Social Identity: A Grounded Theory of Experiences of Cannabis Use and Psychosis

&

Clinical Research Portfolio

PART ONE

(Part Two bound separately)

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TABLE OF CONTENTS

PART ONE (this bound copy)

		Page
Chapter One	**Systematic Literature Review** Cannabis Use: A Metasynthesis of Qualitative Research	1
Chapter Two	**Major Research Project Paper** Social Identity: A Grounded Theory of Experiences of Cannabis Use and Psychosis	43
Chapter Three	**Advanced Practice I Reflective Critical Account Abstract** A Reflective Account of Sharing Information	93
Chapter Four	**Advanced Practice II Reflective Critical Account Abstract** A Reflective Account of Becoming Involved in a Service Re-design Process	95

APPENDICES

Appendix 1	Guidelines for submission to *Addiction*	97
Appendix 2	Systematic Literature Review	102
Appendix 3	Major Research Project Paper	107
Appendix 4	Major Research Project Proposal	117

PART TWO (separate bound copy)

Chapter Three	**Advanced Practice I Reflective Critical Account** A Reflective Account of Sharing Information	1
Chapter Four	**Advanced Practice II Reflective Critical Account** A Reflective Account of Becoming Involved in a Service Re-design Process	19

Chapter One

Systematic Literature Review

Cannabis Use: A Metasynthesis of Qualitative Research

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ABSTRACT

Aims The UK government's decision in May 2008 to re-classify cannabis as a Class B substance highlights the ambivalence and uncertainty that surrounds cannabis use. There has been a recent growth in qualitative literature exploring cannabis use, however no systematic review of this research has been conducted to date. This systematic review aimed to appraise and assimilate qualitative studies that investigated the phenomenon of cannabis use and, in doing so, provide an enriched understanding of individuals' experiences of using cannabis. **Methods** The literature was searched and a methodological review of the seven studies that met selection criteria was undertaken. A metasynthesis was then conducted using the meta-ethnographic approach of Noblit & Hare [Noblit G. W., Hare R. D. Meta-ethnography: synthesising qualitative studies. London: Sage Publications; 1988]. **Results** Four overarching themes emerged: I) the experience of using cannabis II) the integration of cannabis use in participants' lives III) the impact of using an illegal substance and IV) the perception of control of the experience of using cannabis. **Conclusions** The understanding of cannabis use that emerged from the findings provides insight into the motivations for using cannabis and has important implications in terms of clinical practice. This metasynthesis suggests that current understandings of cannabis use need to be re-constructed in light of society's changing attitudes towards the substance. In order to formulate a coherent and fuller understanding of individuals' cannabis use, a culturally-based framework that acknowledges issues relating to social identity and control of use must be adopted.

Key words: cannabis, metasynthesis, social identity, control, qualitative, review.

INTRODUCTION

Controversy exists around the issue of cannabis use and the appropriate classification of the substance has long been debated. Substances that are controlled under the Misuse of Drugs Act are grouped into three different categories on the basis of their harmfulness, Class A being the most harmful and Class C being the least harmful. In May 2008 the UK government announced a reversal of policy and re-classified cannabis from a Class C to a Class B substance. This decision stands in contradiction to the advice given by the Advisory Council on the Misuse of Drugs [1] who were tasked with reviewing the medical evidence relating to the harmfulness of the substance. The re-classification of cannabis has legal implications in terms of increased penalties for the possession and supply of the substance. It may also lead to an inflated sense of the potential health consequences of using cannabis. This has direct implications on how cannabis is viewed by the public and the way in which understandings surrounding the substance are constructed. The government's incoherence regarding classification serves to highlight the ambivalence and uncertainty that surrounds the substance.

Cannabis is one of the most commonly used illicit drugs [2]. Epidemiological studies conducted within the last decade indicate that up to 50% of adolescents have used cannabis at least once [3,4]. The UK is thought to have one of the highest rates of cannabis use in the world and cannabis use appears to be higher in Scotland than other parts of the UK [5].

Research has linked negative physical [6] and psychological [7] consequences with cannabis use. A review conducted by Hall & Solowij (1998) [8] found that acute effects of cannabis included euphoria and relaxation, perceptual alterations, infectious laughter in social

situations, impaired attention and motor skills, anxiety and panic attacks. Heavy cannabis use was found to be associated with subtle impairment of memory, attention and organisation of complex information, with longer-term use being associated with more pronounced cognitive impairments [8].

In recent years, particular attention has been paid to the link between cannabis use and psychosis. Results of a large longitudinal population-based study [9] confirmed previous suggestions that cannabis use increases the risk of both the incidence of psychosis and a poorer prognosis for those with an established vulnerability to psychotic disorder.

Most individual's cannabis use is thought to be intermittent and time-limited, with few people engaging in daily use over a number of years [10]. However, as many as one in six adolescents who use cannabis may develop dependence upon it at some point [11]. Despite the reporting of physical and psychological withdrawal symptoms [12], the concept of physiological dependence of cannabis has been questioned. However, a recent review [13] highlighted that a neurobiological basis for cannabis withdrawal has now been established.

The number of people seeking treatment for cannabis use is increasing in European countries [14]. Denis et al (2007) [15] reviewed six randomized controlled trials of the effectiveness of treatment of cannabis misuse. Whilst they found CBT to be the most effective treatment, cannabis use was noted to be difficult to treat in outpatient settings. Relapse rates after treatment are thought to be high, with as much as 70% of individuals returning to cannabis use [16].

Research investigating the phenomenology of cannabis use is limited, with much of this focusing on epidemiological studies and investigations of the negative effects associated with use. However, research has recently begun to focus on exploring the experience of using the substance, and the reasons and motivations that maintain cannabis use have been investigated [17]. Much of this research has taken the form of qualitative investigation. Qualitative methods have the capacity to explore human behaviour, allowing scope for the exploration of the personal meaning of experiences. Such methods have proven valuable in demystifying drug and alcohol use and replacing stereotypes and myths about addiction with more accurate information that reflects the daily reality of substance users' lives [18].

Due to the recent growth in qualitative literature exploring cannabis use, there is a need to integrate the emerging themes from this research. To the author's knowledge, no systematic review focusing specifically on qualitative investigations of cannabis use has yet been conducted. This review aimed to appraise and assimilate findings in qualitative literature that explore the phenomenon of cannabis use. A metasynthesis approach was employed. Metasynthesis can be described as a process of blending a group of qualitative studies in order to discover the common essence [19] and is thought to promote fuller knowledge of the subject area [20]. It is hypothesised that this synthesis will provide an enriched understanding of cannabis use, and will have important implications in terms of guiding clinical practice and contributing to future research and policy-making decisions.

METHODS

Study selection and characteristics

Inclusion and exclusion criteria

Studies were included if they used primarily qualitative methodology and if the topic in question focused primarily on cannabis use. Only articles written in English and published in peer-reviewed journals were included. Studies that focused on exploring the effects of using cannabis for medicinal purposes were excluded, as were studies that contained qualitative elements but were primarily quantitative in nature. For studies that were primarily qualitative in nature but contained quantitative elements, only data from the qualitative portion of the study was included for synthesis.

There has been some debate over whether to combine studies with differing qualitative methods due to the consideration that the epistemological frameworks inherent in the methodologies may lead to the generation of different types of knowledge [21]. While some suggest that it is disagreeable to combine different methodologies when conducting a metasynthesis [22], others consider synthesising findings to be of primary importance [23]. This metasynthesis has included all qualitative studies, regardless of the particular methodology.

Search Strategy

Studies were identified through a literature search of the Medline, CINAHL, all EBM Reviews, EMBASE and PsychINFO databases between 1987 and October 2007. The following search terms were used to locate studies: (CANNABIS) or (CANNABIS USE) or (MARIJUANA) or (HASHISH) or (HASH) or (GANJA) or (HEMP) AND (QUALITATIVE) or (GROUNDED

THEORY) or (NARRATIVE) or (INTERPRETATIVE PHENOMENOLOGY) or (SOCIAL CONSTRUCTION$) or (EXPLORATION) or (FOCUS GROUP) or (ETHNO$) or (OBSERVATIONAL) or (CONTENT ANALYSIS) or (DISCOURSE ANALYSIS) or (CONSTANT COMPARATIVE) or (GROUNDED STUD$).

The search criteria yielded a total of 319 studies. The study abstracts were scanned for eligibility and nine potentially eligible studies were identified, three of which were later excluded as they were not written in English [24,25,26].

The reference sections of each of the six studies identified were then examined manually for identification of further potential studies. Four further studies were identified, however one was later excluded as it employed case study methodology [27], and a further two were excluded [28,29] as although these studies were qualitative in nature, they sought to verify an original theory [30] and therefore had philosophical underpinnings routed in quantitative research.

Methodological review

This metasynthesis has chosen to include all studies, regardless of methodological quality, in order to be as inclusive as possible. It has been recognised that in reality few grounds exist for the exclusion of data due to lack of methodological quality, but rather that they can still be used for synthesis [23]. A methodological review of the included studies was undertaken in order to inform the author's understanding of the individual studies and the ways in which the methodology shaped the research findings.

There is no absolute list of criteria by which to assess the quality of qualitative research studies [31]. In order to evaluate the studies an appraisal guide was used. This guide was developed by Svanberg (2006) [32] and is aimed at integrating evaluative criteria from a number of sources [33,34,35,36] (Appendix 2.1). The criteria were ordered under Yardley's (2000) guidelines of: design; context sensitivity; ethics; commitment and rigour; transparency and coherence; impact and importance [33].

Qualitative data synthesis

A metasynthesis approach has been employed as this approach aims at an integrative interpretation of findings from single, related, qualitative studies to synthesis a substantive description of the phenomenon [37]. Such an approach allows for the development of novel, yet experientially faithful interpretative integrations of qualitative research findings [38]. Data extraction and synthesis was thematic. The thematic framework evolved as the data extraction and synthesis proceeded, rather than being constructed before the process began [39]. Noblit & Hare's (1988) steps for conducting metasynthesis were followed [40]. This strategy has been adopted in many studies as it provides a systematic, yet interpretative methodological approach [41].

Insert table 1 here

Once papers were identified, the author read and re-read each study and identified the significant data. A card sorting method was then employed. Individual index cards were created, with each card containing a piece of significant data extracted from the individual studies, coded to identify origin. The cards were then compared to determine their relation to

each other and conceptually organised to ascertain commonalities and themes. Careful attention was paid to whether the relationships between metaphors (e.g. themes, concepts or phrases) were reciprocal, refutational or presenting a line of argument. It was decided that the relationships were of a reciprocal nature, however where differences occurred these are highlighted. The metaphors across the studies were then translated into a new interpretation of the phenomenon.

A note on heterogeneity

The heterogeneity of the sample allowed for a richer interpretive understanding of a range of cannabis use experiences to emerge. Qualitative methodology recognises that the social world is complex and dynamic and is constructed from multiple realities [42]. The authors own theoretical orientation towards a social constructionist version [43] of the original grounded theory [44] is particularly well suited for this metasynthesis, due to its acknowledgement that any theoretic rendering offers an interpretive portrayal of the studied world, not an exact picture of it [45,46].

The decision was made not to synthesis all findings due to the idiosyncratic nature of the individual papers, as this would have placed undue strain on the analysis. The reader is directed to the individual papers for an in-depth understanding of each study. The language used to describe cannabis use varied throughout the individual studies. The author chose to use the term ‘cannabis’ as this is the term with which she is most familiar.

Study characteristics

Seven studies were included in this metasynthesis [17,47,48,49,50,51,52]. These articles were published between 2004 and 2006.

Insert table 2 here

Two of the seven studies included were conducted in the UK [17,51], two in San Francisco [52,49], one in Oklahoma [48], one in Switzerland [50] and one in Hawaii [47]. Studies focused on exploring cannabis and other drug careers [47], the experience of cannabis in adulthood [48], the role of cannabis in youth gangs [49], adolescent and adult perceptions of cannabis use [50], the relationship between drug use and social environment [52] and the relationship between cannabis and cigarette smoking [17,51].

Epistemological framework

Of the seven studies included in this metasynthesis, few actually specify their epistemological framework. Five of the seven studies employed exclusively qualitative methodology. Of these, two followed a grounded theory approach using semi-structured interviews [17,48], one of which also employed ethnographic methods to supplement the data [17]. Another of the exclusively qualitative papers used both ethnographic methods and in-depth interviews [52]. The final two exclusively qualitative studies used generic qualitative approaches [50,51]. Both employed focus group techniques, one of which also used semi-structured interviews [51]. Of the two 'mixed' studies [47,49], both used generic qualitative methods, which comprised of a structured questionnaire followed by in-depth interviews.

Sample characteristics

The studies involved 731 participants (559 male and 172 female). Participants were aged 13 years and upwards, with the sample weighing heavily towards younger participants. The sample included both users and non-users of cannabis. Participants encompassed a range of different groups of individuals from a variety of socioeconomic backgrounds including youth gang members, younger and older adolescents, current and former adult cannabis users, parents and professionals.

RESULTS

A note on methodology

Sensitivity to context

A number of studies demonstrated particular methodological strengths by giving examples of their use of qualitative processes. For example, several of the studies specifically stated that they used a purposive sampling approach [17,48,51]. The snowball method was utilised to recruit participants in several studies. While one study [50] simply stated that some participants were recruited through 'word of mouth', others [48,49] provided details of how this method of recruitment was employed.

Several studies [48,49,52] provided an in-depth understanding of the cultural context of participants, which helped to situate the sample and facilitate understanding of the context.

The need to be sensitive to the context of research was considered by two studies [17,51] through the choice of interview mode e.g. individual, paired or threesome. Some studies also

offered a choice of location [47,48,49] however the public nature of the various locations may raise ethical concerns. Recognition that the context of the interviews may shape and influence the participants' views does not appear to be adequately addressed in any of the studies.

There was evidence that all studies at least in part adhered to a position similar to Carrick et al [53, pg 22] where *'the primary concern being to convey a genuine belief that participants hold valuable information'*. One study [52] showed an explicit intention to empower participants by changing their interviews in response to participant feedback. Another study [17] highlighted the importance of placing the young people themselves as 'experts' and giving participants a sense of autonomy and influence.

Commitment and rigor

Evidence of an in-depth engagement with the topic and demonstration of competence and skill in the chosen method should be considered when evaluating qualitative research [33]. In one study [52] interviewers were trained in the use of probes to deepen the quality of responses. In-depth engagement with the topic was thought to be enhanced through the use of paired interviews in one study [51], however it could be said that this interview approach may render participants susceptible to social desirability effects and thus prevent the authors from obtaining true representations of the individuals' experiences and thoughts.

All but one [49] of the studies stated that interviews were transcribed. Many of the studies did not give details of analysis. One study provided transparency of findings by presenting their coding framework [52]. This study also highlighted that regular discussions amongst the research team and the reviewing of transcripts allowed for emergent themes to be further

explored in subsequent interviews. Another study [48] described use of the constant comparative method [44] to identify themes and patterns in the data. In one study it was stated that *'as similar processes and themes surfaced, all prior transcripts were re-examined and analysed to refine and confirm the accuracy of conclusions'* [47, pg 67], however no evidence of how this shaped the data was provided.

Evidence of the use of data triangulation was provided by one study [17] through the use of ethnographic methods. The research team in this study also engaged in regular discussions on emerging themes to ensure analytical rigor.

Barbour (2001) highlighted the importance of validation in qualitative research [54]. Several of the studies demonstrated commitment by validating their findings in a number of ways. In one study [49] this was addressed by rephrasing and repeating questions and cross checking on respondents' veracity through weekly staff discussions and field observations. Another of the studies [50] used regular discussions between the authors as an aid to reach consensus on the most prevalent attitudes and beliefs expressed in each of their focus groups and then compared and contrasted various formulations.

Reflexitivity and philosophical underpinnings

In general, the studies struggled to show evidence of reflexivity, with little mention of the researcher's own role, potential bias and influence. No study mentioned the use of reflexive diaries. There was a lack of acknowledgement of the philosophical underpinnings of qualitative research methods. Grounded theory and ethnographic approaches have been highlighted by three of the studies [17,48,52]; however none of these studies provided

evidence of detailed knowledge regarding the philosophical background of their chosen method.

Ethical considerations

Only one study specifically stated that they had obtained ethical approval from a recognised committee [50]. Three of the studies failed to mention issues concerning informed consent at all [47,49,51]. One study [50] showed particular strength in this area, providing a detailed description of the process of obtaining informed consent. They also asked participants to respect the confidentiality of others and had a process of referring participants to a healthcare service if required.

Theoretical importance

With regards to theoretical importance of the research, one study [17] stated that the research applied an iterative approach which ensured that previous work and existing theories and concepts were woven into the interpretive process of the data analysis.

Reflecting on these limitations, a more detailed methodological evaluation is beyond the scope of this analysis.

Synthesis findings

For purposes of clarity, participants' quotes are presented in *italic* and authors' quotes are presented in **bold.** Four higher-order themes are presented.

I. The experience of using cannabis

Initiation into cannabis use

"But for the simple fact me knowing what they was doing, I was kind of like, uh, wanting to know, curious what they was doing. You know what I'm saying? Curious of what weed would do to you, so basically. That's how I started smoking, being around it." [47; pg113].

