An exploration of staff interpersonal relationships with their clients with severe intellectual disabilities who frequently display aggressive behaviour.

And Research Portfolio

Part One (Part Two Bound Separately)

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August 2006

Submitted in partial fulfilment of requirements of the degree of Doctor in Clinical Psychology, University of Glasgow.

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Acknowledgments

First and foremost, I would like to thank my research supervisor, Dr Andrew Jahoda, for his support, encouragement, and continuing enthusiasm for this portfolio. I also wish to thank Dr Sharon Horne-Jenkins for her support and helpful advice. My gratitude also goes to Dr Katie Mackie and Dr John McColl for their advice.

A special thank you is extended to all those who took the time and effort to participate in all aspects of my research.

Finally, I would also like to express my extreme gratitude to my friends for putting up with me over the last three years, and to my family for their help and unwavering confidence in my ability to complete this portfolio. I would also like to thank Ryan for the same reasons, but primarily for letting me lean on him.

Table of Content

Chapter One

Small Scale Service Related Project

Re-Audit of Clinical Psychologists' Initial Assessment Letters to General Practitioners.

Re-Audit of Clinical Psychologists' Initial Assessment Letters to General Practitioners.

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To be submitted to the Journal of Mental Health.

Abstract

The main type of communication between psychologists and other health care professionals is the written letter (Shah & Pullen, 1995). McKenna, Paxton & Grant (1994) showed that various mental health professionals, including clinical psychologists, are in agreement upon basic standards of letters that can be audited.

These standards formed the basis of a departmental audit of the quality of clinical psychologists' initial assessment letters to GPs within Renfrewshire (Marsh, 2003). The current work focuses on the re-audit of letters in the same department. The main aims of this study were to re-evaluate whether clinical psychologists' initial assessment letters to GPs met departmental standards and to investigate if the introduction of departmental guidelines had improved the quality of clinical psychologists' letters. A sample of 42 initial assessment letters to GPs was analysed for the presence or absence of 14 items of content and 3 measures of letter length. The audit found that some improvement in the standard of psychologists' letters to GPs was observable following the introduction of departmental guidelines. However, there is still need for further improvement, as the assessed standards represent a minimum. The study concludes that letter quality should be further addressed within the department.

Introduction

The main type of communication between psychologists and other health care professionals is the written letter (Shah & Pullen, 1995). Good communication between clinicians and referrers is fundamental to providing a high standard of patient care, which is even more critical in today's environment of Clinical Governance within the NHS.

Evaluation of communication between GPs and psychiatrists (Pullen & Yellowees, 1985; Markar & Mahaddeshwar, 1998), as well as other medical specialties (Newton et al 1994), has been widely documented. Although reported evaluations of communications between GPs and other health care professionals are rare, McKenna, Paxton & Grant (1994) showed that various mental health professionals, including clinical psychologists, are in agreement upon basic standards of letters that can be audited.

Standards for letters were drawn from published literature and formed the basis of a departmental audit of the quality of clinical psychologists' initial assessment letters to GPs within Renfrewshire (Marsh, 2003). This paper reports on a re-audit of letters sent from the same department.

The standard of letters is important for at least two reasons. It can be influential in fostering a good working relationship between psychologists and referrers. Moreover an informative letter will hopefully also increase GPs' awareness of the suitability of their referrals to an already stretched psychology department with long waiting lists and limited resources.

In common with all clinical audits, the audit reported here is a quality improvement process that aims to improve patient care and outcomes by carrying out a systematic review of practice and implementing change. Its aim was to evaluate whether previously identified improvements in healthcare delivery had taken place (Jones & Cawthorn 2002). The current work is a standards-based audit, defined as a cycle that involves defining standards, collecting data to measure current practice against those standards, and implementing any changes deemed necessary. This audit can be placed within stage five of NICE (2002) guidelines: sustaining improvement. The process is described by NICE as: At a set point after original audit a re-audit should demonstrate that the changes have been implemented and that improvements have been made.

Previous departmental research found that the quality of psychologists' initial assessment letters to GPs was "*at best merely adequate and often downright poor*" (Marsh 2003, Page 26). In 1999, a sample of 72 initial assessment letters from clinical psychologists to GPs were drawn at random from case files. The letters were anonymised, and then assessed for presence or absence of specific standards. Of the 14 standards evaluated (shown in Table 1), only 5 were present in more than 50% of letters. These were: date of contact (81.9%), problem description (100%), onset factors (68.1%), maintenance factors (51.4%) and plan of action (79.2%). Less than a third of all letters contained the following information: reference to referral letter, reason for contact, background information, findings/observations, timescale for next appointment. A qualitative evaluation was also carried out during the original audit. This was done using a four-point scale: poor, adequate, good, and excellent to evaluate each letter on eight qualitative characteristics. Evaluation guidelines were

followed to ensure consistency of evaluation between the three independent evaluators. The qualitative evaluation found that none of the letters were rated as excellent and only a quarter of the letters were judged to be good. In light of these findings departmental guidelines *(Appendix 1ii)* were introduced, in early 2002, with the aim of improving standards. Sample letters that reflect good standards were simultaneously made available to staff.

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Insert Table 1 about here

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Four years after the completion of the original audit, the current audit investigated the impact of previous departmental research and the introduction of guidelines on the standards of clinical psychologists' initial assessment letters to G.Ps.

Aims

The main aims of this study were:

- To re-audit clinical psychologists' initial assessment letters to GPs against departmental standards.
- To investigate whether the introduction of departmental guidelines had improved the quality of these letters.
- If required, to assist in further improving standards by making recommendations or suggesting alterations to guidelines.

Methodology

Subjects:

Seven qualified clinical psychologists, with a range of post qualification experience and were based in the Department of Clinical Psychology at Dykebar Hospital, Paisley, took part in this study. Only two of the seven clinical psychologists worked in the department at the time of the original audit.

Procedure:

A sample of 42 initial assessment letters to GPs (6 letters from separate cases for each clinical psychologist working in the department at the time of re-audit) were drawn from the departmental database. The letters were selected from a period starting 1st August 2003. The first 6 letters written by each psychologist after this date were used.

All letters were coded and then anonymised by secretarial staff. All patient, psychologist and GP identifiers were removed. The letters were copied and the following information was deleted: patient name, date of birth, address, employment details and other identifiable information.

Each letter was audited by one clinician for the presence or absence of 14 items of content and 3 measures of length following the precise guidelines developed and used during the original departmental audit. Twelve of the items of content could be straight forwardly assessed for presence or absence, including; reference to the original letter, date of contact, description of problem and time scale for follow up. Two of the items, however, required the rater to make some level of judgement. These

items were the frequency of jargon used and the inclusion of value judgement/pejorative comments. A full description of each item is given in the guidelines (*Appendix 1iii*).

Prior to commencing the current audit, the rater was trained to follow the established guidelines in order to ensure the same process was used as in the first audit. Due to staff and time constraints, a second rater was not available to mark the letters. To offset this, the same individual blindly auditing 10 letters from AUDIT 1 checked the reliability of the sole auditor. Absolute agreement was found between the two auditors.

Audit results were aggregated as frequency data for each audit item, with the exception of letter length items, with these data being converted to means. The frequency data were subsequently transformed into percentages. The results from current audit were then compared to the previous audit results to evaluate if there had been significant improvements in standards.

Results

Analysis of letter content

Table 2 summarises the results of the analysis of the 14 items of content from the original audit (AUDIT 1) and the current re-audit (AUDIT 2). The table also shows the percentage change of each item between the two audits, and includes comments on the extent of the change.

Insert Table 2 About Here

Figure 1 shows a graphical representation of the differences between the results from AUDIT 1 and AUDIT 2. The results indicate that the number of items included in more than 50% of the letters has increased from 5 in AUDIT 1 to 8 in AUDIT 2. Problem descriptions were found to have always been included in 100% of the letters. However, when looking at whether or not a detailed description of the problem is given it can be seen that the number of letters to include this has increased from 60% to 74%.

Insert figure 1 about here

The only items whose frequencies decreased between the audit points, were those relating to a psychological formulation of the presenting problem, namely descriptions of predisposing, onset and maintaining factors. These items were also rated as to whether they were clearly specified as possible determinants, or whether their role is merely implied in the psychological formulation. Predisposing and maintaining factors were specified as such in a greater percentage of the letters in AUDIT 2 than in these of AUDIT 1 (14%: 26% and 8%: 17% respectively). For onset factors, the number of letters in which these were specified as such dropped by approximately 25% between AUDIT 1 and AUDIT 2.

The percentage of letters that contained an action plan only marginally increased between the two audit points. However, the number of letters to provide a detailed plan more than doubled (AUDIT 1 =21%, AUDIT 2 =43%).

The percentage of letters that included a prognostic opinion increased between the two audits. Moreover at the second audit clinicians were more than twice as likely to specify it as such (AUDIT 1 =11%, AUDIT 2 =26%).

Analysis of Letter Length.

Table 3 shows the length of the letters split into three categories, number of pages, number of paragraphs and number of words. Each is shown as a mean value, and the original audit (AUDIT 1) is shown alongside the current re-audit (AUDIT 2).

The overall length of letters has increased between the two audit points. In terms of the number of pages, 59% were more than 1 but less than 3 pages long in the second audit, in comparison to only 13% of letters in the first audit. Clinicians appear to be writing longer letters and also using more paragraphs, implying letters are now more structured.

Insert Table 3 about here

Discussion

The aims of this study were to evaluate the standard of clinical psychologists' initial assessment letters to GPs against departmental standards and to investigate whether the introduction of departmental guidelines had improved the quality of letters. The results suggest that some improvement in the standard of psychologists' letters to GPs had occurred following the introduction of departmental guidelines. All bar 4 items of content were now found to be included in a higher percentage of letters compared to the original audit. In the first audit, only 5 of the items were included in more than

50% of the letters, whereas 8 items were included in more than 50% of the letters analysed in the re-audit.

The items that were highlighted in the first audit as occurring in few (less than 1/3) letters (reference to referral letter, reason for contact, background information and prognostic opinion), tended to show the greatest increase in inclusion at re-audit. This could be due to these items being highlighted in the feedback of original results to staff, making them more aware of the need for their inclusion in future letters.

Interestingly the items that have reduced in their frequency of inclusion were those relating to the clinicians' psychological formulation of their patients' problems. This is surprising since formulation would surely be considered by a majority of psychologists as being the most fundamental element of an assessment and should, therefore presumably be included in every letter. When looking purely at the use of the heading *Psychological Formulation* this is only seen in 69% of letters at re-audit, implying that in 31% of letters clinicians make no attempt to provide a summary of all relevant factors using psychological rather than everyday concepts. Some of the letters analysed did not follow the prescribed heading and simply used a "conclusion" to provide a brief summary of information and an outline of a plan. However, this information does not meet the guidelines standard for a psychological formulation (see *Appendix 1iii*). From clinical experience, it is noted that this is often the most difficult and time-consuming aspect of letter writing. However, that does not mean it can be excluded from a psychologists' letter. The formulation of a case provides the basis from which a psychologist works with any given problem. Therefore, its exclusion from a letter may imply that the clinician has not fully understood the

problem, and may not be offering the best possible treatment choice to the patient. Additionally, the inclusion of a formulation in a letter provides the GP with a psychological understanding of their patients' problems. This may help to alter the way in which the GP manages a given case, both in terms of their own interaction with the patient possibly being more psychological and also with regard to how they refer the case in the future.

It should be noted that one psychologist whose letters were included in the current study did not follow the guidelines at all. However, after discussion with the head of the department it was decided that the letters should be used, as the individual was fully aware of the guidelines. Inclusion of these letters, whilst being representative of the letters being received by GPs, will have significantly lowered the overall level for meeting the standard.

The letters used were taken from a group of psychologists with a wide range of years of post qualification experience and this could have influenced the standard of letters. However, when clinician experience was previously investigated it was found that *there were no qualitative differences revealed between the letters produced by the three groups with varying levels of clinical experience* (Marsh 2003, p25).

The current study furthers the work of McKenna et al (1994), in showing that not only can standards of communication be agreed upon, but that they can be used for audit purposes, the results of which can then be used to produce guidelines with the aim of improving standards.

It should be highlighted that the current study did not employ measures of quality of the letters, such as clarity of presentation or accuracy and coherence of formulation. The sole inclusion of objectively measurable items can be seen to represent merely a minimum, and by no means a gold, standard.

Although improvements have been made and the results show an increase in the standard of clinical psychologists' letters, it is important to remember, as highlighted above, that these standards are a minimum. To improve the current study, a qualitative analysis of the content of the letters should be carried out. This process would include the involvement of at least two further clinicians, and would be much more time consuming. Restrictions on the availability of both prevented a qualitative examination from being implemented in the current study.

Half of all letters failed to meet a minimum standard. With only 8 items present in more than 50% of the letters and only 2 (presenting problem and background information) seen in more than 90% of the letters. The results of this audit show, therefore, that there is still a need for further improvement of letter standards. This study recommends that this might be aided through the results being made available to clinicians and by the quality of letters being once again addressed at a staff meeting and becoming the focus of further continuing professional development (CPD) activity. Further, the results could be used by management to address individual quality issues.

As the written letter is the main form of communication between the psychologist and other health care professionals (Shah & Pullen, 1995), it is of the utmost importance

that the letters that GPs receive are of the highest possible standard. Although the original audit and subsequent guidelines have led to some level of improvement, there is still much room for further improvements. This is key to providing a service which is better understood by GPs, and therefore will hopefully reduce the number of inappropriate referrals received, which in turn may reduce the department's waiting lists, all of which will lead to a higher standard of service and care received by the patient.

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List of Tables and Figures **Page:**

Table 1: Objective Indices used in the audit.

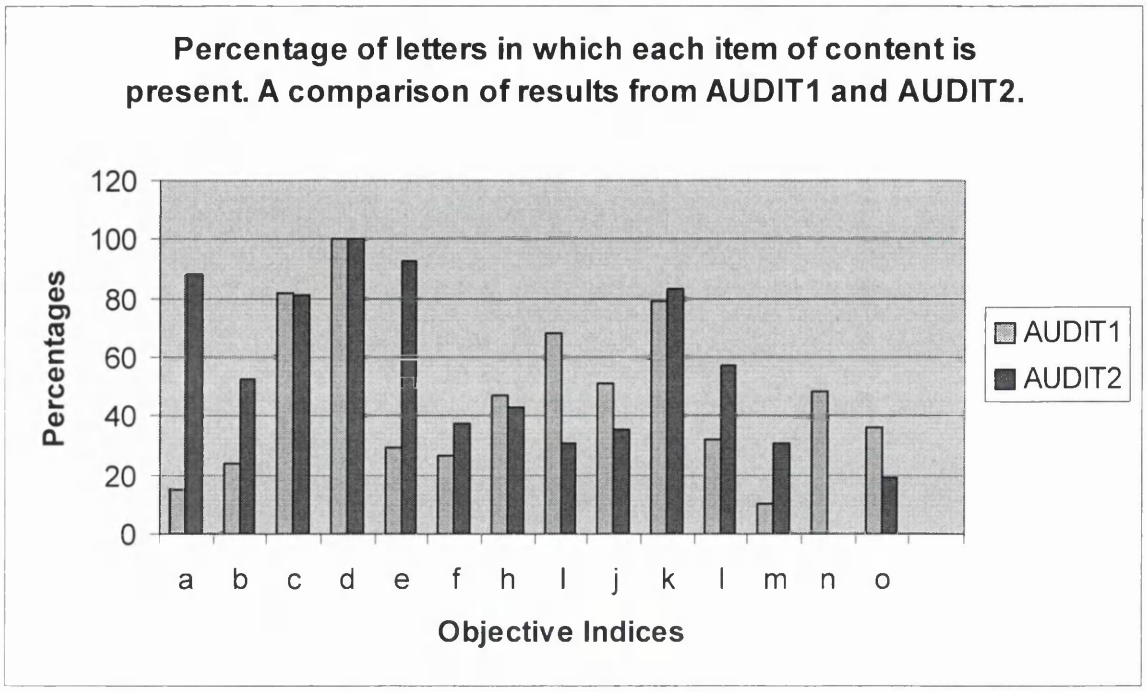
	Objective Indices
a	Reference to referral letter
b	Reason for contact
c	Date of contact
d	Problem Description
e	Background info.
f	Findings/observations
g	Predisposing factors
h	Onset factors
i	Maintaining Factors
j	Plan of Action
k	Prognostic opinion
l	Time scale for next appoint
m	Use of Jargon
n	Value Judgements

letter				a reference to the referral letter
Reason for contact	23.6	52.4	34.8	More than twice as many clinicians included a reference to the reason fo (i.e. initial assessment)
Date of contact	81.9	80.9	-1	The percentage of letters that inclu of contact has remained almost co the two audits
Problem Description	100	100	0	A reference to the presenting p always been made by all clinicians.
Background info.	29.2	92.8	63.6	The number of letters that no background information is much hi the initial audit
Findings/observations	26.4	37.5	11.1	More clinicians now include re findings and observations than befo this is still only the case in just ov of letters
Predisposing factors	47.2	42.8	-4.4	Were mentioned in a slightly lowe of letters
Onset factors	68.1	30.9	-37.2	Are included in less than half the letters at second audit in comparison
Maintaining Factors	51.4	35.7	-15.7	Clinicians were more likely maintaining factors at first audit tha
Plan of Action	79.2	83.3	4.1	A slight increase in the number of include a plan of action is seen betw audits
Prognostic opinion	31.9	57.1	25.2	The number of letters to include a opinion has increased from the first second audit.
Time scale for next appoint	10.0	30.9	20.9	More letters included details appointment at re-audit.
Use of Jargon	48.6	0.0	-48.6	At re-audit it appears that clinician use jargon in their assessment letters
Value Judgements	36.1	19.0	-17.1	Clinicians were found to use judgements at first audit than re-aud

Table 3:
Table showing the average length of letters, comparing mean results from AUDIT 1 & AUDIT 2.

