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Exploring the relationships of people with an intellectual disability and their support staff: To what extent is *rapport* a useful and measurable concept?

PhD in Intellectual and Developmental Disabilities

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Dedication

I dedicate this thesis to two great masters, both of whom have sadly died during the period I have been doing this work. Both have left this world far too early, but their work has made a massive contribution to the lives of people with intellectual disabilities.

To Professor Jim Mansell, whose encouraging words I often bring to mind, and which have helped me to keep going with this work. In a conversation with Jim, before I started this PhD he said "You are just the sort of person that would get a PhD –you are very organised!" This focus on gaining a PhD as a reflection of being organised, rather than just academic ability, went a long way to suppress the rising 'Imposter Syndrome' within me!

To Professor Ted Carr whose work piqued my interest in rapport and started me on the journey of my PhD. I thank you most sincerely for the book 'Communication-Based Intervention for Problem Behaviour: A User's Guide for Producing Positive Change' with particular gratitude for the chapter about rapport!

Acknowledgements

My grateful thanks go to my children Oscar, Lewis and Archie, now all teenagers, who cannot remember a time before the PhD! Consequently I have been regularly depicted in their drawings at a young age sitting in front of a computer. Out of necessity they have learnt to cook, clean and organise many things for themselves whilst I studied. The principles of Active Support were drawn upon to assist them in becoming the capable lads that they are today.

This work would not have been possible, without the tireless support, attention to detail, vision and patience of my supervisor Professor, Peter McGill. I am hugely grateful for his support and the opportunity that the PhD has given me, to have regular contact with such an inspirational teacher and researcher.

For detailed checking and exceedingly helpful comments on the thesis, prior to submission, I am thankful to Professor Julie Beadle-Brown for all her hard work.

I am extremely appreciative of the assistance I have been given by my mother Lauretta whose help with proof reading, time, effort, suggestions and knowledge of grammar have been invaluable.

Abstract

Background Research interest in exploring the quality of relationships 'rapport' between people with an intellectual disability (ID) and those that support them is slowly expanding. People with ID, particularly those that present a challenge to others, are more likely to experience abuse; consequently they have been the subject of many service scandals. People with little or no verbal language are likely to struggle to tell others that relationships with staff or family carers have deteriorated to the point of becoming abusive. The limited research available indicates that rapport with staff is associated with reductions in behaviour described as challenging, particularly when the behaviour serves a demand avoidance function. Despite some suggestions of how people with ID and limited language, may show that the relationship with carers is of a good quality there was no observational method of obtaining this information.

Method A systematic review was conducted and literature used to design an observational method of rapport measurement, the IRM. Participants with ID were filmed in the presence of SP. Alongside the filmed observations staff completed the Staff Rating of Other Staff, Staff Self- Rating of Rapport and took part in Preference Testing Sessions (McLaughlin and Carr, 2005). Filmed material was analysed using the IRM. The IRM was subsequently developed into the easier to use Rapport Rating Scale (RRS). The RRS and measures used in the original IRM study were piloted by clinicians and reviewed in focus groups over an 8 month period.

Results Literature searches found that there is very little research that has directly examined rapport between people with intellectual disabilities and staff or unpaid carers. Consequently concepts similar to rapport were examined and identified some material useful to the development of the IRM. Most concepts asserted that it is possible to see observable changes in participants with ID when rapport with staff or unpaid carers is developed.
The IRM study showed, higher average IRM scores for the SP in the good rapport groups when compared to each of the McLaughlin and Carr (2005) measures. Analysis of the easier to use RRS indicated that professionals and trainees, were able to use the RRS to discriminate between good, neutral or poor rapport towards carers

Conclusions Using rapport measures in clinical practice, suggests that clinicians supporting people with ID were able to use rapport measurement tools successfully.   For a number of clinicians the content of the Positive Behaviour Support plan was altered or enhanced through the rapport information collected during assessment. There are implications of understanding and the ability to measure rapport between people with ID and staff, on, clinical practice, staff training, service development and the wider policy agenda.

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Chapter 1: An Introduction to Rapport and Behaviour Described as Challenging

Thesis Overview

The thesis begins by giving the reader an understanding of behaviours that challenge, by providing a definition, and describing causes and implications of such behaviours when presented by people with intellectual disabilities. The notion of rapport is described both with respect to its specific usage in work with people with intellectual disabilities, and in the wider literature.

The systematic review which follows in chapter 2, will consider, in more detail, the concept of rapport and its relevance to people with an intellectual disability who present a challenge to others. As the literature specifically on rapport and people with intellectual disability is limited, a number of other concepts or approaches used to support people with an intellectual disability and their link to rapport will be examined, in chapter 3.