Four of the studies discussed the theme of initiation into cannabis use. Becoming a cannabis user was described by one study as **'deceptively simply'** [47; pg68]. Many participants were exposed to cannabis use through peers or family members before they themselves began to use the substance. In one study [47] cannabis use was very much part of participants family context and was contextualised as a 'normal' adult social affair. Being in the company of others who use cannabis evoked a sense of curiosity, leading some to initiate use of the substance. Seeking to experience a novel sensation and overcoming the fear of potential negative consequences were highlighted as important factors in becoming a cannabis user, as was having access to the substance. All seven of the studies discussed the notion of availability of cannabis. Whether through friends or dealers, in general cannabis was readily available. *"Because weed, they don't ask you for I.D." [52; pg142]*. Similar findings have been noted in other studies [55]. The notion of rebellion was not seen as a reason for beginning to use cannabis and this was linked with the pervasiveness of the substance in modern society.

In some cultures the use of cannabis was viewed as 'macho' and individuals chose to use cannabis in order to create such a self-image [52]. The need to feel accepted and part of a social group was also highlighted as a reason for beginning to smoke cannabis. For some,

their social identity to an extent necessitated the use of cannabis and at times this created a feeling of being pressured into using the substance.

First experiences of using cannabis occurred most often in the company of friends or family members, with less experienced individuals learning about how to use the substance from those with more experience. Once taken, finding the experience as pleasurable and enjoyable was important in terms of motivation for future use.

The social aspect of using cannabis

"I easily prefer it in the company of friends…'Cuz I think it's a social drug, I really do…with marijuana it's almost like it entices you to be social to some degree." [48; pg165].

Five of the studies made reference to the social aspect of cannabis use. Using cannabis was most often viewed as a shared activity and seen to increase group rapport and foster a sense of acceptance. *"Maybe it's reassuring, you are part of the group, you are old enough." [50; pg479].* The notion of cannabis working to increase solidarity within the group has been sited by other authors [56,57,58].

While there was a preference to use cannabis in social settings, for some adult participants this was not always possible due to a reduction in friends who use cannabis, or a reduction in free time. Having less access to a social group who used cannabis meant some were more willing to use the substance by themselves. Reductions in the situational influence of peers lead to choices about whether to use cannabis being based on individual rather than group preferences.

Affect regulation

"*I was so high like this, I was like in another dimension. It was weird, everything got slow, everything moved in slow motion. So I liked it. I mean I don't have to think about the problems that I have. Like every problem just seemed to go away. Like just relax." [50; pg128]*.

The theme of affect regulation was present in six of the studies. Cannabis was viewed as having a positive functional value in terms of relaxation and the substance was conceptualised as one of the few ways that such a state could be achieved. *"We gotta catch a good feeling in some way." [49; pg129]*. Whilst the relaxed state that cannabis induced was mostly viewed as beneficial, a participant in one study highlighted a lack of motivation as being a potential drawback [47].

Throughout the studies there was a sense that cannabis allowed participants to disengage, providing a 'time out' from the stresses associated with the everyday realities of participants' lives. Cannabis was viewed as a sensible way to cope with stress, providing relief and instilling a sense of calmness. While the source of perceived stress may have varied between studies, the functional value that cannabis had in terms of allowing participants to temporarily disengage and forget about these stressors was evident throughout the narratives relating to this theme.

Studies also referred to the therapeutic qualities of cannabis, the role of cannabis in terms of fostering creativity and the role that cannabis played in terms of regulating sleep patterns. *"That's what's good about it, puts you straight to sleep - no bother." [17; pg641]*.

II. Integration of cannabis in participants' lives

The theme of integration of cannabis use in participants' lives was apparent in five of the studies. Studies suggested that the degree to which cannabis use is integrated into participants' lives varied. One study [47] highlighted that participants' level of cannabis use varied at different points in their life, often changing in response to their use of other substances. Cannabis use was viewed as being easier to integrate into participants' lifestyle than other substances, with many participants reporting using cannabis in a way they viewed as manageable.

Studies of adult cannabis users highlighted the separation of cannabis use from other areas of participants' lives. *"Social life, recreationally in my social life, that's the only way it fits in. I don't, it has nothing to do with my job, nor do I go to work or perform on my job, under the influence of marijuana, ever." [48; pg170]*. Life changes in adulthood, such as reduction in leisure time and maintaining adult roles and responsibilities, were associated with a reduction in cannabis use. Even when using cannabis with friends, the activity of smoking cannabis was not seen as central to their socialising. For many adult participants, their cannabis use was viewed as '**a recreational activity of secondary importance to the conventional roles and responsibilities they maintain.' [48; pg168].** In one study [17], participants described their cannabis use as youthful experimentation, a notion that would appear to fit with the cannabis use patterns of many adult participants.

While cannabis use is not conceptualised as a central aspect of adult users' lifestyle, for those involved in gang culture it is understood as part of self-identity. *"I just, I just smoke it cause*

it's like my second, like I don't know, like, like a second personality, it's like it's just me. I been smokin' it for so long that's what I do." [49; pg115]. Studies suggested that the lives of gang members and those living a 'ghetto' lifestyle can be seen as varying significantly from that of other groups of cannabis users. It is important to consider the social context surrounding these participants. '**Life on the streets is governed by rules of masculinity, where notions of honor, respect and status afford outlets for expressing and defending one's masculinity.' [49; pg109]**. As well as playing a role in the underground economy of this group, smoking cannabis was an integral part of participants' use of time. Use of the substance was present throughout this group of participants' daily routines and was understood as a central feature of their socialising *"Smoke weed, and take drugs. Drink. Just go to someone's house and play video games." [52; pg142]*.

Studies have tried to understand the degree to which cannabis use is integrated into participants lives by referring to theories such as acculturalision, the concept of maturation and participants having a 'stake in conventional life' [59,60]. The studies included in this metasynthesis suggest that while the degree to which cannabis is integrated into participants' lives varies greatly depending on cultural circumstances, cannabis use is not perceived as interfering with the lifestyle that participants chose to live.

III. The impact of using an illegal substance

Society's acceptance of cannabis use

"And then it's like we be up by the gym … Niggers got blunts blazin' up. Look in the car, you see a couple a females with drink … And then you go in the gym, there's niggers smoking in the gym." [49; pg123].

Five of the studies discussed the theme of acceptability of cannabis use. Studies suggested that the levels of acceptance of cannabis use varied between different cultures, however in general attitudes towards the substance have changed significantly and cannabis is now viewed as much less deviant than was previously the case. Participants generally expressed the view that cannabis should not be considered a drug. Cannabis was sharply differentiated from the use of other drugs and participants were keen to separate themselves from other 'harder' drug users.

Studies that involved participants from gang cultures [49,52] did not view cannabis as socially stigmatising. The communities in which these participants lived appeared to tolerate the practice of smoking cannabis, with cannabis use having a public presence. One participant spoke of police tolerance towards smoking cannabis. *"Some of them cops is cool. They'll be like: Man, go on and smoke that." [49; pg124]*.

The public feature of smoking cannabis was noted in another study [50]. Older adolescents viewed cannabis as part of consumer society and some expressed that it may even be considered deviant to not try cannabis. Most parents in this study expressed the view that they accepted experimentation with cannabis and most did not object to casual use. *"Don't our children have the right to smoke cannabis just for fun? Ok you don't have to encourage them but from time to time, you know, there is nothing to worry about." [50; pg479]*. A similar tolerance towards cannabis use was evident in the opinion of several professionals.

Two of the studies suggested that there was some concern regarding community tolerance towards cannabis use [47,48]. Participants in some studies expressed concern about their status as a cannabis user and chose to limit disclosure of their use to trusted individuals. For some

adolescents, this meant hiding their cannabis use from parents and other authority figures. In one study a participant described encountering conflict with peers who chose not to use cannabis. *"I know one of my friends is very critical of it. We've talked about it a few times, you know, had a couple of heated conversations about it. No, she doesn't like it at all." [48; pg174]*.

Opinion on the decriminalisation of cannabis can be seen to give insight into society's attitudes with regards to acceptability of the substance. This issue was addressed in one study [50]. Most younger adolescents were against decriminalisation, expressing concern regarding the possible increase in consumption rates as a result. *"I am totally opposed to legalization; decriminalisation means that one accepts cannabis use as normal." [50; pg480]*. Most older adolescents and adults favoured decriminalisation for those over the age of 18, expressing the view that this could lead to tighter control of the substance. Others highlighted that the law regarding cannabis use was not currently applied. *"It's crazy, some teachers have young people smoking pot in front of them and they don't react." [50; pg481]*.

The risks associated with cannabis use

"It's not as if it kills you." [51; pg79].

Before becoming a cannabis user, participants appeared to view the substance as potentially dangerous. However, individual perceptions of the risk associated with use appeared to change over time. In most studies, participants collectively understood cannabis as having a benign status and did not view it as harmful. However, in one study adults expressed a lack of

understanding of the risks associated with use. *"It's clear that I personally still don't know if it is dangerous or not." [50; pg479]*.

In comparison to other substances, cannabis was viewed as being a more sensible choice. *"In fact, alcohol and cigarettes are far more dangerous, you see, cigarettes are a drug, you get hooked quite easily." [50; pg478]*. The effects of cannabis were understood as being milder and to have less physical consequences than other substances. Use of cannabis was also thought to be less likely to lead to confrontations with others in comparison with other substances and was viewed as being less risky than other 'harder' drugs such as cocaine, heroin or hallucinogens.

The benign status of cannabis was most pertinent in young people's perceptions of the differences between cannabis and tobacco. Tobacco was viewed as fostering dependency, whereas cannabis was not viewed as addictive. Moreover, cannabis was viewed as somehow being able to undo the negative physical consequences caused by tobacco. *"Yeah, if you take a cigarette, right, and then you smoke joint straight after it, all the smoke from the cigarette gets killed and that, on the way down from the hash smoke." [17; pg639]*.

An awareness of and concern regarding the potential legal risks associated with cannabis use was highlighted in one study [48]. Some participants expressed the opinion that the level of legal risk associated with use had increased over time. Leading a more 'conventional' lifestyle led participants to be concerned that being 'found out' may have a detrimental effect on their careers and family life. While the actual risk of being arrested may be considered low, participants were nonetheless concerned about this. Many engaged in self-regulatory strategies

to minimise this risk, such as limiting knowledge of their cannabis use, reducing the amount they used, obtaining the substance through friends rather than a dealer and only using in places that they considered to be safe. *"Like I would never smoke it in my car or have it in my car." [48; pg171]*.

IV. The perception of control of the experience of using cannabis

The perception of control

"I liked the feeling and I could control myself. I didn't have to take a lot for me to feel a buzz. I would just take a couple of hits and put it away and then do stuff." [47; pg68].

Studies suggested that participants' cannabis use levels fluctuated over time. While some participants described periods in their life where they engaged in heavier use of cannabis, many had gravitated towards moderate use. Many developed rituals, routines or rules to limit their cannabis use. Participants' discourse highlighted that they felt in control of their cannabis use and studies suggested that participants felt that cannabis was easier to control than other substance. *"I can control my pot smoking. When it comes to drinking, I just keep on drinking. So I think it's way better than drinking." [47; pg69]*. In one study participants were found to be engaging in a rational decision-making process regarding the costs and benefits of their use. The authors understood this to be evidence of participants' ability to control their cannabis use [48].

One study [50] asked participants for their views on the misuse of cannabis. On defining misuse, the issue of how much and how often was thought to be important. *"If you smoke constantly, regularly." [50; pg480]*. Some identified using cannabis for functional gains and

viewed the development of psychosocial consequences as indicators of misuse. The perception of vulnerability towards developing problems associated with cannabis use was also highlighted. *"I know of teenagers who have taken cannabis daily and succeeded in their exams …but if you have psychiatric problems, cannabis brings a lot of problems." [50; pg480]*.

Experiencing and coping with tolerance

"But if you smoke it too much, it don't hit you no more." [52; pg145].

Studies suggested that participants experienced tolerance of the effects of cannabis. Developing tolerance was viewed as negative as it interfered with the ability to experience the pleasurable effects of cannabis. One study suggested that participants chose to reduce the amount of cannabis they consumed in order to avoid tolerance. *"Well, the rule is, once you feel the buzz you stop- because you don't want to waste the pot. No matter how much more you smoke, you still goin' feel the same. So why waste it? I've leaned to pick it out real good now- the high." [47; pg72]*.

Cutting back or quitting cannabis use

Five studies discussed the theme of reducing or quitting cannabis use. One participant expressed a belief in their ability to control their use and abstain from using cannabis if required. *"Hash isn't, that, like, addictive, it's just something, like, you do if you're bored. 'Cause, I could just go, no, I've stopped, and I wouldn't take it again." [17; pg639]*. Decisions to reduce or quit cannabis use appeared to be motivated by social factors, when cannabis use becomes incompatible with participants' daily lives or due to a conscious decision to avoid the

problem of tolerance. Some chose to reduce their cannabis use due to financial pressures. *"I have (quit), um, when I got laid-off from my job … in 1992 and moved back to Oklahoma, I couldn't afford it." [48; pg173]*. For many participants, the process of reducing or quitting cannabis was not viewed as a difficult process, and was said to require less effort than limiting the use of other substances, such as ***nicotine, alcohol, cocaine, opiates, and methamphetamine. [47, pg72].*** Similar findings have been reported in other studies, with young people reporting the ability to modify or stop their cannabis use without apparent difficulty when their circumstances improve or their priorities change [61].

In one study [52] several respondents were reported to have been trying to quit their cannabis use at the time of interview as a result of the terms of their probation or due to a 'consciousness change'. However, participants' experience of attempting to quit is unclear. The authors hypothesise that abstaining from cannabis may present participants with a challenge in terms of their social identity.

DISCUSSION

This systematic review aimed to appraise and assimilate qualitative studies that investigated the phenomenon of cannabis use and in doing so provide an enriched understanding of individuals' experiences of using cannabis.

Summary of results

A methodological critique suggested that there is a positive movement towards attempting to understand the experiences of using cannabis by utilising qualitative approaches to encourage

in-depth engagement with the topic. However, studies in this area lacked transparency in terms of the generation of themes and displayed a general lack of reflexivity and acknowledgement of the philosophical underpinnings of qualitative research. This lack of clarity posed a challenge for the author in terms of synthesising the findings.

This metasynthesis suggested that participants' socially and personally constructed cannabis use and experiences of using the substance were shaped by the social context in which they lived. The reader is guarded against generating overly firmed conclusions about a process that is so strongly culturally defined and idiosyncratic in terms of the social, political, interpersonal and personal experience of individuals. In an exploration of heavy cannabis use amongst UK teenagers [62], it was concluded that teenage heavy cannabis users have varied motivations and contexts for their usage and that this should not be conceptualised as a homogeneous group. Similar findings have been noted by other authors [15]. This metasynthesis recognises that it is not possible to essentialise the experiences of the different sub-groups of cannabis users; however four common themes relating to experiences of cannabis use were apparent in the small body of research reviewed. The four themes were: I) the experience of using cannabis II) the integration of cannabis use in participant's lives III) the impact of using an illegal substance and IV) the perception of control of the experience of using cannabis.

Across cultural groups, cannabis use was viewed as playing an integral role in affect regulation, providing users a means of disengaging from the everyday stresses of life. The notion of using cannabis to relieve stress is comparable with coping models of substance use. Such models propose that substances are used to regulate affect through positive affect enhancement and negative affect reduction [63,64]. The stress-coping model of Wills [65]

postulates that stress occurs when demands from an individual's environment outweigh their coping resources and that individuals who engage in avoidant coping strategies are more likely to use substances. A revision of this model highlights that living in an environment that leads to the development of poor self-control is also likely to increase an individuals coping motives for substance use [66].

Cannabis can be understood as an important aspect of many peoples identity [67]. Studies in this metasynthesis viewed cannabis as a social substance, increasing rapport and fostering acceptance within a group. Indeed, most participants first began using cannabis with peers and some felt pressured to use cannabis in order to conform to group expectations. Differences between social groups emerged in respect to the integration of cannabis use in participants' lives, this very much depending on the degree to which cannabis is integrated into participants' surrounding culture. In this respect one's identity as a cannabis user can be seen as fluid, changing in response to the social context in which they find themselves. Similar findings regarding the social context of cannabis use have been found using a longitudinal case-study approach [27]. This study concluded that the meanings young men attach to their cannabis use can be understood in the social context of their transitions to adulthood, and that cannabis use helps form and sustain users' identities and friendship groups [27].

Studies included in this metasynthesis found that the risks associated with cannabis were viewed as being minimal, with the substance having a rather 'benign' status. Across cultures there seems to be a move towards acceptance of cannabis use and cannabis use is viewed in sharp contrast to the use of other substances. Previously, the cannabis user was seen as a 'drug-taker' and could easily be defined as a member of a distinctive subgroup [30]. The

current findings suggest that this view is now outdated. Cannabis use is now more socially accepted and there is no longer a 'typical' cannabis user. However, use of the substance is not universally accepted and in some cultures there remains a concern about the potential legal ramifications of using cannabis, a finding that was evident in the studies included in this metasynthesis. By not distinguishing use from abuse the political context of social control directly places consumers in a situation of deviance [68].

