a small

number of students who reported no significant change regarding their perspective about drug and alcohol beliefs.

From the students' interviews and descriptions of their perspective transformations in beliefs about drugs and alcohol, many commented on developing a more open perspective about the concept of drugs and alcohol. These students also reported acting differently and changing their behavior in practice when responding to drugs and alcohol, such as considering a limited view of options when responding to clients in practice, to a wider "less black and white" view of potential practice interventions.

From the analysis of the use of precursor steps of perspective change, at both the half way stage and the end of the students' studies three clusters of student experiences regarding perspective transformations was suggested.

To explore the findings of the qualitative data between both the first and second interviews, the framework for analysing longitudinal qualitative data by Saldana (2003) was used, as outlined in the methodology section. In this regard, it is the differences and repetitions between the first and second interviews that was considered important to highlight aspects of transformative change.

The analysis of the semi-structured interviews suggested the themes of: student beliefs and perceptions of drugs and alcohol, factors that facilitated a change in beliefs and students' reflections of the impact of change. These themes were identified both from the first and second interview data. The three clusters of student experiences of change were also used as a framework to enhance the analysis of the longitudinal quantitative data. Both the student clusters and the themes developed from analysis of the interview data, namely, perspective change, facilitators of change and student reflections on change, will be used for the framework for the discussion.

5.3.4.1 Perspective change

5.3.4.2 Students changed at both times

The students in this group (n=26/35) indicated a perspective change in their beliefs about drugs and alcohol at the half way stage during their course of

studies and continued with that change until the end of their studies. The group were dominantly students from universities A & B, with equal numbers of men and women (13 men/ 13 women). 11 from 26 students had indicated they had had a personal problem with drugs and alcohol. All the students(n=26) indicated a Free-will belief at end of their studies, except for 3 students who scored a Disease belief at follow up (however, for two their scores were 54, which is cut off point for disease score and one scored 55, n = 32,37,39 = all from university B). Most this group were aged over 36 years (16/26), with only 6 educated to bachelor degree level and the group had a mixed experience of working in the addiction field (10 with less than 5 years' experience ;6 had no experience and 8 with more than 5 years' experience in the addiction field; with 2 missing data.

So, in general this group looked like older aged students, with minimal previous educational experience and a mixed practical experience of working in the drug and alcohol field. Many students had a previous drug and alcohol personal problem and many of this group at the end of their studies indicated a Free-will belief.

Analysis of the findings form the student interviews at both the half-way stage and the end of their studies indicated many changes were consistent at both times and a few differences. A recurrent theme of change for this group of students was a change in their perceptions about their practice to consider a more wider range of practice options when working with drug and alcohol clients. The development of a wider view about drugs and alcohol and with a more open perspective students became more tolerant and accepting of different perspectives, which was consistent over time.

At both times students report having their beliefs challenged, although a difference reported by students was this experience as much more frequent at the first than second interview. Students reported becoming critically reflective and questioning about their own beliefs and their perspectives about practice, but this was more prevalent at the half-way interviews. This was noted as being uncomfortable and unsettling for many students. The findings indicate change through time students were increasingly more confident about questioning themselves, regarding their beliefs, and more questioning of others and different

ideas. It is the increasing confidence and acceptance of questioning that is the difference between the time periods.

Although several students report a critical moment at the first interview that began their change in perspective, most of the other students reported that change had occurred gradually over the course of their studies. Many of the students who described a gradual change commented on a series of critical moments, with change appearing to occur early in the course, then this change gradually developed and was strengthened by the course experience. This finding is consistent with results in the use of precursor steps (King 2009), which suggest that many steps are used by the first interview and thereafter a small increase in use of steps by the end of the course.

5.3.4.3 No change at First interview (half-way), but change at second interview (end of studies)

The students in this group (n=5) indicated no perspective change in their beliefs about drugs and alcohol half way during their course of studies, but with a change at the end of their studies. This group included three students from university B, one from university A and one from university C, with almost equal numbers of men and women (2 men/ 3 women). Three students had indicated they have had a personal problem with drugs and alcohol. Four of the students indicated a Free-will belief at end of their studies (1 previous Disease belief) and one student remained with a Disease belief. All this group were aged over 36 years, with only 2 educated to Bachelor degree level and 2 with less than 5 years' experience and 3 with no experience of working in the addiction field.

In general, this group looked like an older age group of students, with a mixed previous educational experience and very limited practical experience of working in the addiction field. Most had a previous drug and alcohol personal problem and at the end of their studies most students had a Free-will belief (1 previous Disease belief at half-way stage).

Several students in this group comment on initially developing an objective understanding of different perspectives and approaches, but with minimal or no change in their beliefs or practice. There are no changes to students' beliefs at the first interview, but at the end of their studies students' beliefs about drugs

and alcohol had changed and a more open perspective about practice options had developed. The findings indicate change was facilitated not just by new knowledge, but in combination with practical experience. The difference between knowledge and action, between half-way and the end of students' studies is illustrated in the following comparison:

> I do find that I zone out a little bit when it comes to harm reduction. I'm not as interested in harm reduction, although I do now understand how crucial it is in order to even get the end result of abstinence if that's what someone chooses, but yeah, you know, for me abstinence is the only way (40, university B, First interview)

> I think I've become more open-minded, definitely. I think when I started I first thought that 12 step abstinence recovery was the only, the only sort of lifelong way to live and I think over the couple of years of researching and just reading around the subject a lot more and coming into contact with more people who might still be on Methadone, for example, I've definitely come to realise that there are other ways. Yeah, there are other ways other than just 12 step recovery, so not just abstinence based. (40, university B, Second interview)

The findings suggest that for this sub-group there is a natural development of students changing their perspectives. The process of new knowledge combined with practical experience and critical reflection contributed to students questioning and changing their practice beliefs. Consequently, students developed a broadmindedness to other treatment options. The change in perspective and belief about drugs and alcohol for this group of students appears gradual and slow and the key factor of difference was practical experience and exposure to different beliefs.

Further noted in this sub-group of students was the difference between personal and practice beliefs about drugs and alcohol. Although these students emphasise that self-identified change was embracing different perspectives of practice there was no change in personal beliefs

5.3.4.4 Summary of change group at end of course

Most of the students (n=31/35) indicated a perspective change in their beliefs about drugs and alcohol at the end of their studies. This group were dominantly students from university A and B and one from university C, with equal numbers

of men and women (15 men/ 16 women). 14 students had indicated they have had a personal problem with drugs and alcohol. All the students indicated a free will belief at end of their studies, except for 4 students who scored a disease belief at follow up (however, both their scores were 54, which is cut off point for disease score, one score 55). Most of this group were aged over 36 years (20/31), with only 8 educated to bachelor degree level and with 12 having less than 5 years' experience, 9 with no experience and 8 with more than 5 years' experience in the addiction field.

So, in general this group looked like older students, with no or very minimal previous educational experience and limited practical experience of working in the addiction field. However, half had a previous drug and alcohol personal problem and at the end of their studies almost all students had a Free-will belief (7 previous Disease belief at half-way).

In general, the change in perspectives about drug and alcohol beliefs and practice was reflected in students adopting a wider view and becoming more considerate and less judgemental of other beliefs. The interview data indicated that many students emphasise becoming more comfortable with holding a mixed set of beliefs through time and with increasing confidence of questioning their own and other peoples' beliefs about addiction and interventions.

The findings showing a change on all three data sets, namely the ABS, LAS and through analysis of interviews, at both periods of data collection, indicated five students who consistently changed throughout their studies. Three students were from university A and two from university B. All the students changed their ABS category from the beginning of their studies, which indicated a Disease belief, to at the end of their studies that indicated a Free-will belief category. Regarding the LAS scores, four students increased their use of precursor steps from half-way to the end of their studies and one student had used a similar number of steps. Four of the students were female and one male and two students were in recovery. Analysis of the findings for this sub-group indicated no specific factors that distinguished this group.

5.3.4.5 No change at both interviews

The students in this group (n=4) indicated no perspective change in their beliefs about drugs and alcohol during their course of studies. This group were, two students from university A and two students from university B, with equal numbers of men and women. Two of the students indicated they have had a personal problem with drugs and alcohol. Two students indicated a Free-will belief and two a Disease belief, at end of their studies. Three of this group were aged over 36 years, with only 1 educated to bachelor degree level and 2 with no experience and two students with over 5 years' experience working in the drug and alcohol field.

So, in general this group looked like an older age group students, with minimal previous educational experience and a mixed practical experience of working in the drug and alcohol field. Half had no previous drug and alcohol personal problem and at the end of their studies most students had a Free-will belief. There appeared to be two sub-groups; one experienced with Free-will beliefs and others who had a personal drug and alcohol history with a Disease belief.

The difference between the two interviews was that some students reported a change in their outlook to their practice, which they describe arising from having experience of the practice placement. In addition, there was reported change for the students in confidence about their approach, which they related to their practice. What is consistent through time is the perspectives of students continued to be validated with the absence of any serious challenge to these viewpoints on their course.

For those students with lived experience, a change in knowledge and consideration of implications for practice was reported, early in their studies, but with no change in beliefs at the end of their studies. The consistent belief through time is highlighted in the following quotation that was reinforced in second half of course:

> I had my own opinions when I came to the course. I'm a recovering alcoholic through the fellowship of AA, thought I knew everything and I came here and within a couple of weeks quickly realised that I knew nothing. You know, I knew enough to, to get me through my own recovery and when I was learning here it kinda blew it out in the

> water a wee bit. I wasn't aware of all these different, you know, all the, the amount of different theories and different models that were, you know, available for recovery or to aid recovery. So that kinda opened my mind quite a bit cause I was always very, I've always been quite narrow minded when it came to AA, you know. It was AA, *that* for me, so why can it not do it for everybody else, (77, university A time 1).

> I think it's made me even more bloody-minded to find out that, to prove all these folk that were saying AA's a lot of shite. I was, I was more bloody-minded to prove that it wasn't shite you know because I, it worked for me and you know and it kept me sober for up until that point 7 years you know. I was 7 years sober, it worked for me therefore why can nobody else get it, why, so it was a bit bloody-mindedness. I was going to find out the, I was going to find out come hell or high water, I had never had a back-up plan if it didn't come to that, but you know it sits really well with me, (77, university A, time 2)

The learning in the second part of the course is skill based and so presented no challenge to the students' belief systems. The changes occurring for students in this sub-group reflect a change in their increased confidence with their practice. This could be a natural development due to their coursework, as the second part of the course involved practice placements, with a focus on skill based work. However, it is the absence of a challenge to beliefs that is the hallmark of this group of students and this is consistent with the finding for the use of precursor steps, which indicate the absence of critical reflection.

5.3.4.6 Summary of no change group

The main findings about the no change in students' beliefs are that they did not have their beliefs challenged and did not engage in critical reflection of their beliefs. Some students began their studies with no fixed beliefs and others with fixed beliefs. The students' beliefs were validated by their studies and the skill based work did not challenge beliefs about drugs and alcohol, but reinforced their beliefs. However, there was a change with approaches to treatment, learning new skills and the practice placement changed students' confidence at a practice and personal level, but there was no dramatic change in beliefs is the constant though time.

5.3.4.7 Students in Recovery

At the end of the students' studies, from the 35 that could be contacted throughout the different times of the Study, there was 16 students who self-indicated that they had a previous drug and alcohol problem. In this group, there was 9 men and 7 women. At the half way stage of their studies 11 students indicated they had changed their beliefs, and 5 indicating no change to their beliefs. At the end of their studies, 14 students indicated a change of beliefs and two students no change, either half way or at end of their studies. Most of the students indicated a Free-will belief (n=12) at the end of their studies and 4 students indicated a Disease belief. All the students in recovery had previous contact with AA.

In terms of the indicated number of precursor steps used between half-way and end of their studies, 12 students indicated an increase, 3 students the same and one student less steps used.

The findings for this group of students with previous self-identified problems with drugs and alcohol, indicate many indicted a change to their beliefs, with developing an open perspective toward drugs and alcohol and behaving differently in their practice. Most students maintained this change through time and a few were more gradual in changing their perspectives. Many students emphasised personal development and emotional change, with developing a deeper self-awareness and this developed through time. For most of this group this change occurred in the first half of their studies and a small number changed at the end of their studies. All these students, except for one, indicated some changes in their beliefs about drugs and alcohol, which was frequently reported by students as becoming more accepting of other viewpoints and acting differently in their practice. However, it is also notable that consistent through time is many of those students who describe changing their perspectives about drug and alcohol beliefs also refer to continuing to identify with beliefs they had prior to their studies.

5.3.4.8 The Factors that facilitate change

The similarity of influences facilitating belief change for students who indicated a change in beliefs at both interviews were: the class environment and group

discussions which were reported as the most important factors; the exposure to new knowledge, with many talking about the role of researching for essay assignments; the topic of theories of addiction was clearly identified by many students as a factor that facilitated change and this occurred only in the first half of students' studies. The common factor in all these influences is the exposure to different viewpoints and having their own beliefs challenged by either, new information, the teacher or others in class. These factors are consistent through time.

Some students also referred to Incorporating new knowledge into practice and this is considered an important feature in the second half of the course. The context of the learning environment was different in the second half of students' studies, with practice placements and more use of reflective diaries linked to practice.

What appears to emerge and increase in importance over time is the observation by students of the importance given by the teachers in facilitating challenge. Teaching to think critically, by setting assignments that encourage analysis and comparison were more frequent in the second part of students' studies. Also, differently reported by students at the second interview is the influence of a plethora of several factors with facilitating change and that there was no one single major factor. This would relate to students reporting, only at time 2, that any change in their beliefs occurred gradually over the period of their studies.

Analysis of the findings from those students who did not change at the half-way stage, but at the end of their studies, indicated similar factors as facilitating change as those students that change at both times. A difference with this group was at the second interview, some students commented on the importance of reinforcing new learning with practical experience as helping change their practice behaviour and beliefs.

The students who did not recognise a change in beliefs reported on factors that facilitated a change in their practice behaviour. It was reported at both interviews the value of learning skills and working in practice. Consistent with the interviews at half-way, all the students reported the value of leaning skills for drug and alcohol practice e.g. Motivational Interviewing (M.I.). Also, by the

second interview the practice placement with the links made to classroom learning was commented on as important to learning new skills.

The difference in factors for the group that did not change half-way, but at the end of their studies was, the supportive classroom environment was considered more important at the second interview than the first interview. The interviews at the end of the students' studies also indicated practice and reflecting on this was a helpful facilitating factor.

For the sub-group of students who reported change at both times, the factors reported as different from the other groups were, the challenge they experienced in the first part of the course and the role of the teachers being supportive and teaching critically, indicated at the second interview. Also, at the second interview many students talked about the influence of a plethora of factors and the gradual nature of their change in beliefs and perceptions. Only a small number of students, who changed at both times, commented on the importance of practice with influencing belief change.

5.3.4.9 Reflections on change

The students at both interviews were asked to reflect on the meaning of their studies and so the nature of their reflections over time are compared.

The major themes in the students' reflections about their university experience, which were consistent through time were changes related to: an increase in confidence, becoming more accommodating of other views, becoming more questioning in practice and in their personal life and a sense of personal development and maturity.

The changes that appear to increase through time are that questioning and personal development both increased in frequency since the first interview. In practice, students were more confident to question and challenge their practice and others and students also developed a more balanced view of their practice. The personal development may be a natural development of an increase in students' confidence and a deeper self-awareness, interrelated to their increase in knowledge and practice experience and positive experience of university

assessments. Accommodating other views and reported increase in confidence, appear to be consistent changes through time.

For the students who did not change at half-way, but at the end of their studies there was similar reflections about an increase in confidence and developing more open perspectives. These students report more confidence from gaining knowledge and the experience from the practice placement and so their confidence appears to be enhanced by the practice experience and increases through time. At the second interview students reported a greater personal confidence and self-awareness and with an increasing sense of maturity. For the no changed group of students, the most frequently reported reflection was an increased confidence in practice skills.

In summary, for students in all the three sub-groups, many of their reflections of the course experience are similar and consistent between both time periods. Many students clearly identify themselves with having an increase in confidence, both in personal and in practice, and deeper self-reflection and awareness of a sense of maturity. The differences in students' reflections between both time periods of the Study are noted in the sub-group who did not change at time 1, but at time 2 and the sub-group that changed at both times. For those students who did not change at time 1, but at time 2 the differences noted was an increase in confidence from the practice placement and applying new knowledge and skills to practice. At the second interview these students also commented on becoming more accepting of different perspectives about drugs and alcohol practice. Those students who changed at both times, at the second interview many students commented on becoming more questioning of their practice and personal life.