Subsequent chapters present the design and findings of three studies that build upon each other, with the aim of increasing understanding of how rapport between people with an intellectual disability and supporting staff may be more effectively assessed. Chapter 4 describes the first study, the development and use of a new measure of rapport – the Indicators of Rapport Measure (IRM) – in which observational data were gathered on a range of potential nonverbal aspects of the behaviour of people with intellectual disabilities. The validity of findings is investigated through the concurrent use of earlier measures of rapport.

Following consideration of the practicalities of using the IRM in everyday practice, the second study, presented in Chapter 5, develops and validates an easier to use Rapport Rating Scale (RRS). This study will demonstrate that both professionals and trainee professionals could use the RRS reliably to produce ratings of rapport which are consistent with those from the IRM.

The further utility of the RRS in clinical practice is investigated in the third study, Chapter 6, together with exploration of the value of using other measures of rapport in specific circumstances. As noted above, rapport measurement tools, even those already described in the literature, do not seem to have made their way into routine clinical practice. Accordingly, clinicians were trained and supported in the use of a number of assessment tools including the RRS and the IRM. Using an "action research" framework, the principal research question was whether rapport measurement tools provided useful data as part of the functional assessment of behaviour presenting a challenge. A secondary question was whether, where rapport measurement had been undertaken, the results of assessing rapport had any impact on the contents of the Positive Behaviour Support Plan that was developed by the clinician.

The Thesis is concluded in chapter 7, with a summary of the literature review, three studies, main findings and ways this work makes an original contribution to the literature. The summary is followed by a general discussion on the implications of the three studies and how these might impact on service quality, policy and practice within ID services. Consideration is given to how this research may be taken forward and built upon in the future.

Chapter structure

Each chapter will be preceded by a chapter outline which will summarise the material to be presented in that chapter. Additionally at the end of each chapter a summary will review the issues covered in the chapter and make links with the chapter to follow.

Chapter outline

This chapter introduces the notion of rapport, how it relates to people with intellectual disabilities, and those that support them. The issues and background are explained to enable the reader to understand what has driven the research and the research purpose along with justification for research in this area. A section on behaviours that challenge others forms part of this chapter to give clarity about the group of people the research relates to and the issues they may present. This first chapter concludes with a description of further chapters that make up the thesis.

It will be noted that rapport between people with an intellectual disability and their carers is often poor or damaged. This appears to be more common when the individual with an intellectual disability presents with behaviour which is challenging to others. The focus of this research is on paid staff rather than family carers. It seems likely however that the notion of rapport would be applicable to both. It will be argued that behaviours that challenge others are more likely to be presented when people with intellectual disabilities are supported by staff with whom they have a poor rapport.

Consideration will be given to the small amount of literature on rapport between people with intellectual disabilities and support staff. Limitations in the literature may have influenced the notion of rapport not making its way fully into clinical practice. The chapter notes issue of professionals undertaking assessments of behaviour that presents a challenge and that such assessments seem unlikely to routinely include rapport. In turn, possibly because it is unlikely to be included in assessments, an intervention to improve the relationship a person with intellectual disabilities has with individual staff is not routinely part of positive behaviour support planning.

Why research on rapport?

Research into the quality of relationships between staff and people with an intellectual disability has broad relevance. The BBC One Panorama programme which showed the shocking abuse at Winterbourne View (http://www.bbc.co.uk/news/uk-england-bristol-19162516), the abuse at Veilstone Care home in North Devon in October 2013, and the Out of Sight Report (Mencap & The Challenging Behaviour Foundation, 2012) all show extreme examples of very poor quality relationships. In addition to their intellectual disability these scandals have all concerned people whose behaviour presents a challenge to others.

Alongside abusive behaviour by staff, most reports also appear to capture some of the more nebulous, or perhaps unintentional, behaviours that staff were using during interactions. The then Prime Minister, Tony Blair, in the original Valuing People White Paper (Department of Health 2001, p1)   spoke of unintentional behaviours of others which leave people with intellectual disabilities:

> *"pushed to the margins of our society…….encountering* prejudice, bullying, insensitive treatment and discrimination at some time in their lives.   Such prejudice and discrimination [is] no less hurtful for often being unintentiona*l".*

Insensitive styles of interacting by staff are less easy to quantify and may never quite be regarded as abuse. Nonetheless, if these less quantifiable behaviours are left unchanged, they risk continually serving to damage the relationship between staff and those using the service.

My employer during most of my studies has a 'Vision and Values statement' on their website which states that the Trust will strive to:

> *"Treat people well; involve and not ignore people; be open,*
>
> *inclusive and accountable; create respectful places"* (Surrey and Borders Partnership NHS Foundation Trust, 2012).