In this metasynthesis one of the central features that participants enjoyed about using cannabis was their perceived ability to control the effects of the substance. Participants engaged in a rational decision-making process regarding their use and reported being able to reduce or stop their use if necessary. The findings suggest that individuals can and do engage in the recreational use of cannabis in a way that they feel able to control. Despite the substance being very much integrated into some participants' lives they did not view their cannabis use as problematic. The finding suggest that when defining cannabis misuse it is important to consider whether the individual perceives their use to be problematic, rather than defining misuse or dependency in terms of quantity.

Bandura's self-efficacy theory [69] has been applied to facilitate understanding of substance use. This theory postulates that belief in one's ability to control their use is important in the initiation, modification and cessation of substance use, with a stronger belief being associated with a greater probability of success. This theory also postulates that as dependency increases, an individuals' belief in their ability to abstain reduces. Studies included in this metasynthesis suggest that cannabis users have high levels of self-efficacy in relation to their cannabis use. However, it must be noted that the studies included in this metasynthesis were not focused on

clinical populations and a rather different picture concerning control is likely to be found in individuals who perceive their cannabis use as problematic.

Limitations of metasynthesis

A methodological review of included studies was conducted to inform the authors understanding of the emergence of findings from the individual studies. It could be argued that a more coherent methodological review of the included studies and the use of a 'signal to noise ratio' approach, where the weight of the studies' message is balanced against its methodological rigour [70], would have allowed for a balance to be struck between quality and the value of the study and thus enhanced the metasynthesis. However, the author was mindful of the contention regarding the critical appraisal of qualitative research in that is can be seen as attempting to limit bias, which has been said to be antithetical to the philosophical foundations of qualitative approaches [71].

Metasynthesis has been noted to encompass strong incentives for enriching human discourse [40] and has been said to 'push the level of theory' [72]. However the author recognises that developing new interpretations relies on the extent to which individual authors own interpretations represent a true reflection of participants' narratives. By its very nature the interpretation of other researchers' interpretations may have potentially limited the validity of this metasynthesis.

Implications for practice

Despite the above limitations, the current metasynthesis has allowed for qualitative findings to be more accessible in practice. The understanding of cannabis use that emerged from the

findings provides insight into the motivations for using cannabis and has important implications in terms of clinical practice. Traditional understandings of cannabis use have been constructed within a framework of 'deviance'. Current understandings of the substance need to be reconstructed in light of the move towards society's acceptance of cannabis use and the realisation that many individuals are able to use cannabis in a way that they do not view as being harmful.

Policy-makers, service providers and agencies have a responsibility to attend to and incorporate the social context of individuals in understanding and managing cannabis use. In order to formulate a coherent and fuller understanding of individuals cannabis use, a culturally-based framework that acknowledges issues relating to social identity must be adopted.

Implications for future research

The findings suggest that there is a need for more coherent information regarding the risks associated with cannabis use to be made available to the public. There is a need for future research to address the influence and interplay of culture and the social aspect of cannabis in order to fully understand the impact that this has on individuals' cannabis use. The heterogeneous nature of cannabis use poses a challenge in terms of investigating this phenomenon and further consideration regarding this issue is required in future research. There is also a need for further qualitative research to be conducted that provides transparency of findings and an appreciation of the theoretical orientation of the approach undertaken.

Conclusions

This synthesis elucidated four themes that reflected the experiences associated with cannabis use. Cannabis use is culturally defined and idiosyncratic in terms of the social, political, interpersonal and personal experience of individuals. The experience of using cannabis plays an integral role in affect regulation and one's identity as a cannabis user can be seen as fluid, changing in response to the social context in which the individual finds himself or herself. The results suggest that current understandings of cannabis use need to be reconstructed in light of society's changing attitudes towards the substance. There is a need to incorporate the concepts of control and social context in order to formulate a fuller, more coherent understanding of individuals' cannabis use.

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Table 1

Steps in the Conduct of a Metasynthesis (Noblit & Hare, 1988)

1. Identify the area of interest that a set of studies could inform
2. Decide which studies are relevant to the area of interest
3. Repeated reading of the studies noting interpretive metaphors
4. Determining how the studies are related
5. Translating studies collectively
6. Synthesising the translations
7. Expressing the synthesis

(taken from Kennedy et al (2003)

Table 2: Summary of included studies

Authors	Year	Place	Area of Exploration	Methodological Orientation	Sample
Hallstone, M	2006	Hawai'i	An exploratory investigation of marijuana and other drug careers.	Mixed design. Traditional qualitative methods. In-depth interviews, detailed questionnaire with both structured and unstructured responses used to guide interviews.	Current of former marijuana users. 15 females and 16 males, age range from 18 to 55, mean age of 34.5. 28 distinct ethnicities- 18 considered Caucasian, 10 ethnicities reported were Hawiian, Tahitian, Japanese, Chinese, Filipino, Portuguese, American Indian, Mexican, Puerto Rican, and African American. 17 reported mixed ethnicity. Diverse educational levels reported.
Shukla, R. K	2005	Oklahoma	Experience of using marijuana in adulthood. Investigated how adult marijuana users integrate their marijuana use into their otherwise conventional lifestyles.	Grounded theory approach. Semi-structured interviews used.	29 adult marijuana users. 17 males and 12 females. 19 regular marijuana users and 10 social users. Marijuana careers ranging from 1 – 34 years. Age range 18 – 52 years. 25 of the subjects Caucasian. 27 legitimately employed (service or manual labour to professional occupation). 19 have some college or higher, including 5 individuals who have one or more graduate degrees. 18 have had no contact with the criminal justice system. 11 have prior arrests, mainly due to minor criminal offences related to their drug use.
MacKenzie, K., Hunt, G. & Joe-Laidler, K	2005	Ethnic youth gangs in San Francisco	The role of marijuana in youth gangs.	Mixed design. Generic qualitative methods. Drawn from a larger study of 383 interviews. Interviewed in two stages- a quantitative interview schedule followed by an in-depth focused interview.	274 born in the US. 177 African American, 103 Latino, 79 Asian/Pacific Islanders, 24 mixed ethnicity or other backgrounds. Age range 13 – 50, median age of 18yrs. 243 were 18 or younger. All male. 55% had been involved in gangs from 1 – 5 years, a quarter from 6 – 10 years and 5% for less than a year. One-fourth had completed high school, 45% were attending some form of educational programme. The majority were single and had no children. Majority unemployed at time of interview. Drug sales represented the major source of income for 57%. Overall, working and lower class.

Menghrajani, P., Klaue, K., Dubois-Arber, F. & Michaud, P. A	2004	Switzerland	Adolescents and adults perceptions of cannabis use.	Generic qualitative methods Focus groups, which followed a topic guide of 5 main questions.	13 Younger adolescents (aged 13-15, girls and 5 boys), 19 Older adolescents (aged 16-19, 9 girls and 10 boys), 8 Parents (5 mothers and 3 fathers) and 13 Professionals (7 females and 6 males). Adolescents recruited irrespective of cannabis use background. Amongst older adolescents there were abstinent, experimental and regular users of cannabis.
Highet, G	2004	Scotland (Lothian Region)	Focus on the relationship between cannabis and tobacco-related beliefs and behaviours.	General grounded theory approach. 30 interviews, 21 paired, 5 individual and 4 threesomes. Topic guide used. Ethnographic-data supplemented with data generated from other means, including discussion and field notes based on observations.	59 young people aged 13-15. 32 boys and 27 girls. Selected on the basis of their cigarette and cannabis use experience (21 cannabis and cigarettes, 3 only cannabis, 14 only cigarettes, 21 neither). Range of socioeconomic backgrounds.
Amos, A., Susan, W., Bostock, Y., Haw, S. & McNeill, A	2004	Scotland	To examine the relationship between smoking tobacco and cannabis use among smokers in their mid-to-late teens.	Generic qualitative approach 2 studies- one using semi-structured paired interviews and one using focus groups.	Interviews: 99 16-19-year-old smokers (52 female and 47 male). Range of educational and occupational backgrounds, with the sample weighted towards more disadvantaged smokers. 75 were regular smokers and 24 social smokers. 8 focus groups: 46 15-16-year-old smokers (24 female and 22 male).
Lee, J. P. & Kirkpatrick, S	2005	San Francisco Bay area	A pilot study of the relationships between drug use and the social environment for Southeast Asian youths, intended to guide further more focused research on drug use amongst this population. Findings relate specifically to marijuana.	Generic qualitative methods. Ethnographic methods to gather data on drug use and environment. In-depth interviews following a semi-structured format.	31 drug-involved youths. Low income, predominantly ethnic minority neighbourhoods. Over a third were Cambodian, nearly a third ethnic Mien and approximately 20% Lao. Nearly half were female, and over half were under 18 years. 61% were from East Oakland in Alameda County, 32% resided in the Richmond/San Pablo area. 81% reported having ever used marijuana. Approximately one third had prior involvement with the juvenile and / or adult justice systems.

Chapter Two

Major Research Project Paper

Social Identity: A Grounded Theory of Experiences of Cannabis Use and Psychosis

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ABSTRACT

Aims This study aimed to explore the meaning of cannabis use in individuals who had experienced psychosis. **Design** A social constructionist version of the original grounded theory was used. **Setting** Participants were recruited from three Community Mental Health Centres and an out-patient setting within the Greater Glasgow and Clyde area. **Participants** Fourteen individuals who had a diagnosis of Schizophrenia, Bipolar Disorder or Schizoaffective Disorder and experience of using cannabis were interviewed. **Measurements** Intensive interviewing was employed. **Findings** Analysis revealed a central concept of participants' sense of social identity, which gained expression through the themes of 'sense of agency', 'the cannabis experience' and 'belonging'. Experiences of psychosis and interactions with mental health services were characterised by a sense of lack of agency, whereas participants' narratives of experiences of cannabis conveyed a strong sense that they were the author of their stories. 'The cannabis experience' reflected the complexity of issues surrounding use of the substance within this participant group. The theme of 'belonging' captured the sense of group membership, unity and acceptance that was facilitated by using cannabis and the way in which psychosis served to disrupt this. **Conclusions** The findings are discussed in relation to Tajfel's Social Identity Theory. The importance of understanding cannabis use within a social identity framework, providing opportunities where clients can talk about their experiences and facilitating the empowering process that enables recovery is emphasised.

Key words: cannabis, psychosis, grounded theory, social identity.

INTRODUCTION

Converging epidemiological evidence supports the notion that cannabis use amongst individuals with psychosis is higher than that of the general population [1,2,3,4]. It is estimated that as many as 86% of individuals who experience psychosis have experimented with cannabis [5]. Cannabis use has been associated with greater psychotic symptom severity [6] and increased risk of relapse [7] in individuals with an established psychotic disorder.

Research has focused on establishing an association between cannabis use and the subsequent development of psychosis [8]. A number of large population-based longitudinal studies have been conducted over the past few years [9,10,11,12,13,14,15]. A 15-year prospective study conducted in Sweden was the first to provide evidence that cannabis use may increase the likelihood of development of schizophrenia [9]. A replication of this study [13] confirmed previous findings and provided further insights into the association. Controlling for the effects of other drugs, they found a dose-response relationship between frequency of cannabis use and risk of later psychotic symptoms. Those who were more vulnerable to psychosis were also found to be more likely to develop schizophrenia if they used cannabis [13]. Another study [12] also found a dose-response relationship between the amount of cannabis used and the level of risk of developing psychosis, with larger amounts of cannabis use being associated with an increased likelihood of later reporting of psychotic symptoms.

A number of systematic reviews of the growing epidemiological evidence on the association between cannabis use and psychosis have been conducted [16,17,18]. Semple (2005) [16] concluded that the available evidence supports the hypothesis that cannabis is an independent risk factor for psychosis. Degenhardt & Hall (2006) [17] highlighted that the relationship

between cannabis use and psychosis persisted after controlling for potential confounders. The authors point to evidence of the involvement of the cannabinoid system in psychosis and argue that a causal relation between cannabis and psychosis is biologically plausible [19,20].

A recent synthesis of the available evidence by Moore (2007) [18] found an increased risk of psychotic outcome in individuals who frequently used cannabis, however the strength of this association was reduced when taking into account other factors of causality and transient intoxication effects. The Advisory Council on the Misuse of Drugs [21] highlighted that there may be other, unidentified factors that would further reduce the magnitude of the association between cannabis use and development of psychosis.

It is clear that the dominant discourse in relation to cannabis use and psychosis has focused on understanding the association between the substance and the subsequent development of psychotic symptoms. While the epidemiological evidence collected thus far has provided some insight into this highly complex topic area, it could be said that maintaining such a narrow focus has led to a dearth in understanding of why individuals who have experienced psychosis choose to use cannabis. Furthermore, little is known about what impact this dominant discourse may have on the development of meanings of cannabis use as unfolding in the narratives of those who have experienced psychosis. This has important implications in terms of understanding the complexity of cannabis use as it is necessary to understand how individuals perceive and interpret their environment if their behaviour is ever to be interpreted usefully [22].

Despite the growing recognition that cannabis use is now a major element in the clinical management of those who have an established psychotic illness, use of the substance within this group is not well understood [21]. A limited amount of research has focused on exploring the reasons for cannabis use in individuals who have experienced psychosis. An Australian study [23] found that men who had experienced psychosis reported positive mood alterations, coping with negative affect and social activity as reasons for using the substance, whereas men who had not experienced psychosis reported relaxation and social activity as reasons for use.

Schofield et al (2006) [24] examined the reasons for cannabis use among individuals with psychotic disorders. They found that boredom, social motives, improving sleep, anxiety, agitation and negative psychotic symptoms were the most important motivators of cannabis use and that positive symptoms of psychosis were not the primary reason for use within this group.

The conclusions that can be drawn from previous research into the motivations for cannabis use in individuals' who have experienced psychosis are limited as the methodology employed ignores the complexity of the topic area. It has been argued that quantitative methods are not best suited to studying the social world [25]. Quantitative research is associated with a positivist epistemology, focusing on objectivity and fact, whereas qualitative research is concerned with exploring subjective understandings and values [22].

Cannabis use is a socially and personally constructed phenomenon and experiences of using the substance are shaped by social context (see Chapter 1, systematic review). Qualitative research is fundamentally well suited to studying the meanings people place on events in their

lives and how these meanings are connected to the social world around them [26]. Utilising such an approach when exploring substance use has been said to allow insight into the social meanings that participants attach to drug use and the social processes by which such meanings are created [27]. There is now a growing body of qualitative research exploring cannabis use in non-clinical populations (see Chapter 1 for a review), however to the researcher's knowledge no qualitative exploration of cannabis use in individuals who have experienced psychosis has been conducted.

In summary, the aim of this study was to explore the construction of meaning of cannabis use in individuals who had experienced psychosis. It is hoped that identifying the constructs that are important and meaningful to this group will provide in-depth insight into this complex phenomena and that such insights will have the potential to inform the clinical management and development of effective treatments for cannabis use in individuals who have experienced psychosis.

METHODS

Grounded Theory

A social constructionist version [28] of the original grounded theory [29] was used. This approach is derived from symbolic interaction and assumes that behaviour depends on the meanings individuals attribute to their situations [30]. The constructivist approach recognises the mutual creation of knowledge by the viewer and the viewed [31] and explicitly assumes that any theoretical rendering offers an interpretive portrayal of the studied world, not an exact picture of it [32,31,33,34]. The research process employed was dialectical and active and

aimed toward an interpretive understanding of subjects' meanings. This research was sensitised to criteria for qualitative research presented by Yardley (2000) [35] in order to ensure methodological quality.

Participants

Of the fourteen adults who participated in this study, nine had a diagnosis of Schizophrenia, four had a diagnosis of Bipolar Affective Disorder and one had a diagnosis of Schizoaffective Disorder according to ICD-10 classification. Case notes were used to confirm diagnosis. Eleven participants were male and three were female. Participants ranged in age from twenty-four to forty-eight years (median: 36). All participants had past experience of using cannabis and nine participants described themselves as current cannabis users. Participant characteristics are presented in table 1.

Insert table 1 here

Procedures

Recruitment of participants was conducted via advertisement. Advertisement leaflets (Appendix 3.1) were displayed in the waiting areas in three Community Mental Health Centres and an outpatient setting. Those who were interested in taking part in the study completed a tear-off slip, which they returned in an enclosed envelope. The advert made participants explicitly aware that by returning the tear-off slip they were giving permission for the researcher to contact their key worker in order to ascertain that participation would not adversely affect their current treatment plan. Participants were contacted via telephone after communication with their key worker and invited to meet with the researcher. At this stage

they were presented with a Participant Information Sheet (Appendix 3.2) and then had the opportunity to ask any questions. Informed consent was then obtained prior to commencement of the interview (Appendix 3.3).

Interviews

A total of fourteen interviews were conducted. Undertaking a constructivist research endeavour commits the researcher to a relationship of reciprocity with the participants [36]. In order to facilitate a more equal power-balance, interviews were scheduled at a time and date of the participant's choice and took place in settings familiar to participants, such as the Community Mental Health Centre that they regularly attended. Interview length was flexible and ranged from thirty to sixty minutes. Intensive interviewing was employed to facilitate an in-depth exploration of the topic. This particular method of interviewing fosters eliciting each participant's interpretation of his or her experience [37]. An interview guide was developed (Appendix 3.4), however interviews were flexible; the focus of the interview changing in response to participant's level of engagement with a given topic area. The use of a flexible approach to questioning allowed participants to assume more power over the direction of the conversation [36]. Participants were first asked a general question to orientate them to the interview e.g. 'Perhaps you could start by telling me a bit about yourself?' They were then encouraged to describe and reflect upon their experiences of psychosis and their experiences of using cannabis while the researcher expressed interest through the use of further questioning and clarification. Follow-up probes were used to facilitate further exploration e.g. 'Can you tell me a bit more about that?'