	No. of words	**No.of pages**	**No.of paragraphs**
AUDIT 1	367	.72	4.5
AUDIT 2	583	1.19	8.7

Figure 1.


Percentage of letters in which each item of content is present. A comparison of results from AUDIT1 and AUDIT2.
120
100
80
60
40
20
0
Percentages
a b c d e f h l j k l m n o
Objective Indices
AUDIT1
AUDIT2

Chapter Two

Systematic Review

Are structured behavioural approaches effective at increasing the meaningful engagement of adults with severe intellectual disabilities in activities? - A systematic review.

Are structured behavioural approaches effective at increasing the meaningful engagement of adults with severe intellectual disabilities in activities?- A systematic review.

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To be submitted to *Journal of Intellectual Disability Research*

Abstract

Research has shown that individuals with severe or profound intellectual disabilities (ID) typically receive less interaction from staff than those with mild to moderate ID. In turn, this lack of interaction reduces the degree to which these individuals can engage in meaningful activities, and this has been shown to effect an individual's quality of life (QoL). This has led to the development of behavioural approaches (Room Management and Active Support) designed to promote interaction and engagement. This paper is a systematic review of literature on Room Management and Active Support. This was carried out using electronic databases and identified eleven papers, which had adequate methodological quality to be included in this review. The key findings and methodological limitations of these studies are discussed. Overall, these behavioural approaches were demonstrated to be effective at increasing the level of engagement in meaningful activities for adults with severe or profound ID. Active Support was more effective for those individuals with more severe ID, and managerial involvement was imperative to successful implementation and maintenance of the approaches. However, further investigation of the factors contributing to the success of the employment of these behavioural approaches is warranted and discussed.

Introduction

Having an intellectual disability (ID) impacts upon people's lives in many ways. One of the consequences of the restricted skills development associated with having a severe or profound ID is the individual's relative inability to engage independently in the activities of daily living (Jones et al, 1999). It is therefore necessary for staff to provide help to, and promote opportunities for, people with severe or profound ID to participate in activity. During the last twenty years the engagement of individuals with severe or profound ID in activities has received a lot of attention from researchers. Outlined in this paper are the key findings from studies in the area, starting with research focusing on the impact of ability level and behaviour on the amount of time staff spend interacting with their clients. The influence of staffing levels upon interaction is then examined, followed by the importance of engagement in providing residents with an acceptable quality of life. Finally, factors that have been shown to effect engagement are discussed, before two behavioural approaches developed to increase engagement are introduced, and research evaluating the outcome of these approaches is reviewed.

In investigating the extent of 'ordinary living' provided in staffed houses, Felce & Perry (1995) found that the amount of time staff spend interacting with their clients was significantly related to the residents' characteristics. That is, individuals with greater ID and more significant challenging behaviour (CB) received less interaction from staff than those who were more able and did not display CB. Therefore individuals who require a greater level of assistance in order to engage in activities were found to receive less, not more, interaction from staff. This finding is common to

several studies. For example, whilst evaluating the quality and cost of residential services for adults with severe ID and sensory impairments, Hatton et al (1996) found results that suggested an inverse system of care. That is, residents with greater skills receive more staff support then those with lesser skills. Durker et al (1989) also demonstrated that client behaviour influenced the frequency of client directed initiatives from staff. In other words, those clients who are more alert and more likely to respond, received more staff contact. Thus, it could be considered that responses from alert clients act as a positive reinforcer for staff interactions, making them more likely to act in the same way in the future. Following the same logic, a lack of response from clients might reduce the likelihood that staff would act in the same way in the future.

Given the restricted interactions observed between staff and residents with severe or profound ID, it seems reasonable to assume that higher staff/client ratios would lead to an increase in levels of interaction. However, a simple increase in the number of staff was not found to increase their interaction with more severely disabled clients. In fact, there is now a substantial literature that indicates a very weak relationship between staff/client ratios and interaction (Felce et al, 1998). Durker et al (1991) also showed that staff spent more time engaged in organisational tasks and less time with clients when there were more members of staff on duty. Thus, Felce, et al (2002b) concluded that there are diminishing marginal returns associated with increased staffing. Instead, higher levels of staff interaction with their clients have been suggested to be associated with factors such as small group sizes and specific organisational procedures designed to improve service quality (Emerson et al, 2000).

As individuals with severe or profound ID are more reliant on others, it is proposed that when increased staff/client interaction is achieved it will lead to them having greater levels of engagement in meaningful activities. Engagement in activity can be seen as a crucial contributing factor to an individual's quality of life (QoL) (Felce & Emerson, 2004). For example, there is substantial evidence linking activity levels and low mood. In other words, increasing activity levels has been shown to be an effective approach to reducing depression. Low levels of engagement in meaningful activities have also been associated with high levels of disruptive behaviour (Porterfield et al, 1980), self-stimulatory behaviour, self-injurious behaviour (Spangler & Marshall, 1983), and other 'inappropriate' behaviours (Porterfield et al, 1980). Thus, engagement in activity may be regarded as a building block to the core quality of life domains (Felce & Emerson, 2004).

As a consequence, further studies have investigated the factors that may increase an individual's level of engagement and thus, improving their QoL. A low level of engagement in activity could suggest that the environmental arrangements are not well matched to the needs of the individual and should be changed (Felce & Emerson, 2004). A further important aspect found in relation to increasing the engagement of people with severe or profound ID is the type of instruction given by staff. Repp, Barton & Bralle (1981) found that staff rarely used non-verbal instruction, which is most likely to help clients with severe ID respond, and usually employed verbal instruction that was most likely to lead to no response from the clients.

Recognition that people with severe ID do not receive adequate stimulation has led to structured behavioural approaches being developed to promote interaction and engagement in activities. Room Management (Herbert-Jackson et al, 1977), a behavioural approach originally developed for infant day care settings has been applied to adults with ID. Porterfield and Blunden first evaluated Room Management in this setting in 1978. Room Management provides residential settings, which have relatively low staff/client ratios with a means of organising a group of clients to provide uninterrupted teaching for short periods of time. An important aspect of the procedure is that it changes the nature of staff activity without necessarily increasing it. The Room Management procedure can also be altered depending on the number of staff available. However, it always contains three major elements:

- The contingency of staff interaction with their clients is specified. That is, staff usually receive instructions to reinforce engagement and ignore disruptive behaviour.
- Staff roles are clearly defined and assigned prior to the session e.g. room manager, teacher, and training assistant.
- Suitable materials are presented and a system of prompting the clients to use those materials is agreed.

The main use of Room Management is to allow one member of staff to engage a large number of clients in an activity, thereby permitting other members of staff to facilitate individual skills training sessions. Room Management procedures are typically used

within an hour long 'Activity Period'. More recently a new approach termed "Active Support" has built upon this technique by incorporating the elements below:

- Planning opportunities for individual residents to participate in activities with staff.
- Providing direct support to help the person participate. For example, staff use gestures, physical prompt demonstrations or physical guidance, not just verbal directions.
- Monitoring the opportunities provided to individuals each day. Self monitoring and feedback have been shown to increase 'on task' staff performance (Richman et al., 1988).

Active Support uses similar applied behavioural analysis principles to those employed in Room Management and was developed for use in community settings. Moreover, it is generally conducted in two parts. Firstly, staff attend a workshop consisting of presentations, group work sessions and exercises. Four booklets are used during the workshop, which cover the following topics: the rationale behind the approach; methods for planning activities and staff support; providing opportunities for the clients to participate in activities and; information on how to maintain the quality of their assistance through monitoring and feedback. In-situ training then follows the workshop to teach the staff how to provide effective assistance. During this phase of training, staff receive 'in-vivo' demonstrations of the recommended means of providing assistance. The trainers observe the staff and provide them with feedback

on their interaction with their clients. The goal is to train staff to adjust the assistance they give on the basis of the support required by the client to engage in activity.

The main difference between the two approaches is that Active Support is an operational approach. Thus, it is intended to impact upon the individuals overall level of engagement, rather than just during a designated hourly 'Activity Period' as seen in Room Management.

To date, there are no published reviews of the effectiveness of Room Management and Active Support. The current paper aims to fill this gap in the literature by conducting a systematic review of the available research in the area.

Key Question:

Do the structured behavioural approaches of Room Management and Active Support increase the engagement of adults with severe or profound ID in meaningful activities?

Additional Questions:

What impact do individual differences have on the outcome of Room Management and Active Support?

What impact does the method of training have on the outcome of Room Management and Active Support?

What factors influence the successful maintenance of any positive experimental findings?

Article Inclusion and Exclusion Criteria

Inclusion criteria	• Studies must focus on the outcome of Room Management or Active Support in terms of client engagement. • Participants must be adults (aged 18 or over) with severe or profound ID.
Exclusion criteria	• Studies that investigated the levels of client engagement but did not evaluate the outcome of a specific behavioural program to enhance engagement. • Studies that focused on the cost of service provision, and did not evaluate the outcome of Room Management or Active Support in terms of client engagement.

Search Strategy

References were identified by searching the following electronic databases: OVID, PsychLIT, EMBASE, MEDLINE, Web of Science, and the Cochrane Library. The search involved the use of subjects terms and text words describing intellectual disabilities. The following terms were included: severe OR profound OR multiple AND intellectual disability, learning disability, developmental disability, mental retardation, mental handicap, mental deficiency. These were combined with: Room Management, Active Support, interaction, environment, engagement, activity, active engagement, staff training, staff support and resident activity. In addition to the database search, references from key articles were examined to identify any additional relevant articles.

Methodological Quality

Each study had to meet an initial level of quality of design in order to be included in the current review. All studies were rated on a predetermined checklist of methodological quality (Appendix 2ii). Guidelines published by the Critical Appraisal Skills Programme (CASP, 2004) and the Scottish Intercollegiate Guidelines Network (SIGN, 2004) were used to develop the criteria for assessing the quality of the papers. Although generic factors were considered when reviewing the studies, further items were also drawn from Felce & Emerson (2004) to ensure sensitivity to this particular area of research. The papers were all assigned points according to the following 6 methodological criteria, which were considered to be of primary importance when rating the quality of papers that used observational techniques to investigate staff interaction with residents and the residents' engagement in meaningful activities.

1. Study Design

- multiple baseline (3 points)
- pre-post experimental design with control group (2 points)
- pre-post experimental design no control group (1 point)
- no pre intervention measures (0 points)

2. Sample Demographics [1]

- age, gender and experience of staff detailed AND age, gender, ability and behaviour of residents given (3 points)
- limited demographic information given for both staff AND residents (2 points)
- demographics only given for either staff OR residents (1 point)
- Does not specify demographic information for either group (0 points)

3. Assessment of clients ability and behaviour

- use of ICD/DSM or research diagnostic criteria (3 points)
- Standardised clinical interview or scale (2 points)
- Review of case notes (1 point)
- Does not specify how clients ability/behaviour was determined (0 points)

4. Training in Behavioural Approach

- Fully described and follows original protocol (3 points)
- Refers to original protocol, however does not describe specific training (2 points)
- Fully described but uses altered protocol (1 points)
- Does not specify (0 point)

[1] Points 2, 3 & 4 assess the validity of a paper

5. Definition of observational categories[2]

- Categories that are fully replicable and appropriate to the aims of the study given for both staff and resident behaviour (3 points)
- Categories that are fully replicable and appropriate to the aims of the study given for EITHER staff OR resident behaviour given (2 points)
- Limited information given (1 point)
- Does not specify (0 points)

6. Quality of data

- Second rater used and interrater reliability adequate (3 points)
- Second rater used and categories combined to produced adequate interrater reliability (2 points)
- Second rater used and no reliability found (1 point)
- Does not specify (0 points)

The total points for each paper were calculated, the papers were then allocated one of the following quality categories:

Excellent: To be rated as excellent a paper must score maximum points in all categories

[2] Points 5 & 6 assess the reliability of a paper

Good: To be rated as good a paper must score maximum points in at least 1 factor assessing validity and 1 factor assessing reliability. The paper must also score 2 or above for the study design.

Adequate: To be rated as adequate a paper must score above 50% of the maximum score and not receive a score of 0 for any factors.

Inadequate: A paper is rated as inadequate if it receives a score of 0 for any category. A paper is excluded from the study if it is considered inadequate.

The outcome of the methodological quality checklists is summarised in Table 1 for the Room Management papers and Table 2 for the Active Support papers.

To ensure the reliability of the quality rating, a second rater reviewed each paper and the inter-rater reliability was calculated. A high level of agreement was found regarding the quality category assigned to each paper (Kappa value = .81).

Insert Tables 1 & 2 here

Excluded Studies

Room Management

Using the above search terms, 12 papers were retrieved. Of these 8 did not meet the criteria for inclusion in this review. Two of these papers were excluded, as they did not report on the experimental implementation of a specific approach (Woods & Cullen, 1983; Sturmey & Crisp, 1989). A further paper was excluded, as engagement

was not used as an outcome measure (Crisp & Sturmey, 1987). The remaining five papers were excluded as they were rated as inadequate using the above methodological quality criteria (Bush et al, 1980; Nand, 1980; Coles & Blunden, 1982; Joyce & Dustin, 1982 & Crisp & Sturmey, 1988). This left a total of 4 papers to be reviewed.

Active Support

Using the above search terms, 19 papers were retrieved. Of these 12 did not meet the criteria for inclusion in this review. The majority of papers were excluded, as they were not evaluating a specific program to enhance engagement (Heller, 2002; Felce, Lowe & Jones, 2002a; Felce, Lowe & Jones, 2002b; McConkey, 2000; Felce & Perry, 1995). Others were excluded as they were comparing engagement across different settings (Perry & Felce, 2003; Emerson et al, 2000; Kilsby & Beyer, 1996). Moreover, further papers were excluded as they were designed to evaluate the cost of services alone and did not report on the implementation of a specific program (Felce & Lowe, 2000; Felce et al, 1998; Hatton et al, 1996). One paper was excluded, as it was a theoretical discussion of the engagement research and presented no empirical data (Joyce & Shuttleworth, 2001). Lastly, one paper was excluded as it did not meet the quality criteria outlined above (Mansell et al, 2003). This left a total of 7 papers to be reviewed.

Results

The purpose of this section of the review is to examine whether the evidence from the included studies supports the assumption that Room Management and Active Support

are effective in increasing the meaningful engagement of adults with severe or profound ID in activities. In order to address this question, the overall results of the four Room Management papers and the seven papers examining Active Support included in this review will be discussed. This will be followed by a description of the impact of variables that influence the outcome of each behavioural approach. Furthermore, the factors that maintain any positive change will be described. Lastly the methodological quality of the papers will be considered.

Room Management

Overall Outcome

Table 3 provides an outline of the Room Management papers discussed below, and shows that Porterfield & Blunden (1978) aimed to determine whether the introduction of Room Management could maintain a high enough level of engagement, for a group of seventeen residents, in order to allow individual skills training to take place. Prior to the introduction of Room Management two members of staff could work with eight clients and maintain engagement for about 80% of the activity period. However, after the introduction of Room Management, the same number of staff were able to maintain a high level of engagement (75%) with a larger group of clients (n=17).

Insert Table 3 here

A second paper by Porterfield et al (1980) compared Room Management with a control group. Residents in the control group received typical interaction from staff (e.g. prompting those who were not engaged and dealing with major disruptions), but

otherwise residents were left to work undisturbed. Results indicated that the Room Management condition was considerably more effective at increasing the level of resident engagement in activities than the control procedure (mean levels of engagement 80.5% and 31.7% respectively). Moreover, the level of disruptive behaviour was much higher during the baseline and control conditions than in the Room Management condition.

The relative merits of Room Management in comparison to "Small Groups" in enhancing engagement were evaluated by Crisp & Sturmey (1984). "Small Groups" referred to the procedure of assigning each member of staff to work with, and be responsible for, a specific group of residents, (usually 4 or 5 individuals). The staff had to provide the residents' with materials, prompt and reinforce their use, and provide individual training to residents during the session. No differences were found between the Room Management and Small Groups procedures in terms of the amount of staff resident interaction. However, a small but statistically significant difference was seen for engagement in favour of the Small Groups condition.

Impact of individual differences

Two of the Room Management studies shown in Table 3 discussed the role of individual differences in effecting outcome. Firstly, Crisp & Sturmey (1984) found that the residents were required to be able to sit quietly for a short period, have a range of fine motor skills, and adequate attention spans to remain engaged during Room Management sessions. Clients who did not possess these skills did not appear to benefit from either Room Management or the Small Groups approach to the same

extent as those who have these skills. Despite this requirement for fine motor and attentional skills, the interaction residents' received from staff was not correlated to social ability ($r=0.349$, $p<0.005$). However, a significant positive correlation was found between average percentage 'on task' (i.e. engagement) and social age, as measured by the Vineland Scale of Adaptive Behaviour (Sparrow et al, 1984) ($r= 0.835$, $p<0.005$).

Secondly, Hill & Chamberlain (1987) investigated the outcome of Room Management with a group of 6 women with profound ID labelled as "difficult and disruptive" by staff. They found that the clients' engagement increased from 17.3% during the baseline condition to 32.4% during the experimental Room Management session. They also examined the impact that increased engagement had on the level of problem behaviours and found they were significantly lower during the Room Management session.