Skills for Health & Skills for Care (2014, p1)   make the key point that:

> *"Positive relationships between people who deliver services* and the people they support must be protected and *preserved".*

The philosophies articulated by Surrey and Borders Partnership NHS Foundation Trust and other organisations seem to be a clear move, at an organisational level, to ensure staff treat people in a way that will give autonomy and enhance relationships. This in turn is likely to improve the likelihood of a good rapport with those being supported. However the translation of this vision into the day to day practice of staff, and then into the moment to moment experience of those that

use the services, runs the risk of being poorly understood and implemented.

It is possible that behaviours indicative of a good rapport shown by people with intellectual disabilities towards staff, may act as a reliable measure of relationship quality. It seems unlikely that people with an intellectual disability will alter rapport behaviour towards staff due to the presence of another person such as an observer, senior manager or during an inspection visit. Staff on the other hand may be more skilled in temporarily altering the way they involve people or treat people during periods of observation, service inspection or when their senior manager is present. If the type and frequency of service user behaviours indicative of a good rapport could be measured in relation to individual members of staff, this could prove to be helpful information. Many inspectors or senior managers have clinical backgrounds and it would seem likely that they, with some brief training, could also identify issues of good and poor rapport fairly easily.

Having a good rapport with an individual is potentially an essential prerequisite to many other approaches /interventions such as supporting people with an intellectual disability in activities e.g., Active Support: (Jones et al., 1999, Mansell and Beadle-Brown, 2012), teaching new skills (La Vigna et al., 1989) and person centred planning /support (O'Brien and Lovett, 1992). By increasing our understanding of rapport, more research in this area might help to increase the likelihood of interventions being successful.

Apart from a small number of studies (see chapter two) that have sought to specifically address the issue of rapport between staff and people with intellectual disabilities who present a challenge it would appear that literature is limited.

> *"Although there is little research on this issue, the consensus of those who work in services seems to be that 'rapport' is* critical to the establishment of helpful styles of interaction, and therefore to person-centred action and quality of life for people with intellectual disabilities. This is particularly so for those *with complex needs such as challenging behaviour"* (Guthrie & Beadle-Brown, 2006, p21) .

 By expanding research in this area, more knowledge will become available to those directly supporting people with an intellectual disability.   The limited research that is available does suggest that strong relationships with staff may lead to reductions in challenging behaviours, and thus, to improvements in the lives of people with intellectual disabilities.

Research in this area may then have the potential to reduce the number of people with intellectual disabilities who receive restrictive, aversive interventions and support arrangements that result in people being placed many miles away from their families and local

communities. Rapport building interventions seem relatively straightforward as a strategy in many cases, in direct contrast to very costly out of county placement, or the expensive professional interventions, that people can receive when their behaviour presents a challenge.

People with an intellectual disability typically have only a small number of people in their social network (Forrester-Jones et al., 2006, Gilmore and Cuskelly, 2014, van Asselt-Goverts et al., 2015). Given the small size of social networks it seems unlikely that people with intellectual disabilities have the rich social networks and positive relationships that many other members of society enjoy. Social networks do improve if people with intellectual disabilities are employed (Forrester-Jones et al., 2004). Despite the social benefits of employment (Monteleone, 2016), many people with intellectual disabilities do not have the opportunity to increase their social contacts through paid work as "probably less than 10% have jobs" (Department of Health, 2001, p7). If relationships with paid staff breakdown, there can literally be no other relationships in that person's life, leaving the person with an intellectual disability completely emotionally isolated.

In contrast, staff are likely to have many relationships both inside and outside their work environment. Consequently if a relationship between staff and a person with an intellectual disability does fail, staff can seek a positive emotional connection from a wide range of other people in their lives. This puts paid staff in a far more powerful position, if the relationship with a person with an intellectual disability is deteriorating. It seems likely that many direct care staff will not be aware of this unintentional power imbalance. Therefore equipping all staff of people with intellectual disability with the understanding of this dynamic is important. Given the possible power imbalance, having a good quality relationship with staff is potentially of far greater value to the person with an intellectual disability than it is to the staff giving support.

It is hoped that, by emphasising the need for better relationships with staff, the current work could contribute to significant improvements in the lives led by people with intellectual disabilities. The reliable assessment of the quality of such relationships would be valuable to those managing, inspecting and monitoring services, or supporting individuals and their families. Of course, such knowledge should also be made available to front line staff, and families, supporting people with an intellectual disability on a day to day basis.

Further, it is hoped that the research will influence the content of functional assessments, enabling these assessments to consider the measurement of rapport with staff, when assessing the reason or purpose for behaviours that others find a challenge. This should lead to, where applicable, the development of rapport building interventions as cost effective, and straightforward to implement

elements of Positive Behaviour Support Plans for people with intellectual disabilities.