The researcher displayed sensitivity to the language, social interaction and culture of participants by adopting the terminology that they used and incorporating this into the individual interviews. Therapeutic skills such as active listening, warmth, acceptance and genuineness were used to facilitate a good rapport between researcher and participants throughout the interviews [38,39,40]. The researcher was mindful that developing a trusting relationship facilitates the gathering of data that is authentically grounded in participants' experience and thus more complete and rich [41].

Analysis

The researcher was required to review the literature prior to data collection for the purpose of obtaining ethical approval for the study. This was viewed as serving as a starting point in sensitising the researcher to the area of inquiry [42]. Some may argue that in order to avoid 'received theory' the literature review should be delayed until after completing the analysis [29,43]. The researcher was mindful of this argument and 'theoretical agnosticism' [42, p.18] was adopted whereby pre-established ideas were held at a critical distance during data collection and analysis. Interviews were conducted in an open and flexible manner, adapting in response to emerging theory [44] rather than being based on a pre-conceived theoretical framework.

The approach of simultaneous data collection and analysis was taken in order to shape data collection and inform the emerging analysis. The researcher transcribed each interview and then engaged in line by line coding, with each line of written data being assigned a code to account for it. 'Action codes' were used in order to keep coding closer to the participants' experiences and create an analysis more redolent of their language [31]. Initial memos were

written as an aid to explore personal reflections and coding ideas. Focused coding was then conducted, where initial significant or frequent codes were synthesised, integrated and organised to produce categories. At this stage coding was conducted with the aid of the computer package NVivo (NVIVO7, QSR, 2005). It has been noted that the use of such packages does not 'analyse' the data for the researcher, but enables materials to be ordered and sorted more quickly and systematically than is generally possible by hand [22]. Such an approach has been argued to lead to more rigorous analysis [45].

The researcher used advanced memo writing to increase the level of abstraction of ideas and direct further data gathering [37]. This facilitated the process of theoretical coding, where possible relationships between categories that had been developed in the focused coding stage were specified. Analysis was an iterative process of moving backwards and forwards between coding and conceptualising data [46] and the author was mindful of the need to ensure that abstractions remained transparently grounded in the lives of those who coconstructed the data [36]. Constant comparative methods [29] were utilised to make comparisons within and between interviews at each level of analytic work. Making comparisons between data, codes, and categories is noted to advance conceptual understandings [37]. The coding framework and emerging themes were discussed at bi-weekly supervision meetings throughout the research process and the framework adapted and evolved in light of new insights.

Theoretical sampling was emergent following the construction of initial themes and was encouraged by memo writing that highlighted the need for further exploration. The researcher engaged in theoretical sampling following interview 7 in order to develop emerging themes. This involved seeking statements, events or cases to illuminate categories [37]. Theoretical

sampling continued until interview fourteen, as which point gathering data no longer sparked new theoretical insights [37] and it was thought that 'theoretical sufficiency' had been achieved [44, p.257). This was preferred to the original grounded theory concept of 'theoretical saturation' [43,29] which implies that the process of categorisation has been exhausted and tends to function more as a goal that a reality [47].

Ethical Considerations

Ethical approval for this research was granted from Greater Glasgow and Clyde Research Ethics Committee (Reference No: 07/S0701/91, Appendix 3.5). Informed consent for participation was sought, as was consent for contacting key workers, access to patient case notes, for tape recording sessions and for the use of quotations in the final write up of the research. Due to the emotive nature of the information discussed, care was taken to ensure that participants did not experience high levels of distress during the interview. Participant identities were protected by the use of synonyms. The researcher chose to use synonyms to represent participants rather than assign them with numbers as this was thought to help preserve the identity and persona of participants as individuals.

Transparency and Coherence

Personal and intellectual biases need to be made plain at the outset of any research reports to enhance the credibility of the findings [48]. A female researcher interviewed participants as part of her Doctorate in Clinical Psychology. While the researcher has no personal experience of psychosis, it is recognised that she brings some familiarity to working with those who have experienced psychosis and/or substance use from the clinical work that she has engaged in throughout her training. The researcher has a keen interest in the area of substance use and

chose to carry out this research due to a curiosity and desire to explore this phenomenon. Her choice of participant group was in part influenced by her knowledge of the growing body of research highlighting the negative effects of cannabis on symptoms of psychosis, however the researcher is aware of her position of having a desire not to pathologise cannabis use.

RESULTS

For the purpose of clarity, researcher's dialogue is presented in **bold** type and interruptions in speech are indicated by slashes /. All participants self-referred to the study and were motivated and open to sharing their experiences and telling their own unique story.

> Peter: I've been lying in my bed the last couple of nights trying to work out what I was going to say to you. I'd say, I'll start at the beginning and finish at the end.

Participants spoke about their experiences of using cannabis and experiences of psychosis. For some participants the re-telling of these stories initiated a process of developing new understandings of experiences. Participants highlighted that not feeling judged and feeling that the researcher was interested and keen to understand their views facilitated their sharing of experiences.

Through the construction of meaning of participants' experiences of cannabis use and psychosis a central concept of participants' social identity emerged. This gained expression through the core themes of 'sense of agency', 'the cannabis experience' and 'belonging'. The relationship between each of these themes and participants' social identity was thought to be reciprocal and is illustrated in Figure 1.

Insert figure 1 here

Theme 1: Sense of Agency

Sense of agency can be understood as the sense that an individual has of being the author of their actions and decisions. Participants' varying sense of agency was embedded in their narratives and expressions of affect. A disparity between participants' sense of agency in relation to their experiences of psychosis and cannabis use emerged from the analysis.

'I was diagnosed Schizophrenic'

Participants' accounts of experiencing psychosis conveyed a sense of loss of agency. The suddenness and perceived lack of control when experiencing psychosis appeared to have led some participants to feel powerless and *"lost"* (Martin). Many participants described a lack of awareness when experiencing an episode of psychosis and their narratives conveyed a sense of shock and disbelief at the perceived 'realness' of their experiences. Integrating and making sense of this 'realness' appeared challenging.

> Paul: Like I say, everything that was in my head at the time, it was all true, even though it was fiction, it was all true, even though it wasn't true, know, its, aye well.

While some participants were able to talk about and reflect on their experiences of psychosis, several described being unable to remember such experiences at all. They appeared separate and distanced from their experiences and seemed to lack ownership of their own thoughts and actions.

> Sam: But to tell you about my episodes, no, I couldn't describe it. You would need to ask someone who has seen me going through an episode because I don't know when I'm going through an episode.

Experiences of interactions with mental health services often served to further attack participants' sense of agency. Participants' experiences of being 'given' a diagnosis conveyed a sense of powerlessness, which was reflected in the way that some participants adopted language from the medical world when describing themselves as 'Schizophrenic'. While some participants associated a diagnosis with a sense of relief and providing a framework for understanding their difficulties, many described having difficulty understanding what diagnosis meant to them and some felt like a *"label"* (Sam) had been imposed on them. Several participants reflected on how they felt that having a diagnosis was stigmatising and described rejecting this label because of the perceived stigma. Others simply did not want to be different.

> Jamie: Well, well I've been told off my social worker, my psychi, four psychiatrists have told me that and every member, every member of staff in here has told me it and every member of staff up in short stay told me it. But, in a way, I, if somebody said to me are you Schizophrenic, I'd say no.
> **Why do you think that is?**
> Because it's like, it's like you're different from everybody else and I don't want to be different, I want to be the same as everybody else. See if I see somebody wearing, wearing something I liked I would go and buy it just to be the same as him.
> **So you like to be the same as other people?**
> Aye. I don't like to be different.

Participants who associated themselves with having a diagnosis talked of the beneficial aspect of knowing others who had similar difficulties as themselves. Several described spending much of their time with others who had similar diagnoses and having similar experiences was thought to promote the development of a shared understanding. Hospital and community services were thought to be helpful as they provided a space where participants were able to meet with others. However, not all experiences of mental health services were viewed positively; accounts of being in hospital were described using terms such as *"taken"*"(Eric), *"put in"* (Scot) and *"let out"* (Peter) and rather than being active agents in their care several appeared as passive recipients.

John: I've just went along, along with everybody and what everybody's saying I've just plodded along so I have, with hospitals and all that and stuff like that.

'This is my subject'

All participants were able to talk about their experiences of using cannabis with ease and many appeared to enjoy taking on an educator role, imparting both theoretical and experiential knowledge to the researcher about the many aspects of cannabis use. They appeared empowered when talking about cannabis and there was a sense of ownership regarding the subject. Narratives of using cannabis conveyed a strong sense that they were the author of their stories.

Jen: You're the first person I'm able to speak about that and that's all we are speaking about.
Why do you think that is, that you are able to maybe be a bit more honest, or/
Because this is the subject. It's been my subject for the last thirteen years or so to speak. You know, and it's great to get it off your chest. Folk are like that, that's kinda boring talking about it you know, whereas I'm able to, and you've got the right questions to ask me so, and I've thought about it loads.

However, participants' often described having difficulty talking to mental health professionals about their cannabis use and felt that their experiences were not being valued. Expressions of frustration and anger were reflected in accounts of trying to tell others about experiences of being addicted to cannabis. Several described feeling that their experiences were not validated by the medical profession, but rather that their difficulties were dismissed as being unimportant and for some this led to difficulty in seeking help from services. Participants' narratives of cannabis use highlighted that many struggled to have their voices heard by others.

Paul: I was heavily addicted to it. I couldn't leave it alone. I even got to the stage that my wife took me to the doctor one day and said, look doctor, he can't get off this cannabis and the doctor turned round and said cannabis is easy to come off but is wasn't.
How did that make you feel?
I just felt as if we were wasting our time.

> **You were wasting your time?**
> Aye. Like I said, the doctor is like that, you can come off it no problem. But it was addictive, I have been addicted to it, know.

Participants appeared to adopt a particular 'stance' towards cannabis and this shaped the way that they made sense of their experiences. Several participants viewed cannabis in a negative light, describing it as a *"bad"* (Kelly) substance and communicating this by expressions of opinion about the harmful effects of the substance and a concern for those who continued to use cannabis: *"They don't know the damage it can cause you"* (Scot). Other participants reflected on how they felt that professionals and family members 'blamed' cannabis as the primary reason for their psychosis and this led some to adopt a protective stance towards the substance.

> Colin: I think the way society is getting now, I think there is a hard line that keep banging on about this, this causes mental illness. Mental illness is there, know, and it's caused by alcohol, it's caused by family, it's caused by giving birth or trauma or abuse, know. It's not caused by cannabis. If they legalised cannabis and banned alcohol the world would be a much better place.

Participants who adopted a defensive stance towards their cannabis use tended to emphasise the risks associated with using other substances and the importance of personal experience.

> Sam: But you know that if anybody was to say it's bad for you, you're like that how, how would you know, you don't take it, you don't, you don't know what it does to you, you don't know how it makes you feel. You're like anybody, wait till I've tried that, talking to, they've all said that, that same way. Whereas I take a drink and I smoke cannabis, you probably don't do either and you probably find it hard to understand why I smoke cannabis.

Theme 2: The Cannabis Experience

'It's a calm sensation'

Participants often talked about the relaxed state that they achieved when smoking cannabis, described as a "*good sensation"* and "*chill factor"* (Scot). Many participants reflected on how they were prone to feelings of anxiety and understood cannabis as helping to reduce such

feelings. Participants who found it difficult to interact with others talked of how cannabis facilitated a sense of self-confidence, aiding them in social situations by allowing them to feel relaxed, comfortable and more able to talk to others. Many participants embraced the feeling of self-contentment that they felt when using cannabis and viewed the substance as providing a *"cushion"* (Jen) from the stresses of everyday life.

> Colin: Immediately it will have a soothing effect on my mind. My mind, being a mental patient, is always disturbed, always in anxiety, suicidal at times, and immediately when I smoke any decent cannabis or even rubbish cannabis, there's an immediate soothing effect on my mind, calm me down, no aggression, fine, know.

'A missing piece of a jigsaw'

For some participants cannabis was understood as having a stabilising and containing role, punctuating and regulating their lives. This was evident in participants descriptions of the 'routine' of their cannabis use, which one participant said was like *"going to the toilet"* (Sam). Leah described feeling a need for control and thought this to be linked with her past traumatic experience of being raped. She reflected on how she thought that cannabis facilitated a feeling of control: *"I've basically been able to control everything in my life"*. She described cannabis as having become a *"part"* of her and expressed fear at the prospect of losing this.

> Leah: As if it's a part of my, because it was there before I've been medicated and it takes years to get medicated to the right level and now that I'm at the right level I'm scared in case if I was to chuck cannabis I would start getting not well again, does that make sense? Or imbalanced in some way.

'Opening a door to different parts of your brain'

Many participants reflected on the powerful regulatory effect that cannabis had on their ability to think. Several described embracing this effect and understood cannabis as helping them to gain perspective and confidence in their ability to problem-solve, allowing creativity in thinking and imagination.

> Jen: It was kind of making you think and it did a lot of the time, depending on what kind of quality you got of cannabis.
> **So it was about making you think, that was something that you/**
> Delving into things that maybe you didn't want to and kind of problem-solving and, obviously there's a bit of elation there, and confidence and think you can tackle anything. But that's better than feeling absolutely shit on someone's shoe. That's the way you feel the other way, you know.
> **That's really interesting to hear that idea then, that it sounds as though cannabis gave you confidence and also gave you time to solve problems as well and think about things that otherwise you might not have thought about.**
> I think about them really deeply. I used to describe it as like kind of opening a door to different parts of your brain. Whereas that kind of, you don't tend to think along that path when you are sober so to speak, straight.

Several participants described past traumatic experiences such as violent and abusive relationships, loss of loved ones and sexual abuse. Cannabis was noted to have a 'numbing' quality, *"It just numbs my nut"* (John), providing an escape from reality and allowing participants to temporarily forget and block out difficult memories. Participants reflected on how they were not always able to block out their memories and that at times cannabis led them to think more deeply about their difficulties; what was intended to be a way to relieve stress and anxiety paradoxically led to increased anxiety levels. Participants' narratives highlighted that they found this to be a distressing experience.

The 'para-buzz'

> Kelly: You feel paranoid about everything, especially when you're smoking it, it makes you more aware so you start thinking if you're in like the house with pals, start thinking they're talking about you and you start, know what I mean, you just really start going, well I do. You're frightened if you go out and you think they are talking about you and you come back in and maybe they're laughing or something and you think they're laughing at you and it's just not a nice way to feel, it's no, it's just, it's not nice at all so I wouldn't offer it to my worst enemy and I thought heroin was bad but hash really, it plays with you head, know what I mean.

The majority of participants talked about experiences of paranoia whilst using cannabis, named by one participant, Peter, as *"the para-buzz"*. Although participants described being aware of the ability of cannabis to induce feelings of paranoia, several described seducing

themselves into the belief that they could avoid it by *"fighting it"* (Jamie). Participants reflected on how this was a losing battle and that they were often suddenly and unexpectedly subjected to experiences of paranoia.

> Jamie: It's like right you take a few draws and you start to relax, you're talking and you're having a laugh and that and then boom, this paranoia's on.

Participants' responses to the experience of paranoia whilst using cannabis varied. Stories of experiences of paranoia were re-told in a vivid manner and it was apparent that many viewed the experience as intrusive, frightening and anxiety-provoking. Such experiences evoked feelings of being degraded and attacked participants' sense of self-worth. Recounting and reflecting on these experiences, some participants came to understand the experience of paranoia whilst using cannabis to be related to the way in which cannabis increased awareness of surroundings and evoked a *"deep thought pattern"* (Harry). Several participants described fears about the consequences of using an illegal substance. The social context within which cannabis was situated appeared to lead to increased vigilance, and for some, paranoid thoughts.

> David: Part of the paranoia on cannabis isn't just smoking the cannabis, it's dealing with the half-witts with the knives and it's dealing with the police and then you've got to smoke it and make your way home without getting the jail or without getting stabbed so it's, it's not just cannabis gives you paranoia, it's a combination of it's illegal, you've got to deal with these idiots that want to stab you for ten pence, know what I mean.

Several participants described coping by avoiding using cannabis in surroundings that were more likely to induce thoughts of paranoia, only smoking certain types of cannabis or reducing the amount of cannabis they smoked. One participant, Colin, appeared to embrace the experience: *"It doesn't bother me at all now. I'm used to it, and I know what it is"*.

The experience of paranoia whilst using cannabis is not unique to individuals with mental health difficulties. Several participants described witnessing or hearing accounts of individuals without mental health difficulties also experiencing paranoia whilst using cannabis. However, throughout participants narratives there were clear indications that they felt particularly susceptible to the experience of paranoia whilst using cannabis because of their mental health difficulties.

'A catch twenty-two'

Participants described having difficulty at times separating the effects of cannabis and effects of having a 'mental illness'. This was described as being *"like a catch twenty-two" (Jen).* Despite this, the majority of participants understood their cannabis use to have a negative impact on their mental health. Participants talked about how using cannabis led to feelings of guilt, experiences of hearing voices, paranoid thoughts and withdrawal from social contact. For some, it was the process of 'coming down' from cannabis or when cannabis was not available to them that they began to notice their mood becoming lower and they would experience feelings of insecurity about themselves. Sam's narrative reflected how his desire to continue to use cannabis conflicted with his understanding of the interaction between the substance and his experiences of psychosis.