Chapter 6 Teachers' Reflections

This chapter will focus on university teachers and their view of transformative change concerning their students. The research questions for the university teachers will be outlined and the findings presented which will focus on the profile of the teachers, their beliefs about addiction and their views about the type of students and pedagogical implications for drug and alcohol courses. The teachers' views, about student transformation and factors that contribute to a transformative change of perspective in students will then be considered.

In terms of student transformative change, several researchers (Synder 2008, King 2009, Howard and Bagnall 2013) have argued for the importance of triangulation of methods for assessing transformative change. Therefore, as part of the mixed evidence of student transformation, this section of the Study has a focus on student transformative change from the teachers' perspectives.

The research questions are:

What are the characteristics of teachers on university drug and alcohol courses, what are their qualifications, beliefs, and backgrounds?

What are the teachers' views about the profile of drug and alcohol studies students?

What are their views on students' experiencing perspective transformative change?

What factors do they consider important in promoting or hindering transformative change in students?

6.1 Characteristics of Teachers

Twelve teachers were approached from the three universities and 11 participated. The one participant who could not be interviewed was involved with teaching commitments when a planned meeting was arranged to take place and a future interview did not take place due to the participant leaving their employment. Therefore 11 teachers, including two from university A, five from

university B and four from university C were interviewed and completed the questionnaire. A brief outline of the teachers' characteristics is presented in table 8.

Table 8 Characteristics of Teachers

Gender: Male Female	N= 6 5	Total 11
University: A B C	N= 2 5 4	11
Age: Mean = 49, Median=50	Range: 28-68	11
Job Title: Director, Deputy Director, Reader, Senior Lecturer, Lecturer, University teacher, Senior Tutor, Tutor.	N= 2 2 2	11
Drug and Alcohol academic qualifications: PhD MSc PG Dip None	N= 1 1 3 6	11
Years working experience in Addiction field: Mean=19, Median=22	Range: 2-30	11
Personal problem with addiction: Yes No	 5 6	11
Teachers involved in: current treatment for addiction, past treatment, past AA involvement.	 0 2 3	11
Current use of alcohol: Yes, Abstinent.	 7 4	11

These findings indicate the sample of teachers had an equal gender balance with an average age of 50 years and there was a diversity of titles used for the teachers' role. Most had worked in the addiction field for several years and half the sample had an academic specialist qualification in addiction studies. Half of

the sample had previously had a personal problem with addiction, but no current problems.

The beliefs of teachers were assessed on the Addiction Belief Scale (ABS) (Schaler 1995) and the findings indicated that all the teachers supported the free-will belief model. No participant scored above 54 on the ABS, which is indicative of a belief in the disease model. Two teachers had scores close to 54, within 5 points of 54 (53&49) and these two teachers were: older than the group average, had no specific academic drug or alcohol education, had worked in the field for a long period of time (for 30 and 23 years respectively), which was quite higher than the group average of 19.2 years. There was no indication of any gender difference in beliefs, but the four highest belief scores were from an older age group. The combination of age and gender showed no apparent differences with men, but with the female teachers the two youngest had very low scores indicating a free-will belief and the two oldest females recorded high scores, indicating a disease belief. For those teachers with no academic qualifications in drug and alcohol studies they scored high on the ABS.

There was no relationship with either a disease or free-will belief with the number of years working in the drug and alcohol field. There was no indication of a history of personal problems with drugs or alcohol, treatment involvement, current alcohol use and attendance at AA with a disease or free-will model of belief. However, university B had four teachers from the six highest scores for the disease belief and these teachers also included four of the five oldest. University B had more of an historical and cultural link with agencies that subscribed to an abstinence model of treatment, although the university teaching prospectus outlines an eclectic view of addiction.

6.2 Teachers Views about the Profile of Drug and Alcohol Students

The teachers in all the three universities reported a varied group of students, which consisted generally of those: with experience of working in the substance misuse field; students with no experience and students with lived experience; but no practical experience of working in the field.

The teachers noted students who were younger with higher entry qualifications, often accessing the course direct from university, who tended to access postgraduate courses and entered their studies on a full-time basis. The clear majority of this younger, more educated group had minimal experience of addiction, either personally or professionally. The other contrasting groups of students, with either practical experience of working in the substance misuse field or a personal experience of substance misuse, were older. These groups mainly accessed undergraduate courses and more often on a part-time basis. These students usually present to university with lower academic achievements and limited experience of higher education. This student profile as reported by the teachers is illustrated in the following quotations:

> from a variety of backgrounds…some are in practice and some have been in practice for quite a long time and others are in recovery and are interested in working in the field and some are in both situations. (Teacher 6, University A)

> it's a mixed bag really. Some of it's, we're getting a young, we seem to be getting younger students coming through now. The part time students tend to be professionals working in the field. The full-time students tend to be people who are new to the field and generally wanting to train or retrain to work in this, work as Addictions Counsellors. (Teacher 8, university B)

> The student group are mixed. Some of them are quite experienced in drug and alcohol services and some of them aren't and some of the people who are quite experienced in drug and alcohol services aren't necessarily that good at academic stuff. (Teacher 2, University C)

Some teachers noticed an increase in students in recovery or with experience of addiction. The following quotes illustrate these observations:

> Some are in practice and some have been in practice for quite a long time and others are in recovery and are interested in working in the field. (Teacher 2, university C)

> I think more of them are open about the fact that they are in recovery and I say open about the fact that they are in recovery, because I think probably there are many people who have been through the course in previous cohorts who haven't disclosed that in a way and in this group, there are at least half the group who openly talk about having their own addiction experience or their own issues with drug and alcohol issues (Teacher 6, university A)

These profiles are not discreet and it was reported by teachers that some students may work in the field and have lived experience of addiction. However, most of the teachers commented on the dominant two profiles of students: those with and without personal experience of addiction. These observations were generally contextual with teachers from universities A and B noting dominantly older, less well academically educated students, with lived experience and teachers from university C noted younger, more highly educated students, with minimal experience of addiction. This difference is reflected in the academic level of courses at these universities, between undergraduate and post-graduate studies.

In consideration of the different student profiles, the teachers reported reflecting on the delivery and style of teaching methods. In terms of the less experienced student group, the teachers reported that their approach required more contextualisation and linking in the teaching of addiction. The significance of these different student backgrounds required different teaching methods and is noted in the following quotation:

> I think the main … difference that I notice is that it's a mixed, you know, they're not all professionals and there's a different expectation on you as a teacher then. So, before you'd have conversations, you'd have discussion exercises with students in practice and they would be able to link it quite quickly, this year that's not been the case. (participant 7, university A)

Another consideration for teaching practice was an awareness that a significant number of students were in recovery. One of the main aspects of teaching methods consisted of acknowledgement of experience as a form of prior accredited learning and exploiting this in the class. This aspect of teaching involved enabling more discussion and debate in class on the topic of lived experience of addiction, which resulted in self-disclosure by students about personal matters:

> (students)…have came to the course with ideas of their own, you know, maybe, you know, from previous life experience, having previous study and I think that's, in some ways is quite good because they're likely to engage and they're likely to have a kind of emotional vested reason to think about the subject (Teacher 4, university C)

The importance of allowing students to talk about themselves and paying attention to making conditions for students to discuss their experience in safety, was highlighted by teachers as a practice issue. They reported the need for being aware of student confidentiality issues and sharing of personal information in a classroom environment. This is noted in the following quotation:

> I mean I think there is a sense very quickly in that group where it was okay to talk about and I suppose I created conditions and gave permission to talk about people's own experiences. I think that's how people related to a lot of the learning was about their own experiences. I think in a sense what is the teacher's role and the teacher's role is certainly to facilitate and to give permission to, for people to explore and examine and I think that's and to think critically about where they are (Teacher 6, university A)

The importance of the classroom environment and class group to facilitate interpersonal learning was an important consideration for the teachers. The students appear to gain a benefit from a 'community of practice' (Lave and Wenger 1991), which brings similar students together in a peer-group environment. This is illustrated in the following quotation:

> I think they get to form, to some extent I think they get the opportunity, on a short course, particularly full timers in one year, to develop bonds and networks between themselves and other students and I think that's, that's important in the way that it supports people's learning (Teacher 2, university C)

One of the most cited pedagogical implications for teachers concerned the challenges, both academic and personal, faced by those students with lived experience of addiction. These challenges reflected the teaching of non-traditional, older students with no previous history of higher education (Bamber and Tett, 2000). The challenges students presented with were: learning new skills related to academic life e.g. reading, writing, research, engaging critically with materials and learning the mechanics of technology. The challenges of learning for these students had the possibility of raising anxiety:

> I think like many, many students they have huge anxieties about challenging themselves, about learning, about feeling safe, so I think there is an awful lot of, you know, fear of failure, there's huge anxieties that people bring with them and particularly people with histories of drug and alcohol issues. They've had very low self-

> esteem, have maybe have never been in higher education, they don't know how they're going to perform, (Teacher 6, university A)

It was noted by the teachers that like other adult learners this group of students in recovery were observed to have constraints on learning such as the financial demands on students, time management, work and study balance and commitments pertaining to family life (Herrera *et al.*, 2015).

Another frequently reported observation by the teachers concerned personal challenge to the students' identity through learning. This was often reported to be about personal and practice beliefs formed before entering the university. Teachers noted that for some students their belief about addiction was challenged at university and this also could be challenging for the student at a personal level. Teachers commented on the exposure to different views in the classroom, including new ideas, that could be a substantial challenge for some students. This is noted in the quotations below:

> one challenge to students is that if they come here with pre-fixed ideas that can be quite challenging to have to critically reflect on why they believe addiction is one thing rather than another thing… In many ways people, already have preconceived moral judgements made about drugs and alcohol users and so that's a challenge for students (Teacher 5, university C)

> For this course, I think they're going to have their belief systems challenged, their personal belief systems challenged in a way that they might not particularly or necessarily in other courses (Teacher 11, university B)

6.3 The Teachers Views of Student Perspective Change

The teachers reported observing various aspects of perspective transformation with students both during and on completing their coursework. However, the most frequent observations by the teachers was the observed change to most students from the beginning of their studies to completing them. Some teachers reported that the extent of perspective transformation in the student population was variable and the following quotes illustrate the general comments from teachers about the extent of student change following their studies:

> I think it, I think for some, for some people it's probably a really profound change, jobs, identities, confidence, yeah. (Teacher 6, university A)

> I could probably list 100 different types of change. (Teacher 9, university B)

> I think the main change that I see is them becoming more aware of what their own assumptions and prejudices are. (Teacher 4, university C)

All the teachers reported that some aspects of change occurred in all the students, which was reported in relation to the students personal, professional and academic practice. The major changes that teachers considered occurred to students on completion of their studies were reported as changes in their addiction beliefs, change in their knowledge and a change in their confidence levels, both at a personal level and in their practice. These sub-themes will be discussed in more detail below.

6.3.1 **Belief Change**

The teachers considered that many of the students' beliefs were challenged by learning of new knowledge during their studies. It was reported that some students were reluctant to change their views and beliefs at the beginning of the course and were not comfortable with the experience of being challenged in class. This uncomfortable position of students some teachers considered had changed toward the end of their studies, with students embracing the diversity of different opinions and ideas they were exposed to. This perceived change in students' worldview is illustrated in the following quotations:

> one of them is, is a kind of change from a kind of recalcitrant, obstinate, you know, this is the way it's done and I don't really like these challenges in the classroom to a kind of embracing of that (Teacher 9, university B)

> I think the main change that I see is them becoming more aware of what their own assumptions and prejudices are…. the assumptions that they make about how the world works and the assumptions about how addiction works…. I think that I see a change in all these kind of ways of thinking and hopefully and I think by the end of it they're more able to evaluate in a more kind of systematic way. (Teacher 4, university C)

The teachers reported the type of change observed with students was on how they processed new information. The teachers considered students changed from basing their beliefs on limited knowledge, considering addiction through one viewpoint, to the exploration of different perspectives and adopted a more eclectic, objective way of considering addiction. This teachers' view of this change is illustrated in the following quote:

> A lot of our students are themselves in recovery from addiction, a huge proportion and when they come in, they're coming from their own perspective of my recovery…. I love it when they start talking, you know, scientifically, what science says about it and you know, I really like AA and you know, I've just read some research, that to me is the change and for me and my work to … the scientific world and the professional world. (Teacher11, university B)

This quote may indicate not necessarily a change in beliefs, but a change in how knowledge is gained. It is noted by another teacher that some students when exposed to new knowledge do not always display any change in their beliefs. The following quotation illustrates this view that education may lead to an accumulation of knowledge rather than a transformation in thinking:

> we do have a reasonable number of people, I think, who would probably describe themselves as former drinkers, drug users or partners or close friends, relatives and I think they do, they do see the course as much more of a personal challenge because they may come along with a heartfelt belief, and how you explain alcohol and drug issues, and to be bombarded with research and questions is potentially uncomfortable. It might transform their view on it, but it might not. They might just be comfortable knowing what they believe and now knowing that there's other things that other people know. (Teacher 2, university C)

However, for many teachers, it was noted that a transformative change in beliefs was observed in those students from a lived experience and/or an AA background. A difference of opinion about the extent of belief change with students was voiced from some teachers, from university C, who considered that those students with a disease/AA belief orientation were the least likely to change from attending university:

> the students who tend to change the least and they are the ones that come into this programme already evangelised, if that's the right word to use, in the 12-step belief system. (Teacher 5, university C)

Comments, such as the above about reluctance to change beliefs, were made dominantly from some teachers from university C, but many other teachers from the other universities (A&B) voiced an opposite view. The opposite voices considered it was those students who held a belief regarding an abstinence orientation to treatment, namely a 12-step approach, who changed their beliefs and approach towards treatment the most dramatically:

> there's an awful lot of habits of mind that get challenged on this course and we actually see some of the changes. One of the biggest things we see is the abstinence based people coming in who don't believe in harm reduction, have an idea that actually it has a place. It doesn't have to be either or, it's both. There's definitely, I've noticed year on year the maturity on their outlook towards treatment. (Teacher 12, university B)

The extent of change in students with firmly held beliefs is reported by many teachers to be variable. The adoption of a new viewpoint about addiction, which can often conflict with students firmly held beliefs, is noted as a possibility. However, other teachers considered for other students the process of perspective change appeared to be an amalgamation of new information with old beliefs. This is opinion is demonstrated in the following quotation:

> … there's some people actually to really go and look at, you know the fact that there might not be significant evidence for, you know a 12-step approach, there's an element in which people can go and look at that and understand, but that is actually what undermines their own recovery process. They'll, they won't rip out all their knitting and that's okay, I think that's okay, whereas other people are, have been able to rip out what it was they, they think, and start again (Teacher 6, university A)

6.3.2 **Knowledge Change**

The acquisition of knowledge by students was commented on by all teachers, but many of them reported the learning from the course was considered not just about accumulation of facts, but about the maturity of the students developing as people and practitioners. All teachers commented on students gaining knowledge of various topics and having a better understanding of the research findings and general literature on addiction. In addition, all the teachers commented on the development of academic skills of writing and development of critical analysis skills, but it was the wisdom and maturity of character which

was considered the most important aspect of change. The following quotation illustrate this:

> I could use the word maturity…. it's akin to emotional maturity. I don't want to use the word emotional maturity, emotional intelligence maybe? No, not the right word either, right words. It's just they kinda grow up a little bit and become more mature, you know (Teacher 10, university B)

The teachers report a change in students' knowledge in association with adopting a more open perspective, which resulted in more acceptance of different beliefs and approaches to addiction. The knowledge and open perspectives developed by students during their studies was associated, by the teachers, with the learning by the students of social and life skills. These skills and application for practice are highlighted as:

> Learning to cope with different personalities. I think in this particular field when you go out there on placement you're going to come across some very strong personalities and who have quite strong opinions and I think the, this course teaches people that there's many different perspectives in the same thing, not just one and so I think, I would say they come out more open-minded and also more, perhaps more able to manage themselves differently in terms of how other people are, other people taking strong decisions they may not agree with, but they might have to work with. (Teacher 11, university B)

Therefore, in addition to students learning new knowledge and developing their social skills, it is the application of self-evaluation of their practice, which some teachers consider the most important transformative learning change that occurred from their studies.