Personal motivation

In my clinical work relationship difficulties are regularly highlighted within the functional assessment of the behaviour described as challenging and individuals with an intellectual disability. Both family carers and staff are typically unaware of the impact that these relational difficulties may have on the frequency of behaviours that they, as staff or family members, are finding a challenge. The following scenario is an example of a rapport difficulty and subsequent intervention, in which Carol a young woman with autism, was supported to build rapport with Ron, a member of her support team. Names have been changed to ensure confidentiality.

> The people living in the service were fairly able and there was only one member of staff needed on an evening shift. As Carol disliked Ron she would almost always go and stay *overnight at her parents' home when he was on duty. Carol* could independently travel to her parents. If Carol stayed at the service when Ron was working the referred behaviour of extremely loud screaming was at its highest frequency when Ron was on duty.

> Before this work started Ron and Carol were informally interviewed separately, to try and identify some of the difficulties.

> Prior to rapport building Ron described Carol as being disint*erested in talking to him. He said "it was difficult to get to know her as she disliked men". Other members of the* staff team were all women who said Carol will never build up a relationship with male staff. This was the message regularly given to Ron.

> *Carol described Ron as someone who "kept himself to himself and does not like to chat". Carol said "I do not like him". She also stated that she generally "went home to stay with her parents when he was on duty".*

> A very simple rapport building intervention was put into place which included Carol and Ron participating in twice weekly activities, which were negotiated with them both.

> *Activities included, going out to the pub, writing up Carol's* weekly activities on her planner, bowling or cooking a shared meal. If an activity proved to be not enjoyable by either person it was not repeated.

The results of this brief piece of work were that Ron said *"he was shocked at the change in Carol". Some of the things he said were "she keeps talking to me. When* she comes in she brings me her bag of shopping to show me *what she has brought" or "she keeps asking when we are doing cooking again" and most importantly "she has not screamed for ages when I have been on duty".*

*When asked about Ron Carol said "Ron is al*right really, he took me to the pub and we bought a great big meal for £3; I *don't always go home now when Ron is on duty".*

In my own clinical work I find that an increasing number of rapport building interventions are included in positive behaviour support plans for the individuals referred. This suggests that an understanding of the need to build and maintain rapport with the people we support remains a fundamental training need, for both family carers and paid staff.

Behaviours that challenge others

It is estimated that about 7% of people with intellectual disabilities also present behaviour that poses a challenge to others. This figure is based on a study in the north east of England (Qureshi, 1994) in which people with intellectual disabilities across seven health districts were assessed. Prior to this study Qureshi acknowledged a major difficulty in identifying prevalence rates of people presenting challenging behaviour because:

> *"Different people*, or groups of people will have different *ideas about what is meant by 'challenging'. The same* person showing the same behaviour, may be seen as challenging by staff in one setting and not by staff in *another"* (Qureshi, 1994, p17).

Qureshi (1994) used clear operational definitions of behaviour to reduce the ambiguity about which individuals were considered challenging. More recently studies using similar criteria have been carried out by Emerson and colleagues. Emerson (2001, p19) reported:

> *"Prevalence rates of 3.62 people per 10 000 of the general* population as having an intellectual disability and serious challenging behaviour (equivalent to 8% of the people with intellectual disabilities *who were screened").*

Where there is a known developmental delay, children aged two to three years old, are known to show significantly more behavioural

difficulties than those without a developmental delay (Emerson and Einfeld, 2010).

Definition

The definition of challenging behaviour has changed considerably in recent decades. Originally focussing on topographies such as aggressive behaviour and then focussed upon the social context (Emerson, 1995), it has expanded to include the issue of the restrictive consequences and exclusion.

One of the more recent forms this definition has taken is:

"Behaviour can be described as challenging when it is of such frequency, intensity or duration as to threaten the quality of life and/or the physical safety of the individual or others, and is likely to lead to *responses that are restrictive, aversive or result in exclusion"* (Royal College of Psychiatrists et al., 2007, p10).

The British Psychological Society, Clinical Practice Guidelines (2004) suggest that the concept of 'challenging behaviour' may be useful in services for people with learning disabilities as it emphasises the interactive and social nature of the behaviour presented. The same paper warns against the risk of challenging behaviour being subsumed under more biologically based headings such as 'mental health' as in the NHS Executive paper Signposts for Success (1998).

In recent years there has, perhaps unfortunately, been a drift towards using the term 'challenging behaviour' as a label given to individuals (Department of Health, 2007a) rather than emphasising the challenges for services of mobilising effective support.