> Sam: I get, see at night time I hear wee echoes and that at night-time, but when I smoke cannabis I don't get that.
> **That takes that away for you, right.**
> Uh-huh. But when I stop, it comes back worse.
> **Right, I see, so, if you then stop cannabis it'll/**
> Come back worse. But while I'm staying off of cannabis they stay away.
> **I see.**
> S: So, it can be a couple of days I'm off it, I get a couple of days of paranoia, depression, the rest of the week I'm fine, but the rest of the week I'm thinking about can I go for another joint and be alright, just the next day and that, that kind of way.

A minority of participants viewed using cannabis as a form of self-medication. John described how using cannabis enabled him to take a more relaxed approach to the experience of hearing voices: *"the cannabis, it's like a joke with the voices, I start laughing at them"* (John). Colin described how he had come to view cannabis as being *"like my medication now"* (Colin) and compared his cannabis use to the conventional medication that he had been given for the treatment of Bipolar Disorder. Throughout his narrative there was a strong sense that he was frustrated by the varying quality of the cannabis that he was able to obtain, which he described as being *"not the way that you should take medication"* (Colin).

Theme 3: Belonging

'One of the team'

> Jamie: I do it because everybody else does it basically.

Narratives relating to reasons for using cannabis indicated that initial motivations to use the substance appeared to be linked with a desire to belong and feel accepted, which can be understood as fostering the development of a social identity. Cannabis was normalised and integrated into participants' social context and the majority of participants started using cannabis in their early teens, with typical accounts of first experiences being with friends and for some family members. Participants often talked about their early experiences of using cannabis. Such descriptions had an upbeat, humorous tone and they appeared to enjoy recounting these experiences. Participants described being encouraged by others to try the substance and many reflected on how being part of a group of people who used cannabis promoted a sense of acceptance and fostered a feeling of unity.

> Sam: Cause of hype about it I think, quite a bit a, quite a hype about it. All the older boys in school were like that, take a wee bucket, take a wee pipe and that. You felt like one of the older ones, you felt like one of the boys kinda thing.
> **You felt like one of the boys because you were/**
> One, aye. The team kinda thing.

Jen's early cannabis use was atypical as she tended to use the substance on her own. She reflected on how the later discovery of a social group with whom she could share the experience of using cannabis helped her to feel *"normal"*.

The sharing aspect of using cannabis was evident throughout participants' narratives as they described 'chipping in' with friends to buy cannabis, or spontaneously sharing amongst friends. Methods of smoking, such as 'hot knifing' and 'buckets' also appeared to allow the act of smoking to become a shared experience. The sharing of experiences fostered a sense of unity.

> John: But it's like a domino effect, say I would start laughing right, and then you would laugh so I would laugh stronger and the next person that would be in the room would start laughing stronger and it ends up that there's ten of you all howling at the same time.

'The best ones'

Participants made a clear distinction between themselves and those who chose to use other substances, which can be understood as an attempt to strengthen their sense of themselves within a defined social group. Heroin users were typically described as *"junkies"* (Paul) and one participant even went so far as to call them *"hammer house of horror people"* (David). Participants described making efforts to avoid associating themselves with such individuals and spoke of them with a tone of contempt. From participants' narratives it seemed that cannabis was viewed as a substance that facilitated social interaction with others, whereas other substances were seen as leading to social rejection.

> Paul: Like for example, I'm only smoking the hash so people have got a lot of time for me, but see if you are smoking heroin no one has any time for you.

David, who was using both cannabis and heroin at the time of interview, spoke of the conflict of being a cannabis user and a heroin user. From his descriptions it seemed that having both identities was not accepted by others and he appeared to feel forced to make a choice about where he belonged.

> David: I've got, well my friends when I smoked cannabis, I don't hang about with them now because I've moved onto heroin, know, so the two of them don't mix, know, you can't, you can mix heroin, if it's all heroin users you can have cannabis, but if it's cannabis users you can't introduce heroin… and the cannabis ones are probably about the best ones, know, they're about the most decent people that you can meet, know, out of all the drug users.

'A bit out of the picture'

> Jamie: Aye. Aye. If they're smoking it I'll watch them to see if they show any signs of what I'm going through so I can go like that, hey he's the same as me, but it never does, because they're all happy, sitting there like that. I can't do that anymore. I used to love smoking hash now I'm not up for it at all.

Many participants talked about feeling different from other cannabis users, linking this difference to having experienced psychosis. Several participants thought that other cannabis users viewed them as being unable to *"handle"* (David) cannabis and that they were *"feeble minded"* (Harry) because of their experiences of psychosis. Understanding themselves as being different from other cannabis users led participants to feel left out and separated from others and their narratives reflected the difficulty that they experienced in trying to make sense of this difference.

> Sam: They've never had an episode and they've no, they've never had hallucinations or anything like that at all. I've asked them all if they've ever felt that way about it and they've been like that 'no, it's just pure relaxing, easy osy on it, we don't feel anything the way you feel about it'. I don't know how to take that. As I say one in a hundred gets Schizophrenia so I'm the unlucky one. I've got Schizophrenia and I've got a hash habit.
> **So that kind of makes you unlucky you were saying, that you have both. So that's really interesting, that you're saying that other friends use cannabis but don't get some of the negative**

effects of it, whereas for you, because you have Schizophrenia that means that you get some of the negative effects. Is that right? Have I understood that right?
Aye. You've hit the nail right in the head there.
How does that make you feel?
Erm, whew, how does it make me feel? I don't know. A bit out of the picture kind of thing. How does it happen to me and it doesn't happen to them? What different have I done, kind of thing.

Initial motivations to use cannabis were linked with a desire to belong and feel accepted as part of a group. Paradoxically, the experience of psychosis served to disrupt this sense of belonging and led to a loss of acceptance and group membership.

'Missing out on a buzz'

Of the nine participants who were using cannabis at the time of interview, five spoke of intentions of wanting to give up smoking the substance. The availability and integration of cannabis in the social lives of many participants was recognised as an obstacle to giving up and several described starting to use cannabis again when they were in company of other cannabis users. Those who had given up cannabis described being left with a feeling of loss.

Scot: It feels like you are missing something, aye, because they are doing it and you're no doing it. You feel like you are missing out on a buzz.

Jen's narrative highlighted the degree to which she depended on cannabis as a source of companionship and reflected the powerful sadness that she experienced when thinking about the prospect of giving up the substance.

Jen: Sometimes that all becomes too much and that's when I get to the stage where I think I need to stop this. You know, it frightens you, I'll need to try and stop and realise it's a sadness as well because I think I'm maybe never going to be able to smoke this in my life without, it's no like, I'll no be able to control it and it's something that I really like socially.
You said there's a sadness?
Aye, sad, sad at like leaving it, like, giving it up completely. It's like a relationship I've had, so to speak. It's like something you really want and gives you a better buzz than most people. They can take it or leave it, or not even take it all their lives whereas it's something that I love, and love to do socially but I just don't seam to be able to get a grip on it.

DISCUSSION

This study used in-depth interviews to engage participants in an exploration of their experiences of cannabis use and psychosis. Analysis revealed a central concept of social identity which gained expression through the core themes of 'sense of agency', 'the cannabis experience' and 'belonging'. A theoretical conceptualisation of the way in which participants' social identity was influenced by their experiences of using cannabis and psychosis is presented in Figure 1. This figure encapsulates the way in which participants' construction of their social identity is reflected in each of the core themes. The social construction of identity has been described as "an ongoing process of assertion, imposition and negotiation between actors and institutions" [49, pg.138). Experiences of psychosis and interactions with mental health services were characterised by a sense of lack of agency, whereas participants' narratives of experiences of cannabis conveyed a strong sense that they were the author of their stories. 'The cannabis experience' reflected the complexity of issues surrounding use of the substance within this participant group. The range of experiences described by participants in this study incorporated varying levels of consciousness. The ability of cannabis to invoke different mental states has long been recognised [50]. The theme of 'belonging' captured the sense of group membership, unity and acceptance that was facilitated by using cannabis and the way in which psychosis served to disrupt this.

The theory emerging from the analysis had a clear relationship with Social Identity Theory (SIT) [51,52,53]. Social identity has been defined as "that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership" [53, p.255]. It should

be noted that while SIT provided a helpful framework to facilitate understanding, it would be overly ambitious to think that it can account for all participants' experiences. SIT is based on the challenges faced by ethic minorities and was formulated to account for variations in responses to social structural conditions that are aversive to self [54]. One of the limitations of SIT is that it has tended to highlight group phenomenon and underplay individual autonomy [55]. The theory proposes that the strategies that individuals employ to maintain a positive social identity are relatively stable and long-lasting; however for the purpose of this study it is recognised that participants' sense of social identity was a fluid and dynamic concept and that participants employed various different strategies at different points in time and in different social contexts.

Social Identity Theory posits that the need for belonging is the primary motivation for assuming a social identity in groups [56]. In this study, participants' initial motivations to use cannabis appeared to be influenced by a desire to belong. Literature points to the highly social context of initiation of cannabis use [57,58,59,60,61,62] and cannabis is thought to be an important aspect of some users' identities (see Chapter 1, Systematic Review). Participants' narratives reflected societies move towards a more general acceptance of cannabis use, which has been noted by others [49]. It seems that belonging to a group of cannabis users may have allowed participants to create a positive social identity and increase their self-esteem. Expressions of social identity were evident in participants' use of language when talking about cannabis and the ways in which they imparted theoretical and experiential knowledge about the substance to the researcher. According to SIT, when an individual identifies strongly with a group they tend to evaluate their group favourably and make negative comparisons with other groups [63]; a process which can be seen to improve their self-esteem [64]. This was

evident in participants' narratives when talking about users of other substances and the expression that people who used cannabis were 'the best ones'.

While the majority of SIT work has been based on single group identities, it is recognised that people may have multiple group identities [65]. Participants in this study could be understood as being faced with the challenge of having two opposing social identities, in which neither identity is accepting of the other. This can be seen in participants' descriptions of being viewed as 'feeble-minded' by other cannabis users because of their experiences of psychosis and participants' descriptions of mental health professions attitudes towards cannabis use. According to SIT, any threat to a positive identification with a group can be unsettling. Researchers have highlighted that an individual's sense of self is challenged when they experience psychosis [66]. Several studies have highlighted that when an individual is recognised as having a 'mental illness' they are places into a cultural category that damages their material, social & psychological well-being [67,68,69,70]. Participants' narratives about experiences of being given a label of 'mental illness' could be understood as threatening their sense of social identity and this was reflected in the way that they spoke about the stigmatising nature of being given a diagnosis. Similar understandings of diagnosis as a threat to social identity have been found in other studies [71].

SIT posits that when an individual feels that their social identity is threatened they can employ a number of different strategies to attempt to maintain a positive social identity [72]. Individuals belonging to a low-status group who do not derive a positive social identity from it may chose to ignore that categorisation and focus on others that do result in a positive identity [52]. Participants in this study recognised that others viewed people who have mental health

difficulties as being of a lower status group and several described rejecting a diagnostic label due to the stigma associated with it.

Many participants in this study continued to use cannabis, despite their belief that cannabis had a negative impact on their mental health. Their use of social creativity strategies, where the way in which comparisons between groups are made is altered in an attempt to achieve a more favourable comparison for the in-group, was evident in the ways that they made comparisons between the risks of cannabis and other drugs in relation to their mental health and the emphasis they placed on the role of cannabis in terms of affect regulation. Participants' concerns about the possible loss associated with giving up cannabis could be understood as reflecting their desire to continue to be part of a social group that they viewed in a positive light.

Dietz-Uhler & Murrell (1998) [63] found that people can react defensively when their social identity is threatened as a way to protect their self-esteem, and that this is especially likely amongst those who identify strongly with their group. Several participants in this study rejected the notion that cannabis had a negative effect on their mental health. Such participants engaged in discourse that highlighted the positive aspects of the substance, emphasised the importance of legalising cannabis and directly challenged mental health professionals' abilities to understand their use of cannabis. In terms of SIT, this could be understood as using social competition strategies, where an in-group directly competes with an out-group to produce real changes in the relative status of the two groups. By taking a defensive stance towards their cannabis use, participants in this study were able to maintain their positive social identity as a cannabis user and thus their self-esteem.

Participants who no longer engaged in cannabis use could be understood as having utilised social mobility strategies, in that they had made an attempt to leave or dissociate from their group. Several of those who had given up cannabis emphasised their social identity of having a 'mental illness' through their expressions of language. Such participants could be seen as employing social creativity strategies in the way that they highlighted the benefits of being with others with similar diagnoses and viewed those who continued to use cannabis as lacking knowledge of the harmful effects of the substance. Several participants also talked about how they were involved in trying to actively challenge the way that society understands mental health difficulties in order to improve the status of their new in-group, which could be understood as utilising social competition strategies.

Whilst group identity is important, individual processes of adaptation should also be considered. One aspect of the findings that was not well accommodated by SIT was the way in which some participants appeared to subordinate and comply with more 'powerful' others, which was reflected in their use of language when they used terms such as *"taken" "plodded along"* and *"let out"*. Such a response is consistent with Social Rank Theory [73,74,75]. Social Rank Theory was developed to explain features of depression [73] and social anxiety [76]. More recently, research has given support to the application of Social Rank Theory to psychosis [77]. This theory proposes that a general process of social comparison is involved in the formation of social ranks [78] and that those in lower status positions respond to conditions of dominance and entrapment by others by escaping, fleeing, or submitting and complying. The activation of this 'involuntary subordination strategy' is thought to lead to experiences of feeling powerless, inferior and afraid [79,80] and has been linked with anxiety, depression and relapse [77]. Participants' experiences of psychosis and interactions with

mental health professionals could be understood as leading to a loss in social rank and thus activating an involuntary subordination response.

Psychoactive drugs have been said to change the subjective experience of self [81,82,83,84,85]. Participants described the ways in which cannabis enabled them to feel relaxed and provided self-confidence, self-contentment, stability, containment and regulation of thinking. Similar findings have been noted in other studies [86]. The experience of paranoia when using cannabis was understood as being intrusive and frightening and served to disrupt the pleasurable affects of the substance. The feelings and emotions evoked by using a substance, whether valued positively or negatively, have been said to affirm the sense of self [87], accentuating feelings and the choice of connecting or disconnecting between the self and the social world [88].

Social connectedness reflects an internal sense of belonging and has been defined as the subjective awareness of being in close relationship with the social world [89]. People with high levels of social connectedness have been thought to be less prone to low self-esteem, anxiety and depression [90]. Research has shown that people with severe mental health problems are often subject to reduced levels of social support and that social isolation can maintain symptoms of psychosis [91]. Several participants in this study described experiencing high levels of anxiety when in social situations and could therefore be understood as having low levels of social connectedness, however reductions in anxiety levels when using cannabis use appeared to facilitate a greater level of social connectedness with others.

Several participants in this study described having experienced past traumatic events. Substance use has long been viewed as a behavioural response to traumatization [92] and the widespread prevalence of traumatic experiences amongst people who are severely mentally ill is well established [93,94,95]. While initial motivations to use cannabis appeared to be linked with a desire to block out difficult memories, several participants described experiencing intrusive thoughts relating to past traumatic experiences whilst using cannabis. This raises the question about whether using cannabis facilitates processing of intrusive thoughts and memories. There is a general belief that trauma is resolved by the re-telling of distressing events [96] and therapy often focuses on utilising a supportive and expressive approach to facilitate this [97,98]. The first stage of therapy generally involves the establishment of safety where coping skills to help deal with emerging memories and feelings are learned [99]. The second stage involves remembering traumatic memories, expressing the feelings attached to these memories, understanding their effects and correcting distortions of thought and emotion. [100]. It is thought that this will allow traumatic memories to be transformed from a "prenarrative" state [101] and become more integrated into the individual's life story. In this study, it was clear that participants did not view cannabis as being helpful in terms of resolving difficult previous experiences. It seems that they remained distressed by their thoughts and that re-experiencing them did not lead to a fuller integration of their memories. It is recognised that the guiding principle to recovery from traumatic experiences is to establish a safe environment in which an individual can explore their thoughts and feelings. Whilst using cannabis and experiencing intrusive thoughts, participants in this study did not appear to have a controlled and supportive environment and their thoughts remained unprocessed.

Clinical Implications

This study has highlighted the importance of understanding cannabis use within a social identity framework. There is a need for services working with individuals who use cannabis and have experienced psychosis to take a more dynamic and holistic approach to formulating their difficulties, taking into account social and cultural factors and the importance of group membership in terms of individuals' sense of self-esteem and well-being.

SIT argues that recognition of shared group membership is a critical determinant of an individual's willingness to engage with others [102]. The on-going stigma faced by individuals who have mental health problems has important implications for their willingness to engage with mental heath services. People with a diagnosis of mental illness can be seen as an oppressed group and changes in their status need to be made at a variety of levels [103]. There is a need to address the power differentials that clearly exist between mental health professionals and service users. Research has shown that self-concept as a social product and social force is an important part of the recovery process; an individual's belief that they can effect what happens to them has important implications for their motivation to engage in behaviours that help improve their interpersonal and psychological wellbeing [104]. This study highlights that there is a need for services to further facilitate clients belief in their ability to direct their thoughts, feelings and behaviours to establish the empowering process which facilitates recovery [71].