6.3.3 **Confidence Change**

Many the teachers commented on a change in students' self-efficacy, which related to a change in them becoming more confident about their practice and developing more self-confidence about themselves. These views about a change in students' confidence levels are illustrated in the following:

> some people do come away with quite different views of themselves, whether that's just about confidence about working in the drug and alcohol field…I think, feel more confident about their role, their role adequacy, their role legitimacy…. I think these fundamental principles

> about learning and behaviour change and the same stuff applies for, you know, drinkers and drug users because it's all about change and you're trying to promote some kind of change or learning for students. (Teacher 2, university C)

Some teachers noted that the students with the least confidence, who struggled at the beginning of the course, changed the most:

> Some students I see making big changes and some people, I think the people who I see making the biggest changes usually are the people who come in with the least confidence…. the people who make the biggest difference are usually the people who, there are exceptions to this, usually the people who don't have so much confidence and who maybe don't, haven't done academic work. (Teacher 8, university B)

Most of the teachers reported confidence in practice issues, such as a change in knowledge, skills and a change about confidence in their role as a practitioner, as a major change for students.

6.4 Factors Teachers considered Facilitated Student Perspective Change

The teachers considered a few important factors which facilitated a change in students' perspectives. These factors that contributed to making students change related to the main themes of:

- individual motivation
- the learning environment
- the practice placement
- the influence of teachers themselves
- a combination of factors

6.4.1 **Individual motivation**

Many teachers considered the personal motivation and experience of students contributed as a major factor to students embracing change. The importance of these pre-existing factors like motivation, together with the active participation by the student at university, was considered central to facilitating a change in perspective and their willingness to be receptive to challenge and to new ideas. The following quote highlights this:

> what they bring into the classroom, their prior knowledge, their prior experience, these all have an impact on how they learn. Their own professional context and their personal context, it has an impact on how well they can learn (Teacher 7, university A)

A recurring theme of the change that students' experience was with their confidence, which most teachers attributed to the individual's motivation; this is highlighted in the quotation:

> It's like, oh, you know, it was something I wanted to do and I wanted to do it and I put myself forward for it and I'm being told I can do it and I'm actually doing okay at it and actually I'm getting this, and their confidence and their self-efficacy, self-esteem rises as a result. I think that's, not everyone experiences that as strongly, but for some people it's very, very evident I think. (Teacher 8, university B)

The importance of the learning environment was downplayed by some teachers as a catalyst of change and a greater emphasis was more placed on student motivation.

6.4.2 **The learning environment**

Many teachers commented on the importance of the classroom environment and of the importance of bonding among the student group as being conducive to change. Teachers considered the learning context influential due to the length of time that students engaged and interacted with each other. The involvement in the group process was considered an important platform, which students could engage in change. It was in the group environment the teachers considered students made relationships that resulted in a culture of familiarity and safety being established. The relationship students had with their peers and the group in general was considered an influence on how safe students feel and

contributed to how they experience learning and change. This is noted in the following:

> I think it's about approaches to learning. It's about how you approach that, I think it's how you set up the class, for me in some ways it's quite like a therapeutic intervention. It's not, it's not any different from the way that you would approach work with drug user groups or you know what I mean, so you respect individuals, you're working with them in a way that's, that's meeting hopefully them where they're at and treating them with respect and hearing them rather than telling them, so you're, it's just like group therapy really. (Teacher 6, university A)

In this quotation, the teacher viewed their role as establishing an environment that is safe and conducive to change as an important task. Therefore, an important facilitator of student change was the classroom environment and this was due in part to the work/skill of the teacher. The findings suggest the skills of the teacher and the influence of other students are factors in combination that provided a platform for students to consider a change in their perspectives.

However, consideration of the influence of the classroom environment is downplayed by some teachers and the importance of the individual, their choice to engage in change and their personal motivation are considered much more important with the probability of students' experience of transformative change. The importance of the individual role in the experience of transformative changes is highlighted in the following quote:

> ...did I think that this programme is in the business of providing or creating this kind of mystical transformational change and I think no, don't think it is. I don't think we're trying to change people's personality or their fundamental nature. It's an opportunity for them to think about drug and alcohol issues and change their beliefs and attitudes if they so wish (Teacher 2, university C)

6.4.3 **The Practice Placement**

For some teachers, the role of learning during the practice placement was considered an important factor that facilitated change in students. It was the knowledge and skills learned in the class and transferred and implemented to practice, that some teachers consider the important factor with facilitating a change in students. The key skills learned in university, such as evaluating one's

practice and engaging in critical analysis of practice were considered key skills that had an impact on students changing their perspectives. The view of some teachers was that students do not really change until they are active in practice. This importance of the practice element of learning was highlighted in the following:

> the practice placement is such a key component of all of our exit qualifications whether it's……., the placement is a constant and so therefore all of our students have to work in the field even for a short period of time. (Teacher 5, university C)

> If I could take some time out I would figure out the percentage, but it's … in 60% of the learning of this course happens in the workplace … and I think most of the learning goes on in the workplace, (Teacher10, university B)

6.4.4 **The Influence of Teachers**

Some teachers recognised their own behaviour could have had an impact with the students experience of change. The following were considered important factors in contributing to an experience of perspective change in students. The importance of feedback, especially the importance of positive feedback on assignments, guidance and support and having a diversity of teaching staff. This is noted in the following:

> I think that people are exposed here to, to quite inspirational teaching…. what I mean is it's literally the type, the teaching is aiming at inspiring people, but it's coming from different tutors who have different kinds of beliefs, coming from different places. There's a lot of diversity (Teacher 9, university B)

Other views regarded the importance of the teacher's role as a catalyst for change, highlighted the challenge to students' views and assumptions, providing new information and questioning students motivations and beliefs. This is indicated in the following quote:

> for me about getting people to think and to get them to think about not only what does the evidence say but what is it that they think, what are their assumptions, what are they coming into the work with and to really explore that as, that as, alongside evidence and literature but actually what it is that they're carrying so if you're not exploring that then you're not really changing anything or challenging anything. (Teacher 6, university A)

6.4.5 **A Combination of Factors**

Teachers clearly commented that some students experienced a transformative change regarding their addiction beliefs, perspectives, practice and change at a personal level. It was also noted that the facilitation and enablement of the change experienced by students can be caused by several factors, including personal motivation and the classroom environment. Some teachers considered that multiple factors combined during the university experience to facilitate student transformative change. This multi factorial view is outlined in the following comments:

> .. we point them in a direction and they go off and they read, you know, stuff, they get feedback from us, they go on placement, they hopefully learn from the placement as well and I think it's just all of these kind of experiences coming together which hopefully change them by the time they come out. (Teacher 4, university C)

> …they're obviously excited from the very beginning, but they begin to collaborate, to talk with one another, to help one another, to argue back, to, you know, they start putting their own written work into the mix and getting feedback on it, so it's a very complex learning experience (Teacher 9, university B)

In summary, from the survey data of the sample of teachers the profile indicated an equal number of male and females, with most having many years' experience working in the addiction field and half the sample with academic qualifications in addiction. All the teachers indicated a free-will belief about addiction and this contrasts with the beliefs of teachers of addiction studies at university in the USA (Broadus et al., 2010). The findings from the teacher interviews indicate that many note a grouping of students into non-traditional students who are older and often with personal experience of addiction and a younger less experienced group, which match the observations of Ashwood and Rowley (2016). Many teachers considered that students, especially those with a personal history of addiction experienced a transformative change in perspectives about addiction, which supports previous research indicating students in recovery can change their beliefs through participating in higher education about addiction (Greene 2015). The main factors assisting transformative change were

considered by teachers to be the classroom environment and the practice placement, which match the observations of Tennant (1993) and Taylor and Cranton (2013) regarding the importance of social aspects of learning.

Chapter 7 Discussion

This Study explored perspective transformation of addiction beliefs in relation to students who participated in university courses in drugs and alcohol. Attention focused on those students with a lived experience of drugs or alcohol problems, as the research literature suggests students in recovery can be resistant to new learning, especially when it conflicts with their established beliefs (Brown, 1991, Doukas and Cullen, 2010, McGovern and Armstrong, 1987). Others however, have contested this opinion and argued that learning and adopting new perspectives about drugs and alcohol is not obstructed in students with lived experience of addiction (Koch and Balanco, 2001, White, 2015). The research thus suggests two accounts of students with lived experience being either resistant to education or embracing it.

Much of the research in this topic comes from the USA with several studies considering the impact of education on the beliefs of students at university (Balich, 2015, Bell et al., 2009, Brown, 1991, Greene, 2015, Terrion, 2012). Russell *et al.* (2011) noted a difference in the addiction beliefs of counsellors between the USA and UK and Kosi-jannes *et al.* (2016) have suggested the importance of cultural context in shaping the addiction beliefs of counsellors. These studies suggested there is likely to be a difference in the addiction beliefs of students in the UK compared to the USA.

There is very limited research literature regarding students at university studying drugs and alcohol in the UK (Rassool and Oyefeso, 2007) and no research on the impact of a university education on the drug and alcohol beliefs of students. There is no research in the UK concerning the addiction beliefs of students with lived experience of addiction. Therefore, an important part of this Study was to add to the understanding of the impact of drug and alcohol education on students' beliefs about addiction, with a focus on those students with lived experience of drugs and alcohol, within a UK context. The Study centred on the learning experience of 35 students studying alcohol and drugs at three universities in the UK. The focus of the Study was changes in students' perspectives and beliefs from a longitudinal perspective throughout the course of their studies and the research examined data gathered at three time periods.

The discussion chapter will be divided into the following: The first part of the discussion chapter will reflect on the methods in the Study, followed by consideration of the student profiles attending university, then students' anticipation of their studies will be discussed. The next sections will consider the main findings of the Study, namely in relation to: perspective transformation, facilitating factors of change and student reflections of change. The consideration of students with lived experience of drugs and alcohol will be noted throughout the discussion. The final section will consider the teachers' reflections of student experiences of transformative learning at university, and the discussion will end with a conclusion.

7.1 Methods in the Study

At the heart of the research is consideration of a change in students' beliefs and perspectives about drugs and alcohol, as part of participating in a specific university course about drugs and alcohol. This Study used a multiple case study design (Yin, 2014), which included a mixed methods approach (Creswell, 2013). This comprised parallel analysis of qualitative and quantitative data, to give triangulation of data, illustrating different views in the experience of perspective change of students. This Study involved six cohorts of students studying drugs and alcohol at three universities in the UK, with a focus on students at two universities. A fully longitudinal mixed methods approach was adopted, the advantage being to illustrate change throughout the students' studies (Saldana, 2003, Van Ness et al., 2011).

However, one major drawback, as with all longitudinal studies is the rate of attrition (Bryman, 2008) and in this Study the difficulty of follow up was apparent, particularly with students from university C. One possible explanation for this was the limited opportunity to meet students for interview at their university. At university C, the students' attendance depended on the subjects chosen and so there was no regular class grouping. This resulted in difficulty arranging dates for student interviews. Second interviews were arranged for the last two weeks of the students' studies and in retrospect this may not have been the ideal time to arrange interviews, as most students had left the university. However, the most common reason for loss of contact was the non-reply to requests for a follow-up interview, particularly at university C. It might have

helped to visit the students in class at the university, but the Study did not have the resources to do this. The choice to include this university in the Study, was because there was no research in the UK indicating the extent to which students with lived experience of drugs and alcohol, attended university or at what level of study. The results from this Study suggest that not many students with lived experience access university in the UK for postgraduate study and there was a greater proportion of students with lived experience of drugs and alcohol at universities A and B. At universities A and B, there was not as high attrition rate, possibly due to the ease of access to students, as they were all in the same class, at the same time. Considering the attrition rate from university C most of the data were collected from four groups of students from university A and B.

It was decided by the author the main priority was the collection and analysis of qualitative data from semi-structured interviews, although a quantitative approach was used for some data. The approach adopted for analysis of qualitative data from semi-structured interviews was a new application of King's assessment of transformative change (King, 2009). This involved conducting semi-structured interviews at two time periods, rather than by questionnaire and one interview. Qualitative research does not aim to be representative (Bryman, 2008), but allows the detailed exploration of different experiences of students in the selected case study. In this Study, it was considered that more detailed data could be gathered by interviews at both times, and it was anticipated that by building up a relationship with the participants at first contact, they would remain in contact, for the remainder of the Study. For universities A and B this appeared to be the case, with good retention rates and rich data gathered. This was also possibly due to the small numbers involved in each of the cohorts, which facilitated access to the students.

In this Study, determining perspective transformation was based on the criteria of King (2009) and Brock (2010) (see methodology chapter) and there was some difficulty in defining a case of transformative change, from their process of coding the interviews. This was due to the ambiguity of some the interviews. For example, in response to the question about having experienced a change in perspective about addiction during their studies, often a range of responses was elicited by the students, some of which appeared contradictory. For example, some students reported having more open perspectives, but also maintaining

aspects of old beliefs. The findings from this Study suggest that determining perspective transformation is not as straightforward as proposed by King (2009) and Brock (2010), due to the limited reference in their assessment approaches to established perspectives. For example, there are very few questions evaluating established perspectives in the Learning Activities Survey (LAS) and it is suggested from the current Study that this process is likely to give a limited picture of transformation. The results of this Study suggest that for students with a mixture of established and new perspectives, a more complex transitional process of transformation occurs. However, one of the limitations of this study is that it involved only a single researcher in the interpretation of perspective transformation interviews. The Study would have benefited from reliability checks using independent evaluation. To address the absence of independent checks, the researcher decided to use the Iterative Categorisation (IC) technique (Neale, 2016) when coding qualitative data, which is suited to a single researcher. The reliability of the data and analyses was augmented by the IC process of using, checking and comparing both mind maps and transcripts, which were frequently reviewed and examined during the analyses.

This Study also used quantitative data to determine perspective transformation. The LAS (King 2009) was used to assess the steps students used in perspective transformation (Mezirow 1981), with the more steps indicated, the more likely the occurrence of a change in perspective (King 2009, Brock 2010). The results of the current Study are consistent with previous studies (King 2009, Brock 2010), in that, the more precursor steps used the more probability of a transformative change having occurred. Generally, when considering the group data, the precursor steps used were consistent with the students' self-reported change in perspective, to becoming more open-minded about drugs and alcohol. The students who were assessed as changed at the half way stage and the end of their studies almost all increased the number of precursor steps used. However, this was not always the case, as a few students indicated a reduced use of precursor steps, but had changed their perspectives about drugs and alcohol. One explanation is that the difference in number of steps between the two-time periods is small and so did not indicate a significant change. Another possible explanation is that the type of precursor step used has significance for the individual student. As noted in the results section, some precursor steps are

utilized more than others, such as, disorienting dilemma about actions. It is possible that some precursor steps are more predictive of change than others, which is consistent with the findings of Brock (2010). This Study therefore suggests in assessing perspective change, that although the total number of precursor steps is useful in indicating perspective transformation, there may be some key steps that are more critical than others. This is especially highlighted in the Study by the all students who were assessed as not changed, whose results from the LAS indicated did not use critical reflection as a precursor step. These findings are consistent with Mezirow's (1994, 1998) theory that critical reflection is a key step of change.

The other main quantitative data used in this Study was the Addiction Belief Scale (ABS) (Schaler, 1995). This questionnaire, measures beliefs about addiction by making a distinction between assessing the two concepts of Disease or Free-will beliefs. Other studies using this scale have assessed the ABS differently. Schaler (1995, 2009) suggested using the higher score indicative of a Disease belief and a lower score a Free-will belief, and the scale be used as a continuous scale. However, Russell *et al.* (2011) assessed the ABS with a categorical score for Disease and Free-will beliefs. Both these methods were used in the analysis of results in this Study. The scoring of the ABS as a continuous variable indicated that the students increased their belief in a Free-will belief as the course progressed, and this is consistent with the results about perceptive change from the other methods used in this Study, namely interviews and the LAS. Conversely, by using a dichotomous scoring method with the ABS, the results indicated that for most of the student group there was no change in belief category. A limitation of the ABS in this Study was that a dichotomous scale was not sensitive enough to detect slight changes to beliefs. However, the scoring method indicated that of those students who changed their belief category, the majority moved to a Free-will belief. This finding is also consistent with the other findings in the Study, which suggest that students make changes to their beliefs, but not greatly.