Impact of training on outcome

None of the Room Management papers included in this review discussed any variation in how the staff were trained. Therefore, consideration of the impact of this factor on outcome is not possible.

Factors influencing the maintenance of positive change

As part of their protocol, Porterfield & Blunden (1978) used positive monitoring feedback to support the staff involved in Room Management. Positive monitoring entailed the unit manager giving staff positive feedback, support, and encouragement

throughout the project. As a result of this positive monitoring feedback, Porterfield & Blunden (1978) found a 75% level of engagement was maintained at a 21 week follow up. Again, in Porterfield et al's 1980 paper, the unit manager supported the staff and provided positive monitoring feedback. Findings at follow up indicated the high level of engagement seen during Room Management sessions was maintained (mean level of engagement = 82.8%).

In contrast, at follow-up, Hill & Chamberlain (1987) indicated that the positive changes reported were not maintained as it was found that Room Management had not been implemented once the experimental sessions had finished. From the authors' discussion of their study, it appeared that senior nursing staff had not been supportive of the continued use of Room Management.

Methodological Quality & Conclusions

More than half of the Room Management papers, identified using the inclusion criteria of this review, were rated as "inadequate" and were not methodologically robust (see Table 1). Of the four papers included in the study, none were rated as "excellent". Furthermore, only one was considered to be "good" (Porterfield et al, 1980), and the other three were rated as "adequate". A relative methodological strength of the Room Management papers is highlighted below, and the two main methodological weaknesses are then discussed.

The assessment of reliability of the observational data is the only identifiable methodological strength of the Room Management papers. All four of the papers

employed a second rater and three reported inter-rater reliability that was considered to be of an acceptable level without having to combine categories (Porterfield & Blunden, 1978; Porterfield et al, 1980; & Hill & Chamberlain, 1987).

In contrast two areas of methodological weakness should be noted. First, critical to research looking at an ID population is the method used to assess the individuals' level of ability. The quality of this methodological item varied across the studies. Two of the studies used standardised clinical measures to assess adaptive functioning (Porterfield et al, 1980 & Crisp & Sturmey, 1984), whilst the other two papers simply used case note reviews to establish the residents' level of ability (Porterfield & Blunden, 1978 & Hill & Chamberlain, 1987). Finally, a relative weakness of the Room Management papers was their small sample size. This is significant in terms of the general relevance of the findings to a non-institutional setting. The small sample sizes reported, together with the restricted populations (for example adults who lived on a particular hospital ward) used in these studies, limit the extent to which the results can be considered applicable to the wider population of adults with severe or profound ID.

In conclusion, despite the methodological weaknesses outlined above Room Management was consistently shown to increase the level of engagement in activity for residents with severe ID. It was also found to be beneficial for those residents labelled "disruptive & difficult". However, the increased staff interaction did not appear to increase the engagement for the least able residents with the most profound

needs. It is apparent that the wider organisational support is a vital aspect in the success of Room Management, particularly if initial gains are to be maintained.

Active Support

Overall Outcome

In general, the studies reviewed and outlined in Table 4 showed that Active Support increased the level of assistance provided to the residents by staff. The level of resident engagement in activities also increased across all studies.

Insert Table 4 About Here

For example, Jones et al (1999) implemented Active Support with 52 staff members across 5 supported houses accommodating 19 residents. The study found that the level of assistance received by the residents in all 5 houses, significantly increased after Active Support was introduced. Moreover, engagement increased in line with the increased level of assistance. Overall, the proportional change in assistance received between baseline and intervention (Active Support) was significant and positively correlated with proportional change in total engagement in activity ($rho=0.84$, $p<0.001$).

Felce et al (2000) re-analysed the results reported by Jones et al (1999), and investigated how effective staff assistance was in increasing resident engagement in

activities. The likelihood that assistance from staff would lead to the residents being engaged in activity was calculated pre and post Active Support training. It was demonstrated that staff assistance was more likely to result in resident engagement after Active Support was implemented. Felce et al (2000) concluded that the positive change in engagement was due to the changed quality of staff assistance and not just an increase in the quantity of assistance.

Jones et al (2001a) went on to replicate their earlier 1999 study with 106 residents living in 38 houses staffed by 303 members of staff, who had all attended Active Support training. Once again, Active Support resulted in a significant increase in assistance and resident engagement in activity.

Lastly, Mansell et al (2002) aimed to examine the outcome of Active Support over a three year period in residential services for 49 individuals with ID. In 1997 data was collected on a group of people living in houses run by a charity that had just begun to adopt a policy of Active Support. Three years later, outcome measures were collected once more, along with data from a control group (i.e. people living in houses where Active Support had not been implemented). Those living in houses where Active Support was implemented showed significantly increased engagement in meaningful activity. In contrast the control group showed no significant change in resident activity over the same period.

Impact of individual differences on outcome

Three of the studies regarding Active Support discussed the role of individual differences in effecting outcome. Firstly, Jones et al (1999) found that Active Support was most beneficial for the least able residents. In the 2001 replication of their previous study (Jones et al, 2001) this finding was confirmed with a much larger sample.

Smith et al (2002) carried out a second analysis of Jones et al's (2001b) data, in order to evaluate the impact of individual characteristics on the outcome of Active Support. It was found that those without additional behavioural or mental health problems obtained most benefit from Active Support and engaged in more activity as a consequence of staff interaction. A diagnosis of Autistic Spectrum Disorder did not influence the outcomes.

Impact of training on outcome

Jones et al (2001b) trained house managers in the role of Active Support trainers using a three phase approach. Once the house managers had been trained themselves (apprenticeship phase), they then trained their own staff team, whilst being observed by the researcher and being given feedback on their performance (supervision phase). Finally, in the third phase (independent phase), the house managers took responsibility for delivering both the workshop and the interactional training independently. The results reported by Jones et al (2001b) showed that residents who lived in houses where house managers' were trained during the apprenticeship phase, received a significantly increased level of assistance from staff, which led to a

significant increase in the level of resident engagement in activities. In addition, the houses in the supervision phase showed an increase in both the assistance received by the residents and their level of engagement in activities (although at a more modest level). Finally, the houses in the independent phase showed no significant changes in the levels of either assistance received by the residents or their level of engagement.

A more recent study by Bradshaw et al (2004), which followed the protocol set out in Jones et al (1999), found that across all houses the level of staff interaction increased after Active Support training. However, service managers of two of the houses involved in the study did not attend the in-situ interactional training and it was only in the houses where the service managers attended the full training, that the level of resident engagement increase significantly. Thus, enlisting the support of service managers is vital in ensuring successful implementation of Active Support.

Factors influencing the maintenance of positive change

None of the Active Support papers included in this review discussed follow up data. Therefore, consideration of the impact of this factor on outcome is not possible.

Methodological Quality& Conclusions

The methodological quality of the majority (5) of the Active Support papers included in this review were rated as "adequate". Two were rated as "good", and none were classed as excellent. The methodological factors that are considered most pertinent are discussed in detail below.

Firstly, the observational categories used in this type of research are key to ensuring the reliability of the data. If an observational study does not use clearly defined categories, which are fully replicable and appropriate to the aims of the study, it would be impossible to be clear about what behaviour is being measured. The quality of the observational categories used is a strength of the Active Support papers investigated in this review. All but two (Mansell et al, 2002 & Bradshaw et al, 2004) received full points for this domain of the methodological quality assessment.

However, a relative weakness of the studies was their one sided reporting of the sample demographics. Three of the studies only described the residents demographics and made no reference to the staff group involved (Jones et al, 2001b; Mansell et al, 2002 & Smith et al, 2002). Moreover, a further methodological weakness of half of the studies was their design. Jones et al (2001a&b) and Smith et al (2002) used simple pre-post experimental designs without the use of control groups. Jones et al (2001a) argued, quite understandably, that as Active Support had previously been shown to be beneficial, it would be unethical to withhold it from a group of residents in order to create an experimental control group. Moreover, as these studies were designed to be replications of a training method, which had already been evaluated within a well controlled multiple-baseline design (Jones et al, 1999) and found comparable results, the impact of the quality of the design is lessened.

In conclusion, despite the methodological quality of the majority of the Active Support papers being rated as "adequate", as with Room Management this approach was consistently successful in increasing the level of engagement of individuals with

severe ID in activities. In contrast to findings from the Room Management approach, Active Support was found to be most beneficial for the least able residents. Once again, managerial involvement in the training process was crucial to implementing of Active Support and making it part of the service culture. Unfortunately, the lack of information concerning staff characteristics, such as length of service and previous training, prevents investigation of their impact on the outcome of Active Support.

Discussion

From the research presented above it can be concluded that both Room Management and Active Support are effective behavioural approaches, which increase the level of engagement of adults with severe or profound ID in meaningful activities. Despite this, a number of qualifications should be made about the methodological limitations of the studies investigating these approaches.

In terms of the overall methodological quality of the papers in the current review, none of them met the criteria for "excellent" quality and many contained major methodological limitations. Thus, the majority of the Room Management papers were rated as "adequate" and only one was rated as "good". In contrast, the quality of the Active Support papers was slightly higher, in that two were rated as "good". Most notably the use of pre-post experimental design with no control group limited the extent to which causal links can be made between the implementation of the behavioural approaches and the increased in engagement in activities by individuals with ID.

A detailed discussion of the results of this review, reflecting the methodological limitations of the included papers is presented below. Firstly, focusing on the Room Management papers and then Active Support. Following this, any limitations of the behavioural approaches themselves are considered and finally the review is concluded and makes recommendations for future research.

From the papers outlined above, it can be seen that Room Management was not only effective at increasing overall engagement, but was also found to be effective at increasing the level of engagement for individuals who were labelled as "disruptive and difficult". However, as Hill & Chamberlain (1987) only used a review of case notes to assess the individuals' ability and behaviour this finding should be viewed with caution and further research is needed to confirm that Room Management is effective with those individuals with more severe challenging behaviour. Also, in terms of the impact of individual differences, Crisp & Sturmey (1984) found that the level of interaction individuals received was the same regardless of their social age, as measured by the Vineland Adaptive Behaviour Scales (Sparrow et al, 1984). However, this level of interaction did not appear to be as successful at increasing engagement for those who were more disabled and in order to benefit at all the residents were required to have a certain degree of ability.

It appears that in order for the positive effects of Room Management to be maintained, staff need to receive support from their managers. Porterfield & Blunden, (1978) and Porterfield et al, (1980) used positive monitoring feedback to support and encourage the staff, and maintained high levels of engagement at follow up. However,

Hill & Chamberlain (1987) did not implement specific support programs, and the improved levels of activity were not maintained at follow up.

The studies examining Active Support show that not only does the approach train staff to increase the opportunities provided for the residents to engage in activities, but it also teaches staff the appropriate means of interaction required to allow this engagement to occur. Analysis of factors associated with how staff were trained, revealed that the interactional component is key to translating increased levels of staff client interaction into meaningful engagement (Jones et al, 2001b). Managerial involvement in all aspects of training is also found to be imperative for the successful implementation of Active Support (Bradshaw et al, 2004).

Overall, Active Support was found to be most beneficial for individuals with lower adaptive skills (Jones et al, 1999; Jones et al 2001a). The greatest difference in level of engagement pre and post Active Support was seen for this group of residents. As individuals with higher adaptive abilities tended to be more engaged prior to Active Support they see the least benefit from the approach. Smith et al (2002) found that for residents with challenging behaviour, and or mental health problems Active Support had no impact on the probability the staff interaction would lead to increased engagement in activities.

Several limitations of the behavioural approaches have implications to the general significance of the results. Firstly, Room Management was carried out during one hour activity period within typically institutional days. Apart from mealtimes and

routine care the residents were largely un-occupied for the rest of the day. Therefore, Hill & Chamberlain (1987) argued that Room Management was an artificial system, which just aimed to meet session goals. They argued that policy changes would be required to provide individuals with severe and profound ID with a level of stimulation which would impact upon their daily lives.

Not only was Room Management restricted to hourly activity periods, but the content of the activities was often questioned (Crisp & Sturmey, 1984). The majority of the equipment and tasks used were often trivial, non-functional, and inappropriate for adults. The activities used in Room Management were often familiar, over learned or of positive reinforcement value. As, when compared to unfamiliar objects, this type of activity can increase the amount of time an individual spends "on-task", this could account for the increase in engagement seen with Room Management, rather than the procedure itself. However, the development of Active Support appears to have partially resolved these issues. Active Support focuses on the engagement of individuals with severe or profound ID's in tasks of everyday living, with the aim of promoting fuller and more purposeful lives.

Conclusions

Whilst behavioural approaches have been shown to be effective in increasing engagement, managerial support and the organisational philosophy of the service are crucial to their successful implementation and the maintenance of positive changes found. Without the involvement of managers in all aspects of the training, and their ongoing support the approaches have little benefit. In order for increased opportunity

for activities to be translated into resident engagement, practical training on how staff should interact is essential. The development of Active Support addressed the conceptual limitations of the Room Management approach and was found to be most beneficial for those residents with more severe ID.

Not only are the behavioural approaches beneficial in terms of the residents' quality of life, but they may also have a substantial impact upon residential support staff. As responses from residents act as positive reinforcers for staff, in could be concluded that the more engaged a resident is, the more satisfying the job will be for the staff. In turn, staff who are more satisfied with their job will be less stressed, which in turn has benefits for service provision. For example, reduced levels of absenteeism and staff turn over of staff in services for adults with severe or profound ID. These are all issues worth investigating in future research.

Thus, the results discussed in this review add to the growing evidence that people with ID can engage in meaningful activities at home and in the community to a greater extent when staff adopt working methods designed to facilitate this. However, as Mansell et al (2002) highlighted, although residents were rated on average as participating in some activities after staff had been trained in a behavioural approach they were still spending the majority of time disengaged. To ensure that engagement in activity becomes a way of life for individuals with severe or profound ID, rather than the exception to the rule, research is needed to further identify and understand how to make the adoption and maintenance of behavioural approaches part of the culture of care settings for individuals with severe and complex needs.

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List of tables **Page**

Table 1 : Methodological Quality of Room Management papers

Paper	Design	Demographics*	Assessment of client ability & behaviour*	Training in beh. Approach*	Observational categorise†	Quality of data†	Total Score	Quality Category
1. Porterfield & Blunden (1978)	1	3	1	3	1	3	12/18	**Adequate**
2. Porterfield et al, (1980)	2	3	2	3	2	3	15/18	**Good**
3. Bush et al, (1980)	1	1	2	3	0	2	9/18	**Inadequate**
4. Nand (1980)	1	1	0	3	1	0	6/18	**Inadequate**
5. Coles & Blunden (1982)	1	2	0	1	3	3	10/18	**Inadequate**
6. Joyce & Dustin (1982)	1	1	0	3	1	0	6/18	**Inadequate**
7. Crisp & Sturmey (1984)	1	3	2	3	3	2	14/18	**Adequate**
8. Hill & Chamberlain (1987)	1	2	1	2	2	3	11/18	**Adequate**
9. Crisp & Sturmey (1988)	0	3	2	2	3	2	12/18	**Inadequate**

* indicates factors assessing validity of the paper

† indicates factors assessing reliability of the paper

Table 2: Methodological Quality of Active Support papers.