Participants' narratives indicated a clear sense of belief in themselves as experts of their cannabis use. The importance of viewing the substance user as the principle protagonist and the chief 'expert' has been noted by others [105]. Participants in this study felt that they

struggled to have their voices heard by others and highlighted that they felt that their experiences of cannabis were not being valued. This indicates a need for mental health professionals to facilitate opportunities where clients can talk about their cannabis use in a non-judgemental and supportive environment. Having a non-judgemental attitude has been said to be an important determinant of the development of a therapeutic relationship [106] and a positive therapeutic relationship has been associated with more positive treatment outcomes in addiction treatment studies [107,108].

One participant, Harry, spoke of how he thought services should change: *"I think they need to look at the national care standards again. Dignity. Privacy. Equality. Diversity, you know"*.

Limitations

The current findings are based on fourteen participants' perspectives and the researcher's interpretations of this. The results are one possible representation of the data and could therefore be said to be bound to the context and conditions of the study [109]. Lengthy quotations have been presented to provide the reader with the opportunity to make their own interpretations. It could be argued that respondent validation may have enhanced this study [28]. However, the researcher was aware of the view that the data collection in response validation is subject to the same process of interpretation as the primary data [110].

It may be argued that using an Interpretative Phenomenological Analysis approach (IPA) [111] would have been more suitable for this study as it has been developed to study participants' psychological worlds. However, IPA focuses on small, homogeneous sampling and emphasis is not placed on theory generation [112]. Theory generation using a larger group

of participants was thought to be an important aim of this study and the researcher therefore opted to employ a social constructivist version of grounded theory. This approach was thought to be best suited to explore the psychosocial construction of cannabis use in individuals who have experienced psychosis.

It is also recognised that utilising a dialogical approach may have been helpful as such an approach specifically regards self-hood as multi-voiced and sees the experience of self as continually constructed through dialogue in the internal and external world [46]. However, awareness of the potential benefits of a dialogical approach has grown from the conceptual developments achieved through utilising a grounded theory approach.

Future Recommendations

Further research utilising qualitative methodology is needed to give a greater 'voice' [105] to individuals who use cannabis and experience psychosis and to further explore the complexity of the social world of cannabis use and the challenges that such individuals face. It may also be helpful for research to further explore the relationships between such individuals and mental health services. In particular, an exploration of staff views about cannabis use and the ways in which cannabis use is incorporated into the therapeutic dialogue may also be beneficial.

Conclusions

In summary, this study presents a qualitative exploration of the construction of meaning of participants' experiences of cannabis use and psychosis. Analysis revealed a central concept of participants' sense of social identity which gained expression through the themes of 'sense of

agency', 'the cannabis experience' and 'belonging'. The theory emerging from the analysis had a clear relationship with Social Identity Theory (SIT) [51,52,53]. The importance of understanding cannabis use within a social identity framework, providing opportunities where clients can talk about their experiences and facilitating the empowering process that enables recovery was highlighted. The use of grounded theory methodology has given voices to individuals who have used cannabis and experienced psychosis and the researcher invites further exploration of the social context of such experiences.

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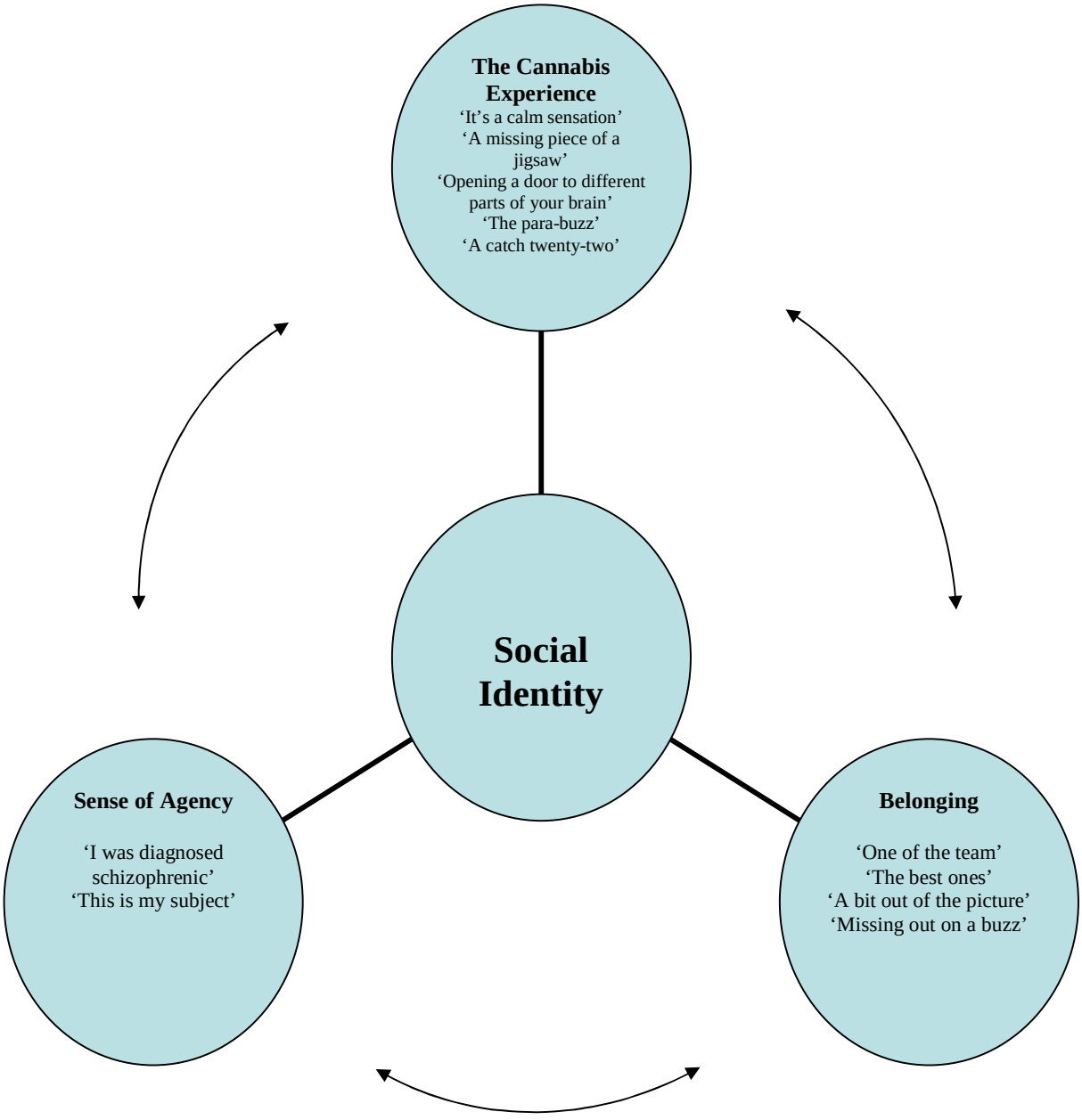
Table 1: Participant characteristics at time of interview

Participant	*Gender*	*Age*	*Length of cannabis career*	*Current cannabis use*	*Diagnosis*	*Length of time since diagnosis*	*Subjective report of number of hospitalisations*
Sam	Male	24	11 yrs	Occasional	Schizophrenia	14 yrs	Seven
Jen	Female	40	13 yrs	Frequent	Bipolar Affective Disorder	7 yrs	One
Paul	Male	40	21 yrs	Frequent	Schizophrenia	10 yrs	Four
Scot	Male	27	13 yrs	Abstinent	Schizophrenia	2 yrs	Once
John	Male	27	15 yrs	Frequent	Schizophrenia	2 yrs	Once
Peter	Male	32	10 yrs	Abstinent	Schizophrenia	12 yrs	Six
Jamie	Male	28	15 yrs	Frequent	Schizophrenia	Unknown	Ten
Colin	Male	48	13 yrs	Frequent	Bipolar Affective Disorder	20 yrs	Fifteen
David	Male	40	17 yrs	Occasional	Schizophrenia	9 yrs	‘Dozens’
Kelly	Female	33	8 yrs	Abstinent	Bipolar Affective Disorder	Unknown	Five
Eric	Male	39	14 yrs	Abstinent	Schizophrenia	5 yrs	Five
Leah	Female	48	11 yrs	Frequent	Bipolar Affective Disorder	6 yrs	One
Martin	Male	48	10 yrs	Occasional	Schizoaffective Disorder	19 yrs	‘Numerous’
Harry	Male	24	6 months	Abstinent	Schizophrenia	4 yrs	Three

Figure 1: Central Concept of Social Identity



Chapter Three

Advanced Practice I Reflective Critical Account Abstract

A Reflective Account of Sharing Information

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August 2008

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ABSTRACT

In recent years there has been a drive towards encouraging clinicians to routinely use reflective techniques in their professional practice within the NHS. The process of reflection allows the practitioner to question and analyse their experience and actions in order to develop their knowledge, skills and behaviour with the goal of enhancing clinical practice (Barnett, 2005).

This reflective account is based on an experience of attending a parole review meeting and is concerned with issues relating to patient confidentiality and multi-agency working. The experience is analysed from a professional and ethical perspective and is guided by Gibbs' reflective cycle (1988). Confidentiality has been maintained by protecting the identities of individuals mentioned in this account.

The process of reflecting on my experience has allowed me to gain insight into my learning and competencies in relation to the National Occupational Standards for Psychology (BPS, 2006c); standards of "developing, implementing and maintaining personal and professional standards and ethical practice" (generic key role 1) and "communicating psychological knowledge, principles, methods, needs and policy requirements" (generic key role 4). Through the process of writing this reflective account I have also come to a better understanding of the concept of reflective practice and how this can improve my own professional practice.

Chapter Four

Advanced Practice II Reflective Critical Account Abstract

A Reflective Account of Becoming Involved in a Service Re-design Process

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ABSTRACT

Reflection has been described as an 'active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends' (Dewey, 1933; pg.118). The process of reflection has been noted to improve practice by leading to the identification of areas of strength and areas that a practitioner may wish to develop further (Cirocco, 2007) and is now widely recognised as an important educational tool (Taylor, 2003).

This reflective account is based on an experience that occurred whilst I was on placement as a Trainee Clinical Psychologist in an Adult Psychology Service. The account relates to my experience of striving to become involved in a service re-design process and has been guided by the framework proposed by Rolfe et al (2001).

This account outlines the ways in which engaging in reflective practice has allowed me to gain a better understanding of my experience and how this has been important in terms of my learning and progression towards becoming a qualified Clinical Psychologist. I have gained insight into my competencies in relation to the National Occupational Standards for Psychology (BPS, 2006c); standards of “manage the provision of psychological systems, services and resources” (generic key role 6).

APPENDICES

CONTENTS **Page**

Appendix 1: Guidelines for submission to *Addiction*

1.1 Guidelines for submission to *Addiction* 97

Appendix 2: Systematic Literature Review

2.1 Guide for appraisal of qualitative research papers 102

Appendix 3: Major Research Project Paper

3.1 Recruitment advertisement 107

3.2 Participant information sheet 108

3.3 Participant consent form 110

3.4 Interview guide 111

3.5 Letter of approval from NHS Greater Glasgow and Clyde Ethics Committee 113

3.6 Research and Development letter of approval 115

Appendix 4: Major Research Project Proposal

4.1 Major Research Project Proposal 117

Appendix 1

GUIDELINES FOR SUBMISSION TO *ADDICTION*

Instructions for Authors

Author Services enables authors to track their article - once it has been accepted - through the production process to publication online and in print. Authors can check the status of their articles online and choose to receive automated e-mails at key stages of production. The author will receive an e-mail with a unique link that enables them to register and have their article automatically added to the system. Please ensure that a complete e-mail address is provided when submitting the manuscript.
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Manuscripts are accepted on the understanding that they are subject to editorial revision.

If at any stage during the handling of their submission, authors decide to withdraw it, they must notify the Editor immediately.

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Length
Conciseness is extremely important and will affect the decision whether or not to accept the paper. The normal maximum length for research reports is 3500 words excluding abstract, tables, references and figures. For systematic reviews the normal maximum length is 4000 words. We will consider longer articles but the length will have to be justified in the covering letter. There is no minimum length for articles. Case reports are welcomed but should not normally exceed 3,000 words. Letters should not be more than 500 words. Supplementary material may be posted on the journal website, visit http://www.blackwellpublishing.com/bauthor/suppmat.asp.

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Acknowledgements
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2. Phillips S.J., Whisnant J.P. Hypertension and Stroke. In: Laragh J.H., Brennder B.M., editors. *Hypertension: pathophysiology, diagnosis, and management*. 2nd ed. New York: Raven Press; 1995. p. 465-78.

3. Norman I.J., Redfern S.J., editors. *Mental Health Care for Elderly People*. New York: Churchill Livingstone; 1996.

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Appendix 2.1

GUIDE FOR APPRAISAL OF QUALITATIVE RESEARCH PAPERS (Svanberg, 2006)

The wide variety in qualitative methodologies has led to difficulties in the demonstrations of rigour within qualitative research. This guide is therefore intended to be a flexible, non-prescriptive method to facilitate the appraisal of qualitative studies. As highlighted by Barbour (2001), there can be no formulaic criteria to mark qualitative research against, and such "technical fixes" do not confer rigour automatically. As such, examples of 'how' a study has demonstrated a methodological technique is of more value than the mention of the technique alone.

Title of paper under review:

Research design

- ❑ Is the method appropriate to the research question, and has this been justified (CASP, 2002)?
- ❑ Has knowledge of the philosophical background of the method been demonstrated (Yardley, 2000)?

Sensitivity to Context

1. Relevant literature, empirical data:

- ❑ Has immersion in the relevant literature been demonstrated (Yardley, 2000)?
- ❑ How have themes been abstracted or linked to the work of others (Yardley, 2000)?

2. Sampling:

- How was the original sample selected? Was this strategy appropriate to the study aims?
- Is there evidence of purposive sampling (Barbour, 2001)? (Also see data analysis section)
- Is theoretical sampling used to challenge or extend emerging themes?

3. Sociocultural settings:

- How has awareness of normative/ideological/historical/linguistic/socio-economic influences on participants' beliefs and expectations been demonstrated (Yardley, 2000)?

4. Perspectives of participants:

- How have differing perspectives been sought and incorporated?

Ethical issues

- Are there sufficient details to ascertain how the research was explained to participants?
- Have issues around informed consent and confidentiality been addressed?
- Has approval been sought from an ethics committee (CASP, 2002)?

Commitment and Rigour

5. Commitment:

- ❑ Is there evidence of an in-depth engagement with the topic, with demonstration of competence and skill in the chosen method (Yardley, 2000)?

6. Data collection:

- ❑ Are methods of data collection justified in terms of the methodology (CASP, 2002)?
- ❑ Is the data collection complete (Yardley, 2000)? E.g. is there a demonstration of data saturation (grounded theory)?
- ❑ Has data triangulation been used to broaden the perspectives obtained or refine any emerging theory, e.g. data gathering from various sources by various methods? (Barbour, 2001; Mays & Pope, 1995)
- ❑ Were interviews transcribed?

7. Data analysis:

- ❑ Is analysis appropriate to the method used?
- ❑ Have negative cases or conflicting themes been demonstrably sought and presented?
- ❑ Does analysis feed back into further theoretical sampling where appropriate?

8. Validation:

- ❑ Where appropriate, have emergent themes been checked with participants (respondent validation) in a sensitive way (Barbour, 2001)?
- ❑ Has multiple coding with independent researchers been used to refine coding strategies and data interpretation (Barbour, 2001)?

Transparency and Coherence

9. Data collection and analysis:

- ❑ Have methods of data collection been made explicit, including the form(s) of data (CASP, 2002)?
- ❑ Has the process of analysis been made explicit (CASP, 2002)?
- ❑ Are coding frameworks discussed, and does presented data illustrate the analysis (Elliott et al, 1999)?

10. Reflexivity:

- ❑ How has the social context of the relationship between investigator and participants been considered and incorporated into the study design (Yardley, 2000)? I.e. has the researcher examined and disclosed their own role, potential bias and influence during design, data collection (CASP, 2002) and coding?
- ❑ Have memos or reflective diaries been used/have these informed coding of data?

11. Clarity:

- ❑ Has a coherent and integrated narrative been produced, reflecting the nuances of the data (Elliot et al, 1999)?

Impact and Importance

12. Theoretical importance:

- ❑ Has a theory emerged from the data (grounded theory)?
- ❑ Has the work produced a novel insight or perspective into the area?
- ❑ Are findings discussed in relation to existing research (CASP, 2002)?
- ❑ Are future directions for work considered?

13. Sociocultural impact:

- Have wider sociocultural or political implications been considered (Yardley, 2000)?

14. Research-Practice links:

- Is there evidence of an impact on the community for which the research was intended?

Overall impression of paper / any further comments

References

Barbour R. S. Checklists for improving rigour in qualitative research: a case of the tail wagging the dog ? British Medical Journal 2001; 322: 1115-1117.

CASP@ Milton Keynes Primary Care 2002: www.phnu.nhs.uk/casp/critical_appraisal_tools.htm#qualitative.