Causes

People with intellectual disabilities present behaviours which challenge their families and support services for many reasons (Matson et al., 2011, Beavers et al., 2013). A large number of people who present such behaviour have limited communication or adaptive skills. Communication problems can lead to behaviours that present a challenge for a number of reasons. Many people with intellectual disabilities have learnt to present challenging behaviours to express their needs for even the most basic of requirements such as needing a break from work, something to eat, some help with a task, something to do, or someone to talk to (Mirenda, 1997, Kurtz et al., 2011, Heath et al., 2015). Emerson (2001) makes the point that behaviours such as aggression, property destruction and tantrums are very common in young, non-disabled children. After children reach about 3 years of age the behaviours begin to reduce in severity and frequency. The most likely reason for the behaviours to diminish

as non-disabled children get slightly older is that they learn alternative ways of solving problems they may have. Because of their delayed development, children with intellectual disabilities are unlikely to learn these problem solving skills at the same rate as typically developing children. As a consequence they continue to present behaviours which are more often seen in younger children and are inappropriate for their chronological age.

Physical health conditions, (de Winter et al., 2011) sleep problems (Kennedy and Becker, 2006) and mental health problems (Emerson et al., 1999, Crocker et al., 2014, Ross and Oliver, 2002) are associated with an increased probability, frequency or intensity of challenging behaviours. There are many reasons for such associations e.g. if an individual has little or no verbal language they may not be able to describe the symptoms of a health condition or the fact that they are in pain. As a result, the health condition and its association with the individual's behaviour may go undetected.

Challenging behaviours may be learnt by people with an intellectual disability (Beavers et al., 2013, Lloyd and Kennedy, 2014). The learning of challenging behaviours can occur if the behaviour results in reinforcing events or activities (positive reinforcement) or the removal of aversive stimuli such as demands (negative reinforcement). Reinforcing or aversive events are highly individual (Schlichenmeyer et al., 2013), and an event that would reinforce challenging behaviour for one individual will not do so for another.

More general environmental factors also affect people with intellectual disabilities more frequently. For example, people with intellectual disabilities typically have far less control over their lives than other members of society, often not being able to choose who they live with and who supports them. Some environments, both in family and service settings, can be problematic and characterised by a climate of social control (McGill et al., 1996), limited opportunity for meaningful activity and limited community access. Services for people with intellectual disabilities can be crowded, noisy, and supporting other people who present a challenge. Behaviours that present a challenge to others can be a direct response to an environment that is problematic for the individual with an intellectual disability.

Genetic conditions may be linked to challenging behaviour through the condition's characteristic 'behavioural phenotype'. For example, Lesch-Nyhan syndrome is associated with severe self-injurious behaviour and Prader-Willi syndrome with extreme over eating (Murphy, 1994, Waite et al., 2014, Kuczynski and Udwin, 2016).

Implications

Individuals whose behaviour presents a challenge are more likely to live in restrictive environments, with less access to community facilities and fewer opportunities to meet other people. The British Psychological Society (2004) highlights the consequences of challenging behaviour to include physical injury and even death to the individual or others. This group of people are more likely to be the last to leave hospital accommodation and the first to return to it. People that are challenging are more likely to be prescribed medication, physically restrained, and are at higher risk of abuse.

It is not unusual for the placement for one individual with an intellectual disability, whose behaviour presents a challenge, to cost £200,000 per year (McGill and Poynter, 2012). Therefore the collective costs are millions of pounds each year. The emotional cost to individuals and their families are also likely to be considerable if the person is placed, as a result of the challenging behaviour they present, in services that are hundreds of miles away from their family and local community (Mansell et al., 2006, Beadle-Brown et al., 2006). Such arrangements give rise to constraints on how often families can visit, and the cost of travel and accommodation may restrict further such visits (McGill et al., 2006). People with intellectual disabilities whose behaviour presents a challenge can, therefore, be in a far more disadvantaged position than other members of the intellectually disabled population.

The Royal College of Psychiatrists et al. (2007) emphasized that Community Learning Disability Teams (CTPLDs) in the UK have a major role in working with people with intellectual disabilities whose behaviour presents a challenge. Within the CTPLD's, in the last 20 years, a large amount of professional time, resources, support, strategic thinking, managerial planning and resources have been deployed in making service responses to people with intellectual disabilities who challenge services.

In reality this means that, for psychiatrists, psychologists and behavioural specialists in learning disability teams, a large amount of their working day is spent designing highly complex support strategies for people whose behaviour presents a challenge (Royal College of Psychiatrists et al., 2007). Many support or intervention strategies fail to be implemented (Woolls et al., 2012), and the vast majority of these do not address issues of rapport with others. Conversely, interventions to build rapport may be accomplished without being technically difficult to deliver. Therefore, it is possible that fairly simple rapport building interventions could produce significant reductions in challenging behaviour, while requiring less effort from professionals.