Paper	Design	Demographics*	Assessment of client ability & behaviour*	Training in beh. Approach*	Observational categorise†	Quality of Data†	Total Score	Quality Category
10. Jones et al, 1999	3	3	2	3	3	2	16/18	**Good**
11. Felce et al, 2000	3	3	2	3	3	2	16/18	**Good**
12. Jones et al, 2001a	1	2	2	3	3	3	14/18	**Adequate**
13. Jones et al, 2001b	1	1	2	2	3	2	11/18	**Adequate**
14. Mansell et al, 2002	2	1	2	2	2	3	11/18	**Adequate**
15. Smith et al, 2002	1	1	2	2	3	2	11/18	**Adequate**
16. Mansell et al, 2003	3	1	2	0	2	3	11/18	**Inadequate**
17. Bradshaw et al, 2004	2	3	2	2	2	2	13/18	**Adequate**

* indicates factors assessing validity of the paper
† indicates factors assessing reliability of the paper

Table 3: Summary of Room Management Papers

Title	Author/ Year	Aims	Design	Sample Size i) clients ii) staff	Training in Behavioural Approach	Conclusions i) overall ii) impact of individual dif iii) maintenance of change.
1. Establishing an activity period and individual skill training within a day setting for profoundly mentally handicapped adults	Porterfield & Blunden (1978)	To determine whether high levels of engagement could be maintained, so that a system of skills training could be introduced.	Pre-post experimental design	i) 17 ii) 6	Room Management and use of positive monitoring feedback	**i)**-An engagement level of approx 75% was achieved with two staff in th room. -Staff comments suggested that client displayed fewer behavioural problem and appeared happier. **iii)**-High levels of engagement were maintained over a 21 week period.
2. Improving Environments for Profoundly Handicapped Adults	Porterfield et al, (1980)	To develop effective procedures for engaging profoundly handicapped adults in activities. To ensure engagement could be maintained	Pre-post experimental design with control grp. 4 month follow-up	i) 8 ii) 3	Room Management and the use of positive monitoring feedback	**i)**-room management was more effective then control in increasing engagement of clients **iii)**- at follow-up engagement had been maintained to a mean level of 82.8%
7. Organising staff to promote purposeful activity in a setting for mentally handicapped adults	Crisp & Sturmey (1984)	To evaluate the relative merits of room management and small groups in enhancing engagement.	Reversal design comparing conditions	i) 13 ii) 3	Room management	**i)**-no significant difference was found between room management and small groups in terms of the amount of staff interaction received by the clients. - a small but statistically sig. difference was seen in engagement in favour of small group condition.
8. Managing difficult and disruptive behaviour in residential settings	Hill & Chamberlain (1987)	-examine whether engagement of clients labelled "difficult & disruptive" was effected by introduction of Room management -examine the effect increased engagement had on difficult behaviour	Pre-post experimental design	i) 6 ii) 2	Room management	**i)**- a sig. difference on the level c engagement was seen between th baseline and experimental conditio (17.3% & 32.4% respectively). **ii)**- problem behaviours wer significantly lower during the roor management condition **iii)**-increase of engagement nc maintained

Table 4: Summary of Active Support Papers

Title	Author/ Year	Aims	Design	Sample Size i)Clients ii) Staff	Training in Behavioural Approach	Conclusions iv) overall v) impact of individual dif vi) maintenance of change vii) impact of training
10. Opportunity & the promotion of activity among adults with severe ID living in community residences: the impact of training staff in active support	**Jones et al, (1999)***	- to increase the opportunities and assistance extended to residents by staff. - it was hypothesised that residents engagement in typical daily living activities would increase as a result of any increased assistance.	Multiple baseline Observational	i) 19 ii)52	Active Support Workshop & In-situ training on interactional approach	**i)**- all 5 houses showed a sig. increase in level of assistance after AS. - engagement increased inline with increased assistance. Increase in engagement was sig. in 4 houses **ii)**-most beneficial for the lest able residents **iii)**-at follow up benefits were maintained in 3 houses
11. The effectiveness of staff support: evaluation Active Support training using a conditional probability approach.	**Felce et al, (2000)***	To evaluate the effectiveness of staffs assistance pre and post Active Support training	Multiple baseline - Effectiveness of assistance evaluated by calculating the likelihood of engagement occurring given the occurrence of assistance.	i) 19 ii)52	Active Support Workshop & In-situ training on interactional approach	**i)**-at baseline strong conditional relationship between assistance and engagement. - quality of assistance changed betwee baseline and post AS, and maintained at follow up. - part of the intervention effect is due t the changed quality not just an increas quantity of assistance.
12. Evaluation of the dissemination of Active Support Training in staffed community residences.	**Jones et al, (2001a)**	To replicate Jones et al's (1999) study	Pre-post experimental design. Also included measures of planned activities and social and community integration.	i) 106 ii)303	Active Support workshop & in-situ training on interactional approach.	**i)**-35% increase in planned activities after AS training. Sig. increase in assistance and engagement **ii)** -AS was most beneficial for those with low ABS scores (more severe LD)

Table 4 cont.

Title	Author/Year	Aims	Design	Sample Size i)Clients ii) Staff	Training in Behavioural Approach	Conclusions i) overall ii) impact of individual dif iii) maintenance of change iv) impact of training
13. Evaluation of the Dissemination of Active Support Training and Training Trainers	**Jones et al, (2001b)**	-To replicate Active Support -To train service managers of community staffed houses as Active Support trainers.	Pre-post experimental design. Also included measures of residents views, extent of planned activities and social and community integration.	i) 188 ii) approx 2.3 WTE staff per resident	- consisted of both workshop and in-situ interactive training. - 3 phases of training: apprenticeship (1), supervision (2) and independent (3). - during phase 1 the in-situ. interactive training was only conducted in 7 houses.	**i)** -Sig. increase in planned activities occurring across all phases of training. **ii)** - Most beneficial for people with more severe LD. **iv) -Phase 1**-level of engagement and assistance received increased significantly. **Phase 2** - level of engagement and assistance increased but at a more modest level than phase 1. **Phase 3** - no sig. changes in engagement of assistance.
14. Engagement in meaningful activity and "active support" of people with ID in residential care	**Mansell et al, 2002**	To examine the outcome of Active Support training over a three year period.	-Natural experiment -Experimental Vs control group -Pre-test/post-test comparison grps design	i) 49 ii)not stated	Active Support workshop and in-situ training given three years prior to study.	**i)** –over 3years implementation of AS had increased from 50-66%. -the experimental group showed a sig. increase in engagement - experimental group showed a sig. increase in adaptive behaviour.
15. Responsiveness of staff support: evaluating the impact of individual characteristics on the effectiveness of active support training using a conditional approach.	**Smith et al, (2002)†**	-to analysis whether staff became more effective in supporting resident activity after Active Support training -to analysis whether there was evidence of differential responsiveness by people with differing adaptive behaviour, psychiatric diagnosis, challenging behaviour or autism	. Pre-post experimental design. - Effectiveness of assistance evaluated by calculating the likelihood of engagement give the occurrence of assistance.	i) 188 ii) approx 2.3 WTE staff per resident	As Jones et al, 2001b (see table 4). For current analysis houses A & B were grouped and called Group 1. House C was called group 2.	**ii) -Group 1 post Active Support** - sig. increase in engagement given assistance when ID was more severe. - engagement given assistance for those with CB, mental illness. **iv) -Group 1** showed a sig. increase in the occurrence of engagement given assistance after AS. **-Group 2** showed no sig. changes in engagement given assistance.

Table 4 cont.

Title	Author/ Year	Aims	Design	Sample Size i)Clients ii) Staff	Training in Behavioural Approach	Conclusions i) overall v) impact of individual dif vi) maintenance of change vii) impact of training
17. Implementation and evaluation and Active Support	**Bradshaw et al, (2004)**	-to implement and evaluate Active Support	Natural experiment Active Support Vs Control houses	i)11 ii) 38	All 3 houses received workshop **Houses A &B** -interactional training (no managerial involvement) **House C** -interactional training conducted by 1 external &1 internal trainer over longer period than A&B. **All houses**- 4 sessions with the house managers, service managers (operational manager present for 1st & last) including topic-focused meetings and house based tasks.	**ii)** -AS not found to be more beneficial for less able service users. All AS houses showed an increase in CB. **iv)**-Activity levels increased sig. in house C -All 3 AS houses showed increase in engagement. -Control houses showed decrease in engagement. -AS houses showed increase in staff contact, -control houses had mixed results (no sig. Diff in staff contact between grps)

* Jones et al, 1999 and Felce et al, 2000a investigated the same population using different analysis.
† same population as Jones et al, 2001b.

Chapter Three

Major Research Project Proposal

Inter-personal perceptions of staff towards individuals with severe intellectual disabilities at the point they display aggressive challenging behaviour.

Inter-personal perceptions of staff towards individuals with severe intellectual disabilities at the point they display aggressive challenging behaviour-Project Proposal.

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Summary of project.

It has been widely acknowledged that those working with individuals who display challenging behaviour (CB) may be vulnerable to work stress (Jenkins et al, 1997; Hatton et al, 1999) In particular, staff attributions of CB have been found to impact upon their responses to the behaviour (Dagnan et al, 1998; Stanley & Standen, 2000). Current research into staff response to and attributions of CB tends to focus on the behaviour itself (Wanless & Jahoda, 2002). Staff inter-personal perceptions of the individual displaying CB have been somewhat overlooked. In addition, the most commonly used methodology in this area has been vignettes. Vignettes are not personally significant and do not allow staff to form responses to CB within a context of an inter-personal history and current relationship with their client as occurs in real life situations.

The current study aims to explore staff perceptions of their relationship with their clients with severe intellectual disabilities (ID), who display aggressive CB. This will be done utilising an expressed emotion measure, The Five Minute Speech Sample (Moore & Kuipers, 1999). This study will also explore staff inter-personal perceptions of the individual displaying CB, using an interview based on a Rational Emotive Therapy format (Trower et al, 1988). Staff stress will also be measured and the associations between all factors will be investigated.

It is the aim of this study to further current understanding of staff responses to the individuals with CB, particularly aggressive challenging behaviour. This has practical implications for the development of staff training, stress reduction and psychological interventions for CB.

Introduction.

Staff who work with individuals with an intellectual disability (ID) frequently witness and have to de-escalate incidents of challenging behaviour (CB). The responses of others may prove to be significantly more detrimental to the individuals' quality of life than the immediate physical consequence of the CB itself (Emerson, 2001). Along-side this, there is growing research to suggest that staffs' responses at times of conflict can act to maintain the clients behaviour (Hall & Oliver, 1992). Hill & Dagnan (2002) suggest that support staff are likely to find CB aversive. Thus, when exposed to CB, staff intervene to stop the behaviour and so terminate the aversive experience. Consequently, the termination of the aversive experience negatively reinforces the behaviour of the staff, and in some situations will unwittingly provide functional reinforcement of the CB. Therefore, the attributions care staff make about CB will then influence their emotional and behavioural responses (Dagnan et al, 1998; Stanley & Standen, 2000). Moreover, the circular nature of these findings emphasises the inter-personal nature of the issue.

Weiner's (1980) cognitive-emotional model of helping behaviour has also formed the basis for a number of investigations of staff appraisals of CB. Dagnan et al (1998) and Stanley & Standen (2000) examined how staff beliefs about CB mediate their emotional responses and their willingness to help. It is predicted that if an aggressive individual were perceived to be in control of their behaviour, the staff member would react with annoyance and be less likely to help.

Following this work, Tynan & Allen (2002) investigated the impact of service users cognitive level on staff attributions of aggressive behaviour. They found the service

users with a mild ID were perceived to have significantly greater control over factors causing the aggressive behaviour than those with a severe disability. Moreover staff considered the bio-medical model to be of significantly greater causal relevance to individuals with severe ID. Thus, they concluded that the severity of ID impacts upon staff attributions for CB. Consequently, with a decrease in perceived control as the severity of ID increases, it could be predicted that staff working with individuals with a severe ID will be more likely to attribute acts of aggressive CB to the disability rather than as an intentional, controllable act. Jones & Davis (1965) suggested that an individual must be viewed as having an awareness of the consequences of their actions and the ability to carry out these actions in order for an observer to conclude the outcome was intended. For example, Chavira et al (2000) investigated this with mothers' responses to the problem behaviour of their children with developmental disabilities. They found that most mothers did not attribute control to children. In general, the prevalence of aggression, property destruction, self-injurious behaviour and other CB are positively correlated with the degree of intellectual impairment (Emerson, 2001).

All of the above studies employed the use of vignettes to elicit carers' responses to and attributions concerning CB. Whilst this is a well established research methodology, it can be seen to allow carers to reflect and assess a situation in an objective, detached fashion. This may tap into staff members' general beliefs about the cause of CB, which might be impersonal or "cold". The use of real life situations involving a client the staff member has worked with is more likely to elicit the emotionally "hot" cognitions the carer experienced whilst the CB was displayed. Furthermore, vignette research into the attributions of staff in relation to CB has

tended to focus on the behaviour itself, with the staff perceptions of the individual being neglected. Similarly, as vignettes are not personally significant to staff, they do not take into account any existing relationship between the staff and client. The few studies in which the personal impact of the behaviour on staff has been explored (Grey et al, 2002; Wanless & Jahoda, 2002) have found that the use of recall of a specific incident of aggression evoked stronger emotions from participants than the use of vignettes. In addition, Wanless & Jahoda (2002) proposed that staff responding to incidents of difficult behaviour will be doing so in the context of an interpersonal history with the client. Their results showed that as well as stronger emotional responses, more negative evaluations of the client and their behaviour were made in responses to real life situations. Also, approximately half of the staff members believed that the clients' aggression was directed at them personally. Wanless & Jahodas' work emphasised the importance of examining the interpersonal evaluations and attributions staff make at the point CB is displayed as a means of further understanding the relationship between staff cognitions and their emotional and behavioural responses to CB.

The current study aims to explore the reactions of staff to individuals with a severe ID who display aggressive CB in real life situations. Hastings & Remington (1995) have suggested that staff emotional responses to CB differ in responses to self injurious and stereotyped behaviour in comparison to aggression. Moreover, aggression usually involves interpersonal interactions, and is therefore of interest when considering the impact of CB on others. Thus, the present study aims to specifically investigate how staff perceive their relationship with their clients with severe ID and to look at how

this is associated with staff interpersonal perception of the person when they present with aggression. It has been argued that staff beliefs regarding the causes of CB and their reactions to such behaviour are likely to be influenced by their knowledge and evaluation of the person. If their relationship is poor, staff may be critical and over involved with the client, leading to perceptions of greater intent than if the relationship was positive. The concept of expressed emotion (EE) has been used in Schizophrenia research to describe the interpersonal relationship between families and patients (Barrowclough et al, 2001). It has been proposed that EE captures the emotional environment within the home, and that negative interactions have an adverse effect on the individual, which can be seen to contribute to relapse. EE has been applied to other clinical populations (Van Furth et al, 1993; Barker et al, 2000) where clients have a high level of dependency on carers. Therefore, it may also be considered appropriate that the concept of EE is applied to staff working with clients with severe ID. Little research has examined how staff perceive their relationship with clients who have a more severe ID and how this impacts on their interpersonal evaluations of clients who display aggressive CB. The current study suggests that an understanding of the nature and quality of the staff client relationship in situations where interaction is limited and tends to be focused around CB, is crucial in furthering the current understanding of staff responses to the person acting aggressively. In line with work relating to staff client interaction (Felce et al, 2000; Mansell et al, 2002 & Bradshaw et al, 2004) it can be predicted that those with a more severe ID would have more limited interactions with staff than their more able peers.

Staff working with individuals who display CB may be vulnerable to developing work stress (Jenkins et al, 1997; Hatton et al, 1999; Hastings, 2002). Hastings (in Jones &

Hastings, 2003) proposed a model for understanding staff responses where their emotional reactions play a key role. The stress levels of staff have implications for the quality of care provided and are likely to impact upon their reactions to CB.

The majority of ID research to date has focused upon individuals with mild-moderate ID, and investigations of staff attributions have focused on the behaviour itself and have been carried out using vignette methodology. Further research is merited to fill some of the current gaps in the literature.

Aims and Hypotheses

Aims

The present study has 2 main aims. Firstly, to explore the nature of staff perception of their relationship with clients with severe ID, and staff inter-personal perceptions of these clients at the point they display aggressive CB will be explored. Secondly, to investigate the interaction between these factors and staff stress.

Hypotheses

1. Exposure to aggressive CB will be related to staff stress response when working with individuals with a severe ID.

2. The relationship between exposure to aggressive CB and staff stress will be mediated by the staff perception of their relationship with the individual and their inter-personal perceptions at the point of aggression.

3. Staff inter-personal perceptions of the individual acting aggressively will be negative and behaviour will be perceived as intentional, when the relationship is described as negative (high EE).

4. Staff inter-personal perceptions of the individual acting aggressively will be positive and the behaviour will not be seen as intentional when the relationship is described as good (low EE).

5. Staff with high EE will have high stress levels.

6. Staff with low EE will have low stress levels.

Plan of Investigation.

Design

The study will be a with-in subjects design, which uses both qualitative and quantitative approaches.

Participants

Participants will be day centre care staff working for six months or more with individuals with severe ID who display aggressive CB. A group of staff will be interviewed with regard to the same client, reducing the need for a large number of individuals who meet the criteria.

Recruitment

Day services known to work with individuals with severe ID and CB will be approached to establish their interest in the project.

Once the service has agreed to take part, clients who attend the day service will be surveyed to identify target individuals who meet the following criteria:

a) Have a severe ID. Determined by The Adaptive Behaviour Scale-Residential and Community Second Edition (ABS-RC 2) (Nihira et al, 1993).

b) Display frequently aggressive CB. Measured by The Harris Checklist of Challenging Behaviour (Harris et al, 1994), and defined as 3 or more significant incidents of aggression in the last 3 months, at least one of which is inter-personal in nature.

Once identified, clients will be approached for their consent. Individuals' capacity to provide informed consent may be limited by communication difficulties (Arscott et al, 1998). In which case, their next of kin or guardian will be approached to give consent for the individual to be included in the study. Consent sheets containing information about the study will be left with the next of kin for two days. In this time, they will be able to contact the researcher should they have any questions.

Following consent, the service manager will highlight staff who work frequently with the identified clients. The staff will be given an information sheet and asked for their own consent.

Measures

1. Measure of Intellectual Ability

The Adaptive Behaviour Scale-Residential and Community Second Edition (ABS-RC 2) (Nihira et al, 1993) is a validated measure of everyday coping skills standardised for individuals with an ID. The ABS has good internal consistency (α=.81-.99) (Nihira et al. 1993).

2. Measure of Challenging Behaviour

The Harris Checklist of Challenging Behaviour (Harris et al, 1994), is a survey which was developed to identify the number and types of aggressive behaviour displayed by an individual. Harris et al (1994) reported that the checklist is a reliable indicator of whether or not a behaviour has occurred and that the measure has high content validity.

3. Interpersonal relationship

The Five Minute Speech Sample (Magana et al, 1986) was adapted by Moore & Kuipers (1999) for use with staff, and will be used to investigate the staff/client interpersonal relationship in the current study. The FMSS has good test-retest reliability for quality of relationship (r =.97), positive remarks (r =.87) and overall category (r= .78) (Moore & Kuipers, 1999).

The FMSS is not only found to reflect the staff members' feelings about the client, at the point of aggression but also to reflect the current interpersonal relationship with the client. When completing the FMSS staff are asked to talk freely about the individual, with a focus on the nature of their relationship.