Elliot R., Fischer C.T., Rennie D. L. Evolving guidelines for publication of qualitative research studies in psychology and related fields. *British Journal of Clinical Psychology* 1999; **38**: 215-229.

Mays N., Pope C. Rigour and qualitative research. *British Medical Journal* 1995; **311**: 109-112.

Svanberg J. How do work and vocational rehabilitation programmes contribute to recovery from mental illness? A qualitative review and meta-synthesis. In Svanberg, J. *How do social firms contribute to recovery from mental illness? A qualitative study & research portfolio:* 2006, p. 20-67.

Yardley L. Dilemmas in qualitative health research. *Psychology and Health 2000*; **15**: 215-228.

Cannabis use and psychosis- What does it mean to you?

I am a researcher who is conducting a research study in the field of cannabis use and psychosis. I am interested in speaking to individuals who have experienced psychosis and have used cannabis to learn more about their experiences of this.

What is the research study about?

This research is about developing an understanding of individual's experience of using cannabis and experiencing psychosis. Previous research has shown that many individuals who experience psychosis have used cannabis. The reason why individual's use cannabis is a complex issue. There is not much information in the research literature about why individuals who experience psychosis use cannabis.

Why is this research important?

If we understand more about the experience of psychosis and cannabis use it may be possible to help aid the development of new psychological therapies for people who use cannabis and experience psychosis.

What is involved?

I will aim to meet you for about one hour at your local Community Mental Health Centre to ask you about your understanding and experience of psychosis and cannabis use. There are no right or wrong answers. With your consent I will record the session. Participants will be given £10 to cover the cost of travel expenses.

What happens next?

If you are interested in taking part, please complete the tear-off slip below, put it in envelope provided and hand the sealed envelope to the receptionist.

In order to ensure that your participation does not get in the way of any ongoing treatment you may be receiving, I'd like to contact your key worker. If your key worker feels that your involvement in the research will not interfere with your ongoing treatment, you will be given further information about this research study.

Thank you for taking the time to read this advert and I hope to have an opportunity to find out more about your experiences.
Please complete the tear-off slip if you are happy for me to contact your key worker in the first instance.

Deborah Wilson, Trainee Clinical Psychologist, Section of Psychological Medicine, University of Glasgow, Gartnavel Royal Hospital, Glasgow G12 0XH. deborahwilson@nhs.net Tel: 0141 427 8277

Name ..... Telephone No..... (optional)

Address.....

Key worker's name..... Key worker' s base/Tel no……

Signature..... (I agree that you may contact my key worker)
Please place the completed tear-off slip in the envelope provided and hand to the receptionist.

Participant Information Sheet

A study of personal experiences of psychosis and cannabis use.

I would like to invite you to take part in a research study. My name is Deborah Wilson and I am interested in conducting research to learn about people's experience of psychosis and cannabis use. Before you decide if you would like to take part it is important for you to understand why this research is being done and what it will involve. Please take time to read the following information carefully.

What is the research about?

This research is about psychosis and cannabis use. Previous research has shown that many people who experience psychosis have used cannabis. The reason why individual's use cannabis is a complex issue. There is not much information in the research literature about why individuals who experience psychosis use cannabis, or what they think about their cannabis use in relation to experiencing psychosis.

In this study I would like to understand peoples' experiences of psychosis and using cannabis. I am interested in what it is like for people to use cannabis and how they think that this affects their experiences of psychosis.

This kind of research is important to aid the development of new psychological therapies for people who use cannabis and experience psychosis.

Who can take part in this study?

I am asking people who have experienced psychosis and who also currently use cannabis or have used cannabis in the past to take part in this study. I would like to contact all potential participants' key workers in order to ensure that participation in this study does not affect their ongoing treatment plan.

Do I have to take part?

You do not have to take part in this study. It is up to you to decide whether or not to take part. If you decide to take part you will be asked to sign a consent form. The consent form is a way of making sure you know what you have agreed to. If you decide to take part you are still free to withdraw at any time and you do not have to give a reason.

What does the meeting involve?

This meeting will most likely take part in the setting where you usually meet with your key worker and is likely to be 45 minutes to one hour long, but is flexible, depending on how you find the experience. It is likely that you will only be asked to meet with me on this one occasion.

At our meeting I will answer any questions or concerns you may have. If you are happy to proceed, I will ask you to sign a consent form. I will ask if the meeting can be recorded on a digital recorder. I would like to record the interviews so that I can listen to them again in order to carefully understand your experiences. All information will be kept strictly confidential. I will show you the equipment and demonstrate how it works before starting recording. You are free to stop the recording at any time.

During the meeting I will be asking you some questions about your experience of psychosis and using cannabis. There are no right or wrong answers; I am interested in hearing things from your perspective. During our conversation I will check with you that I have understood correctly.

What is the down side?

It is possible that our meeting may cover topics that are difficult or distressing for you to talk about. You can take a break if needed, and can choose to end the interview at any time if you decide that you do not want to continue.

I would like to meet at a time when your key worker is available, so that afterwards if you want you can speak about our meeting with someone who knows you.

What are the possible benefits of taking part?

There are no direct benefits to you from taking part. The information we learn from this study will help to plan future research and develop new psychological therapies for people who experience psychosis and use cannabis.

Will the things I talk about during the meeting be kept confidential?

The things that you talk about during the meeting will be used in the final write up of the study, but individual names and personal details will not be published. The only other person who will know that you have taken part in this study will be your key worker. Normal NHS confidentiality procedures will apply and an NHS leaflet on confidentiality can be provided if requested.

What will happen to the results of the research study?

I will provide you with a summary of the results of the study. The final results and conclusions of the study will be published in a scientific journal and will form part of my qualification in Clinical Psychology.

Who is organising and funding the research?

The University of Glasgow and Greater Glasgow and Clyde NHS.

Who has reviewed this study?

This study has been reviewed by the Department of Psychological Medicine to ensure that it meets important standards of scientific conduct and has been reviewed by Greater Glasgow and Clyde Research Ethics Committee to ensure that it meets important standards of ethical conduct.

Thank you very much for reading this and for any further involvement with this study.

Appendix 3.3

CONSENT FORM
Title of Project: The construction of meaning of cannabis use in individuals who have experienced psychosis: A qualitative investigation

Please initial box

I confirm that I have read and understood the information sheet for the above study and have had the opportunity to ask questions.

☐

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason, without my medical care or legal rights being affected.

☐

I give consent for the researcher, Deborah Wilson, to access my case notes in order to obtain information regarding my diagnosis.

☐

I give consent for the researcher, Deborah Wilson, to contact my key worker in order to ensure that participation in this research will not interfere with my ongoing treatment.

☐

I understand that the interview will be tape recorded solely for the purposes of the research study as described in the Participant Information Sheet.

☐

I understand that the researcher may publish direct quotations, after the interview has been transcribed, and all names, places and identifiers have been removed.

☐

I agree to take part in the above study.

☐

Name of participant:	Researcher:
Date	Date:
Signature:	Signature:
Centre No:	Identification Number for this study:

Appendix 3.4

Interview Guide

Thank participant for agreeing to meet with me. Explain who I am and about the research project e.g. I am a Trainee Clinical Psychologist am I am interested in learning about people's experiences of using cannabis and their experiences of psychosis.

Explain that the interview is likely to be 45 minutes to one hour long, but is flexible, depending on how the participant finds the experience. Explain that during the meeting I will be asking some questions about their experience of psychosis and using cannabis. Explain that there are no right or wrong answers; I am interested in hearing things from their perspective.

Show copy of Information Sheet and give them time to read over it and ask any questions. Explain that the things that we talk about during the meeting will be used in the final write up of the study, but individual names and personal details will not be published. The only other person who will know that they have taken part in this study will be their key worker. Explain that normal NHS confidentiality procedures will apply and an NHS leaflet on confidentiality can be provided if requested. Give the opportunity for the participant to ask any questions about this information sheet or the study in general.

Explain that in the interview it is very important that I listen to what is said so I would like to record the interviews. Show equipment and offer participant to examine the tape recorder. Explain that they are free to stop the recording at any time. Explain that only I will listen to the tapes and participant's names will then be removed.

Explain that it is possible that the meeting may cover topics that are difficult or distressing for them to talk about. Explain that they can take a break if needed, and can choose to end the interview at any time if they decide that they do not want to continue. Explain that during the interview I would like to measure the participant's comfort levels in order to ensure that the interview does not become too distressing for them. Show likert scale sheet and explain the comfort scale e.g. this scale is a way of measuring your comfort levels, with number 1 meaning that you are very uncomfortable, number 3 meaning that you are neither comfortable or uncomfortable and number 5 meaning that you are very comfortable. Check participant's understanding of the scale. Explain that I will ask them to do this before we start the interview and also after. I will leave this scale on the table where they can see it during the interview so they can indicate any change in level of comfort by again pointing to this scale. If at any time they start to feel uncomfortable, ask them to please let me know and I will stop the interview. If they continue to feel this way, I will ask their permission and contact a member of clinical staff. If they do not feel better, I will contact their key worker.

Ask if they are happy to proceed with the interview, show consent form and answer any questions before asking participant to sign the consent form.

Possible interview questions

1. Perhaps you could start by telling me a bit about yourself?

2. Can you tell me about your experience of psychosis?

3. Can you tell me about your experience of using cannabis?

Follow-up questions:

(a) In what way has your cannabis use been helpful to you?

(b) In what way has your cannabis use been unhelpful to you?

4. In what ways do you think your cannabis use has interacted with your experiences of psychosis?

5. What do you think has shaped your views on cannabis use?

Follow-up questions:

(a) How have other's reacted to your cannabis use?

(b)What's your view on how others have reacted to your cannabis use?

Example probes

Can you tell me more about that?

What did you think about that?

How did you feel about that?

What did that mean for you?

Specific probes will be used to elicit episodic memories:
Could you give me an example of that?

Specific probes will be used to encourage reflection:
Thinking about that now…

At the end of interview thank participant for their time and offer them an information leaflet on cannabis use.

Appendix 3.5

Primary Care Division

NHS

Greater Glasgow and Clyde

Research Ethics
R&D Directorate
Gartnavel Royal Hospital
1055 Great Western Road
Glasgow G12 0XH
www.nhsggc.org.uk

Mrs Deborah M Wilson
Trainee Clinical Psychologist
NHS Greater Glasgow and Clyde
Section of Psychological Medicine
University of Glasgow
Gartnavel Royal Hospital
Glasgow G12 0XH

Date 08 October 2007
Your Ref
Our Ref
Direct line 0141 211 3824
Fax 0141 211 3814
E-mail Liz.Jamieson@ggc.scot.nhs.uk

Dear Mrs Wilson

Full title of study: **The construction of meaning of cannabis use in individuals who have experienced psychosis: a qualitative investigation.**

REC reference number: **07/S0701/91**

Thank you for your letter of 18 September 2007, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered at the meeting of the Committee held on 04 October 2007. A list of the members who were present at the meeting is attached.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Ethical review of research sites

The favourable opinion applies to the research sites listed on the attached form.

Conditions of approval

The favourable opinion is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Application	Version 1	14 August 2007
Application	Version 2	18 September 2007
Investigator CV	Deborah M Wilson	14 August 2007
Protocol	Version 2	18 September 2007
Protocol	Version 1	21 July 2007

POSITIVE ABOUT DISABLED PEOPLE

D370787

Covering Letter		17 August 2007
Covering Letter		18 September 2007
Interview Schedules/Topic Guides	Version 1	21 August 2007
Advertisement	Version 1	21 August 2007
Participant Consent Form	Version 1	21 August 2007
Participant Consent Form	Version 1	21 August 2007
Response to Request for Further Information		18 September 2007
Appendices 1.1 to 1.5	Version 2	18 September 2007
Supervisor's CV	Version 1	
Approval Letter Prof T McMillan		

R&D approval

All researchers and research collaborators who will be participating in the research at NHS sites should apply for R&D approval from the relevant care organisation, if they have not yet done so. R&D approval is required, whether or not the study is exempt from SSA. You should advise researchers and local collaborators accordingly. Guidance on applying for R&D approval is available from http://www.rdforum.nhs.uk/rdform.htm.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

Feedback on the application process

Now that you have completed the application process you are invited to give your view of the service you received from the National Research Ethics Service. If you wish to make your views known please use the feedback form available on the NRES website at:

https://www.nresform.org.uk/AppForm/Modules/Feedback/EthicalReview.aspx

We value your views and comments and will use them to inform the operational process and further improve our service.

07/S0701/91	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project

Yours sincerely

Liz Jamieson
Research Ethics Committee Co-ordinator on behalf of Dr Paul Fleming, Chair

Enclosures: List of names and professions of members who were present at the meeting
Standard approval conditions
Site approval form

Copy to: Mr Brian Rae

Appendix 3.6

Primary Care Division

Research & Development Directorate
NHS Greater Glasgow and Clyde
The Tennent Institute
WIG, 38 Church Street
Glasgow
G11 6NT

NHS
Greater Glasgow and Clyde

Mrs Deborah M. Wilson,
Trainee Clinical Psychologist,
University of Glasgow,
Section of Psychological Medicine,
Division of Community Based Sciences,
Gartnavel Royal Hospital,
1055 Great Western Road,
Glasgow G12 0XH

Direct Line 0141 232 9524
Fax 0141 232 9516
Email mary.fraser@ggc.scot.nhs.uk

Date 28 September 2007

Dear Deborah Wilson,

Project Title: The construction of meaning of cannabis use in individuals who have experienced psychosis: a qualitative investigation

I am pleased to inform you that R&D management approval has been granted by NHS Greater Glasgow & Clyde Community and Mental Health Partnership, subject to the following requirements:

- You should notify me of any changes to the original submission, including copies of notification to ethics committee(s) and send regular, brief interim reports including recruitment numbers where applicable. You must also notify me of any changes to the original research staff and send CVs of any new researchers.
- Researchers covered in this approval are:- **yourself and Dr Andrew Gumley (as your supervisor)**
- Your research must be conducted in accordance with the Scottish Executive Health Department, *Research Governance Framework for Health and Community Care* (Second Edition, 2006) see Chief Scientist Website http://www.sehd.scot.nhs.uk/cso Local research governance monitoring requirements are presently being developed. This may involve audit of your research at some time in the future.
- You must comply with any requirements regarding data handling (Data Protection Act). Advice may be obtained from the Scottish Executive Confidentiality and Security Advisory Group for Scotland website http://www.csags.scot.nhs.uk/
- A final report, with an abstract which can be disseminated widely within the NHS, should be submitted when the project has been completed.

Do not hesitate to contact the R&D Office if we can be of any assistance.

POSITIVE ABOUT DISABLED PEOPLE

We wish you every success with your project.

Yours sincerely

Dr Mary Fraser

Appendix 4.1

Major Research Project Proposal

The construction of meaning of cannabis use in individuals who have experienced psychosis: a qualitative investigation

Deborah Wilson

ABSRACT

Background

It is now well established that individuals with co-morbid substance use and psychosis experience a wide range of increased symptom severity (Linszen et al, 1994). Conclusions that can be drawn from previous research into reasons for cannabis use in individuals with psychosis are limited. There is a need to understand what influences have an impact on the narratives and meaning of cannabis use in individuals who have experienced psychosis.

Aims

This research project aims to explore and produce a representation of the subjective experiences of cannabis use in individuals who have experienced psychosis. The construction of meaning of cannabis use and psychosis will also be explored.

Methods

A social construction version (Charmaz, 2003) of the original grounded theory (Glaser & Strauss, 1967) will be used. This approach is derived from symbolic interaction, thus it assumes that behaviour depends on the meanings individuals attribute to their situations (Mead, 1934). Intensive semi-structured interviewing will be undertaken and interviews will be transcribed and coded. Constant comparative analysis (Glaser & Strauss, 1967) and memo writing will also be used to allow for theoretical insight.

Applications

Findings from such research have the potential to inform effective treatment packages for substance use in psychosis.

INTRODUCTION

Substance use and psychosis

Research has shown that the rate of substance misuse in individuals with severe mental illness is higher than that of the general population. Estimates of recent or current abuse in community samples range from 20 – 40% (Mueser et al, 1992). The high rate of substance abuse in this population is concerning as it is now well established that individuals with co-morbid substance use and psychosis experience a wide range of increased symptom severity (Linszen et al, 1994). Increased rates of hospitalisation (Cantor-Graae et al, 2001), suicide (Torrey et al, 1996), poorer adherence to treatment (Coldhan et al, 2002) and increased rates of relapse (Pencer et al, 2005) have been found in this group.

Wade et al (2006) examined the potential effects of substance misuse on in-patient admission, remission and relapse of positive symptoms in first episode psychosis. They found that substance misuse was associated with increased risk of admission, relapse and shorter time to relapse of positive symptoms. They concluded that substance misuse is an independent risk factor for problematic recovery from first episode psychosis.

Several studies have attempted to investigate self-report reasons for substance use in individuals with psychotic disorders. Enhancing mood (Fowler et al, 1998), managing negative emotions (Dixon et al, 1991), and social reasons (Test et al, 1989) have all been reported as reasons for substance use in this population. It has also been suggested that individuals who experience psychosis may use substances to relieve the symptoms of psychosis and the side effects of medication (Addington & Duchak, 1997).