A limitation of this Study is the method of multiple analyses and comparisons made with analysing quantitative data. The small sample size would also have a lack of power and so increase the likelihood of type-2 error occurring and so introducing a bias in statistical results. To address this potential problem, the

quantitative data were not considered in isolation at the interpretation stage, and the mixed method model was used to triangulate the data. This Study indicated the triangulation of data between the ABS, LAS and identifying perspective transformation by the King (2009) method, was generally consistent. However, all have limitations in the degree of accuracy about assessing change for all the students, but for assessing most students the results from the different methods are similar. The methods are not so accurate at detecting the students' mixed set beliefs and so the findings from this Study suggest limitations with the LAS and semi-structured interview (King 2009). The findings suggest a more detailed examination of beliefs be considered, as these methods do not consider the lasting influence of established beliefs sufficiently when attempting to identify a change. These findings support the argument by Hoggan (2017) that learning is not independent from past beliefs and that past beliefs can continue throughout the transformation process. The findings are also like the argument by Karasaki *et al.* (2013) that support for one belief does not disregard another belief.

7.2 Student Profile Attending University

Students in this Study were from three universities in the UK and the findings indicated differences in the profile of the students between these universities. The profile of students reflects the educational qualifications offered at university, with younger, more educated students likely to undertake postgraduate studies and older non-traditional students with no higher education qualifications, accessing graduate or undergraduate courses at university. These findings are consistent with Herrera *et al.* (2015) who noted that foundation degrees are often taken by non-traditional adult learners, and the findings also indicate these students are more likely to have lived experience of drugs and alcohol. This suggests two distinct groups of students who enrol to study drugs and alcohol at university in the UK and this is consistent with research from the UK (Ashwood and Rowley, 2016) and the USA (James and Simons, 2011, Keller and Dermatis, 1999, Koch and Balanco, 2001, Payne et al., 2005, Taleff, 2003). This dual profile of students corresponds to the description of students by the teachers from the three universities, who also identified two main types of students' accessing university study for alcohol and drug studies, namely

younger and more academically educated and older, non-traditional students and with many of this group having lived experience of drugs and alcohol.

The findings in this Study further support Koch (2001) who argued that two types of counsellor enter the field in education and like Kalb and Propper (1976) who argued for two groups of counsellors, one group gaining an understanding from education and another group gaining knowledge from their own personal experience. However, the findings of the current Study, noted also by the teachers' comments, suggest that a sub-group of students enter higher education that are like non-traditional adult learners, who have practice experience of working in the addiction field, but no apparent lived experience of addiction. Thus, it would appear the profile of addiction students in this UK Study is comparable, *mutatis mutandis,* with addiction studies students in the USA.

This distinction between the two types of students accessing higher education reflects previous research into counsellors within the drug and alcohol field. Several studies have noted two distinct groups working in the addiction field, namely, professionals, usually young and degree educated, and counsellors with lived experience of addiction who tend to be older and without a university education (Ashwood and Rowley, 2016, Culberth, 2000, Doukas and Cullen, 2010, Hohman, 1998, Kalb and Propper, 1976). It would thus appear that the different profile of students accessing university in the UK is broadly reflective of the population of practitioners in the addiction field. In addition, the findings suggest many students with previous experience of working in the addiction field had no prior training in drugs and alcohol, which is consistent with the findings of Boys *et al.* (1997), that most addiction workers enter the addiction field unqualified with no prior training or education in addiction.

The findings of this Study suggest that for students with lived experience of addiction, there appear to be many challenges regarding their transition into Higher Education at university. The clear majority of these students are adult, non-traditional students and there is evidence of their experience of university concurring with other research with non-traditional adult students who are new to university (Bamber and Tett, 2000, O'Donnell and Tobbell, 2007). The findings of the Study are consistent with the above-mentioned studies and suggest that

many students have no previous experience with higher education and identify difficulty with tasks at university such as academic writing. Many report studying at university as being a challenge and many students initially experience a lack of confidence and low self-esteem in their academic abilities. The students reported a marginal connection with the identity of being a student at university and see themselves as different student group with a sense of not belonging or fitting in to university life. This finding appears to reflect the findings of Christie *et al.* (2008) who suggested the transitional process of going to university for many non- traditional students, particularly at an elite university, can result in feelings of alienation and exclusion. This can be an emotional and upsetting process for students, involving worries and self-doubt, especially with students with no previous experience of higher education. Similar reports of alienation by students with lived experience at university are made by Scott *et al.* (2016) and Terrion (2012) who also noted the feelings of exclusion and difficulties relating to university life as a common experience. The findings from this Study noted the drug and alcohol courses at two of the universities (A and B) had their courses, both physically and administratively, separate from the main university structures. This suggested the experience of university for this non-traditional group of students enhanced their feelings of alienation at university. However, in contrast, these feelings were also minimised by their experience of belonging to a community of practice on the courses (Lave and Wenger 1991).

The implications of these findings suggest that students with lived experience of drugs and alcohol are similar to non-traditional adult learners and would benefit from teaching that recognises the principles of adult learning, such as interactive rather than didactic teaching (Knowles, 1984). Bamber and Tett (2000) have argued teachers have a responsibility to consider teaching practice that engages this student group in higher education, in particular recognising prior experiential learning, facilitating a community of practice and providing personal support with academic study.

During the first few days of the students commencing their courses at university, they were asked to indicate reasons for studying drugs and alcohol at university and expectations regarding the outcome of completing their studies. The findings suggested that reasons for beginning university study and students'

expectations at the end of their studies were similar and therefore will be discussed together.

There was a range of student views about the motivation to study drugs and alcohol and their outcome expectations at university. The main views involved a mixture of personal and practice reasons and included: to increase knowledge and gain a greater understanding about drugs and alcohol; for many students, a desire to enhance practice through improvement of skills and gaining confidence. A frequent cited personal reason for students undertaking academic studies was related to personal development: to help people and the prospect of future employment or career development in the addiction field. The finding of a mixture of reasons to pursue studies at university is supported by Bell *et al*. (2009) who suggested the development of students in recovery was focused on attending university as it helped maintain their recovery, develop a career and gain employment.

There was generally a group consensus across the universities by the students around these main reasons for choosing drug and alcohol studies, but the difference in the make-up of students led to some divergence in the findings. For those students with working experience, the decision about going to university was linked with their wish to gain knowledge and an addiction qualification that would give them some prestige and legitimacy in the work setting, validate their experience and hopefully give career progression. This concurs with reasons given by students with personal experience of addiction (Bell et al., 2009, Koch and Balanco, 2001, Terrion, 2012). In addition, for those students in recovery one of the main reasons to enter education was reported as a desire to improve services and “give back to others”, a personal journey and to gain employment (Terrion, 2012, White, 2000). For those students with no experience of addiction, the choice to study at university was used as a springboard to develop their career into the addiction field. It was uncertain as to how many of these students additionally may have personal reasons for undertaking a course of study in addiction at university. It is possible that they may have experienced addiction through contact with a relative or friend as a motivation for their choice of study. An implication for future research is awareness of this reason for choice of study and involvement in the addiction field.

The findings of this Study are comparable to a study by Miers *et al.* (2007) investigating reasons cited for choosing a health profession as a career suggested as reasons for their choice of studies: helping and caring for others; personal interest; a career choice and prior experience in working in the area. These findings are similar to Hohman (1998), who reported that students in recovery are motivated to study and enter university with the expectation of seeking personal growth and employment. Skatova and Ferguson (2014) who considered undergraduate students motivation for the choice of undertaking a specific degree course at university. In their study, they identified four reasons for the degree choice, namely; career, personal interest, helping others and 'loafing' (looking for an easy option at university). Like the findings from this Study, three factors consisting of career choice, personal interest and wanting to help others featured prominently in students' choice to study drugs and alcohol.

It would appear that the motivations for students to study addictions are no different from other students choosing a helping or caring course of study in higher education (Skatova and Ferguson, 2014). The reasons reported by students with lived experience in this study resonate with the findings of Miers *et al.* (2007), Herrera *et al.* (2015), Statova & Ferguson (2014) with helping others, personal development and linking their choice of higher education to their past personal or professional experience. The students with lived experience more commonly gave reasons for studying as being like "a calling" to help others and "give something back" and this is consistent with the idea of Duffy *et al.* (2012) who suggested the feeling of "a calling" resulted in more commitment to career development. Duffy *et al.* (2018) proposed the maintenance of this calling over time was assisted by supportive networks with colleagues. Consistent with other studies, the findings in the current Study suggest that common characteristic of many practitioners with a lived experience of addiction is a strong commitment and a calling to work in the addiction field (Doukas and Cullen, 2010, Payne et al., 2005, White, 2000). The implication for those students, with lived experience of addiction who experience "a calling" is that they may be more committed and less likely to drop out of their studies with the support of a group of people like themselves, which would encourage them to remain and develop their studies at university and future careers. An implication for teaching is awareness of the importance

of the context of learning and of encouraging a supportive environment if students in recovery are to enhance their experience of learning at university.

An implication of these findings is that drug and alcohol students may present to university with a propensity to experience a perspective transformation, due to their personal motivation or calling to engage with drug and alcohol studies. It is possible students in recovery who have already experienced transformative change through their recovery experience are likely to be less resistant to making future major changes in their thinking. Berger (2004) suggested that it may be important to understand what brings students to "the edge of change" and what leads them to want to change. This supports the suggestion by Taylor and Cranton (2013) that students may come with "a readiness to change" and that consideration of students' background and prior experience of learning may suggest ways of supporting them at this precipice of change. It is possible that the decision to attend university also reflects a different stage in the process of change in addiction (Prochaska et al., 1992). The implication is that the beginning of students' education or journey of change is an important time, and this is a window of opportunity to make the most of the students' desire to change. For students with a recovery background the motivation to change, learn and consequently be amenable to questioning of beliefs may not only be shaped by the individual, but enhanced and developed by the social aspect of learning at university.

Another important point to note with students in this Study was that most of the non-traditional adult learners had previous experience of addiction or prior working in the field and attending university was considered a way of validating their personal practical experience. This is a different and reverse approach from most professional work as outlined by Squires (2005), which usually begins with undergraduate studies and obtaining an underpinning knowledge base followed by "on-the-job training and experience" (p127). Although Squires (2005) noted that knowledge and experience are critical to all professional work, for many addiction studies students the order of learning is different, being initially experiential then academic learning. If however, the main source of learning by students is experiential, they may be more interested in practical rather than academic or research aspects of learning at university (Knowles et al., 2005). The implication for teaching is to help students make the connection

between their personal experience of addiction and academic learning, between theory and practice they can relate to (Bamber and Tett, 2000, Taylor, 2007). Academic learning has an emphasis on critical thinking: for students in recovery however to examine and exploring their experience can be an aspect of learning that is potentially emotionally challenging and a threat to their identity (Brown, 1991). To help develop students learning and encourage them to explore other alternatives, the implication for teachers is to value and integrate students experiences of addiction with academic learning at university. Additionally, to create a supportive learning environment and to recognise the importance of the class environment on learning (Jarvis 1987).

7.3 Perspective Change

This section will consider the topics of changing perspectives, critical reflection, mixed beliefs and precursor steps of transformation.

An important finding from the analysis of students' self-reported perspective change, both from interviews at half-way and the end of their studies, indicated that a major and consistent theme for many students was a significant change in their understanding and beliefs about addiction: from a limited perspective to adopting a more complex viewpoint. Many of the students comment on the contrast with their beliefs prior to attending university, about these being limited and how university challenged and changed their assumptions. These findings are consistent with the developmental model of learning by Perry (1970), who argued the impact of learning results in students moving from a duality of thoughts and beliefs to diversity and commitment.

Key features of transformative change proposed by Mezirow (1971, 1978) and Hogan (2016) consider change that is significant for the person, changing their worldview and thinking differently. In this Study, the findings indicate there is clear evidence that students experienced a significant change in their understanding and beliefs about addiction. This significant change in perspective and seeing the world of addiction differently was highlighted with comments about previous beliefs being an 'all or nothing' aspect of addiction and particularly with those students from an AA background.

The development of moving from a dual perspective to a more open perspective, resulting in a change of view about addiction, has been highlighted as a major theme in both adult education (Perry 1970, Tusting and Barton,2006) and Transformative learning (Mezirow, 1994,1998). For some students with personal experience of addiction, reflecting and reassessing their change in beliefs was not just as a change of knowledge, but as a crucial shift in how students view addiction and consequently respond in practice. This also relates to Piaget's (1950) developmental model of learning and although his work was only with children there are parallels here in the change of students' beliefs from a limited view of addiction to accommodate a wider understanding. However, being much more open to different perspectives did not necessarily result in an overthrow of previous assumptions and beliefs, and so this dual perspective may be a feature of development in learning (Newman 2012). The findings in this Study further support the ideas of Karasaki *et al*. (2013) and Barnett *et al*. (2018) who suggested that ascribing to two sets of beliefs is a common feature of practitioners in the addiction field. Nevertheless, the adoption of students embracing a wider outlook about addiction is an important finding. It has been proposed by Miller and Hester (2003) that practitioners who are able to comprehend addiction more widely respond with more flexibility, and they suggest that this is likely to improve their practice. Recommendations for practice suggest that it is through education, exploring different perspectives rather than training, that addiction practitioners are more likely to develop a greater understanding and consequently more variety of practice.

7.4 Critical Reflection

The findings in the current Study show examples of critical reflection that indicate students are involved in critical self-examination and questioning of their beliefs about addiction. Jarvis (1987) proposed that to gain an understanding of a new experience and make it meaningful, reflection is necessary. Fetherston and Kelly (2007) argued that resolving different viewpoints prompts the need for critical reflection. The change to adopting a wider perspective about addiction prompted students to reflect on their beliefs before university. Reflecting and reforming of prior beliefs and becoming more inclusive and accepting of other viewpoints has been suggested by Brookfield (2010) and Mezirow (1998,2000) as a key aspect of critical reflection leading to

perspective transformation. In relation to critical reflection, both Mezirow (1991) and Brookfield (2010) suggested that this involves consideration of different perspectives, assumptions and larger issues.

For many students who were critically reflective of their beliefs there was evidence of this being an uncomfortable experience. Many of the students struggled with new knowledge and this being incompatible with their established beliefs about drugs and alcohol. Indeed, many reports (Illeris, 2014, Mälkki and Green, 2014, Meyer and Land, 2005, Mezirow, 2000) highlight the difficulty of moving from one set of beliefs to another. A possible explanation for these feelings of uncertainty and uneasiness arising from the consideration of contrary beliefs mirror Festinger's (1957) theory of cognitive dissonance, which proposes a state of limbo when someone is in two minds about a subject which then produces an uncomfortable state. Myer and Land (2005) also highlight the experience of liminality, when a person's beliefs become questionable and they are in a state between two opposing beliefs. It is acknowledged by Mezirow (1978) that this sense of uncertainty is an essential ingredient in promoting a transformation of perspective, and Brookfield (2010) states that dissonance can initiate a process of learning. Berger (2004) further suggested that without experiencing confusion and uncertainty, perspective transformation is not possible. The majority of students in this Study reported the experience of holding two sets of contradictory beliefs, which had the potential to be troublesome (Land, 2008).

The literature suggests that cognitive dissonance and liminality generate uncertainty and uncomfortable transition state and in this Study many students reported theses emotions. This emotive nature of learning something new was an important aspect of change for students, not only when this conflicted with their established beliefs, but also with their identity. The reported feelings of distress by students, often with lived experience of addiction, supports the research of Brown (1991), who noted that addiction counselling students with lived experience of addiction were uncomfortable and resistant to information that did not concur with their own experience and beliefs. This reluctance to consider other viewpoints by counsellors in recovery was also noted by Culberth (2000). Those students in this study, especially with an established belief about addiction, initially reported an experience of discomfort in their learning,

especially when considering two opposing sets of beliefs. Taylor (1997) noted the important role of emotions when a person changes their perspective and Clark and Dirkx (2008) have further suggested that emotions are the engine room of change, and that emotions are critical to how people learn and resolve conflict. The implication from this finding is to have an awareness of the emotional aspect and uncomfortable feelings that learning can generate, especially when student present to class with established views of drugs and alcohol.