Chapter Summary

Chapter one has described why research into the quality of relationships between people with intellectual disabilities and those that support them is important. Consideration has been given to some of the more extreme examples of unhealthy relationships between people with intellectual disabilities and supporting staff, highlighted in cases of abuse. Behaviours indicative of a good rapport shown by people with intellectual disabilities are noted as potentially being one of the most reliable indicators of relationship quality. Chapter one makes reference to the limited research about rapport between people with intellectual disabilities and those that support them despite rapport seeming to be a vital part of many other approaches to intervention and support. The author's personal motivation to undertake this research is shared.

The reader is given an understanding about behaviours that might be described as challenging, including the prevalence, definition and causes of such behaviour. The costs of presenting a challenge to the individual, their family and services are considered, to demonstrate the value of further research, involving this group of people.

The next chapter presents general literature on rapport and provides a systematic review of rapport literature specifically related to people with intellectual disabilities.

Chapter 2: The Concept of Rapport and its Relevance to People with an Intellectual Disability: A Systematic Review

Chapter outline

The previous chapter introduced the notion of rapport between people with intellectual disabilities and staff that support them. Particular focus was given to people with intellectual disabilities whose behaviour presents a challenge. An understanding of why some people with intellectual disabilities can present with behaviour that challenges others was outlined, to give the reader context about why behavioural challenges can occur. Chapter two builds on this background, describing the notion of rapport in more detail, both drawing upon the general rapport literature and the literature that relates directly to people with intellectual disabilities. Included in the chapter is a systematic review of available literature on rapport and people with intellectual disabilities. Whilst reviewing literature on rapport and people with intellectual disabilities many similar concepts were identified. Given the large quantity of concepts related to, but varying slightly from, rapport these will be discussed separately in chapter three.

Rapport-related research

The notion of Rapport features in an immense amount of literature, with a title or abstract search in PsychINFO bringing up over 2000 items. The building of rapport is seen as a vital prerequisite skill in developing relationships across a wide range of fields: counselling between therapist and client (Sharpley, Munrow et al. 2005), sales, between representatives and their customers (Nancarrow and Penn, 1998, Gremler and Gwinner, 2008), health, between health professionals and patients (Barnett, 2002, Godsell et al., 2013), research, between researchers and participants (Kennedy-Macfoy, 2013, McGarry, 2007) and between police and suspected terrorists (Alison et al., 2013). Within universities, rapport with professors is associated with student outcomes (Wilson et al., 2010, Wilson and Ryan, 2010) Indeed, PhD students and their supervisors are tasked initially with building rapport (Phillips and Pugh, 2000)

The Oxford English Dictionary (1993) defines rapport as "relationship or communication especially when useful or harmonious". The words "sympathetic relationship or understanding" are used by the Collins English Dictionary (2014). The origin of the word is from the French verb rapporter, the meaning of which is to bring back. The French refer to en rapport to mean in sympathy harmony or accord (Collins English Dictionary and Thesaurus, 2014).

Far more comprehensive definitions are provided by some of the many papers published on the subject. The following definition was used by Grahe and Bernieri (1999, p258) when they asked participants in a study to rate recorded material for high and low rapport:

"Rapport is a term used to describe the combination of qualities that emerge from an interaction. These interactions *are characterised by such statements as 'we really clicked' or 'we experienced real chemistry'. When you come away from* a conversation that was two hours long, and you feel invigorated, you have experienced an interaction high in rapport. Terms like engrossing, friendly, harmonious, *involving and worthwhile describe interactions high in rapport".*

The definition of rapport is therefore based on the experience of those that were participating in the interaction. De Paulo and Bell (1990, p306) suggest that rapport is based:

*"solely on the interactants…It is their experienc*e of rapport *and only theirs that is definitional". If an outsider were to* observe the interaction and conclude that rapport was or was not present, that would be interesting, but it would not be *definitional".*

Tickle-Degnen and Rosenthal (1990) have tried to conceptualise rapport by identifying three interrelating components to describe its structure. The first component is mutual attentiveness, which creates focused and cohesive interaction. Secondly is the component of positivity which could be mutual friendliness and warmth. The third component is co-ordination, and this describes balance, harmony and synchronicity with the other person. These authors go on to describe how different types of interaction may be higher in one of these components than others, but would still be effective in building rapport. To quote their examples, a medical consultation may be higher in attentiveness, due to detailed history taking, while interactions at a party may be higher in positivity. Grahe and Sherman (2007) tested the Tickle-Degnen and Rosenthal (1990) rapport components by asking participants in a didactic study to rate their experience of each of the components and give an overall rating of rapport with their didactic partner. The Tickle-Degnen and Rosenthal components were correlated with an overall rating of rapport.