Spencer et al (2002) quantitatively examined reasons for substance use among individuals with psychotic disorders. Sixty-nine people with psychotic disorders were interviewed using a battery of questionnaires called the Substance Use Scale for Psychosis (SUSP). Factor analysis indicated that enhancement, social motives, coping with unpleasant affect, conformity and acceptance and relief of positive symptoms and side effects were motivations for use. However the conclusions that can be drawn from this research are limited due to methodological issues. Firstly, the information was obtained using structured interview and questionnaire methods. The restrictive nature of these methods fails to allow in-depth exploration of the reasons for use. The factor analysis conducted in this study is questionable. Important information regarding reasons and motivations for use may have been lost due to the exclusion of 'ambiguous items', items which were 'too highly correlated' and items for which the participants did not use the full range of response. Lastly, the small data set in this study does not allow for exploration of reasons for use according to substance type.

Cannabis use in the general population

Cannabis is one of the most common illicit drugs used for recreational purposes (Hall et al, 2001). Cannabis use appears to be higher in Scotland that other parts of the UK, with 60% of boys and 47% of girls aged 15/16 reporting that they have used the substance at some point in their lives (Miller & Plant, 1996). Fergusson et al (2003) found that the rate of future cannabis dependence increases with increased reports of positive responses to early cannabis use.

Research has now begun to focus attention on investigating the reasons and motivations for cannabis use. Higet (2004) conducted a qualitative study using a grounded theory approach to

explore the role of cannabis in young people's lives. Cigarette smoking was viewed as an addictive habit, whereas cannabis was not viewed as fostering dependence. Cannabis was viewed as part of youthful experimentation, producing the desirable effect of 'getting high'. Cannabis use was also found to have a role in supporting young men's cigarette smoking.

Amos et al (2002) used interviews and focus groups to explore young people's perspectives of smoking cannabis. They found that cannabis was regarded as an important and enjoyable aspect of life. Most of the participants in the study reported wanting to quit smoking cigarettes, however few expressed a desire to stop smoking cannabis.

Boys et al (2001) used a functional perspective to examine the reasons for psychoactive substance use in young people. They conducted structured interviews and administered likert scale questionnaires. This study found that the most popular functions of cannabis were to relax, to become intoxicated and to enhance activity. Cannabis was also commonly used to decrease boredom, to aid sleep and to help the individual 'feel better'.

Cannabis use in individuals who have experienced psychosis

Cannabis is the most widely used illicit drug amongst individuals with psychosis. A study by Sembhi & Lee (1999) estimated that as many as 86% of individuals who experience psychosis have experimented with cannabis at some point. Boydell et al (2006) found that cannabis use in the year prior to presentation with schizophrenia increased markedly between 1965 and 1999, and disproportionately so compared to the increase of cannabis use in other psychiatric disorders. Cannabis use is associated with increased odds of subsequently developing schizophrenia (Fergusson et al, 2005) and is also strongly associated with greater psychotic

symptom severity (Grech et al, 2005) and increased risk of relapse (Hides et al, 2006). Henquet et al (2005) found that cannabis use increases the risk of developing psychotic symptoms later in life, and that this association is stronger for individuals who have a predisposition for psychosis. They found a dose-response relationship between the amount of cannabis used and the level of risk of developing psychosis.

Converging evidence now supports the role of cannabis use as a risk factor in the development of psychotic symptoms (Van Os et al, 2002). However the causal nature of this association is debated (Henquet et al, 2005). Several different hypotheses that attempt to explain the association between cannabis use and psychosis have been proposed (Hall & Degenhardt, 2000; McKay & Tennant, 2000). Arseneault et al (2004) conducted a review of the research on the association between cannabis and psychosis. They concluded that cannabis is 'likely to play a causal role' in the development of psychosis, but that it was neither a sufficient nor a necessary cause for psychosis. There is now general agreement that cannabis use is thought to precipitate psychosis in individuals who are vulnerable to the disorder. Cannabis induced psychosis is seen as a distinct disorder, however the phenomenology of this has not been clearly defined or distinguished from schizophrenia and other psychotic problems that occur amongst cannabis users (Raphael et al, 2005).

Reasons for cannabis use in individuals who have experienced psychosis

Researchers have now begun to focus attention on exploring the reasons for cannabis use in individuals who have experienced psychosis. An Australian study by Green et al (2004) explored reasons for cannabis use in men who have experienced psychosis as well as men who have not experienced psychosis. They found that the men who have experienced psychosis

reported positive mood alterations, coping with negative affect and social activity as reasons for use. Men who had not experienced psychosis reported relaxation and social activity as reasons for using cannabis. This study has several methodological limitations. Firstly, data was obtained using structured interviewing conducted mainly by telephone. The use of telephone interviewing is likely to have reduced the richness and depth of the accounts given. The results are restricted by gender as women were excluded from the analysis due to difficulties with recruiting. Rather than allowing the themes to emerge from the data collected, this study used a coding scheme based on reasons and effects that have been reported in previous studies of individuals who have experienced psychosis. This has led to the authors imposing restrictive criteria on the reported results.

Schofield et al (2006) examined the reasons for cannabis use among individuals with psychotic disorders. This study found that the positive symptoms of psychosis are not the primary reason for using cannabis in individuals who have schizophrenia. They found that boredom, social motives, improving sleep, anxiety, agitation and negative psychotic symptoms were the most important motivators of cannabis use. However, the strict exclusion criterion adopted renders this study vulnerable to sampling bias. Participants with a diagnosis of Bipolar Disorder were omitted from the study, therefore the results cannot be generalised to all psychotic disorders. Participants who had used intravenous amphetamines in the four months prior to the research were also omitted. This restricts the reliability of the results found as many individuals who use cannabis also use other substances. This study only includes participants who currently use cannabis. This is a disadvantage, as there is no opportunity to learn from individuals who have used cannabis in the past.

The study by Schofield et al (2006) has several other methodological limitations. The descriptive analysis was conducted based on the self-completion of a 'reasons for cannabis use' questionnaire. No indication of the validity or reliability of this questionnaire is given. The use of quantitative methods ignores the complexity and dynamic nature of the issues that the study attempts to examine as the information obtained from participants is restricted within the limits of the questionnaire used.

Qualitative methods and meaning making

The conclusions that can be drawn from previous quantitative research in this area are limited. Research using qualitative methods would allow for a more detailed exploration of the motivations for cannabis use in this group. Qualitative methods have proved valuable in demystifying drug and alcohol use and replacing stereotypes and myths about addiction with more accurate information that reflects the daily reality of substance users lives (Neale et al, 2005). A qualitative approach brings with it a degree of flexibility as the approach of simultaneous data gathering and analysis allows data gathering to evolve in light of the emerging analysis. As well as exploring the subjective experiences of individuals with psychosis who use cannabis, there is a need for research in this area to focus on exploring the influences that have an impact on the narratives and meaning of cannabis use in individuals who have experienced psychosis. The use of qualitative methods allows scope for the exploration of personal meaning of experiences in a way that the use of predetermined categories does not.

Meaning making is a central and defining activity of human life. Efforts to excavate meaning are best pursued through qualitative analysis (Strauss & Corbin, 1998). Qualitative research is

fundamentally well suited to studying the meanings people place on events in their lives and how these meanings are connected to the social world around them (Miles & Huberman 1994).

The proposed study will explore individual experiences of using cannabis in relation to their psychosis. The influences that impact on the narratives and the meaning of cannabis use in people who have experienced psychosis will also be explored using a qualitative approach. Findings from such research have the potential to inform effective treatment for substance use in individuals who have experienced psychosis.

AIMS AND OBJECTIVES

Aims (research question)

How is the meaning of cannabis use constructed in individuals who have experienced psychosis?

Objectives

1. To describe individual experiences of psychosis.
2. To describe individual experiences of using cannabis.
3. To describe how users experience the interaction between cannabis use and psychosis.
4. To describe the factors that influence the construction of meaning in individuals who have used cannabis and have experienced psychosis.

PLAN OF INVESTIGATION

Participants

The participants in this study will be individuals who have used or are currently using cannabis and have experienced psychosis. Case note diagnosis (usually ICD-10) of

schizophrenia or similar disorder will be required. Theoretic sampling will be conducted as this method is aimed towards theory construction rather than population representativeness. This is a process of seeking and collecting pertinent data to elaborate and refine categories in the emerging themes (Charmaz, 2006). This process of sampling allows for the development of complete categories and allows for relationships between categories to be clarified. Turpin et al (1997) has suggested that a sample of between eight and twenty participants is desirable for good qualitative research submitted as part of a Doctorate in Clinical Psychology thesis.

Inclusion and exclusion criteria

The age range of participants will be from 16 years upwards. No upper age limit will be set. Participants who have used cannabis in the past, as well as current cannabis users will be included in the study. Participants will not require a diagnosis of substance use disorder to be included in this study, and no restriction criteria based on the amount of cannabis use will be imposed.

Participants will not be excluded on the basis of being poly drug users. From a social interactionist perspective, greater insight in achieved through the development of a shared understanding of the subject in question. As the participants may be poly drug users, care will be taken to ensure that the participant is answering in reference to their cannabis use alone as opposed to their poly drug use. This will be achieved through questioning and clarifying the participant's frame of reference during the interview process.

Any individual who is unable to give informed consent will be excluded from the study, as will non-English speaking individuals. Individuals who are acutely psychotic at the time of

conducting this research will be excluded from the study. Individuals who do not have a key worker will also be excluded, as will individuals with a history of dangerous/homicidal ideation.

Recruitment procedures

It is anticipated that individuals who have experienced cannabis use and psychosis will be difficult to recruit. This group is known for having poorer rates of adherence to treatment (Coldhan et al, 2002). The participant group in this study are often excluded from research due to their chaotic lifestyle. It is unethical to exclude this group from research on the basis of difficulties with recruitment. Recruitment of participants will be conducted via advertisement in Community Mental Health Teams (CMHT) in the Greater Glasgow and Clyde area. All potential participants who attend the CMHT's will be given an advert, which will give details of the study (Appendix 2.1). Advertisements will also be placed in local Community Mental Health Centres to encourage recruitment. Those who are interested in taking part in the study will be asked to complete the tear-off slip and place it in a sealed box located in the reception area. The tear-off slip requests that they sign to give their permission for their key worker to be contacted in order to ascertain that participation will not adversely affect their current treatment plan. Key worker involvement in this process is necessary due to potential risk factors.

Measures

Intensive interviewing will be used, as this method permits an in-depth exploration of the topic. This particular method of interviewing fosters eliciting each participant's interpretation of his or her experience (Charmaz, 2006). The participant will be asked to describe and reflect

upon experiences, while the researcher will express interest through the use of questioning and clarification. Interviews will take a semi-structured format, with the use of open-ended questions based on the main aims of the study. Within the general orientation to the interview participants will be asked general introductory questions. They will then be asked to discuss their experience of psychosis and their experience of using cannabis. More generic reflective questions will also be used to explore cannabis use in relation to mental health. Participants will also be encouraged to express their views on cannabis use and to describe and reflect upon how these views have developed. Follow-up probes will be used. The interviews will be flexible and the nature of the interview will change in light of emerging themes as the research evolves. Throughout interviewing emphasis will be placed on establishing rapport. The researcher will be mindful of her own assumptions and attempt not to reproduce them.

Design

A social construction version (Charmaz, 2003) of the original grounded theory (Glaser & Strauss, 1967) will be used. This approach sees the phenomena under question as central. As it is derived from symbolic interaction it assumes that behaviour depends on the meanings individuals attribute to their situations (Mead, 1934). The constructivist approach is particularly well suited to this study as it allows scope for the investigation of how participants construct meanings and actions, and recognises that meanings are mediated by culture and language. This approach assumes that both data and analysis are social constructions and acknowledges that the resulting theory is an interpretation. While being methodologically rigorous, this approach also allows for flexibility. Following from the interpretative tradition, this approach also acknowledges the involvement of the researcher in the research process as it

sees both data and analysis as being created from shared experiences and relationships with participants and other sources of data (Charmaz & Mitchell, 1996).

Research procedures

At the initial stage, an extensive literature review will be conducted to inform the research project. Semi-structured interviews will then be created and reviewed. Participants will then be recruited through advertising in local CMHT's. Those who express an interest in participating in the study will be given a Participant Information Sheet (Appendix 2.2). If they decide to proceed with participation, informed consent will be obtained before the interview stage (Appendix 2.3). Care will be taken to ensure that participants do not experience high levels of distress during the interview. A five-point likert scale will be used to monitor their level of comfort before, during and after the interview process. Interviews will then be transcribed by the researcher and line-by-line coding, focused coding and theoretical coding will be conducted with the aid of a computer package. Constant comparative analysis (Glaser & Strauss, 1967) will be used. The researcher will also write memos after each interview to allow for theoretical insight. The approach of simultaneous data collection and analysis will be taken in order to shape data collection to inform the emerging analysis. This process will continue until data saturation is achieved.

Justification of sample size

Theoretical sampling will be conducted in order to develop properties of categories until no new themes emerge, at which point data saturation is achieved. Data saturation will be achieved when gathering new data no longer reveals new properties of the core theoretical categories. This is defined by Glaser (2001) as 'the conceptualization of comparisons of these

incidents which yield different properties of the pattern, until no new properties of the pattern emerge'.

Settings and equipment

All interviews will be conducted in local Community Mental Health Service settings. Where possible this will be a setting familiar to the participant. A digital recorder will be used to record interviews.

Data analysis

Data will be analysed using methods from the social construction version of grounded theory. Interviews will be transcribed and then coding will be used to summarise and account for each piece of data. Initially this will consist of line-by-line coding, with each line of the written data being assigned a code to account for it. Following this, focused coding will be conducted where initial significant or frequent codes will be synthesised, integrated and organised to produce categories. Finally, theoretical coding will be conducted and possible relationships between categories will be specified. Constant comparative methods (Glaser & Strauss, 1967) will be used to make comparisons within and between interviews at each level of analytic work. Memo writing (a process of beginning to analyse data and codes) will be conducted throughout the research process in order to explore ideas about the codes and direct further data gathering.

HEALTH AND SAFETY ISSUES

Researcher safety issues

All interviews will be conducted in local Community Mental Health Service settings where standard safety procedures will apply. No domiciliary visits will be conducted. The interviewer will have access to a panic alarm at all times.

Participant safety issues

Consent will be sought to contact each participant's key worker before the initial meeting in order to ascertain that this research will not adversely affect the individual's treatment plan. The limits of confidentiality will be explained to all participants. The key worker will be asked to make themselves available at the time when interviews are being conducted and they will be informed if the participant discloses any information which could be seen as indicating a risk to the safety of themselves or others. Local procedures for dealing with disclosure issues will then be followed.

ETHICAL ISSUES

Participants will be given an Information Sheet outlining details of involvement in the study prior to participation and informed consent will be sought from all participants. Consent will also be sought for contacting key workers, access to patient case notes, for tape recording sessions and for the use of quotations in the final write up of the research. All participant data will be anonymised and a coding scheme will be used to identify participants. Due to the emotive nature of the information discussed, care will be taken to ensure that participants do not experience high levels of distress during the interview. A five-point likert scale will be used to monitor levels of comfort throughout the interview process. The key worker will also

be informed of any disclosure issues and local procedures for dealing with disclosure issues will then be followed. At the end of each individual interview participants will be offered an information sheet detailing where they can access further resources relating to cannabis use and psychosis.

FINANCIAL ISSUES

Equipment cost

A digital recorder will be obtained from the section of Psychological Medicine.

Travel expenses

Participants will be given £10 each to cover the cost of travel expenses. This is expected to facilitate participation in the study. The researchers travel expenses will be claimed through normal employment procedures.

TIMESCALE

July 2007:	Proposal passed by University of Glasgow.
August 2007:	Ethical review.
Sept 2007:	Begin recruitment.
	Initial 1 -2 interviews (pilot).
	Reassessment of interview agenda and questions clarified.
Oct – Nov 2007:	2-3 interviews with current agenda.
	Data analysis and creation of new questions.
Dec – Jan 2008:	2-3 interviews with current agenda.
	Data analysis and creation of new questions.

Feb-March 2008:	Final interviews.
March – June 2008:	Complete analysis.
	Write up research report for submission.
September 2008:	Viva.

PRACTICAL APPLICATIONS

As this study is of a qualitative nature it offers several practical applications which have not yet been gained from quantitative research in this area. With its emphasis on meaning and understanding, qualitative research can compliment quantitative research by answering questions that are opaque to quantitative research (Draper, 2004).

The results from this study are expected to offer insight and a greater understanding of the influences that shape the narratives and the construction of meaning of cannabis use in people who have experienced psychosis. The in-depth nature of this research will allow for a more coherent understanding of the reasons for cannabis-use, as well as an understanding of cannabis-use behaviour and the ways in which this may influence and interact with experiences of psychosis.

In order to design more appropriate and effective treatment packages it is important to gain an in-depth understanding of the pattern of behaviours concerning cannabis use in individuals who have experienced psychosis. Therefore this study has the potential to contribute to the design and implementation of interventions that are appropriate for this client group.

This study also has practical applications in terms of influencing the direction of future research as it is intended to produce hypotheses and methodological considerations to be explored in future research.

ETHICAL AND MANAGEMENT APPROVAL SUBMISSIONS

Ethical approval will be sought from Greater Glasgow and Clyde Research Ethics Committee and Management approval will be sought from the Greater Glasgow and Clyde Research and Development Department.

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