The practice of critical reflection involved students questioning their beliefs about addiction and was reflected with considering other peoples' views. This finding is important as it is consistent with the theory of transformative learning and suggests an example of students moving to perspective transformation (Jarvis 1987, Mezirow 1998,2000). At the beginning of the students' studies critical reflection is prominent and upsetting, but as students' progress in their studies they become more comfortable with questioning themselves and others. This is important because the action of critical reflection is the basis for professional practice, which is based on evidence-based practice and the ability to consider different types of interventions (Squires 2005, Brookfield 2009). The adoption of evidence based practice is increasingly becoming a prominent feature of the treatment world within the addiction field (McGovern *et al.*, 2004, Payne 2005) and in addiction education in universities (Muscat *et al.*, 2014). The findings of this Study indicate the development of critical reflection and the ability to consider addiction from a wider viewpoint are suggestive of Transformation learning in its wider definition (Brookfield 2010).

7.5 Mixed Set of Beliefs

A major finding from this Study indicated a change in perspective about addiction beliefs for most students, but also many students reported continuing to accommodate their old beliefs. Although students indicated a change of beliefs, what is perhaps surprising is that they also maintained their old beliefs and did not abandon them. Therefore, simultaneously holding two sets of contrary beliefs systems about addiction, with aspects of both a Disease and Free-will belief.

Reflecting on the theory and definition of transformative learning, these findings suggest that change in the students' beliefs do not imply a major shift for students in their worldview, transforming their "habits of mind" or emancipatory learning, in the sense of adopting new values and engaging in social action or a deep structural shift in beliefs (Mezirow 1978). Perspective transformation is considered as a change in worldview and a questioning of a given worldview, rather than a development of an existing worldview (Mezirow 2003, Hoggan 2016). However, the findings in this Study suggest a change in view for most students regarding practice, but no change in personal views about addiction. Mezirow (2000) and Illeris (2014) both proposed a change in perspective transformation as learning by assimilation and that previous understanding and beliefs become modified by embracing new knowledge and merging with prior understanding and beliefs. This was confirmed for students' beliefs about practice, but for personal beliefs the process of change presented with an accommodation of perspectives rather than any assimilation (Piaget, 1951). A possible explanation of accommodation of beliefs might be a safety mechanism for students with lived experience and with a disease belief, as the cognitive dissonance possibly is too threatening to their personal identity. This might further indicate that the beliefs which students have acquired through their own experiences are difficult to eradicate.

Although most of the features of transformative change may be apparent, the findings indicate that a change in perspective is not a complete change of beliefs, but a partial one. This finding would support the proposal of Mezirow (1985) who suggested that change can be a gradual process and that students move gradually away from old to new perspectives and so have a period of transition of beliefs, holding both old and new beliefs simultaneously. This position is similar with the concept of liminality as outlined earlier by Myer and Land (2005) who argued the state of possessing a mixed set of beliefs as a stage of change and that the student is in a transient or liminal state. However, although consistent with other research (Mezirow 1985, Myer and Land 2005) about mixed beliefs being a stage in the process of change the findings of this Study suggest this may not be a transition state, but that the mixed set of beliefs may be a more persistent stage for some students who are constantly sitting in limbo. The findings in this Study resemble the proposal by Brookfield

(2010) of learning and the experience of ‘Roadrunnning’. This involves being increasingly willing to take on other perspectives, tolerating ambiguity, but also typified by episodes of relapse in thinking associated with prior beliefs. This description would appear to match the experiences of students in this Study. There was however, no regression in thinking as students’ established beliefs were never substituted with alternative beliefs, but remained throughout their learning. The length of follow up as suggested by Taylor (2003) of 2 years as the time most likely to capture transformation occurring, was used in this Study for half the students and 1.5 years follow up for the other half, and yet there appeared little indication of students abandoning their old beliefs. There was a shift in changing some perspectives as the course progressed with the students much more accepting of diverse points of view, but this pertained more to practice rather than personal issues. The findings in this Study more reflect the proposition by Karasaki *et al*. (2013) and Barnett *et al*. (2018) who argue that in the field of drug and alcohol practitioners holding a mixed set of beliefs about drugs and alcohol is a common occurrence and is a more enduring than transient state.

Another explanation about the experience of holding and resolving two belief systems that are contradictory is the concept of cognitive dissonance (Festinger, 1962). This concept proposes that one way of resolving the conflict of opposing beliefs is to reduce the importance of the new beliefs. The separation of their addiction beliefs by students in this Study into personal and practice components is consistent with the suggestion by Fetherston and Kelly (2007) who argue that transformations could be understood in terms of being objective or subjective, personal and social. The separation of beliefs appears particularly apparent for those students in recovery and those with Disease beliefs. The significance of adopting both personal and professional reasons, of a social and personal identity is also noted by Harre (1983) regarding people giving up addiction. This division between personal and professional beliefs of practitioners working with addiction is also noted by Roche (2009), and is germane in relation to understanding the process of changing beliefs about addiction.

The findings from this Study further support the idea that addiction professionals can hold conflicting and opposing beliefs about addiction (Miller and Hester 1998, Schaler 2009, Barnett 2017). The implication of this finding is that future

research and understanding perspective transformation should consider the measurement of change relating to both personal and practice beliefs.

7.6 Precursor Steps in Perspective Change

Analysis of the findings from a longitudinal perspective to determine if a transformation in perspective had occurred suggested that students had three types of learning experiences: Some students had experienced changes in their perspectives about addiction throughout their studies; students indicated they did not experience any changes half way, but did experience change at the end of their studies and a third small group of students reported no significant change in their perspectives throughout the time of their studies.

The method for determining if transformation of perspectives occurred is outlined in the methodology chapter and the occurrence of transformative change is generally comparable with the rate of change in other similar studies (Brock, 2010, King, 2009, King, 2004). In this Study at the half way stage 56.9% indicated a change, increasing to 74.3% at the end; this compares to 66.8% (King 2009) and 48.85% (Brock 2010). These findings suggest the rate of reported change for students is higher in the current Study, especially at the end of the students' studies. As previously mentioned, this may be attributed to pre-existing factors of students before their studies. The longitudinal data indicated the percentage of the cohort that had changed had increased their use of precursor steps from the half way stage, which may suggest that transformative change is likely to increase as students' progress with their studies. The results of the current Study are therefore consistent with both Mezirow (1978) and Brock (2010) who suggested that more precursor steps experienced the greater chance of transformative change.

The reported frequency of precursor steps used in this Study indicated that the 3 steps; *a disorienting dilemma* (about actions), *recognised discontent shared* and *Self-examination* (questioned worldview), were the most frequently reported at both times of measurement, which is consistent with the findings of Mezirow (1978) and Brock (2010). However, at the end of the Study, *recognised discontent shared*, and *tried new roles* had increased in frequency. The role of *recognising discontent shared*, suggests the important role of shared learning in

the class with fellow students in similar positions, which can be influential in the individual perspective transformation process (Brookfield 2010). This is likely to increase in time as students become familiar with their fellow students and have a greater amount of interaction. This finding concurs with the self-reports from the student interviews about interaction with other students that helped with change. *Trying new roles* may have increased in the second half of students' studies because of the practice placement opportunity to try new roles in practice settings, which is consistent with the role of practical matters in adult learning (Schon 1983).

At the half-way stage in this Study the data collected from 58 students indicated a significant difference with the number of precursor steps used, between those students who had changed or not changed. Those students who had changed (56.9% of the sample) indicated a significantly greater number of precursor steps used, compared to those students who had not changed. As previously noted these results are consistent with the work of Mezirow (1978) and Brock (2010), who indicate that the more precursor steps used, then the more likely the experience of transformative change. These findings suggest that many students change most in the early stages of their studies, although progression of change may still be gradual as suggested by Mezirow (1985). This finding also concurs with the concept of a journey change involving a series of changes (King, 2009). Other possible explanations could also be the largest shift in perspective occurred early in students' studies or that triggers for change occur early in the experience of university and there is possibly something in the university experience or the course topics that acts as a facilitator of change or *a disorientating dilemma*. It is possible that 'good' learning and being at university was the catalyst for change (Newman 2014) and students reports of the topic 'Theories of addiction', being influential to considering a change in addiction beliefs resembles a disorientating dilemma experience. An alternative explanation that finds agreement with the suggestion of Taylor (2000) that the students enter university prepared for and expecting change and thus are motivated to change and so the expectation of change is realised quite early in their studies. This is also consistent with the findings from students' anticipation of the outcomes and the suggestion of the influence of their predisposition to

change. The experience of change may also be a combination of both these factors.

During the Study and at the end data had been collected continuously from 35 students and the clear majority reported they had experienced a degree of transformative change in perspectives. Only a small number of students (n=4) were deemed not to have experiences of a transformative change in perspective. None of these students indicated in the LAS use of the precursor step critical reflection. Comparisons of data at the half way point in the students' studies interestingly indicated there were no significant differences in the number of precursor steps used, between those students who had changed or not changed, in this group of 35 students. Another finding for those students who had not changed half way through their studies indicated they experienced more precursor experiences in the second half of their studies. A possible explanation for these results may be that some of these students that have not changed at the half way stage, might have been on the "edge of change" (Berger 2004), which is why there are no differences in the number of precursor steps used at the half-way stage between the groups. This also might explain why at the end of their studies, the no-changed students, had used more precursor steps, as some of this group have moved into the changed group.

Comparing data at the end of the Study, with the students who had changed (31) or not changed (4), what is surprising is that there are no significant differences in the number of precursor steps used between these groups at the half way stage. It is difficult to explain this result, but it may be the no changed group of students at the half way stage have made some use of precursor steps and had experienced some change at the beginning of their studies, but not enough change to be considered transformative. A possible explanation is that the number of precursor steps used may be not related to transformative change, but that change is more related to the type of precursor steps used. In the analysis of precursor steps used by those students who had not changed, at both the half way stage and the end of their studies, the results indicated the precursor steps regarding *critical reflection of their assumptions* and feeling *uncomfortable with traditional social expectations*, were not indicated as a precursor step. This finding supports research by Brock (2010) who noted critical reflection was an imperative precursor step in deciding if transformation had

occurred. This further supports the key role of critical reflection as a catalyst to Transformative learning (Brookfield 2010, Mezirow 1978).

The number of precursor steps used by the changed and no changed students, at the end of their studies indicated a significant difference. Comparing the two groups of students, the changed students significantly increased their use of precursor steps, but the no changed students significantly decreased their use of precursor steps at the end of the Study. These results suggest that students who change early in their studies gradually increase their use of precursor steps throughout their studies. This supports the idea of a gradual progress of change by Mezirow (1985) and that learning in stages is consistent with a journey of transformation as proposed by King (2009). The finding that was unexpected was that the no change group of students indicated less use of precursor steps as their studies progressed, indicating that they become more entrenched in original beliefs. This finding may be explained by considering the study by Bell *et al*. (2009) concerning students in recovery at university. This study suggested that some students in recovery, namely those with "stability narratives", exhibited less self-reflection and considered further change to their thinking as a threat to their identity. The threat of new knowledge to the identity of students in recovery by a university experience, is also noted by Brown (1991), who reported that students "censor identity-threatening information" (p173). Therefore, one possible explanation for the no change students decreasing the number of precursor steps is that increasing new information also increased the likelihood of conflicts with their existing beliefs. These students may therefore seek information that is consistent with their existing beliefs and so strengthen and further entrench their existing beliefs. It is possible that students experienced Regressive Transformative learning as suggested by Illeris (2014), which occurs when a student does not have the strength to learn something new and is more secure with their existing knowledge.

The outline of transformative learning by Mezirow (1985) suggests that transformation can occur either as an event or gradually. Taylor (1997) and Malkki and Green (2014) both argue that rather than a crisis or sudden event, it could be that a disorientating dilemma occurs over a longer period of time, and that it is a slow process rather than a specific event. Land *et al*. (2008) proposed that transformations in education can be sudden or protracted change. As

indicated by the longitudinal nature of the current Study, the findings show a small increase in precursor steps used through the period of the Study. Many precursor steps were used at both times; however, the first part of the students' studies is more important with initiating change and the second half of their studies maintain and strengthen changes. This finding is supported by Courtenay *et al*. (2000) who argue that perspective change may be triggered by a disorientating dilemma, but that change continues and is maintained over a protracted time.

Many students reported on events that appear to have happened early in their studies, such as a specific topic like theories of addiction, however most comment on the gradual development of a change in perspective and beliefs. This finding is consistent with the idea of a journey of change (King 2009) and would support the idea of change in students' beliefs and perceptions as driven by a series of important and significant moments. This is also described by Land *et al*. (2008) as threshold concepts, and not by a specific event or topic. Nohl (2015) also argued that a disorientating dilemma is not necessary for change, but that change is gradual and part of a process. Thus, from the current Study, it appears change can be both sudden and gradual with the implication for teaching practice that teachers should focus not only on the springboard of change at the beginning of students' studies, but also on the on-going progress of change.

7.7 Facilitating Factors of Change

From the analysis of the semi-structured interviews with students at both times in the Study, there were four main factors identified as catalysts or facilitators aiding a change in students' perspective about addiction. These factors were: classroom environment, challenge to beliefs, theories of addiction and academic tasks. These factors are comparable to those of Cranton (2012), who referred to several different aspects of teaching that may contribute to transformative change, such as challenging assumptions, encouraging critical self-reflection, classroom discussion and experiential learning opportunities.

7.7.1 Classroom environment

The findings of this Study indicate that a consistent factor throughout the duration of courses to the students was the importance of the classroom environment. This was the most frequent factor noted as helpful that facilitated learning and belief change and consisted of classroom activities such as, student discussions and interaction with other students.

The finding that a supportive environment was helpful to facilitating a change in perspective is consistent with other studies (Brookfield, 2010, Jarvis, 1987). In Mezirow's seminal study (1978), he also notes the potential importance of a community of people with a similar background and goal to facilitating a change in perspective. In the current Study, the students with lived experience, those with a background in AA and non-traditional students generally identified with other students in a similar position in class, and this was noted as helpful for all the students. Students commented on a supportive and safe environment, which was conducive to change, gave them the encouragement and permission to explore beliefs and resolve their dissonance with beliefs through discourse. This finding further supports the ideas of Mezirow (1994,1998), who proposed that students who are in the process of changing their perspectives can be helped in this process through interaction and discussion with fellow students. The importance of discourse is elaborated by Mezirow (2003), who highlights its significance when occurring in a critical context to facilitate perspective transformation.

Lave and Wenger (1991) give as an example of a community of practice the AA group and in the current Study many students indeed had contact with AA and were comfortable with group work and social discourse. The findings of this Study concur with the concept proposed by Lave and Wenger (1991) regarding "situated learning", which proposes that changes in a person's attitudes are due to their exposure to new situations and influences of others. They argue the importance of learning in a context and learning through participating and engaging with others in a "community of practice". The finding of a supportive class enabling a change in perspective is also consistent with the work of Brookfield (2010), who suggested the importance of belonging to a supportive community of peers, who are having similar experiences of changing and

doubting their previously held assumptions, rethinking their practice and challenging their previously held beliefs and assumptions.

A community of practice was considered an appropriate description for the cohort of students in this Study and a very important influence facilitating perspective change in students. However, it is relevant to note the key factor was not just a group similar, like minded students, but a group of both similar and different people. Tennant (1993) further supports the social aspect of learning, such as the role of a supportive community and the context of learning for facilitating a change in perspective and he argued that too much of the focus about the trigger for perspective transformation is on the individual. Fethertson and Kelly (2007) proposed the group experience an important factor to facilitate change and Cranton (2012) argued that a supportive environment is essential for fostering transformative change.

7.7.2 **Challenge about beliefs**

The findings indicate that support through the class environment was also important regarding the challenge to students' perceptions and beliefs and the adoption of new perspectives. One of the major influences on students' beliefs was being challenged while at university and the common factor of being challenged was the exposure to different perspectives. Evidence from interviews with many students suggested that their beliefs about addiction had not been challenged in any depth before coming to university.

The experience of attending university challenged students' established beliefs in two ways: by new knowledge and in the class by the teacher and other students. The finding in this Study, that challenge was important to changing students' perspectives and beliefs is consistent with Jarvis (1987), who argued for the importance of seeking other opinions, when there is an experience of dissonance between prior knowledge, new knowledge and beliefs. The classroom environment offered exposure to different viewpoints, suggesting that it is the mixture of students, with different beliefs and perspectives in the classroom that is conducive toward perspective transformation. Mezirow, (2003) argued that such an environment with the potential to be both supportive and critical, may lead to perspective transformation. The findings suggest in universities A

and B there are students in a similar position to offer support and to identify with, but crucially in addition, students who have different perspectives, thus exposing all students to different thinking and challenging established beliefs. However, this was not found to such a degree in university C. This is perhaps because of the degree of class contact students have in their studies, which was noted to be much less in university C. The present findings are also consistent with Rassool & Oyefeso (2007) and who considered class discussions and multi-professional shared learning important to addiction studies students.