The literature also recognises that people interacting with one another:
"could exhibit attentiveness and positivity cues when they did not feel interest and warmth, but wanted the other to believe *that they had these feelings"* (Tickle-Degnen and Rosenthal, 1990, p288).

This could result in feelings of rapport in the other person. The field of telemarketing refers to "instant rapport" or more harshly, "rapport without substance" (Nancarrow and Penn, 1998, p13). Tickle-Degnen and Rosenthal (1990) refer to this non genuine form of

rapport as pseudo-rapport. They do point out, however, that pseudo-rapport can be used in pursuit of honourable goals, such as by a therapist who wishes to provide effective therapy, even while not having particularly warm feelings for a client. It is also possible that what begins as non-genuine rapport becomes more genuine as the interaction progresses. The issue of pseudo-rapport has implications for rapport measurement, as it may be difficult to tell the difference between the two.

Whilst the ability to build rapport should not be seen as a personality trait as such, it is apparent that some individuals may be particularly adept at developing rapport in certain situations (Argyle 1990). In studies examining the social behaviour of extraverts, they were found to be especially good at forming new relationships quickly and at being co-operative (Buck, 1990). Expressiveness is cited as one of the most important qualities that individuals need to have in order to foster rapport with others, along with the ability to attend and respond to the emotional expressions in the other (Buck, 1990):

> *"The expressive person encourages others to be expressive* and therefore has this expressive information to draw on in social interaction. Alternatively the non-expressive person in *contrast, tends to 'turn of' expression in others"*(Buck, 1990, p301).

Alison et al. (2013) in their analysis of audio tapes of police interviews with terrorists suggested that police interviewers that built rapport were interpersonally versatile and could switch between challenging / co-operative or passive / authoritative styles depending upon the style of the terrorist. The difference with those that were most skilled in building rapport was that they knew when to apply which strategy. Data were analysed using a tool developed by these authors, the ORBIT tool (Observing Rapport Based Interpersonal Techniques) which appears to have value beyond police interviewing.

Non-verbal cues within interaction appear to be a significant indicator of rapport being present, or likely to develop. Grahe and Bernieri (1999) presented thin, 30 second slices of interaction and asked participants to rate whether there was rapport or no rapport on an eight point Likert scale. The interactions were presented in five different conditions: transcript, audio, video, video + transcript, or video + audio. Rapport was most accurately judged by those participants who had access to the non-verbal, visual conditions. Judgements of rapport by raters is shown to increase if those interacting walk with their paces synchronised rather than non-synchronised (Miles et al., 2009). Judgements were separately based on both hearing and observing strides.

Interpersonal expectancy and the interactional history an individual has with others are likely to influence their perception of interactions with others. In a study of 9-12 year old children, those who held prior expectations of adults having an interaction style of supporting the child's autonomy, and allowing them developmentally appropriate opportunities to make choices, (styles likely to be indicative of rapport) rated new adults as having the same qualities. In stark contrast, children whose prior experience was of adults who pressurised children towards particular agendas, and overrode or redirected their initiations, rated the same new adult as portraying these less positive attributes (Gurland and Grolnick, 2003).

Steven Covey (1989, p188) in his book, The 7 Habits of Highly Effective People, describes rapport using the metaphor of an emotional bank account. Covey suggests:

> *"if I make deposits into an Emotional Bank Account with you* through courtesy, kindness, honesty, and keeping my commitment to you, I build up a reserve. Your trust toward me becomes higher, and I can call upon that trust many times if I need to. I can even make mistakes and that trust level, that emotional reserve, will compensate for it. My communication *may not be clear, but you'll get my meaning anyway. You won't make me an offender for a word"*.

When the trust account is high, communication is easy, instant and effective. But if I have a habit of showing discourtesy, disrespect, cutting you off, overreacting, ignoring you, becoming arbitrary, betraying your trust, threatening you, or playing little tin god in your life, eventually my Emotional Bank Account is overdrawn. The trust level gets very low. Then what flexibility do I have?" This straightforward analogy of an emotional bank account describes how rapport may be built and damaged, in a succinct way that is particularly easy to understand. Within clinical practice this analogy has been extremely useful in explaining rapport to junior staff and families.