The FMSS focuses on the following five factors as a means of conceptualising the nature and quality of the relationship:

i) The quality of the initial statement. Categorised as positive (+1), neutral (0) or negative (-1).

ii) The quality of comments about their relationship. Categorised as positive (+1), neutral (0) or negative (-1).

iii) Frequency of critical comments. Rated by their content and tone of speech.

iv) Frequency of positive remarks. Statements of praise or admiration.

v) Classification of the relationship. Overall high EE is classified when the initial statement is negative and there are one or more critical comments. Low EE is shown by the absence of critical comments and/or a negative relationship rating.

4. Cognitive Behavioural Interview

A brief cognitive behavioural interview adapted from a rational emotive behaviour therapy format (Trower et al, 1988), will be used to elicit staff emotions and interpersonal appraisals. Staff will be asked to think about a recent (within the last 6 months) incident of aggression (involving the target individual), which they witnessed or were involved in that has a clear emotional trace (still makes them feel uncomfortable). Whilst thinking about the incident, staff will be asked to recall their perception of the client at that point and what they felt motivated their client's behaviour. They will also be asked to recall their immediate emotional responses to the CB, and their impulsive reaction to that feeling. Finally staff will be asked what

might have happened if they acted on their impulsive reactions and what stopped them from reacting in that way.

5. *Staff Stress*

The Maslach Burnout Inventory (MBI) (Maslach et al, 1996) measures three dimensions of work related stress (emotional exhaustion, depersonalisation and personal accomplishment). The scales have fair to good levels of reliability (r =0.87, 0.68 & 0.76 respectively) and good construct validity (Hastings et al, 2004).

Procedure/Setting & Equipment

A piloting phase will be used to ensure that the measures are meaningful to the participants and adjustments will be made if necessary.

Staff will be interviewed individually in a private room at their place of work. All interviews will take place over one session and will be recorded (tape recorders available from the department of psychological medicine), transcribed and anonymised. Initially during the interview, time will be spent building rapport and confidentiality will be ensured to allow staff to feel confident about talking openly and frankly.

Staff will then firstly complete the MBI, and then the FMSS. After this staff will be asked to provide the following demographic information: age, gender, length of time worked with the individual, perceptions of support, level of training, role and number of dependants. Finally the cognitive behavioural interview will be carried out.

Power Calculation

A qualitative approach will be used to explore the nature of staff perception of their relationship with clients with severe ID and staff inter-personal perception of these clients at the point they display aggressive CB. It is therefore not appropriate to use a power calculation to determine sample size for these explorations. The sample size for the qualitative phase of the study will be based on previous studies in this area. Based on Dagnan et al (1998), where n=40 and Wanless & Jahoda (2002), where n=38, a sample size of 40 is required for the qualitative aspects of this study.

A quantitative approach will be used to examine the association between the above variables and staff stress. To achieve this, a correlational approach will be carried out and this therefore does allow a power calculation. A correlation co-efficient of 0.6 would indicate a significant level of association assuming that the null hypothesis is 0. With power set at 0.8 and alpha at 0.05, for a one-tailed hypothesis the required sample size is 16 (calculated using the UCLA website power calculator).

Based on the above power calculation and previous investigations the current study aims to recruit a minimum of 40 participants.

Data Analysis

Data will be analysed using The Statistical Package for Social Sciences (SPSS). The distribution of the data will be examined to establish if parametric assumptions are met. Demographic information about the staff and clients will be presented using descriptive statistics.

Following this, a 'grounding' approach (Barker et al, 1998) will be used to establish the main categories of response to the interview questions. These categories will then be used as the basis of a content analysis to establish attribution patterns across the participants.

Lastly, the association between staffs' perceptions of the client and EE will be measured using Pearsons R correlation (Spearman's Rho if non-parametric tests are required). Pearsons R will also be used to investigate the association between staff perceptions and stress levels, and staff stress and EE.

A sample of the FMSS and interviews will be scored by a second rater to insure rater reliability.

Practical Applications

By beginning to explore how staff perceptions of their relationship with their clients and their responses to CB are associated to stress levels, this study has beneficial implications for the development of psychological interventions and staff training.

Firstly, the present study will expand upon previous research by focusing on individuals with a severe ID. As the prevalence of CB is positively correlated with the degree of ID, displays of CB will be extremely frequent in this population. If staff responses are similar to those responding to individuals with a mild-moderate ID, then generic training and interventions can be successfully developed and used. However if staff are responding in a way that is specific to those with a severe ID, then alternative approaches should be considered.

Secondly, a greater understanding of the association between the factors explored in this study has wide reaching implications. It would lead to more effective support systems to reduce stress. This in turn could lead to an increased level of job satisfaction and reduced staff turn over. Not only would this be beneficial at an organisational level but would also greatly benefit the clients. For example, more consistent staff teams would be able to provide a greater level of care.

Timescale

January 2005	Submission of outline proposal
January-March 2005	Revision of outline proposal
March 2005	Submission of proposal
March-April 2005	Amendments to proposal
April-May 2005	Pilot Phase
May-June 2005	Submission to Argyll & Clyde Ethics committee
October 2005-March 2006	Data collection & Analysis
April 2006	Write up
May-June 2006	Draft to supervisor
June 2006	Amendments to draft & final copy to supervisor
June-July 2006	Amendments to final copy
July 2006	Submission for Doctorate in Clinical Psychology

Ethical Approval

The project will be submitted to the Argyll & Clyde Research Ethics Committees and registered with the Boards Research and Development Department.

Information and consent forms will be given to staff members. Due to possible limitations of communication and understanding it may not be possible to obtain verbal informed consent from the clients. In this situation consent will be gained from the individuals next of kin or guardian.

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Amendments to Major Research Project Proposal

The following amendments were made prior to submission to the NHS Ethics Committee.

Additional Measure

- Interpersonal Relationship Rating Scale

The participants were asked to rate their relationship with their client on a 5-point scale where 1= completely negative relationship and 5= completely positive relationship. On the basis of the FMSS, the researcher also rated the overall quality of the relationship on the same 5-point scale used by the participants.

Recruitment/Protocol

- As the researcher did not have any contact with the target individual with severe intellectual disabilities, it was not deemed necessary to obtain consent from the target individual. To ensure confidentiality, the staff member provided their manager with the name of the target individual they wished to discuss. The manager then completed the Harris Checklist of Challenging Behaviours (Harris et al, 1994) and the Adaptive Behaviour Scale-Residential and Community Second Edition (ABS-RC 2) (Nihira et al, 1993) to ensure the target individual met the inclusion criteria for this study and assigned them with a client number. This procedure ensured that the researcher was unable to identify any of the target individual.

Project title

- **An exploration of staff inter-personal relationships with their clients with severe intellectual disabilities who frequently display aggressive behaviour.**

After consideration, the title of the project was changed. It is felt that the above new title more closely reflects the content of the major research project paper.

Chapter Four

Major Research Project Paper

An exploration of staff interpersonal relationships with their clients with severe intellectual disabilities who frequently display aggressive behaviour.

An exploration of staff interpersonal relationships with their clients with severe intellectual disabilities who frequently display aggressive behaviour.

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Abstract

The inter-personal history staff have with their clients might be considered crucial to understanding staff responses to individuals with severe intellectual disabilities who display challenging behaviour. Hence, this study used expressed emotion to examine staff client relationships and also investigated staff perceptions of intent relating to real life incidents of aggression presented by their client.

The expressed emotion (EE) of 34 members of staff, supporting 20 individuals with severe ID who frequently displayed aggressive behaviour, was measured using the Five Minute Speech Sample (FMSS). Overall ratings were also made of the quality of the staff-client relationship. In addition, staff members completed a measure of burnout (Maslach Burnout Inventory) and discussed their attributions of intent regarding a recalled incident of aggression.

Only 1 out of the 34 staff was rated as having high EE, and few associations were found between the components of the EE measure, staff stress and their attributions of intent regarding incidents of aggression. The percentage of staff that perceived their clients' acts of aggression as intentional was similar to a previous study investigating staff that worked with individuals with mild or moderate ID. This suggests that regardless of the clients' level of ability the "hot" cognitions experiences at the time of the incident were of an interpersonal nature. Further investigation of these socio-cognitive processes may contribute to the development of a more sophisticated model of staff behaviour.

Introduction

It is widely acknowledged that staff working with individuals with intellectual disabilities (ID) who display challenging behaviour (CB) may be vulnerable to work stress (Jenkins et al, 1997; Hatton et al, 1999 & Hastings & Brown, 2002). The concept of burnout is characterised as a syndrome experienced by those working in human services, and it occurs when the demands outstrip the resources available to cope with the workload (Hastings et al, 2004). There has been an assumption in the literature that stress and burnout will impact on staff behaviour (Rose & Rose, 2005), with evidence indicating that higher stress levels may be associated with reduced interaction with clients (Rose et al, 1998). Alongside this, there is growing research to suggest that the interactions staff do have with their clients can act to maintain CB (Hall & Oliver, 1992). Hill & Dagnan (2002) suggested that CB is likely to be aversive to support staff. Thus, when exposed to CB, staff intervene to stop the behaviour, and so terminate the aversive experience. Consequently, the termination of the aversive experience negatively reinforces the behaviour of the staff, and in some situations will unwittingly provide functional reinforcement of the CB.

A number of studies have used Weiner's (1980) cognitive emotional model of helping behaviour to explore why staff respond the way they do to CB. It is predicted that if an individual is perceived to be in control of their behaviour the staff member would react with annoyance and be less likely to help (Dagnan et al, 1998 & Stanley & Standen, 2000). Following this work, Tynan & Allen (2002) investigated the impact of the individuals' cognitive level on staff members' attributions of CB. They found that staff perceived those with mild ID to have significantly greater control over factors causing aggressive behaviour than those with severe ID. Moreover, staff

considered the bio-medical model to be of greater causal relevance to individuals with severe ID. In other words, staff are less likely to consider their behaviour as being intentional. In explaining this, Jones & Davis (1965) suggested that an individual must be viewed as having an awareness of the consequences of their actions and the ability to carry out these actions in order for an observer to conclude the outcome was intentional.

It has been argued that the use of vignettes to elicit staff responses to CB is a major limitation of the above studies (Wanless & Jahoda, 2002). Whilst this is a well established research method, it allows carers to reflect and assess a situation in an objective, detached fashion. This may contrast with reflections on real life situations, which are more likely to elicit the emotionally 'hot' cognitions the carer experienced during the incident of CB. Furthermore, research into the attributions of staff in relation to CB has tended to focus on the behaviour itself, with the staff's perception of the individual being neglected. Similarly, Wanless & Jahoda (2002) proposed that staff responding to CB would be doing so in the context of their interpersonal history with the client. Despite this there is a lack of research looking at how staff perceive individuals with severe ID at the point they display CB. In other words, it is unclear whether in real life situations; staff perceptions of intent are consistent with Tynan & Allen's (2002) findings that staff view CB presented by people with more severe ID as unintentional. The alternative view would be that staff members' "hot" cognitions experienced at the time of the incident are likely to be of an interpersonal nature, rather than about the persons disability, increasing the likelihood of an attribution of intent.

It is noteworthy that little research has been carried out to investigate how staff perceive their relationship with their clients with severe ID in general, let alone how this impacts on their interpersonal evaluations of clients who are acting aggressively. However, there is a major body of work concerning staff interactions with people who have more complex needs. It has been found that the amount of time staff spend interacting with their clients is related to both staff stress (Rose et al, 1998) and client characteristics (Felce et al, 2000). Clients with more severe ID and more frequent CB, have been found to receive less interaction from their staff (Felce et al, 2000). Moreover, staff who are more stressed have been demonstrated to interact less with their clients (Rose et al, 1998). Durker and colleagues (1989) proposed that staff receive little positive feedback from individuals with severe ID in response to interaction and therefore are unlikely to respond in the same way in the future. The low level of interaction, seen when staff stress is high, may reduce the staffs opportunity to form a positive relationship. It has been argued that staff beliefs regarding the cause of CB and their reactions to such behaviour are likely to be influenced by their knowledge and evaluation of the individuals. Therefore understanding the nature and quality of staff client relationships in situations where interaction is limited, and CB is frequent, may be crucial to developing a more sophisticated model of staff behaviour.

One area of research that has been used to conceptualise interpersonal relationships between staff and client is Expressed Emotion (EE). The concept of EE has been used to describe interpersonal relationships between families and patients with a diagnosis of schizophrenia (Barrowclough et al, 2001), it has been proposed that EE captures the emotional environment within the home. Additionally, EE has been applied to

other clinical populations (Van Furth et al, 1993; Barker et al, 2000) where clients have a high level of dependency on carers. Therefore, it may also be considered appropriate that the concept of EE is applied to staff working with clients with ID. Family research (Scazufa & Kuipers, 1996, 1998) has shown that the emotional climate between a family member and a relative with mental health problems is associated with the well being of the carer in the family. To date, no research has been carried out to investigate if this association is replicated in staff-client relationships in ID services. Jahoda & Wanless (2005) highlighted the importance of understanding staff relationships with their clients in terms of contextualising their responses to CB. They suggested that where staff relationships with their client have broken down irretrievably, interventions focusing on staff attributions about the causes of CB may be fruitless. They also observed that the strength of staff negative reactions may not stem from dislike of their clients, and that some staff who appeared to have positive relationships gave the most hostile responses. They suggested that emotive answers could be representative of an emotional link with the client, and that some staff who give more detached answers appeared to be 'burnt out'.

With this in mind, the current study aims to explore the following: i) the nature of staff interpersonal relationships with their clients with severe ID using a measure of EE and a simple rating scale completed by both staff and researchers, ii) staff perceptions of intent relating to real life incident of aggression, and as the external pressures of working with CB alone do not automatically lead to stress (Lam et al, 2003), iii) the relationship between these interpersonal measures and staff stress will also be investigated.

Hypotheses:

1) It is predicted that staff who have a positive relationship with their client, as indicated by low EE, will have lower levels of burnout than those who have a negative relationship with their client (high EE).

2) Staff who perceive the client's aggressive act as intentional will have higher levels of burnout than those who perceive the client's aggressive act as unintentional.

3) It is predicted that staff with negative relationships are more likely to perceive the client's act of aggression as intentional.

Method

Participants

Thirty four members of staff took part in this study. They were recruited from four day centres in the West of Scotland, two of which were statutory services and the other two were operated by charities. These were specialist day services for individuals with severe ID. The managers of all four of these services expressed an interest in taking part in the study. The researcher then met with the staff teams to outline the study and what would be required if they participated. Forty two members of staff then agreed to participate, and provided their manager with the name of the client (target individual) they wished to discuss. The managers were then asked to ensure that the target individuals and the staff members met the criteria for inclusion in this study. The inclusion criteria for the target individuals were:

i) they should have presented with three or more serious incidents of verbal or physical aggression over a 3 month period, as assessed by a modified version of the Harris Checklist of Challenging Behaviour (Harris et al, 1994)

ii) that the target individual had a severe ID as measured by a score of less than 180 on Part 1 of the Adaptive Behaviour Scale-Residential & Community Second Edition (ABS-2nd Ed) (Nihira, Leland & Lambert, 1993). This cut off point was chosen as it is representative of that used in peer reviewed published literature focusing on individuals with severe ID (Smith et al, 2002). The inclusion criterion for the members of staff was that they had worked with the target individual for a minimum of 6 months.

Eight of the members of staff who expressed an interest in the study did not meet the inclusion criteria, as four had been employed for less than six months and three did not work with clients with severe ID and one staff member decided to withdraw from the study at a later date.

The thirty-four participants discussed twenty individuals with severe ID, and the largest single cluster of staff members around a target client was four. Three of the clients were each discussed by three members of staff, five clients were each discussed by two members of staff and the remaining eleven clients were only discussed by one member of staff. The majority of clients discussed were male (15 out of the 20), their average age was 25 (ranging from 18 to 40). The clients mean ABS score was 78 and this ranged from 25-137, which indicates that the adaptive behaviour of all individuals discussed was below average when compared to others with ID as might be expected for someone with a severe ID.

Table 1 shows the socio-demographic and background details of the staff that took part in the study. The majority (two thirds) of the staff were female and their average

age was 39, ranging from 21-64 years old. Three quarters of the participants lived with a partner and the average number of dependents the staff cared for at home was one. The mean length of time staff had worked in ID services was 10 years, ranging from 1-25 years. The staff had a range of qualifications, only two staff had no formal qualifications, and half the members of staff had obtained the highest level school qualifications, with ten having obtained further education degrees. Just over half of the staff had a specific qualification related to individuals with ID.

Insert Table 1 About Here

Measures

In order to address the research questions, the following measures were completed by all staff in the order they are described.

1) Staff Stress: Maslach Burnout Inventory (MBI) (Maslach et al, 1996).

The MBI is a self report measure consisting of three subscales: depersonalisation (development of negative and cynical attitudes towards service users), emotional exhaustion (staff feeling that they have little left to give their work at a psychological level), and lack of personal accomplishment (staff evaluate themselves and their achievements negatively). Hastings et al (2004) calculated the internal consistency for each of the burnout domains, which indicated that the scales have fair to good levels of reliability (r =0.87, 0.68 & 0.76 respectively) and good construct validity for staff.

2) Expressed Emotion: Five Minute Speech Sample (FMSS) (Magana et al, 1986)

The FMSS was adapted by Moore & Kuipers (1999) for use with staff and was used to investigate the staff/client interpersonal relationship in the current study. The following instructions, as developed by Moore & Kuipers (1999), were given to the participants:

"*I would like to hear your thoughts about [client] in your own words and without me interrupting you with any questions or comments. When you begin I'd like you to speak for five minutes, telling me what kind of person [client] is, and how the two of you get along together. I'm interested to hear about [client] and how easy they are to get to know and work with. Okay, you can start now.*"

The speech samples were transcribed verbatim and rated using established scoring procedures (Moore & Kuipers, 1999). The initial statement was rated as positive, negative or neutral. The frequency of critical and positive comments was recorded and comments relating to the relationship between staff and clients were categorised as positive, neutral or negative. FMSS were rated as high EE when the initial statement was negative in addition to one or more critical comments. The FMSS has good test-retest reliability for quality of relationship (r =.97), positive remarks (r =.87) and overall category (r= .78) (Moore & Kuipers, 1999).