An example of challenge as a facilitating factor noted in the findings was the role of the teacher. The general characteristics possessed by many teachers as reported by students included enthusiasm, being encouraging, inspirational and knowledgeable. The findings from the students also suggest the skill of the teacher was important in terms of managing the class environment. However, the aspect of teaching considered important was the challenge to the students thinking. At the beginning of the course students recognised the teaching style of challenge in the class, but toward the end of the students' studies the teachers' encouragement to question and analyse new information through assignments was considered important. These findings concur with the importance of teacher challenge through promoting discussion in class and written work that promotes diversity of understanding as proposed by Perry's (1970) seminal work.

7.7.3 **Theories of Addiction**

The significance of the topic of Theories of addiction in the course was frequently highlighted by students as a significant challenge and catalyst for self-reflection about their beliefs. Fetherston and Kelly (2007) proposed that critical reflection is normally provoked by an experience that makes it necessary. The experience, or disorientating dilemma, Tennant (1993) proposes is critical to transformative learning. For many the students the topic, Theories of addiction, was analogous with the concept of a "disorientating dilemma" (Mezirow 2009) and "Threshold concept" (Land and Myer 2008). According to both these concepts a specific new topic or an activity changes the learners understanding of a topic, without which they cannot transform their thinking or

their worldview. This transformative change is significant, irreversible, gives the learner new meaning and can be challenging for the leaner.

For some students with lived experience, learning about Theories of addiction was not just about digesting new information and progressing with academic study, but resulted in consideration of their identity. The learning from threshold concepts can be both subjective and objective , emotional as well as cognitive (Land, 2008). In this Study students were not only understanding about new theories of addiction, but were also emotionally engaged with how this identifies with their own identity and understanding of their recovery from a different perspective. This is highlighted in the students' reflections on their studies at both the half-way stage and the end of their studies. As noted by Taylor (2007) learning experiences that are personal and which encourage reflection on experience can be influential in promoting Transformative learning and the importance of recognizing the emotions in fostering Transformative change has been stressed by Pierre (2011).

The significance of the topic of Theories of addiction for students in this Study, especially those with lived experience was that this directly challenged students' assumptions. This challenge gave an alternative understanding to their past and present personal experience, promoting a mixed set of emotions through critical self-reflection of their personal and practice beliefs. The implication for teaching practice is the importance of awareness of these critical concepts to learning and provide support to the student in this difficult transition (Berger, 2004).

7.7.4 **Academic Tasks**

Another factor considered important in the students' transition of beliefs was the academic tasks of writing and preparing for assignments. These activities ensured that students were exposed to new information and different viewpoints, some of which was in direct contrast to their own beliefs and so challenged them to be critically reflective of their beliefs. The combination of new knowledge and challenges incumbent in tasks such as writing essays was particularly noted in the second half of students' studies, when the nature of assignments became more critical. The format of course assignments encouraged

students to consider different positions of an argument, make comparisons and use of reflective journals further encouraged self-reflection, both personally and with practice. These findings are consistent with teaching for transformation as outlined by Mezirow (2000). The task of assignments to consider contrary arguments, which students had not engaged with before university, helped facilitate a change in perspective about addiction. It is not only the nature of the assignments which encourage critical reflection, but students committing thoughts to paper that reinforced the forming of new beliefs. The implication of this finding is consistent with the suggestion by Edmundson (2007) that teachers should promote learning that involves critical thinking and reflection.

The findings of this Study showed that for many students, the link between their new gained knowledge and their practice was helpful, enabling students to consider a different perspective in their practice. As the student cohort were dominantly adults, finding learning that was practical, is consistent with the Andragogic model of adult learning by Knowles (1980, 2005). The findings of this Study, however, did not suggest practical learning greatly contributing to a change in perspective or beliefs. One explanation is that the student group were experienced either personally or with a history of practice and so the practice element of their studies was not new. Another possible explanation is that the reflection of learning in practice was consistent with Mezirow's (1991) content and process reflection. For example, theories of addiction enabled students to consider different ways of considering addiction, like content reflection, that focuses on different ways of looking at a problem, in this case different views and beliefs about addiction. Process reflection mirrored skill based learning, such as motivational interviewing, which was highlighted as a difference between the changed and the no-changed student groups, in relating classroom learning to practice. The skill based topics provided no challenge to existing beliefs of the no changed students, with skills learning incorporated without being threatening to existing beliefs. This type of learning was particularly favoured by the student group who did not change their beliefs. This practice experience was also considered important for students who did not change in the first part of the course, but changed in the second part. This suggests that for these students it could be that they did not change their personal perspectives, but their practice perspectives, in the second part of their studies.

7.7.5 **Student Reflections of Change**

This Study was designed to gather information regarding reflections from the students' point of view about their university experience, from both the half-way point and at the end of their studies. The findings suggest the main themes were an increase in confidence with a developing sense of maturity and personal development. These themes were consistent throughout the Study, but there was an increased reporting of reflecting about personal development and practice at the end of their studies.

An important finding to emerge from the students' reflections was their increased sense of confidence and self-efficacy, from their time at university. The students' reflections regarded feelings of increased confidence are in relation to personal, practice and academic abilities. This growth of confidence in themselves is reflected in confidence regarding practice and academic abilities. The findings are consistent with the impact of higher education with non-traditional adult learners (Herrera et al., 2015). Indeed, most students reported the sense of achievement and confidence gained from participating in their studies. Confidence increased as students progressed with their studies and they became more confident in their academic work. This is contrasted with the reported lack of knowledge, lack of confidence and apprehension about academic work at the beginning of their studies. This change in confidence and self-efficacy from successfully participating in university study match those of Terrion (2012) regarding the educational experience of students in recovery.

The current Study confirms the importance of incorporating practical placements on drug and alcohol higher education course in terms of enhancing confidence and developing skills for practice. These findings are consistent with those of Rassool and Oyefeso (2007), who from a study of nurses on an addiction specialist university course, noted the significance of placements in developing nurses practice. However, as previously mentioned, for many students although the link with academic learning and practical application was deemed useful and helpful, this was not rated frequently by students as contributing to a change in belief perspectives. This could be explained by this student group of adults, who have presented at university already with a practical background and so are comfortable with skill based learning, which is unthreatening to their

established beliefs. As previously noted by Squires (2005), this student group are in contrast with the more common way that professional groups develop expertise.

Another finding in this Study was that many students reported a sense of maturity and self-development during their studies. For those students with lived experience of addiction, this was expressed as a feeling of growth and as a stage in their journey of recovery from addiction. The description of change as a journey is typical of the language of those students with lived experience of addiction (Doukas and Cullen, 2009, White, 2000) and further illustrated the personal development and self-awareness of students as a result of their studies. This change in self-awareness may relate to a change in the students' identity and perceptions about themselves. The importance of a change in the student's identity, due to education, has been considered by Illeris (2014), as a key factor in transformative learning. For the students in recovery the sense of maturity, confidence and self-development could be considered a reflection of change in identity. Bell's (2009) study concerning the identity of students in recovery suggested completing a university degree as important to recovery and remaining abstinent. In relation to giving up addiction generally, identity change has been highlighted as a key factor (White, 2015).Therefore the findings in this Study, for those students in recovery, suggests the important function of education in facilitating identity change (Doukas and Cullen 2009).

7.8 Teachers' Reflections on Student Learning at University.

The findings in this Study regarding teachers helps give some understanding of the context of drug and alcohol education at universities in the UK. The present Study can provide some inter-group comparisons of teacher demographics in the research of Broadus *et al.* (2010) in the USA. The age range of the teachers, at about 50 years, in both studies was similar and there were an equal number of males and females included in both studies. The findings regarding the addiction beliefs of the teachers in the Study differed from the teachers in the Broadus *et al.* (2010) study. In the current Study, no teacher had a clear indication of subscribing to a Disease belief and all indicated a Free-will belief. In the survey by Broadus *et al.* (2010), 20% of the sample of 215 teachers identified addiction

as a disease and almost 60% were undecided about considering addiction as a disease. This reflects the noted cultural differences in understanding about addiction between the UK, Europe and USA (Day et al., 2005, Koski-Jannes, 2016). However, in the present Study like the Broadus *et al*. (2010) study, those teachers with few academic qualifications and with more practical experience, who were older, were more likely to embrace a Disease belief.

The findings suggested teachers perceived a range of students accessing university to undertake alcohol and drug studies. The teachers identified two main types of students accessing university study for alcohol and drugs. This distinction between the two types of students accessing university reflects previous research into the nature of counsellors within the drug and alcohol field. Several studies have noted different groups in the addiction field, between professionals, usually degree educated, and counsellors with lived experience of addiction and without a degree (Kalb and Propper 1976, Aitken *et al.,* 1984, Hohman 1998, Cuthbert 2000, Doukas and Cullen 2010). This finding is consistent with the results regarding the profile of students highlighted in the anticipation chapter and generally support the observation by Ashwood and Rowley (2016) that there are two types of students accessing addiction studies at university in the UK, namely those intending to enter the addiction field and others with a personal history of addiction.

The findings in the current Study indicate the type of teaching practice involved with drug and alcohol studies. The drug and alcohol student cohort of were almost exclusively adult learners who often were engaging in higher education for the first time. The teaching practice adopted by the teachers was consistent with the approach to adult learning as outlined by Knowles (1973,1978), which noted the importance placed on recognising the life experience of students and acknowledgement that their experiences were of value and relevant to their studies. The number of students with a similar background of lived experience in a class stimulated the teachers to encourage collaborative working within the student group. This approach supports the ideas of Lave and Wenger (1991), who advocated fostering a community of practice learning environment for adult students from similar backgrounds. Brookfield (2010) and Lave and Wenger (1991) argued the importance of a peer learning community in facilitating a perspective change in students' beliefs. The teachers' practice of allowing

students to reflect on their lived experience and providing a classroom environment that encourages this, is consistent with a strategy for developing transformative learning as noted by Taylor (2007).

As previously noted in the results of this Study, students with a lived experience of addiction can be resistant to learning new information, especially when this conflicts with their beliefs about addiction (Brown 1991, Doukas and Cullen 2010). The findings from the teachers confirms this Study's other findings that students often felt their personal beliefs to be challenged by their learning. The practice of challenging established beliefs as a fundamental role of adult education is promoted by Brookfield (2010) and Mezirow (2000) and can contribute to perspective transformation. The implications for teaching is the promotion of an environment that is safe and in which students can be challenged.

The findings of this Study indicated that many teachers considered that students did experience a transformation in their beliefs and perspectives about addiction while at university. The teachers further reflected on other changes to students, with the most noted being changes in confidence in practice, level of knowledge, and students changing their view about their identity, with a sense of developing maturity. This was described by one teacher as emerging 'emotional knowledge' and this kind of emotional change is acknowledged as part of the process of transformative change (Mezirow 2009). The teachers reported change in confidence and improved interpersonal skills in the students, which supports Terrion's (2012) findings in her study of recovery students at university.

Although the results indicate that many teachers reported a change in the beliefs and perspectives of students, a few teachers noted limited dramatic or significant change in student beliefs. These teachers considered that some students become more knowledgeable, but that they do not change their beliefs. It is the process of accommodating new information rather than assimilating with prior knowledge that is suggested by some teachers (Piaget ,1951). This view supported by arguments that transformative change is considered least likely with those students with a disease or 12-step background, and would be consistent with the research of Brown (1991) and Doukas and Cullen (2010), who

predicted a resistance to change in people with a Disease or an AA belief background.

Many other teachers, however, voiced an opposing viewpoint that students from a 12-step background make the most dramatic changes to their beliefs. This finding supports previous research about students in recovery changing beliefs through education (Greene 2015). Contradicting perspectives were found among the teachers about the possibility of transformative change in students with a 12 step and Disease belief. One explanation may be the context of the universities which may help explain the observed change or absence of change in students by the teachers. Teachers who made the observations about an absence of transformative change in students with 12-step background are from university C. This could be explained by the size of the class, the mix of students, the duration of the courses and consequently contact with the teacher, that could influence a perception of change occurring. A potential reason why some teachers at this university did not consider perspective change occurring in students with an AA or 12-step belief background is that the key ingredient of a community of practice to help a transition, especially for those with lived experience or a background from AA, is possibly absent or limited from the university environment. Teachers may therefore not see change, as these students may be unlikely to change in this environment without the support of others. This is further reflected in the different teachers' views regarding factors that encourage transformative change. A few teachers identified the motivation of the individual student as paramount for experiencing change and many others clearly highlighted the role of the student group, or a community of practice, as an important facilitating factor in student transformative change. These different findings on teachers views of perceived student change relate to different university contexts, their mix of student profile and the beliefs of the teachers about the influences for transformative change.

Concerning facilitating factors of perspective change, the findings from the teachers highlighted factors that they considered as supporting students change, such as student motivation, class group dynamics, their own role and the practice placement. What was surprising about the findings is that the teachers did not report any disorientating event precipitating student change, which does not support the research of Mezirow (1994,2009), who considered this as the

catalyst for change. A possible explanation could be that this crucial event occurred before the students attended the university, especially with those students in recovery. A few teachers in this current Study considered student's motivation and what they 'bring into the classroom' as the most important factor precipitating change. This consistent with the argument by Brock (2010) who suggested students are perhaps primed and receptive for a transformative change experience.

The importance of a community of practice and a conducive environment to foster change was considered by some teachers as a facilitating factor for change. The practice of creating a supportive environment for the students, challenging and inspiring them, is considered by the teachers as pivotal to enabling the conditions to encourage transformative change (Cranton 2012). Finally, as noted by Cranton (2012), referring to the factors that act as a catalyst for transformative change, there is no universal factor for all students. This multiple perspective for change was reflected in the current Study with some teachers citing multiple and additional factors in the university experience that combine to foster transformative change.

The findings further indicated that teachers considered their own role and behaviour important to inspire and encourage students to change. It is noted that all the teachers in the Study had experience of practice and many still have links to professional groups related to the addiction field. These factors could make a crucial difference to the student experience of making the link between theory and practice, critically reflecting on their practice, provide opportunities for students to explore their beliefs and thus encouraging transformative learning in students. The learning within practice and the transfer of knowledge to a practice environment was considered by many teachers as a major step to transforming students' beliefs and assumptions. The importance of adult students' ability to link their learning to practice issues is noted by Knowles (1984) and Brookfield (2010) suggested that the main part of learning for practitioners was reflection on the difficulties in every day practice. This contrasts with the views of the students, who considered the practice element of their studies as helpful for improving practice skills and linking with theory, but not assisting a change in beliefs.

The teachers' views about perspective transformative change occurring in students reflected a variety of perspectives. Most teachers clearly identify changes in students' beliefs, assumptions, confidence in practice and identity change as examples of a change in perspective. These findings are consistent with the reports from the students. However, some teachers perceived change as more limited, with students more likely to make small changes and to accommodate rather than assimilate new knowledge.

In summary, the recommendations for practice from discussion of the Study's findings are as follows:

- Further research on the assessment of perspective change should measure more fully established beliefs, with a focus on how they have been altered or unchanged.

- The assessment of Transformative perspective change should consider changes in both personal and practice beliefs.

- Teaching of students in recovery should consider that most are likely to be non-traditional adult learners and so teaching should reflect the practice and principles of adult education.

- Teaching should value students' recovery experiences and link with academic learning.

- For students in recovery encouraging a community of practice and providing a supportive learning environment at university is very important to help students consider different perspectives.

- Teachers should recognise that the beginning of students' studies is a window of opportunity for a change in perspectives. In addition, it is also important to recognise that for some students there is both continual and gradual change.

- A change in students' perspectives should be facilitated with teaching critical reflection skills and encouraging learning activities that challenge student beliefs.

- 'Theories of addiction' which encourages critical reflection on beliefs should be considered an essential topic for teaching about addiction.

- It is recommended that UK and Scottish government policy promotes and encourages people in recovery participating in higher education, as this would enable them to adopt a more flexible approach and apply practice that is informed by evidence based research.

- It is recommended that the addiction services would benefit from a national coordinated investment in the education of practitioners, as higher education contributes both the improvement of the addiction workforce and the quality of specialist services.