3) Cognitive Behavioural Interview

The participants' perceptions of intent surrounding a specific incident of aggression were elicited using a brief cognitive behavioural interview adapted from a rational emotive behaviour therapy format (Trower et al, 1998). Staff were asked to think

about a recent (within the last 6 months) incident of aggression (involving the target individual), which they witnessed or were involved in and had a clear emotional trace (still makes them feel uncomfortable). A semi-structured interview was then used to elicit staff attributions made at the time of this incident (see appendix 4 ii).

4) Interpersonal Relationship Rating Scale

The participants were asked to rate their relationship with their client on a 5-point scale where 1= completely negative relationship and 5= completely positive relationship. On the basis of the FMSS, the researcher also rated the overall quality of the relationship on the same 5-point scale used by the participants. (See Appendix 4iii)

Procedure

All the measures were completed during a single interview at the participants' place of work. The FMSS and the cognitive behavioural interviews were recorded and transcribed verbatim.

Data Analysis

The distribution of the data was examined using a Shapiro-Wilks test, the low significant values indicated that the data from all the measures did not reflect normal distributions, and data analysis was therefore carried out using non-parametric tests. A Shapiro-Wilks test was used instead of a Kolmogorov-Smirnov test as the sample size was less than 50 (Foster, 2001).

Applying a Bonferroni adjustment for the number of outcomes examined would set significance at $p<0.01$. This significance level would reduce the chance of making Type I errors. However, given the use of non-parametric tests and the exploratory nature of the study, using a more conservative significance level may also increase the risk of making Type II errors (Perneger, 1998). Therefore, it was felt appropriate to keep the significance at $p<0.05$ (2-tailed).

Nine of the twenty clients were discussed by two or more participants, undermining the independence of the data. However, as the numbers of staff discussing each client varied, a formal analysis of the impact of this was not possible. In order to overcome this issue, further analyses using a sample of twenty participants who discussed different clients was carried out. Where a number of staff were clustered around a target individual, the participant included in the independent sample was chosen at random. The demographic information for the independent sample is presented is Table 1, and can be seen to be largely comparable to the main sample. Independence of a sample improves the validity of the assumptions underpinning standard statistical techniques and might increase the generalisability of conclusions to the population as a whole, as it will ensure that the results are not skewed by the characteristics of one client.

Results

The first section of the results will present descriptive data from each of the measures, as well as any associations with the staff socio-demographic information. Where possible, the results will be compared to those of previous research. The second section of the results will look at the hypothesised associations between the variables.

Each association will be analysed firstly using the main sample and then repeated using the independent sample of 20 participants. Analysis of the association between staff-client relationship and staff stress will be carried out first. Secondly, the association between staff-client relationship and staff perception of intent will be analysed. Finally, the association between staff stress and perception of intent will be analysed. All of the analyses were carried out using Kendalls-Tau, this was used instead of Spearman's Rho due to the relatively small sample size.

A. Descriptive Data from Measures, association with staffs socio-demographic information and comparison to previous findings

1) Staff Stress. Maslach Burnout Inventory (MBI)

Staff scores on the MBI, showed that only six of the participants in the main sample had high levels of emotional exhaustion. Moreover, the vast majority (30) of participants' did not report the development of negative or cynical attitudes (as captured by the depersonalisation sub scale). The majority of participants (22) also had a high sense of personal achievement in relation to their work.

The participants' scores on the depersonalisation and personal achievement components of the MBI were not associated with any of the socio-demographic or background information. There was a positive correlation between the emotional exhaustion component of the MBI and the participants' age ($r = 0.242$, $p = .048$) and their length of time working in ID services ($r = 0.305$, $p= .013$). In other words, older staff and those with longer service reported higher levels of emotional exhaustion. Staff who had a formal qualification relating to ID had lower levels of emotional exhaustion ($r = -.340$, $p= .020$).

The mean scores across the MBI's three sub categories for both the main and independent samples were also comparable to those found by previous research looking at staff burnout for those working with people who have ID (Blumenthal et al, 1998).

2) Expressed Emotion. Five Minute Speech Sample(FMSS)

An independent rater scored a random sample of 9 speech samples. There was a significant correlation between the two raters' scores for the staff-client relationship made on the basis of the FMSS ($r = .828$, $p = .006$). Inter-rater reliability for staff positive comments about the client and positive comments about their relationship were high ($r = .892$, $p = .002$ & $r = .863$, $p = .004$ respectively). However, inter-rater reliably was lower for the staff critical comments about the client and their relationship ($r = .526$, $p = .082$ & $r = .609$, $p = .004$ respectively).

Table 2 shows that only 1 member of staff was rated as having high EE. This is much lower than previous research investigating parents of children with ID (Beck et al, 2004; Lam et al 2003) and care staff working with adults with mild and moderate ID (Mackie & Jahoda, 2005).

Insert Table 2 About Here

As shown in table 3 the number of critical comments made by staff about their clients ranged from 0-11 and the range of positive comments was 0-8. The number of negative comments made by the staff about their relationship with their client ranged

from 0-9. The number of positive comments made by the staff about their relationship with their client also ranged from 0-9.

Insert Table 3 About Here

The length of the speech sample and how many prompts the participant required gave some indication of how freely and fluently they were able to talk about their client. The average length of the speech samples was 261 seconds (range 123-340) for both the main and independent samples and the mean number of prompts required ranged 0-2 for both samples. These results are comparable to staff working with individuals with mild and moderate ID (Mackie & Jahoda, 2005).

The researchers rated the quality of the relationship based on the FMSS using a 5-point scale where 1=very negative, 2=negative, 3=neutral, 4=positive and 5=very positive. Three (9%) of the speech samples were rated as showing a negative relationship, 10 (30%) were rated as neutral and the remaining 21 (61%) were rated as showing a positive staff-client relationship.

The associations between the components of the FMSS were examined and found that the researchers rating of the staff-client relationship was positively correlated with the number of positive comments the staff made about their client ($r = .479$, $p = .001$) and about their relationship ($r = .538$, $p = .000$). The researchers' ratings of the quality of staff relationships with their clients were negatively correlated to the number of critical comments the participants made about their clients ($-.365$, $p = .014$). A significant negative correlation was found between the number of prompts a

participant required during the speech sample and the number of positive comments they made about their client (r= -.308, p= .036). In other words, staff that required more prompts made fewer positive comments about their client. Staff who made more positive comments about their client also tended to make more positive comments about their relationship with their client (r= .513, p= .000).

The older a participant was the more likely they were to make critical comments about their client (r = .307, p= .022) and the less likely they were to make positive comments about their client (r = -.287, p=.023) or their relationship with their client (r = -.254, p= .050). The researcher rated the relationship of staff with higher qualifications as more positive than those with lower qualifications (r= .348, p= .032).

3) Interpersonal Relationship Rating

Using a simple 5-point Likert scale, 31 members of staff (91%) rated their relationship with their clients as positive (>3 out of 5). Only 1 (3%) rated their relationship as negative (<3 out of 5), whilst the remaining 2 (6%) rated their relationship as neutral (3 out of 5).

The staff self-report of their relationship with their client was not significantly associated with the researcher rating of the relationship (r = 0.106, p = .500). A larger proportion of the staff rated their relationship with their client as positive (91%) than did the researcher (62%).

The only significant association between the staff ratings of their relationships with their clients and the components of the FMSS was found with the number of critical

comments the participants made about their clients during the FMSS (r= -.356, p = .021). The more positively staff rated their relationship the fewer critical comments they made during the speech sample.

4) Staff Perceptions of Intent. Cognitive Behavioural Interview

All participants described incidents of physical aggression. A third discussed incidents that involved multiple forms of aggression (i.e. being kicked, hit and spat at). Of those discussing single forms of aggression the most frequently discussed behaviour (by 7 members of staff), was being hit. Six participants discussed incidents where they had witnessed another member of staff being physically assaulted by the target individual.

An independent rater rated all of the intent statements made by the participants and a high level of agreement was found (Kappa value = .85), the raters discussed the 3 statements where they disagreed and final agreement was reached.

The interview elicited staff perceptions of personal intent made at the time of the incident. The researcher rated staff comments as showing they perceived the incident as intentional, not intentional, or that their comment was ambiguous. Examples of each kind of attribution are shown in Table 4. Sixteen (47%) of the participants perceived the behaviour as not intentional, 15 (44%) perceived the clients behaviour as being intentional, and 3 (9%) made comments which were ambiguous.

Insert Table 4 About Here

The proportion of staff who perceived the act of aggression to be personally targeted at them (intentional) is comparable to staff working with individuals with mild to moderate ID (43% of the sample in Jahoda & Wanless, 2005).

The associations between staff perceptions of intent and their individual characteristics were investigated. As staff perceptions of intent are measured as categorical data (intent, ambiguous and no intent) the results of the correlation analysis described below should be interpreted with caution. A more suitable analysis, which compares the staff that perceived the incident as intentional with the staff that did not perceive the incident as intentional could be achieved by using a Mann-Whitney U test. This caution should also be applied to the interpretations of the associations between intent and the other main variables outlined in section B6 below.

Perception of intent was significantly correlated with the participants' age ($r=.041$, $p=.015$) and their length of employment in ID services ($r=.314$, $p=.027$). The older participants were and the longer they had worked in ID services the more likely they were to perceive the act of aggression to be intentional. There was a highly significant inverse relationship found between the participants' perception of intent and their level of educational achievement ($r= -.539$, $p= .001$), showing that staff with higher levels of educational achievement were less likely to report that the aggressive act was intentional. In comparison, no association was found between intent and the participant having a formal qualification relating to ID ($r= .265$, $p= .116$).

B. Investigation of the Hypothesised Associations Between Variables

As only 1 participant was rated as having high EE it was felt that it would not be appropriate to use EE to conceptualise the staff client relationship. For the purpose of these analyses the staff client relationship will be considered in terms of the participant and researcher ratings of the relationship, the critical and positive comments about the client and the participants' relationship with the client during the FMSS.

5) Association between staff relationship with their client and their level of stress.

Table 5 shows that for the main sample there was a highly significant association between the number of critical comments the participant made about the client and their level of emotional exhaustion ($r = .463$, $p = .001$) and depersonalisation ($r = .416$, $p = .003$). Participants with high levels of emotional exhaustion and depersonalisation made more critical comments about their clients during the FMSS than participants with lower emotional exhaustion and depersonalisation.

Insert Table 5 About Here

A significant inverse association was found between the participants' rating of their relationship and their level of emotional exhaustion ($r = -.302$, $p = .032$). The higher the participants' level of emotional exhaustion the more negatively they perceived their relationship with their client.

Table 6 shows that for the independent sample the association between the number of critical comments the participants made about their clients and their level of

depersonalisation was significant (r=.466, p=.011). Although not statistically significant, the trend between emotional exhaustion and the frequency of critical comments was also found for the independent sample (r=.341, p=.056). However, the association between emotional exhaustion and the participants' ratings of their relationships with their clients, found in the main sample, was not replicated here.

Insert Table 6 About Here

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6) Association between staff perceptions of their clients' aggression (intent), their relationship with their clients and their level of stress.

No significant associations were found between staff perception of their clients' acts of aggression, their relationship with their client, and/or their level of burnout for either the main or independent samples.

Discussion

In relation to the hypothesised associations, the current study found extremely low frequency of high EE in staff supporting individuals with severe ID who display aggressive behaviour. The frequency of high EE was so low (n=1) that it was not appropriate to use the data on EE rating in the analysis. Therefore in order to examine the staff-client relationship, the components of the FMSS and the researchers and participants' ratings of the quality of the relationship were examined. Contrary to the hypotheses, no relationship was found between staff perception of intent and their relationship with their client or their degree of burnout. The one component of the FMSS found to be significantly associated to staff subjective rating of their relationship was the frequency of critical comments made. Moreover, the only support

for the hypothesised association between relationship and stress was that the frequency of critical comments made during the FMSS was associated with staff level of depersonalisation. However, this may be due to a possible conceptual overlap of the measures, as the depersonalisation sub-scale of the MBI is designed to capture the development of negative and cynical attitudes of staff towards their clients.

Although not part of the planned analysis, the results relating to the participants' perceptions of the clients intent during an incident of aggression merit further discussion. This will be presented below and followed by a discussion of the lack of hypothesised associations between the study's variables.

When looking at staff perceptions of their clients' intent during an incident of aggression, the results of the current study did not provide evidence to support Tynan & Allan's (2002) study. Using vignette methodology, they found that staff perceive those clients with mild to moderate ID to have significantly greater control of factors causing CB than those with severe ID. When recalling real life incidents of aggression, just under half of the staff in the current study perceived the act of aggression from their client with severe ID as being intentional. This finding is a replication of Jahoda & Wanless (2005) who investigated real life situations with staff who work with people with mild to moderate ID. This similarity suggests that regardless of the clients level of ability the 'hot' cognitions experienced at the time of the incident were of an interpersonal nature and staff members' responses were about the person's behaviour rather than about the persons disability, or challenging behaviour that is independent from the person. Interestingly, the results also show that there was a significant relationship between staff perception of intent and their overall

educational achievement and not whether they had a formal qualification relating to ID. It appears reasonable to suggest that those staff with a formal qualification relating to ID would have a greater awareness of the bio-medical model of CB. However, it is debateable whether they incorporated this knowledge into their evaluation of the individual in the heat of the moment. One interpretation of this finding may be that the staff with higher educational achievements were more concerned with portraying a "professional" image in their interview with the researcher. In order to further investigate staff perceptions of intent at the point of the incident, more research, which controls for external factors such as educational level and degree of training, is needed.

Limitations of the current study could explain the lack of evidence to support its hypotheses. These are discussed below and split into those concerning practical methodological concerns, and those relating to conceptual issues around the use of the FMSS within the current population.

The methodological design of clustering a group of staff around some clients may have biased the results. However, the analyses were repeated using an independent sample and, on the whole, this replicated the results from the main sample. However, due to its small size, the independent sample may lack power, which could account for the finding that two significant results from the main sample were not replicated by the independent analysis. Furthermore, the correlational design of the study clearly limits the extent to which conclusions can be made on the direction of the relationships between variables, therefore all results have to be interpreted with caution.

Whilst the use of real life situations overcomes some of the limitations of using vignettes by providing an emotive account of an actual incident, it can be criticised as the use of retrospective self-report is liable to a number of biases. For example, the staff may have recalled incidents of extreme aggression. This is especially pertinent as there was no time frame specified and the accounts were not verified by another source. Research is needed using a prospective, longitudinal design in order to control for these difficulties. Further information about the clients' aggression, such as its frequency, duration and function, is important in predicting relationships with the other variables and warrants further investigation.

The current study also used different levels of measurement for the different variables. The MBI is a general measure of staff stress, whereas the FMSS is a very specific measure. Comparison of different levels of measures may limit the associations found. Research using a stress measurement specifically designed to captures staff stress in relation to CB, such as the Emotional Reactions to Challenging Behaviour Scale (Mitchell & Hastings, 1998), may provide clearer results.

This study could be criticised for the fact that the authors were not extensively trained in the use of the FMSS. However, Moore & Kuipers (1999) found that experienced and inexperienced raters agreement on the EE status was above 0.7 for their sample. This suggests that the researchers lack of experience would not significantly affect the study's results. Therefore, it could be argued that the FMSS may not be sensitive enough to conceptualise the staff client interpersonal relationships within services for

individuals with severe ID who are frequently aggressive. The possible conceptual considerations of using the FMSS with the current population are discussed below.

The rate of High EE is much lower in the current study than previous studies investigating an ID population, such as Lam et al (2003) who focused on families EE. The qualitative difference in the nature of professional and family relationships may go some way in explaining this finding. Relationships within families are likely to reflect a substantial shared history and strong emotional ties. In contrast, staff relationships may be quantitatively and qualitatively different, being of much shorter duration and far less emotionally involved. As research has shown, staff spend less time interacting with clients with severe ID than they do with those with mild to moderate ID (Felce & Perry, 1995). Hence, a lack of interpersonal history may be even more pertinent to the current study and explain the lower rate of High EE found than that in research investigating the professional relationship between staff and clients with mild to moderate ID (Mackie & Jahoda, 2005). The philosophy of the care provider may also contribute to the low frequency of high EE. Staff may be encouraged to view their clients with positive regard and are therefore reluctant to make critical comments. Yet, staff are also encouraged to maintain a "professional" relationship with their clients, perhaps preventing them from developing a sense of mutual understanding. Within the professional relationship staff are often expected to fulfil many roles and several of the participants commented on the difficulty they had maintaining the balance of the relationship, as reflected in the quote below:

"I think that he appreciates that we have a good, a good working.....the difference between having a working relationship and a kind of friendship, it's very hard where to draw the line."

It could be suggested that the low levels of High EE found in the current study are due to the arbitrary rating of EE level. A major difficulty was the need for the first statement to be critical in order to be rated as high EE. Most staff members began by making a rather neutral statement. For several participants this initial neutral statement was followed by frequent critical comments, yet following Moore & Kuipers' (1999) rating their speech samples were categorised as showing Low EE. For example the following are all taken from one speech sample that had to be rated as low EE as the first statement was neutral:

" X, just the word is a stress."

"Its unbelievable that one person can put so much strain on you, he's constantly demanding, constantly verbal"

Again the following quotes are all taken from one speech sample rated as low EE:

"I don't think he likes me, whenever he sees me he roars"

"I don't like being in (a room) with him and I always make sure there is a table between us"

"I find him very difficult to work with"

"I don't like to be physically close to him, which makes things difficult"

The low level of inter-rater reliability for number of critical comments the staff made during the FMSS may also be a result of the arbitrary rating of the measure. The interpretation of critical comments was more difficult than positive comments; often it was unclear whether a comment was a factual statement rather than being critical

about the person. This suggests that context may play a important role in the interpretation of critical comments but is not incorporated in the current scoring guidelines.

Conclusions

The lack of associations found between staff client relationships, staff members' perception of intent surrounding an incident of aggression and their level of stress could be accounted for by methodological and conceptual limitations. The current method of rating the FMSS does not provide an accurate representation of the often rich and emotive accounts provided by the participants.

The results of the present study emphasise the importance of the interpersonal evaluations staff make about their clients during an incident of aggression. In order to develop a model of staff attributions of CB that incorporates the possible influence of staff-client interpersonal relationships and staff views of the client as a person, further investigation of staff characteristics and their attributions would be beneficial. It would also be worth exploring alternative means of capturing the interpersonal relationship between staff and their clients. As well as investigating the complexities of such relationships, further research would have important implications for the planning of services for people with severe ID who are frequently aggressive and in supporting the staff within these services, with the aim of reducing absenteeism and associated discontinuities in care.

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List of Tables

Table 1: Participants' Demographic Information

	Main Sample (n=34)	Independent Sample(n=20)
Sex	Male: 11 Female: 23	Male: 10 Female: 10
Mean Age	39 years (range 21-64)	40 years (range 23-64)
Living with partner?	Yes: 26 No: 8	Yes: 17 No: 3
Mean number of dependents in the home	1	0.8
Highest Qualification Obtained	No formal qualifications: 2 G.C.S.E/Standard Grade: 4 A'level/Highers: 17 HND/Diploma: 1 Polytech /Uni Degree: 10	No formal qualifications:1 G.C.S.E/Standard Grade:0 A'level/Highers: 12 HND/Diploma: 1 Polytech/Uni Degree: 6
Specific Qualification Related to ID	Yes: 18 No: 16	Yes: 12 No: 8
Mean length of service with current employer	7.5 years (range 1-25)	7 years (range 1-14)
Mean hours worked per week	34 (range 20-40)	35 (range 20-38)
Total length of service working with individuals with ID	10 years (range 1-25)	10 years (range 2-20)

Table 2:

Comparison of EE ratings with previous studies.

	High EE	Low EE
Current Study n=34	3%	(97%)
Mackie & Jahoda (2005)* n= 36	25.7%	74.3%
Beck et al (2004)^ n=34	60.6%	39.4%
Lam et al (2003)^ n= 47	40.4%	59.6%

* staff working with adults with mild-moderate ID

^ parental carers of children with ID.

Table 3:
Staff Expressed Emotion as Measured by Five Minute Speech Sample

	Main Sample N=34	Independent Sample N=20
EE Category:		
High EE	1 (3%)	1 (5%)
Low EE	33 (97%)	19 (95%)
Mean no. of critical comments	1.32 (SD 2.114) Range 0-11	1.35 (SD 1.226) Range 0-4
Mean no. of positive comments	3.26 (SD 2.526) Range 0-8	3.65 (SD 2.739) Range 0-8
Mean no. of negative comments about the relationship	0.94 (SD 1.476) Range 0-6	1.10 (SD 1.483) Range 0-5
Mean no. of positive comments about the relationship	2.38 (SD 2.462) Range 0-9	3.05 (SD 2.502) Range 0-9
Researchers Rating of Relationship		
Very Negative	0 (0%)	0 (0%)
Negative	3 (9%)	0 (0%)
Neutral	10 (30%)	7 (35%)
Positive	15 (44%)	9 (45%)
Very Positive	6 (17%)	4 (20%)

Table 4:

Examples of statements rated as perceptions that the act of aggression was intentional, unintentional and ambiguous.

Rating	**Examples**
Intentional	*"He knew it was me and I think he knew what he was doing. Its not that you can say "Ahh poor him, he doesn't know what he's doing"* *"I thought why are you doing this to me, I come here to try and help you. Not be subjected to this behaviour"*
Ambiguous	*"I think she was annoyed with me. Her communication is really poor and she had no other way of letting us know she was annoyed"* *"I think, contempt is too strong a word. I think he was so frustrated as well that he wasn't able to communicate what was winding him up. I don't think he was trying to hurt me I think it was just a response to the situation. I think he knows that he can be quite intimidating and that he was using that to gain some control. I felt it was a bit of a macho thing as well."*
Unintentional	*"I think it wasn't directed at (other member of staff) she was just there, it could have been me or anyone else. It wasn't directed to (other member of staff) personally."* *"She wasn't aware of us as people, it wasn't me and (other staff member) that she was hitting out at. Its not a personal thing with her, she doesn't direct it at people."*

Table 5: Correlations between staff relationships with their clients and their burnout. Main Sample

	Emotional Exhaustion	Depersonalisation	Personal Achievement	Positive comments	Critical comments	Positive relationship comments	Negative relationship comments	Researchers rating of relationship	Participants rating of relationship
Emotional Exhaustion	1	**.290***	**-.305***	-.103	**.463****	-.016	.247	-.228	**-.302***
Depersonalisation		1	**-.288***	-.115	**.416****	-.071	-.022	-.024	-.168
Personal Achievement			1	.186	-.096	.137	-.061	.013	.126
Positive Comments				1	-.137	**.513****	-.066	**.479****	-.037
Critical Comments					1	-.220	.276	**-.365***	**-.356***
Positive relationship comments						1	-.100	**.538****	-.091
Negative relationship comments							1	-.257	-.242
Researchers rating of relationship								1	.106
Participants rating of relationship									1

* *Correlation is significant at 0.05 level (2 tailed)*

** Correlation is significant at 0.01 level (2 tailed)

Table 6: Correlations between staff relationships with their clients and their burnout. Independent Sample

	Emotional Exhaustion	Depersonalisation	Personal Achievement	Positive comments	Critical comments	Positive relationship comments	Negative relationship comments	Researchers rating of relationship	Participants rating of relationship
Emotional Exhaustion	1	.220	**-.340***	-.062	.341	-.100	.207	-.208	-.155
Depersonalisation		1	-.328	-.207	**.466***	-.172	-.112	-.068	-.085
Personal Achievement			1	.068	.067	-.165	-.176	-.165	-.016
Positive Comments				1	-.032	.346	**.389***	**.554****	.034
Critical Comments					1	-.193	.000	-.310	-.185
Positive relationship comments						1	-.096	**.590****	-.009
Negative relationship comments							1	-.190	.086
Researchers rating of relationship								1	.020
Participants rating of relationship									1

* Correlation is significant at 0.05 level (2 tailed)
** Correlation is significant at 0.001 level (2 tailed)

Chapter Five

Single Case Research Study Abstract

Analogue assessment of hand stereotypy in a non learning disabled 6 year old boy.

Analogue assessment of hand stereotypy in a non learning disabled 6 year old boy.

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To be submitted to *Clinical Child Psychology and Psychiatry*

Analogue assessment of hand stereotypy in a non learning disabled 6 year old boy.

Abstract

Stereotypies can be defined as repetitive motor behaviours that are often rhythmical and appear without obvious purpose. They are found in abnormally high rates in populations with specific conditions, but have also been found in otherwise normally developing children. As stereotypies can influence a child's development and are performed at the expense of other more appropriate behaviour they are widely considered suitable for intervention. Leuba's (1955) homeostatic and Baumeister & Rollings (1985) operant models are the most widely accepted explanatory framework for the occurrence of stereotyped behaviours. The current study used an experimental functional analysis, employing an analogue methodology, to examine hand stereotypy in a non learning disabled child across a variety of environmental conditions. The child's own understanding of the behaviour was also explored. The results showed that the child's own rating of his level of excitement was associated to the frequency of his hand stereotypy. The current study adds to the sparse literature on hand stereotypies in non learning disabled children, and provided some validation of the homeostatic model within this population. The limitations of the study and possible future research are discussed.

Key Words: Analogue Assessment; Hand Stereotypies

Contents of Appendices:

1i. Requirements for Submission to Journal of Mental Health

Instructions for Authors:

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Note to Authors:** please make sure your contact address information is clearly visible on the **outside** of all packages you are sending to Editors.

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a) For journal articles (titles of journals should *not* be abbreviated):

Grey, S.J., Price, G. & Mathews, A. (2000). Reduction of anxiety during MR imaging: A controlled trial. *Magnetic Resonance Imaging, 18* , 351–355.

b) For books:

Powell, T.J. & Enright, S.J. (1990) *Anxiety and Stress management* . London: Routledge

c) For chapters within multi-authored books:

Hodgson, R.J. & Rollnick, S. (1989) More fun less stress: How to survive in research. In G.Parry & F. Watts (Eds.), *A Handbook of Skills and Methods in Mental Health Research* (pp. 75 89). London:Lawrence Erlbaum.

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PSYCHOLOGY ASSESSMENT LETTERS

GUIDELINES FOR HEADINGS

Initial letters to referrer should, in all cases, provide sufficient information and properly address specific aspects of assessment. The following headings have been identified as essential to the formation of an adequate report to the referrer and are to be used by all relevant members of staff.

PRESENTING PROBLEM

This should include an adequate description of the reason for referral and appropriate details of the problem(s) identified at assessment interview(s).

Information concerning the onset and development of problems as well as the effects and consequences of difficulties is also important.

RELEVANT BACKGROUND INFORMATION

Details concerning past history of difficulties, life events, family and social factors, childhood influences and all other areas of relevance to the presenting difficulties.

PSYCHOLOGICAL FORMULATION

The summing up of all relevant factors and making sense of the individuals' difficulties in the light of information available.

This section should include comment on relevant predisposing factors and those which are responsible for problem maintenance. There should be concern with an attempt to draw meaningful conclusions from the interview which will support your rationale for intervention.

PROPOSED INTERVENTION

A description of your treatment plan with reference to its relevance to the individual and his or her difficulties.

This should include some reference to possible time scale, comment on prognosis and date of next appointment.

Guidelines For Letter Assessment – Objective Indices

Reference to original letter: Requires reference to referred problem or referral request.

Reason for contact: Refers to nature of the clinical contact or its purpose (e.g., initial assessment or interview).

Description of the presenting problem(s): Identify whether the problem(s) is/are described in relatively specific terms versus in a generalised fashion (e.g, problems in being able to venture out into specified situations versus 'agoraphobia').

Findings/observations on examination: Refers to descriptions/observations of the patient's presentation, mental state etc., at interview.

Psychological formulation: Refers to the use of psychological concepts (rather than 'everyday' concepts) to explain the development or maintenance of the presenting problem. Indicate whether these are clearly specified as possible determinants, or whether their role is merely implied.

Actions/recommendations: Indicate whether presented in a relatively specific form (e.g., relaxation exercises and graded exposure, or in a more generalized fashion (e.g., cognitive or exploratory therapy).

Prognostic opinion: Indicate whether it is specified as such (i.e., this person/problem is likely to respond well/poorly to psychological therapy versus this person seems well motivated for therapy).

Timescale for follow up: Count as present only if there is a relatively specific time period given for follow up (e.g., date of the next appointment or to be seen again within the next .....weeks).

Frequency of jargon usage: Count examples of jargon present. Jargon = Terms which are not intelligible without explanation.

Value judgements/pejorative comments: These statements about the patient based on the psychologist's personal opninions.

<u>Letter Length</u>

Word count: Average the number of words over 3 lines and multiply by the number of lines, taking account of ½ lines.
Number of pages: Count in ¼ pages of actual text - ignore headings and signing off etc.

2i. Requirements for submission to

Journal of Intellectual Disability Research

Journal of Intellectual Disability Research (JIDR) uses a web-based submission and peer-review system called Manuscript Central. All manuscripts should be submitted at http://mc.manuscriptcentral.com/jidr. This system is quick and convenient for both authors and reviewers and aims to reduce the time between submission and the decision whether or not to accept the manuscript.

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To avoid postal delays, all correspondence is by e-mail. A completed manuscript submission is confirmed by immediately and your manuscript enters the editorial process with no postal delay. Your manuscript will have a unique number and you can check the progress of your manuscript at any time by returning to http://mc.manuscriptcentral.com/jidr. When a decision is made, if requested to do so, revisions can be submitted online, with an opportunity to view and respond to all comments.

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If you do not have Internet access or cannot submit online, the Editorial Office will help with submissions. Please contact Sue Hampton Matthews at the Editorial Office of JIDR, Second Floor, Douglas House, 18b Trumpington Road, Cambridge, CB2 2AH, UK +44 1223 746 124; e-mail: smh44@medschl.cam.ac.uk.

Manuscript

Full reports of 1500-3000 words are suitable for major studies, integrative reviews and presentation of related research projects or longitudinal enquiry of major theoretical and/or empirical conditions. *Brief reports* of 500-100 words are encouraged especially for replication studies, methodological research and technical contributions. An *hypothesis paper* can be up to 1500 words and no more than twenty key references. It aims to outline a significant advance in thinking that is testable and which challenges previously held concepts and theoretical perspectives.

For full and brief reports a structured summary should be included at the beginning of each article, incorporating the following headings: Background, Method, Results, Conclusions. These should outline the questions investigated, the design, essential findings, and the main conclusions of the study.

The main text should proceed through sections of Abstract, Introduction, Methods, Results, and Discussion. Tables and figures should be submitted on separate sheets and referred to in the text together with an indication of their approximate position recorded in the text margin.

The author should provide up to six keywords to aid indexing. Please note that 'intellectual disability', as used in JIDR, includes those conditions labelled mental deficiency, mental handicap, learning disability and mental retardation in some locales or disciplines.

References

The reference list should be in alphabetical order thus:
Giblett E.R. (1969) *Genetic markers in Human Blood.*
Blackwell Scientific Publications, Oxford.
Moss T.J. & Austin G.E. (1980) Preatherosclerotic lesions in Down's syndrome. *Journal of Mental Deficiency Research* **24**, 137-41.
Journal titles should be in full. References in text with more than two authors should be abbreviated to (Brown *et al.* 1977). Authors are responsible for the accuracy of their references.

Spelling

Spelling should conform to *The Concise Oxford Dictionary of Current English* and units of measurements, symbols and abbreviations with those in *Units, Symbols and Abbreviations* (1977) published and supplied by the Royal Society of Medicine, 1 Wimpole Street, London W1M 8AE. This specifies the use of SI units.

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Appendix 2ii. Checklist of Methodological Quality

Paper No:
Authors:
Year:
Title:

Quality Domain	Points Awarded
What design does the study use? • multiple baseline (3 points) • pre-post experimental design with control group (2 points) • pre-post experimental design no control group (1 point) • no pre intervention measures (0 points)	
What sample demographics are reported? • age, gender and experience of staff detailed AND age, gender, ability and behaviour of residents given (3 points) • limited demographic information given for both staff AND residents (2 points) • demographics only given for either staff OR residents (1 point) • Does not specify demographic information for either group (0 points)	
How are the clients ability and behaviour assessed? • use of ICD/DSM or research diagnostic criteria (3 points) • Standardised clinical interview or scale (2 points) • Review of case notes (1 point) • Does not specify how clients ability/behaviour was determined (0 points)	
How is the staff training in the behavioural approach described? • Fully described and follows original protocol (3 points) • Refers to original protocol, however does not describe specific training (2 points) • Fully described but uses altered protocol (1 points) • Does not specify (0 points)	
How are the observational categories described? • Fully replicable and appropriate to the aims of the study given for both staff and resident behaviour (3 points) • Fully replicable and appropriate to the aims of the study given for EITHER staff OR resident behaviour given (2 points) • Limited information given (1 point) • Does not specify (0 points)	
How is the quality of the data ensured? • Second rater used &interrater reliability adequate (3 points) • Second rater used and categories combined to produced adequate interrater reliability (2 points) • Second rater used and no reliability found (1 point) • Does not specify (0 points)	
	Total:

The total points for each paper were calculated, the papers were then allocated one of the following quality categories:

Excellent: To be rated as excellent a paper must score maximum points in all categories

Good: To be rated as good a paper must score maximum points in at least 1 factor assessing validity and 1 factor assessing reliability. The paper must also score 2 or above for the study design.

Adequate: To be rated as adequate a paper must score above 50% of the maximum score and not receive a score of 0 for any factors.

Inadequate: A paper is rated as inadequate if it receives a score of 0 for any category. A paper is excluded from the study if it is considered inadequate.

Category:

3i. Participant Information Sheet

Information form for participants **Version 2**
03/09/05

Inter-personal perceptions of staff towards individuals with severe learning disabilities at the point they display aggressive challenging behaviour

UNIVERSITY
of
GLASGOW

NHS
Argyll
& Clyde

Title of Project: **Staffs thoughts and feelings about people with severe learning disabilities when they are aggressive.**

Information for Participants

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

What is the purpose of the study?
As you will know, working this people with learning disabilities can be stressful, especially when they display challenging behaviour. Previous studies have found that stress can affect how you respond to challenging behaviour. It is also thought that your relationship with your clients will influence how you respond to challenging behaviour.