7.9 Conclusion

The conclusion will focus on the main findings of this Study considering implications for practitioners in the drug and alcohol field. This Study set out to determine if drug and alcohol education at university can trigger perspective transformation, with a focus on students whose beliefs are rooted with a lived experience of alcohol or drug problems. This Study and its findings are important because this is the first-time research into university education and the impact on student beliefs, involving students in recovery, has been conducted in the UK.

The research method used a multiple case study design with a mixed method approach in a longitudinal study of 35 students at three UK universities studying drugs and alcohol. Qualitative and quantitative data was collected from three time points during the Study, but with the main data source from semi-structured interviews. The use of interviews at different time points over the course of the students' studies, with the triangulation of quantitative data, has not previously been used in the study of perspective transformation with drug and alcohol students.

The findings suggest that in most cases students' experience at university changed their perspectives about drug and alcohol beliefs. The students changed their beliefs about drugs and alcohol from having a limited view to adopting more open and complex perspectives. This was particularly relevant for those students in recovery who had drug and alcohol lived experience, with most adopting a more Free-will perspective to their beliefs about drugs and alcohol as their studies progressed. The findings confirm previous research that reports on the impact of university education courses on changing students' drug and alcohol beliefs and practice. The findings also contradict other previous work, that would argue students with drug and alcohol lived experience would be unlikely to change their perspectives when confronted with new knowledge that conflicts with their established beliefs. The implication suggests the experience of education is a key factor that can assist addiction practitioners change their thinking, beliefs and perspectives to adopt a more inclusive approach about addiction.

Most students were willing to accept other beliefs and perspectives and became more flexible in their approach toward drugs and alcohol practice. These findings are important as they indicate the experience of university helps students critically reflect on their beliefs and become more accommodating of different ways to practice. The implications are particularly important for the education of the drug and alcohol workforce, especially those workers with lived experience, with helping them to adopt evidence as a basis to inform their practice. A specialist educated workforce that is more educated and flexible in its approach to drug and alcohol practice is more likely to benefit people with addiction problems.

A particularly important finding was that although students changed their perspectives to embrace a more Free-will belief, many students continued to express attachment to their established beliefs, mostly of a Disease perspective. This feature for many students was that they held two contrary beliefs simultaneously, and this is consistent with other research which indicates that practitioners in the drug and alcohol field who endorse one belief can also indicate support for other beliefs. Rather than the abandonment of established beliefs, however, there was change to their practice beliefs. Most students expressed a Free-will perspective in terms of their practice, but regarding personal beliefs reserved commitment to a Disease belief perspective. Interpretation of this finding suggests that students compartmentalise their beliefs because of dissonance caused by holding different perspectives. Therefore, students accommodate their new knowledge in a personal context, but assimilate their learning into their practice.

The Study findings indicate that students displayed many characteristics of transformational change: becoming more critical, open to other perspectives and doing things differently in practice. This finding implies students can develop a willingness to accept and accommodate other beliefs, but continue to hold a different set of beliefs in their personal views toward addiction. It is commonly assumed that students who hold two perspectives are in a stage of change, or a ‘liminal’ state, and in a process of transition from one stage to another. In this study, however, students did not fluctuate in their personal beliefs through time, but

changed in relation to practice beliefs. The longitudinal nature of this Study suggests that the holding of two diverse beliefs was not a temporary stage in perspective transformation, but more of a permanent accommodation of beliefs. The findings thus concur that holding of contrary views is a common feature of practitioners' beliefs in the drug and alcohol field, especially practitioners with lived experience and a Disease belief.

The implication of these findings suggest that university helps students become better informed about the variety in drug and alcohol practice and become more accepting of other beliefs. The outcome of a better-informed practitioner, tolerant of a diversity of views and beliefs about drug and alcohol practice is desirable not just for education, but these are practitioner qualities that are desirable in the drug and alcohol workforce. The implication for drug and alcohol policy is the promotion of an educated rather than trained workforce, who will be more likely to develop, adapt and more importantly innovate new practice to help people with addiction problems.

The findings in this Study suggest that change usually happens quite early, but also gradually develops and is confirmed over time. The rate of student perspective change in this Study is higher than comparable studies. An explanation for the early change in students' perspectives is that perhaps they were already motivated and anticipated change before beginning their studies. For those students with lived experience, there was a sense of a 'calling', and it is suggested these students are more likely to be receptive to change early in their studies. An implication for teaching is recognising the motivation of students, especially those students with lived experience presenting to university and their potential enthusiasm for change.

The longitudinal approach of this Study indicated that most students changed their perspectives and continued to further change as they progressed with their studies. Although some students changed slowly and others apparently experienced no perspective change, most of the students had changed by the half-way stage in their studies. One possible explanation for this early change is that in the first half of the students'

studies, there was a trigger for change. In the context of drug and alcohol studies the findings indicate that the topic of 'Theories of Addiction' appeared to be the trigger for change. This caused students to be aware of their beliefs and consider changing their perspectives about drugs and alcohol, becoming more tolerant of other beliefs. It was found however that changing from one set of beliefs to another was a challenging experience for most of the students. The implications for teaching addiction suggests it is important teachers note the importance of the topic 'Theories of Addiction' as a trigger for facilitating perspective change with students.

The findings indicate other key factors helped facilitate a change in students' perspectives. The triggers as identified by both the students and teachers suggest that a supportive environment and being challenged facilitated perspective transformation. The supportive class environment, the social aspect of learning, involvement in discourse and the students' perception of a peer 'community of practice' were important contributors to promote change. In this environment, the mixed nature of student backgrounds was considered useful to students by exposing them to different viewpoints that challenged their beliefs. The challenge from both other students and teachers in the classroom as well as challenge from written assessments promoted critical reflection and perspective change. The critical reflection of beliefs was especially found to be facilitated by assessments that stimulated a challenge to students' beliefs. The implication for teaching suggests promoting the combination of challenge and supportive environment will be conducive to students changing their perspectives.

The findings of this Study also indicate that all the students gained confidence in their practice and a sense of personal development and maturity, from their university experience. Students' confidence increased as their studies progressed and this was reflected in them becoming more critical and questioning of their practice. These findings would appear to suggest that a major benefit from attending university, especially for non-traditional adult learners, which included all the students with lived experience, was an increase in confidence both personally and for their

drug and alcohol practice. This finding is consistent with research from adult learning. The implication of this Study is that higher education can facilitate the personal development of students and practitioners in recovery, and so provide an important contribution to the improvement of the drug and alcohol workforce.

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Appendices

Appendix 1

The University of Glasgow, charity number SC004401

Plain language Statement

Students experience of participating in Alcohol and Drug studies within Higher Education.

My name is Archie Fulton and I will conduct this research project as a student for the coursework Doctorate of Philosophy (PhD) in Education. This research is being undertaken as part of a project within the University of Glasgow Faculty of Education.

I would like your help to take part in this research. The purpose of the study is to help learn about how students perceive their learning experience during the course of the study of Alcohol and Drug misuse at University.

At the beginning of the course all students will be asked to participate by completion of a questionnaire which will take approximately 15 minutes to complete. Students from the class will then be invited to participate in a focus group meeting which will last approximately 20minutes to discuss a few issues in the questionnaire in more detail. It is intended that this focus group will be audio-recorded. A selection of students completing the questionnaire will be invited for a more in depth personal interview approximately half

way through the course of study which will last no more than a maximum of 30 minutes. A similar interview with these same participants will be arranged at completion of the course of study and at a time point one year later.

It is up to you to decide whether or not to take part. Take time to decide whether or not you wish to take part. If you decide to take part you are still free to withdraw at any time and without giving a reason. If you decide not to participate in this study then this will not affect any of your assessments in the course work. If you decide to withdraw from the study then this will not affect your course work in any way.

You are asked to be involved in this study as you are part of a new student cohort studying Alcohol and Drug misuse at University. All new students that commence a course of studies specialising in Alcohol and Drug misuse in this University and another University will be invited to participate.

All information collected about you in the course of this research will be kept strictly confidential. Information collected about you will have your name and address removed and a code number allocated, which will only be known to the main researcher Archie Fulton.

Some information may be shared with my supervisor Dr Andy Furlong. All this information will be kept anonymised so that you cannot be recognised from it.

The results of this research study will form part of the researcher's PhD thesis. This is likely to be published in 2015 and will be available via the library at the University of Glasgow. The information gathered from this research may be used for publication and you will not be identified in any future report/publication.

If you have any concerns or questions about this research you can contact Archie Fulton, the researcher (tel: 0141-330-8097 or a.fulton@educ.gla.ac.uk). The research supervisor of this study, namely Dr Andy Furlong can also be contacted for clarification (tel:0141-330-4667 or a.furlong@educ.gla.ac.uk).

If you have any concerns regarding the conduct of the research project you can contact the Faculty of Education Ethics Officer, Dr Georgina Wardle at g.wardle@educ.gla.ac.uk

Appendix 2

University of Glasgow | Faculty of Education

The University of Glasgow, charity number SC004401

Drug and Alcohol misuse and Higher Educational experience questionnaire

This short questionnaire is designed to help us understand more about the student experience entering higher education to study the topic of Drug and Alcohol misuse.
There is no correct answer and it is important that you try to answer as closely as possible to how you feel.
The questionnaire is a research instrument and not a test.
All information will be treated as confidential and this cover sheet will be destroyed once your questionnaire is given a code number.
Please put your name on this sheet.

NAME……

Thank you for your kind co-operation.

Code number……

Sex: Male … Female……

Age in years ……

Job Title (current or most recent job)

……
……..

How many years have you worked in the Alcohol and Drug field in the role of a counsellor/Alcohol and/or Drug treatment provider/other?

.....
.....

Are you a member of any professional group? (e.g. nursing, certified counsellor… If yes please give details

……
……..

What type of Alcohol and/or Drug problems do you work with?

……
……

What is the main treatment method for Alcohol and Drug misuse that most accurately reflects the treatment approach in your workplace? (e.g. substitute prescribing, abstinence, controlled drinking)

……
……

Have you had a personal problem with Alcohol or Drug problems in the past? Yes ☐ No ☐

If Yes – did you attend a treatment agency? Yes ☐ No ☐

Have you previously, or presently, attended a 12-step programme (e.g. AA or NA)
Previously ……Currently attending at present ……?

Are you currently abstinent? Yes ☐ No ☐

How did you get involved in working with people with Alcohol and/or Drug problems?

……
……

What type of education/training have you received about Alcohol and/or Drug misuse?

……
……

In total how many hours education/training have you received about Alcohol and/or Drug misuse? And at what level (e.g. one or two day courses)?

……
……

……
……
……

Prior Education Please indicate the highest level of education

No previous qualification	
Standard Grades / GCSE / O Level	
Higher Grades / A Level	
Access Course to University	
Other (e.g. SVQ, NVQ) Please specify:…….	
HNC/Certificate of Higher Education	
HND/Diploma of Higher Education	
Graduate (EU)	
Graduate (Overseas)	
Degree/Honours Degree (UK)	
Higher Degree (UK)	

What is the MAIN reason YOU decided to take this course of study

……
……

What expectations do you have about taking this course of study (what do you think you will get from participating in this course)?

……

Appendix 3

University of Glasgow | Faculty of Education

The University of Glasgow, charity number SC004401

Drug and Alcohol misuse and Higher Education Addiction Beliefs questionnaire

Listed below are some statements about individuals who have substance abuse problems.
Please rate each statement for how well it describes your own beliefs.
It is important to note that there is no correct answer.

Listed below are some statements about individuals who have substance abuse problems. Please mark the extent to which you agree or disagree each statement along the 5 point scale.	**1 = STRONGLY DISAGREE » 5 = STRONGLY AGREE (PLEASE √)**				
	1 STRONGLY DISAGREE	**2 DISAGREE**	**3 UNCERTAIN**	**4 AGREE**	**5 STRONGLY AGREE**
Most addicts don't know they have a problem and must be forced to recognise they are addicts.					
Addicts cannot control themselves when they drink or take drugs.					
The only solution to drug addiction and/or alcoholism is treatment.					
The best way to overcome addiction is by relying on your own willpower.					

Addiction is an all-or-nothing disease: A person cannot be a temporary drug addict with a mild drinking or drug problem.					
People can stop relying on drugs or alcohol as they develop new ways to deal with life.					
Addiction has more to do with the environment people live in than the drugs they are addicted to.					
People often outgrow drug and alcohol addiction.					
The most important step in overcoming an addiction is to acknowledge that you are powerless and can't control it.					
Abstinence is the only way to control alcoholism/drug addiction.					
Physiology, not psychology, determines whether one drinker will become addicted to alcohol and another will not.					
Alcoholics and drug addicts can learn to moderate their drinking or cut down on their drug use.					
People can become addicted to drugs/alcohol when life is going badly for them.					
The fact that alcoholism runs in families means that it is a genetic disease.					
You have to rely on yourself to overcome an addiction such as alcoholism.					
Drug addicts and alcoholics can find their own ways out of addiction, without outside help, given the opportunity.					
People who are drug addicted can never outgrow addiction and are always in danger of relapsing.					
Drug addiction is a way of life people rely on to cope with the world.					

Appendix 4

Student Learning Activity Questionnaire

This questionnaire helps us learn about the experiences of adult learners. We believe that important things happen when adults learn new things. Only with your help can we learn more about this.

The questionnaire only takes a short time to complete and your responses will be kept anonymous and given a code number only identified by the researcher.

Thank you for taking part in this research; your cooperation is much appreciated.

Name…….

Code Number…….

Thinking about your educational experience at this University tick any of the statements that may apply to you.

I had an experience that caused me to question the way I normally act.

I had an experience that caused me to question my ideas about social roles (Examples of social roles include what a mother or father should do or how an adult child should act

As I questioned my ideas, I realised I no longer agreed with my previous beliefs or role expectations

Or instead, as I questioned my ideas, I realised I still agreed with my beliefs or role expectations

I realised that other people also questioned their beliefs

I thought about acting in a different way from my usual beliefs and roles

I felt uncomfortable with traditional social expectations

I tried out new roles so that I would become more comfortable or confident in them

I tried to figure out a way to adopt these new ways of acting

I gathered information I needed to adopt these new ways of acting

I began to think about the reactions and feedback from my new behaviour

I took action and adopted these new ways of acting

I do not identify with any of the statements above

Appendix 5

Student Interview Schedule

Students experience of participating in alcohol and drug studies within Higher Education.

Researcher Preamble

This study is to try to help us understand students' experience about studying drug and alcohol use in an educational/academic course. This it is hoped will help design an improved learning environment for students.

I would like to ask you a few questions about your experience prior to and since commencing your course of study. This will involve a discussion lasting for about approximately 20/30 minutes.

Would you mind if I recorded our discussion? I will also take some brief notes to help with my memory.

This is in order to capture your comments accurately. Only the Administration assistant and myself will listen to the tapes and on transcribing the recording the content will be deleted immediately. The transcription of our discussion will be held in accordance with the Data Protection Act 1998.

I will start the interview and start recording now

Code Number…….

Opening questions – Always begin with - Could you tell me?

Could you tell me….. what your initial impressions are of the course? – What has your experience been like so far?

What sorts of topics have attracted you on the course? – What have you avoided?

What does it feel like to be an academic studying drug and alcohol studies at University? (What does your colleagues at work/ Family / Friends think?)

What do you think are the challenges to students entering the course of study on Drugs and Alcohol?

Do you notice a relationship between your practice with drug and alcohol problems and your learning experience? How? (Expand and Explore)

Explore and Expand on any answers from LAS statements noted by the Student

Since you have been taking courses at this University, have you experienced a time when you realised that your values, beliefs, opinions or expectations had changed

Could you tell me briefly what happened? Any examples?

What (do you attribute the change to) influenced this change? (Tick all that apply)

Was it a person who influenced this change?

Was it part of a class assignment that influenced the change?

Was it a significant change in your life that influenced the change?

If yes, what was it?

Thinking back when you first realised that your views or perspectives had changed, what did your being at University have to do with the experience of change?

Would you characterise yourself as one who usually thinks back over previous decisions or past behaviour?

Would you say that you frequently reflect upon the meaning of your studies for yourself, personally?

(Explore and Expand)

Do you think we have covered all aspects of your learning at University?

Is there anything else you would like to add?

I would like to interview you again at the end of your studies, would that be alright?

When do you studies end? ……

How best to contact you about this research? ……

Thank you very much for participating in this interview.

Appendix 6

The University of Glasgow, charity number SC004401

Drug and Alcohol misuse and Higher Educational experience questionnaire

This short questionnaire is designed to help us understand more about the University Teachers/Lecturers experience of Higher Education teaching the topic of Drug and Alcohol misuse.

There is no correct answer and it is important that you try to answer as closely as possible to how you feel.

The questionnaire is a research instrument and not a test.

All information will be treated as confidential and this cover sheet will be destroyed once your questionnaire is given a code number.

Thank you for your kind co-operation.

Code number……..

Sex: Male …….. Female…….

Age in years ……

Job Title (current or most recent job)

……

……...

How many years have you worked in the Alcohol and Drug field in the role of a counsellor/Alcohol and/or Drug treatment provider/ University teacher?

……...

Are you a member of any professional group? (e.g. nursing, certified counsellor) ……

If yes please give details

……

……...

Have you had a personal problem with Alcohol or Drug problems in the past?

Yes ☐ No ☐

If Yes – did you attend a treatment agency? Yes ☐ No ☐

Have you previously, or presently, attended a 12-step programme (e.g. AA or NA)

Previously ……..Currently attending at present …….?

Are you currently abstinent ? Yes ☐ No ☐

What type of education/training have you received about Alcohol and/or Drug misuse?

……

Appendix 7

University Teacher/Lecturer Interview Schedule

Students experience of participating in alcohol and drug studies within Higher Education.

Researcher Preamble

This study is to try to help us understand students' experience about studying drug and alcohol use in an educational/academic course. This it is hoped will help design an improved learning environment for students.

I would like to ask you a few questions about your experience of teaching. This will involve a discussion lasting for about approximately 20 minutes.

Would you mind if I recorded our discussion? I will also take some brief notes to help with my memory.

This is in order to capture your comments accurately. Only the Administration assistant and myself will listen to the tapes and on transcribing the recording the content will be deleted immediately. The transcription of our discussion will be held in accordance with the Data Protection Act 1998.

It is up to you to decide whether or not to take part. Take time to decide whether or not you wish to take part. If you decide to take part you are still free to withdraw at any time and without giving a reason. If you decide not to participate in this study or if you decide to withdraw from the study then this will not affect your work in any way. Some of the information asked will be of a personal nature, but you can refuse to answer any question and there is no requirement to answer any of the questions.

I will start the interview and start recording now

Questions –

Could you tell me about the programme you teach on? – What has your experience of Teaching been like with this cohort of students?

What are your expectations of students' learning on the course of study you have been teaching on?

What factors have been involved in your students learning, in this course of study?

What do you think are the challenges to students entering the course of study on Drugs and Alcohol?

Do you notice any relationship between working practice with drug and alcohol problems and the student learning experience on the course? How? In what way? (Expand and Explore)

Do you see any sort of changes in students during/completing their course of study, that you teach?
Could you tell me briefly about what happened in these cases? Any examples?

What do you attribute these changes to? What do you think influenced this change?

Do you think we have covered all aspects of your students' learning at University?

Is there anything else you would like to add?

Appendix 8

Interview Question response analysis at half-way in studies: Question response
Change in beliefs
Yes
(32B;39B;43B;54B;55B;57B;58B;61B;2A;5A;10A;11A;12A;13A;17A;67A;69A;70A;72A;73A;74A;89C;90C;101C;102C;107C – related to placement;108C:111C)
No (36B;41B;3A;9A;19C;20C;47C;49C;77A;82C;91C;100C (not really);103C)
Maybe (34B;41B;62B;63B;66B;16A;27C;68A –slightly; 51C – in addition to other courses)
Most students indicted a change in their beliefs since beginning their course of studies. According to the typology of Schaler the majority of students are of a Free will perspective, although there are some with a Disease belief. The vast majority of no change in beliefs are from students with an indication of Free-will beliefs. A few students indicted that thought their beliefs had been modified rather than changed completely.

Personal challenge (32B;34B)
Questioned things (43B;59B;2A;10A) – narrow focused view – challenge is not uncomfortable (11A;17A;112C –beliefs; 13A;15A;70A;67A;78Ga;82C – look at things differently – 104C;108C - personal behaviour)
Less judgemental (32B;54B;20C;70A- more sympathetic;107C)
Personal realisation (of being judgemental) (32B;61B;70A)
Questioned things (34B;36B;64B;49C;67A;76A –my ideas – my childhood 43B; 90C questioning behaviour)
In Recovery (34B;39B;43B;59B)
become more broader minded (34B;41B;55B;10A;12A;15A)
In relation to the course, students who considered that their beliefs had changed or modified where asked to give examples of this change. The majority of students spoke about their beliefs being challenged by the course experience, which resulted in them questioning their beliefs (Critical reflection?). The students who considered

things differently spoke of becoming less judgemental of other people and ideas. This questioning of beliefs and being challenged has resulted in people moving from being narrow minded to being much more broad minded about addiction aspects, such as options for treatment interventions. For some this questioning of beliefs in relation to their idea of recovery has changed. A number of students stated that previously they had only one conception of recovery, but the course changed that view and now students report consideration of other routes to recovery for people with addiction problems. people this challenge is unsettling, but not for others.

No change in beliefs

Slight changes where I have questioned(34B) – more broad minded
still retain some beliefs(39B;19C;102C)
reinforced pervious knowledge (82C;91C)
compliment previous knowledge (36B;19C;67A;73A–
change not to do with course (37B)
just a better understanding (3A)
slightly more empathic(9A)
wary of ideas changing initially, but no real conflict(77A)

For a large number of students the course has complimented and reinforced their previous knowledge, there has been slight changes, but their beliefs have not changed radically.

Personal change

personal change – change behaviour - more assertive (37B)- 54B listen more to people – 58B interacting with people;5A change in practice 73A change in thinking of options -
for Recovery (39B;41B;61B;66B;72A;101C)
A better understanding (3A; - greater awareness 16A;19C;27C)
Light bulb moment 101C

Students spoke about a change in their behaviour toward people in their work and personal life. Comments about being more understanding and empathetic and interacting more with people are examples of a change in practice. These changes have resulted from more knowledge and so consideration of more options for treatment interventions.

Appendix 9

Framework for analysing longitudinal qualitative data (Saldana,2003)

Framing questions

What is different or the same about the data in the two-time periods?
When does change occur through time?
What context and intervening conditions effect change?

Descriptive questions

What increases or emerges through time?
Are their epiphanies that occur through time?
What is consistent through time?

Interpretive questions

What changes interrelate through time?
Are the changes through time a natural development or a process?
What is the through line of the study? (this refers to the researcher's main observations about change).

Appendix 10

Tests of association (chi-squared)	sex: male and female	Age	University	Belief score	Personal problem with addiction
University	x (2)= 4.401,p=.111	x (2)= 11.921,p=.003		X (1)=5.669,p=0.59	
Degree educated	x (1)=3.137,p=.077	x(1)=12.979,p=.000	x(2)=78.586,p=.000	x(1)=2.985,p=.084*1	X (1)=19.094,p=0.000
Working in the addiction field	x (2)=2.572,p=.276	x(1)=7.145,p=.008	x(4)=32.912,p=.000	x(1)=.098,p=.754 *2	X(1)=0.000,p=0.991
Belonging to a professional group	x (1) =0.281,p=.596	x(1)=5.021,p=.025	x(2)=2.151,p=.341	x(1)=2.252,p=.133 *3	X(1)=1.145,p=0.285
Belief score	x(1)=.351,p=.554	x(1)=1.634,p=.201	x (2)=5.669,p=.059		
Personal problem with addiction	x (1)=9.908,p=.002	x(1)=8.543,p=.003	x(2)=33.930,p=.000	x(1)=4.831,p=.028	
Contact with AA	x(1)=4.228,p=.040	x(1)=10.101,p=.001	x(2)=16.470,p=.000	x(1)=6.214,p=.013	X(1)=35.990,p=0.000

Being Abstinent	x(1)=5.871,p=.015	X(1)=11.438,p=.001	x(2)=24.960,p=.000	x (1)=4.367,p=.037	X(1)=45.119,p=0.000

*1 Although this fails to be statistically significant association, consideration the comparison of the count and expected count and Phi measure of strength of association(-.175,p=0.84) indicates that students who are degree educated are likely to indicate a free will belief.
*2 There was a significant association (p=.031) with the length of experience of working in the field and beliefs; x=6.942,p=.031.(one cell (16.7%)with a count less than 5). This indicates that there is an association with working longer in the field and indicating a disease belief.
*3 there was 1 cell (25%) with a minimum expected count less than 5 in this calculation

Test of difference (independent samples t-test)	ABS score	Disease score sub-set	Free will sub set
Sex	M(49.45±8.281) F(48.61±8.053) (-0.845(95%CI,-4.30 to 2.61) t(95)=-0.485,p=0.629	M(23.36±6.485) F(22.77±5.149) (-0.591(95%CI-2.97 to 1.78) t(97)=-0.493,p=0.623	M(26.26±4.238)F (25.69±4.235) (-0.572(95%CI,-2.35 to 1.20). t(97)=-0.638,p=0.525
Age	under 36 (47.89±6.039) over 36 (49.77±9.503) (0.242,(95%CI,-5.05 to 1.29) * t(87.59)=-1.17,p=0.24	under 36 (22.67±4.922) over 36 (23.22±6.148) (-0.556(95%CI-2.76 to 1.65)* t(96.86)—0.499,p=0.619	under 36 (25.38±3.480) over 36 (26.35±4.785) (-0.963,95%CI,-2.64 to 0.721) t(97)=-1.13,p=0.259

Personal problem	personal problem (51.03±10.375) no problem (47.78±6.574) (3.250(95%CI,-0.801 to 7.301) * t(43.82)=1.61,p=0.11	personal problem (24.47±6.501) no problem (22.20±5.033) (2.272(95%CI -0.351 to 4.894) * t (49.63)=1.74,p=0.08	personal problem (26.45±5.065) no problem (25.63±3.821) (0.825(95%CI,-1.007 to 2.657) t(96)=0.94,p=0.374
abstinence	abstinence (53.00±9.731) non-abstinence (48.19±7.045) (4.814(95%CI,-0.807 to 8.820) t(43.004)=2.230,p=0.031	abstinent (25.81±5.871) non-abstinent (22.61±5.371) (3.201(95%CI 0.487 to 5.915) t(51.37)=2.30,p=0.25	abstinent (26.78±5.301) non-abstinent (25.77±3.872) (1.010(95%CI,-1.181 to 3.202) t(43.32)=0.857,p=0.396
AA contact	contact with AA (56.94±7.554) no AA contact (48.48±7.587) (8.464(95%CI,4.134 to 12.794) t(59)=3.91,p=0.005	contact with AA (27.94±4.905) no contact with AA (23.38±5.420) (4.563(95%CI 1.552 to 7.574) t(60)=3.03,p=0.004	contact with AA (28.35±4.834) no contact with AA (25.27±4.178). (3.080(95%CI,0.585 to 5.575) t(59)=2.47,p=0.016

Data are mean± standard deviation, unless otherwise stated. There were 64 females and 33 men student participants.

* The homogeneity of variances was violated as assessed by Levenes test

Test of difference (one-way ANOVA)	ABS score	Disease score sub-set	Free will sub set
University attended	Uni B (53.31±8.629), Uni A(48.15±8.146) Uni C (46.75±6.793) F(2,94)=6.106,p=.003)	Uni B(25.96±5.242), Uni A(22.67±6.557) Uni C (21.46±4.550) F(2,96)=5.973,p=.004)	UniB(27.16±4.997), Uni A(25.36±4.020) Uni C (25.52±3.822) F(2,96)=1.545,p=.219)
Addiction work experience	Never worked (50.18±7.022) less than 5 years (46.80±6.708) more than 5 years (48.79±11.769) *3.376 (95%CI,-.64 to 7.39),p=0.116	Never worked(23.85±4.928) less than 5 years(35.41±10.059) more than 5 years (35.95±10.538) *2.423(95%CI,-.23 to 5.08),p=0.080	Never worked(26.25±3.915), less than 5 years(25.64±3.946) more than 5 years (25.35±5.499) F(2,94)=.383,p=.683),p=0.683
Contact with AA	Previous contact(53.50±7.047), Current contact(58±7.649) and never any contact(48.48±7.587) F(2,58)=8.199,p=.001)	Previous contact(25.00±4.690), Current contact(28.85±4.776) and never any contact(23.38±5.420) F(2,59)=5.462,p=.007)	Current contact(28.57±5.185) and never any contact(25.27±4.178) F(2,58)=3.108,p=.052)
Highest educational achievement	School qualifications(52.69±5.534), vocational qualifications (49.06±9.980) degree and above qualifications(47.55±7.112) *5.136 (95CI,.92 to 9.35),p=0.14	School qualifications(25.50±4.705), vocational qualifications (23.38±6.890) degree and above qualifications(21.92±4.711) *3.578(95CI,.22 to 6.94),p=0.35	School qualifications(27.00±4.071), vocational qualifications (25.52±4.868) degree and above qualifications(25.80±3.832) F(92,96)=.654,p=0.522

Appendix 11

From Anticipation to Reflection: Student Belief scores from the ABS

Number of students at first contact

University	With a personal problem
A - 28	8
B - 27	20
C - 56	6
Total = 111	34

Data was obtained from students about their addiction beliefs with ABS (Addiction Belief Score) scores taken at first contact, in the first week of their studies, and the last contact, in the final week of their studies. 31 students from the universities were able to be contacted at the two-time points, with data from the ABS.

Figures from the Universities

Students 1st & 2nd interviews completed = 35, but only 31 sets of complete data from both times
Students 1st & 2nd interviews; university A=15; B=15; C=5
Students 1st & 2nd ABS-scores completed =31 (4 sets of incomplete data)

Change of Beliefs

31 Students ABS (Addiction Belief Score) between 1st (time 1) and last contact (time 2) indicated = 22 did not change belief category (20 free-will; 2 disease)

9 did change beliefs

(6 disease to free-will,3 free will to disease belief)

3 changed beliefs; (free-will to disease)	score time 1	time 2	disease score (time 1-2)	Free-will score (time 1-2)
subject:	36	51	55	27 – 31	24 - 24
	37	50	55	24 – 28	26 – 27
	41	50	54	24 – 28	26 - 26

(Higher score = Disease belief and lower score free-will belief;
+ve score on disease and -ve score on free-will) (* the cut off score for indicating a disease or a free will score is 54)

In the 6 subjects that moved from disease score to free-will score in all the cases the disease score dropped and the free will score increased.

6 changed beliefs; (disease to free-will)	score time 1	time 2	disease score (time 1-2)	Free-will score (time 1-2)
subject:	3	56	40	31 - 17	25 - 23
	11	55	46	20 – 19	35 - 27
	15	61	45	39 – 29	23 - 16

40	66	52	32 – 24	34 - 28
57	56	39	29 – 20	27 - 19
77	62	48	34 – 26	28 – 22

(Higher score = Disease belief and lower score free will belief;
+ve score on disease and -ve score on free will) (* the cut off score for indicating a disease or a free will score is 54)

AA Contact

Students 1st & 2nd interviews with AA (Alcoholics Anonymous) contact = 10 thus 21 with no AA contact.

Students with AA contact ABS (Addiction Belief Score) between 1st and last contact indicated = 6 did not change beliefs

3 did change beliefs
(2 disease to free will,1 free will to disease belief)
1 missing score

3 changed beliefs;	score time 1	time 2	disease score (time 1-2)	Free will score (time 1-2)
subject: 40	66	52	32 – 24	34 - 28
41	50	54	24 – 28	26 - 26
77	62	48	34 – 26	28 – 22

(Higher score = Disease belief and lower score free will belief;
+ve score on disease and -ve score on free will)

Personal Problem

Students 1st & 2nd interviews with Personal problem= 16; thus 15 with no personal problem

Students with personal problem ABS (Addiction Belief Score) between 1st and last contact indicated = 11 did not change beliefs

4 did change beliefs

(3 disease to free will,1 free will to disease belief)

1 missing score

4 changed beliefs;	score time 1	time 2	disease score (time 1-2)	Free will score (time 1-2)
subject: 40	66	52	32 – 24	34 - 28
41	50	54	24 – 28	26 - 26
77	62	48	34 – 26	28 – 22
57	56	39	29 – 20	27 – 19

(Higher score = Disease belief and lower score free will belief;
+ve score on disease and -ve score on free will)