Care staff often have strong feelings about working with clients who display challenging behaviour, especially at the time of the incident. Yet, little research has been carried out looking at how staff think and feel about the individuals they work with and how their relationships with them can influence stress levels.

This study aims to find out about care staff's feelings about working with individuals with learning disabilities who are aggressive. The study will look at what staff feel and do following situations of aggressive behaviour.

It is hoped that this study will lead to a greater understanding of the needs of care staff providing support for aggressive individuals. It may also help professionals, such as psychologists, to develop ways of reducing stress and help foster more positive relationships between care staff and people with these difficulties.

Why have I been given this info?
You are being asked to consider participating in this research as your service manager identified that you work with a person suitable for this study. This information is to help you decided if you wish to take part or not.

Information form for participants **Version 2**
03/09/05

Inter-personal perceptions of staff towards individuals with severe learning disabilities at the point they display aggressive challenging behaviour

Do I have to take part?
It is up to you to decide whether or not to take part. If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without given a reason. A decision to withdraw at anytime, or a decision not to take part, will not have any further implications.

What will I have to do?
If you decided to take part in this study you will be required to attend one 45minute interview with the main researcher, Clare Davies, in your place of work. During this time you will be asked to talk about how you and the person you support get on with each other. You will also be asked to talk about a recent incident of aggression, as well as completing a measure of workplace stress. With your agreement we would like to record the interview to allow us to talk more freely.

Will my taking part in this study be kept confidential?
All information that is collected about you during the course of the research will be kept strictly confidential. Unless there is evidence that you or the person you care for is at an immediate risk of significant harm, in which case the researcher will try to obtain appropriate help, after discussion with yourself.

What will happen after the interview?
We hope that the study will provide useful information about supporting people who have problems with aggression. When the study is complete, the researcher will write to you summarising the findings of the study. You will not be identified in the results. It is intended that the results of the study will be published in a journal. The results will also form part of the main researchers Doctorate in Clinical Psychology.

Further Information
If there is any thing else you want to know or anything you wish to clarify please do not hesitate to contact the main researcher, Clare Davies, or the other researchers Andrew Jahoda and Sharon Horne-Jenkins at the following address:

Department of Psychological Medicine
Academic centre
Gartnavel Royal Hospital
1055 Great Western Road
Glasgow
G12 0XH
0141 211 0607
clare.davies@renver-pct.scot.nhs.uk

Thank you for your time and considering this study.

Version 2 Participant identification number:.....
03/09/05

Inter-personal perceptions of staff towards individuals with severe intellectual disabilities at the point they display aggressive challenging behaviour.

UNIVERSITY *of* GLASGOW

NHS Argyll & Clyde

CONSENT FORM

Staffs thoughts and feelings about people with severe learning disabilities when they are aggressive.

Researcher: Clare Davies

		Please Initial Box
1)	I confirm that I have read and understand the information sheet dated July 2005 for the above study and have had the opportunity to ask questions.	☐
2)	I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason, and without my legal rights being affected.	☐
3)	I agree to the use of an audio recorder to record my interview during the study.	☐
3)	I agree to take part in the above study	☐

Name of staff	Date	Signature
Name of person taking consent (If different from researcher)	Date	Signature
Researcher	Date	Signature

1 copy for staff 1 copy for researcher

North Glasgow University Hospitals
Division

Glasgow Royal Infirmary LREC (2)
4th floor, Walton Building
Glasgow Royal Infirmary
84 Castle Street
GLASGOW
G4 0SF

Telephone: 0141 211 4020
Facsimile: 0141 232 0752

NHS
Greater Glasgow

22 September 2005

Miss Clare Davies
Trainee Clinical Psychologist
NHS Argyll & Clyde/University of Glasgow
Department of Psychological Medicine
Gartnavel Royal Hospital
1055 Great Western Road, Glasgow
G12 0XH

Dear Miss Davies

Full title of study: **Inter-personal perceptions of staff towards individuals with severe intellectual disabilities at the point they display aggressive challenging behaviour.**

REC reference number: **05/S0705/65**

Thank you for your letter of 03 September 2005, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

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		20 July 2005
Investigator CV		
Protocol		29 April 2005
Covering Letter		

Questionnaire	Measure of Relationship (1)	20 July 2005
Questionnaire	MBI Human Service Survey	
Questionnaire	ABS-RC:2	
Participant Information Sheet	2	03 September 2005
Participant Consent Form	2	03 September 2005
Response to Request for Further Information		03 September 2005
CV (Clare Davies)		

Research governance approval

The study should not commence at any NHS site until the local Principal Investigator has obtained final research governance approval from the R&D Department for the relevant NHS care organisation.

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.

05/S0705/65	**Please quote this number on all correspondence**

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

Yours sincerely

R Gallacher

pp **Dr Malcolm Booth**
Chair

Email: rose.gallacher@northglasgow.scot.nhs.uk

Enclosures:

Standard approval conditions
Site approval form

Copy to: NHS Argyll & Clyde
R&D Office, Top Floor, Ward 15
Dykebar Hospital
Grahamston Road , Paisley
PA2 7DE

SF1 list of approved sites

Glasgow Royal Infirmary LREC (2)

LIST OF SITES WITH A FAVOURABLE ETHICAL OPINION

For all studies requiring site-specific assessment, this form is issued by the main REC to the Chief Investigator and sponsor with the favourable opinion letter and following subsequent notifications from site assessors. For issue 2 onwards, all sites with a favourable opinion are listed, adding the new sites approved.

REC reference number:	05/S0705/65	**Issue number:**	2	**Date of issue:**	22 September 2005
Chief Investigator:	Miss Clare Davies				
Full title of study:	Inter-personal perceptions of staff towards individuals with severe intellectual disabilities at the point they display aggressive challenging behaviour.				

This study was given a favourable ethical opinion by Glasgow Royal Infirmary LREC (2) on 16 September 2005. The favourable opinion is extended to each of the sites listed below. The research may commence at each NHS site when management approval from the relevant NHS care organisation has been confirmed.

Principal Investigator	*Post*	*Research site*	*Site assessor*	*Date of favourable opinion for this site*	*Notes* [1]
Miss Clare Davies	Trainee Clinical Psychologist	Old Johnstone Clinic and Elizabeth Martin Clinic, Greenock	Argyll & Clyde Local Research Ethics Committee	22/09/2005	

Approved by the Chair on behalf of the REC:

R Gallacher pp ..... (Signature of Chair/Administrator)

(delete as applicable)

ROSE GALLACHER ..... (Name)

(1) *The notes column may be used by the main REC to record the early closure or withdrawal of a site (where notified by the Chief Investigator or sponsor), the suspension of termination of the favourable opinion for an individual site, or any other relevant development. The date should be recorded.*

NHS ARGYLL & CLYDE

Clinical Development Centre
Ward 15, top floor
Dykebar Hospital
Grahamston Road
Paisley PA2 7DE

Tel: (0141) 314 4014
Fax: (0141) 314 4015

NHS
Argyll
& Clyde

Ms Clare Davies
The Old Johnstone Clinic
1 Ludovic Square
Johnstone
Renfrewshire
PA5 8EE

Date: 03 November 2005
Our ref: LT/EC
Project ref: AC05/053

Contact: Hawys Williams
Hawys.williams@renver-pct.scot.nhs.uk

Dear Ms Davies

Project ID: AC05/053
Research title: Inter-personal perceptions of staff towards individuals with severe intellectual disabilities

I am writing to confirm that the above study has R&D Management approval.

We draw your attention to the published standards being set by the Research Governance Framework for Health and Community Care in Scotland (2001), and the Medicines for Human use (Clinical Trials) Regulations (2004, SI 1031). This study will be subject to ongoing monitoring for Research Governance purposes and may be audited to ensure compliance with these regulations, however prior written notice will be given.

Should there be any changes to the protocol, complaints or adverse incidents, you should notify the R&D office immediately. Please inform the R&D office when the study has been completed and submit a copy of the final report. If the trial is stopped prematurely, the R&D office must be notified within 15 days.

Your R&D contact for this study is:-

Hawys Williams
Research Officer

Yours sincerely

Dr L Jordan
Medical Director

North Glasgow University Hospitals
Division

Glasgow Royal Infirmary LREC (2)
4th floor, Walton Building
Glasgow Royal Infirmary
84 Castle Street
GLASGOW
G4 0SF

Telephone: 0141 211 4020
Facsimile: 0141 232 0752

NHS
Greater Glasgow

15 March 2006

Miss Clare Davies
Trainee Clinical Psychologist
NHS Argyll & Clyde/University of Glasgow
Department of Psychological Medicine
Gartnavel Royal Hospital
1055 Great Western Road, Glasgow
G12 0XH

Dear Miss Davies

Full title of study: **Inter-personal perceptions of staff towards individuals with severe intellectual disabilities at the point they display aggressive challenging behaviour.**
REC reference number: **05/S0705/65**

The REC gave a favourable ethical opinion to this study on 16 September 2005.

Further notification(s) have been received from local site assessor(s) following site-specific assessment. On behalf of the Committee, I am pleased to confirm the extension of the favourable opinion to the new site(s). I attach an updated version of the site approval form, listing all sites with a favourable ethical opinion to conduct the research.

Research governance approval

The Chief Investigator or sponsor should inform the local Principal Investigator at each site of the favourable opinion by sending a copy of this letter and the attached form. The research should not commence at any NHS site until research governance approval from the relevant NHS care organisation has been confirmed.

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.

05/S0705/65	Please quote this number on all correspondence

Yours sincerely

R Gallacher

Mrs Rose Gallacher
Committee Clerical Assistant

Email: rose.gallacher@northglasgow.scot.nhs.uk

01811

Enclosure: *Site approval form*

Copy to: NHS Argyll & Clyde
R&D Office, Top Floor, Ward 15
Dykebar Hospital
Grahamston Road, Paisley
PA2 7DE

Glasgow Royal Infirmary LREC (2)

LIST OF SITES WITH A FAVOURABLE ETHICAL OPINION

For all studies requiring site-specific assessment, this form is issued by the main REC to the Chief Investigator and sponsor with the favourable opinion letter and following subsequent notifications from site assessors. For issue 2 onwards, all sites with a favourable opinion are listed, adding the new sites approved.

REC reference number:	05/S0705/65	**Issue number:**	2	**Date of issue:**	15 March 2006
Chief Investigator:	Miss Clare Davies				
Full title of study:	Inter-personal perceptions of staff towards individuals with severe intellectual disabilities at the point they display aggressive challenging behaviour.				

This study was given a favourable ethical opinion by Glasgow Royal Infirmary LREC (2) on 16 September 2005. The favourable opinion is extended to each of the sites listed below. The research may commence at each NHS site when management approval from the relevant NHS care organisation has been confirmed.

Principal Investigator	*Post*	*Research site*	*Site assessor*	*Date of favourable opinion for this site*	*Notes* [1]
Miss Clare Davies	Trainee Clinical Psychologist	Old Johnstone Clinic and Elizabeth Martin Clinic, Greenock	Argyll & Clyde Local Research Ethics Committee	22/09/2005	
Miss Clare Davies	Trainee Clinical Psychologist	Primary Care Division Day centres within Greater Glasgow for Adults with severe learning disabilities. The Abbie Resource Center, Glasgow	NHS Greater Glasgow Primary Care Division (Community & Mental Health)	15/03/2006	

Approved by the Chair on behalf of the REC:

S Macgregor ..... (Signature of ~~Chair~~/Administrator)
(delete as applicable)

S MACGREGOR ..... (Name)

(1) *The notes column may be used by the main REC to record the early closure or withdrawal of a site (where notified by the Chief Investigator or sponsor), the suspension of termination of the favourable opinion for an individual site, or any other relevant development. The date should be recorded.*

Trainee Clinical Psychologist
NHS Argyll and Clyde /
University of Glasgow
Department of Clinical Psychology
Gartnavel Royal Hospital
1055 Great Western Road
Glasgow
G12 0XH

Your Ref
Our Ref BR/AW/approve

Direct Line 0141 211 3661
Fax 0141 211 3814
Email annette.watt@
gartnavel.glacomen.scot.nhs.uk

Dear Miss Davies

Project Reference: **05CP34**
Project Title: **Inter - Personal Perceptions of Staff Towards Individuals with Severe Intellectual Disabilities at the Point they Display Aggressive Challenging Behaviour**

I am pleased to inform you that R&D management approval has been granted by Greater Glasgow I Care Division subject to the following requirements:

- You should notify me of any changes to the original submission and send regular, brief, reports including recruitment numbers where applicable.

- Your research must be conducted in accordance with the National Research Governance star (see CSO website: www.show.scot.nhs.uk/cso)
  Local Research Governance monitoring requirements are presently being developed. Th involve audit of your research at some time in the future.

- You must comply with any regulations regarding data handling (Data Protection Act).

- Brief details of your study will be entered on the National Research Register (NRR). You notified prior to the next submission date and asked to check the details being submitted.

- A final report, with an abstract which can be disseminated widely within the NHS, sho submitted when the project has been completed.

Do not hesitate to contact the R & D office if you need any assistance.

Thank you again for your co-operation.

Yours sincerely

Brian Rae
Research Manager

3vii. Project Sponsorship Agreement

NHS ARGYLL & CLYDE

Clinical Development Centre
Ward 15, top floor
Dykebar Hospital
Grahamston Road
Paisley PA2 7DE

Tel: 0141 314 4014
Fax: 0141 314 4015

NHS
Argyll
& Clyde

Date: 31 January 2006
Our ref: LT/
Project ref:

Contact: Hawys Williams
Email: Hawys.Williams@renver-pct.scot.nhs.uk

Local Research Ethics Committee
NHS Argyll and Clyde
Ross House
Hawkhead Rd
Paisley
PA2 7BN

To whom it may concern

Project Title: Interpersonal perceptions of staff towards individuals with severe intellectual disabilities at the point they display aggressive challenging behaviour (Our ref: AC05/053)

I am writing to confirm that NHS Argyll and Clyde has accepted the role of sponsor under the Research Governance Framework for Health and Community Care, Scotland, 2001,

Hawys Williams
Research Officer

4i. Requirements for submission to Journal of Intellectual Disability Research

Journal of Intellectual Disability Research (JIDR) uses a web-based submission and peer-review system called Manuscript Central. All manuscripts should be submitted at http://mc.manuscriptcentral.com/jidr. This system is quick and convenient for both authors and reviewers and aims to reduce the time between submission and the decision whether or not to accept the manuscript.

Manuscript submission is a step-by-step process, and very little special preparation is required beyond having all parts of your manuscript in an electronic format and a computer with an Internet connection and a Web browser. Full help and instructions are provided on-screen. As an author, you will be prompted for author and manuscript details and then to upload your manuscript file(s). Please combine all parts of your submission into a single Word document (title, abstract, keywords, main document, references, figures and tables), as it is easier for us and reviewers to view and print a single file. Please remember that peer-review is double-blind, so that neither authors nor reviewers know each others' identity. To this end, please do not identify yourself, your colleagues or institution within the submitted files; instead, give your details during the submission process.

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Manuscript

Full reports of 1500-3000 words are suitable for major studies, integrative reviews and presentation of related research projects or longitudinal enquiry of major theoretical and/or empirical conditions. *Brief reports* of 500-100 words are encouraged especially for replication studies, methodological research and technical contributions. An *hypothesis paper* can be up to 1500 words and no more than twenty key references. It aims to outline a significant advance in thinking that is testable and which challenges previously held concepts and theoretical perspectives.

For full and brief reports a structured summary should be included at the beginning of each article, incorporating the following headings: Background, Method, Results, Conclusions. These should outline the questions investigated, the design, essential findings, and the main conclusions of the study.

The main text should proceed through sections of Abstract, Introduction, Methods, Results, and Discussion. Tables and figures should be submitted on separate sheets and referred to in the text together with an indication of their approximate position recorded in the text margin.

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Cognitive-Behavioural Interview Participant Identification Number.....
Version 1
20/07/05

RECALL OF AN INCIDENT OF AGGRESSION

Think of an incident involving X that still bothers/upsets you when you think about it.

ACTIVATING EVENT

Can you tell me what happened?

On a scale of 1-10, how aggressively would you rate X's behaviour?

1	2	3	4	5	6	7	8	9	10
(not at all aggressive)									(extremely aggressive)

EMOTION

How were you feeling as X.....?

Again on a scale of 1-10, how strong would you say that feeling was?

1	2	3	4	5	6	7	8	9	10
(Neutral)									(Max.)

Cognitive-Behavioural Interview Participant Identification Number.....
Version 1
20/07/05

BELIEFS

OTHER-SELF:
What was it about X's behaviour that made you feel.....?

When X was doing.....how do you feel you were being treated/ s/he was treating you? (perceived motivation behind X's behaviour)

SELF-SELF:
Did you think X's behaviour was understandable?

How justifiable did you feel X's behaviour was?

SELF-OTHER:

What did you think of X for behaving as s/he did? / When you were feeling really .....what kind of person did you think X was?

Cognitive-Behavioural Interview Participant Identification Number.....
Version 1
20/07/05

ACTION

Given that you were feeling.....about X doing.....what did you what to do that moment in time?
[What was instinctive/impulsive reaction to that feeling? (e.g. if angry feeling what was the angry impulse that went along with that?)]

What might have happened if you had done that?

What stopped you from reacting like this?

4iii. Inter-personal Relationship Rating scale

Measure of relationship Participant Identification Number.....
Version 1
20/07/05

Measure of Relationship

Still thinking of the client you have been discussing.

How would you rate your relationship with that person?

Please circle one number.

1	2	3	4	5
Totally Negative				Totally Positive