The general rapport literature is of great use in scoping the notion of rapport and how it has been used and researched across many fields. Of more particular interest in the current context, however, are studies that concern people with an intellectual disability and the staff or family carers that support them. The first mention of rapport in the intellectual disability literature appears to have been in Ted Carr's book on Communication-Based Intervention for Problem Behaviour (Carr, Levin et al. 1994). While the focus of the book was on functional assessment of behaviour causing concern and the use of functional communication training, Carr and his colleagues paid considerable attention, in one chapter of their book, to examining the issue of rapport with paid and family carers. They described rapport

as an interactive relationship, characterised by closeness, empathy and mutual liking. They went on to say:

> *"It may be worthwhile to consider the following rapport*-building procedures. Making yourself into a signal for reinforcement. If you associate yourself repeatedly with a wide variety of activities, people, and things that the person values, then eventually your presence will become a signal that many rewarding activities and events are available with you. In technical terms your presence becomes a generalized *reinforcer"* (Carr et al., 1994, p112)

Carr et al. (1994, p111)I provided the example of:

> *"a parent [who] may have a long history of battling with a child* at meal times or at bedtime. Because of this negative history, the presence of the parent in these contexts becomes a signal *for problem behaviour rather than a signal for communication".*

In this context of damaged relationships, Carr suggested that a communication based intervention would run the risk of being unsuccessful, since individuals have insufficient interest in interacting with one another. Building rapport then becomes a preliminary to the effectiveness of such an intervention.

Carr et al. (1994, p114) suggest that successful rapport building is likely to lead to noticeable changes in the behaviour of the person with intellectual disabilities:

> *'The person will become more responsive to you. He or she* will look at you more often, stay close to you, and continue to interact with you, not walk away once you have approached him or her. He or she will seem happy to see you and smile, laugh, or, if verbal, talk to you when you are around and ask *for you when you are not around'. In short the person will* appear to be enjoying him- *or herself when around you'.*

Systematic review of research relating to rapport and people with intellectual disabilities

In order to explore all the literature with relevance to the issue of rapport as related to people with intellectual disability, a systematic review was undertaken.

Aim

To identify and evaluate published studies that use the concept of rapport between people with an intellectual disability and staff or family carers that support them.

Inclusion criteria

The inclusion criteria were designed to capture all studies of interest. For the purpose of this systematic review the inclusion criteria were as follows:

- Literature which uses the term rapport in a way or similar to that described above.
- Where the participants were people with an intellectual disability and staff or family carers.
- Literature published in peer reviewed journals
- During a publication period between 1990 and June 2016.
- Literature which was published in English.

Use of the word 'relationship' in searches was considered but was not included because this word is used so frequently in studies it made the systematic review unmanageable. Studies identified when 'relationship' was included in the search terms, were often presenting the information about relationship between variables rather than relationships between people.

Method

Literature was identified from 1990 to June 2016, via a search of title and abstracts in the following databases: Web of Science, PsychINFO, medline, CINAL (Cumulative Index to Nursing and Allied Health Literature) and Google Scholar. A cited literature search was carried out on the most highly cited paper on rapport and ID, McLaughlin and Carr (2005) . Additional hand searching was used to check for literature referenced in published papers.

Database searches used the search terms learning disabilit* OR learning difficult* OR intellectual disabilit* OR mental handicap* OR mental retard* OR developmental disab* OR cognitiv* impair* combined with staff OR parent* or carer* OR nurse* OR support worker* OR support staff OR guardians combined with rapport.

For ease of reading these search terms are outlined using non truncated words in table 2.1 below.

Table 2.1: Search terms used

Any of these terms in title or abstract	Combined with any of these terms in title or abstract	Combined with this term in title or abstract
Intellectual and disabilities or disability or disabled	Staff	Rapport
Learning and disabilities or disability	Parent or parents or parental	
Intellectual and developmental and disabilities or disability or disabled	Carer or carers	
Mental or mentally and handicap or handicapped	Nurse or nurses	
Mental or mentally and retarded or retardation	Support and staff	
Development or developmental and disability or disabilities	Support and worker or workers	
Cognitive impairment	Guardian or guardians	
	Care and giver or givers	
	Family or families	

Due to the small number of studies identified, all the studies will be described and the strengths and weaknesses of each study identified.

Results

Despite a great deal of general rapport literature, there is very little research that has directly examined rapport between people with intellectual disabilities and staff or unpaid carers.

In the period between 1990 and June 2016 the systematic review identified only seven research studies that have used the concept of rapport to study relationships between staff and people with intellectual disabilities. The number of papers identified from each

data base, duplicates and papers meeting the inclusion criteria are shown in Figure 2.1 below.

Database searched and date	Web of Science 9/6/16	Cited reference Search 3/6/16	PsychINFO 9/6/16	Medline 9/6/16		Hand search
Number of papers to consider	19	27	18	10		
Duplicates	0	1	4	1		
Papers meeting criteria	4	1	4	1		2
Running total	4 →	5 →	5 →	5 →		7
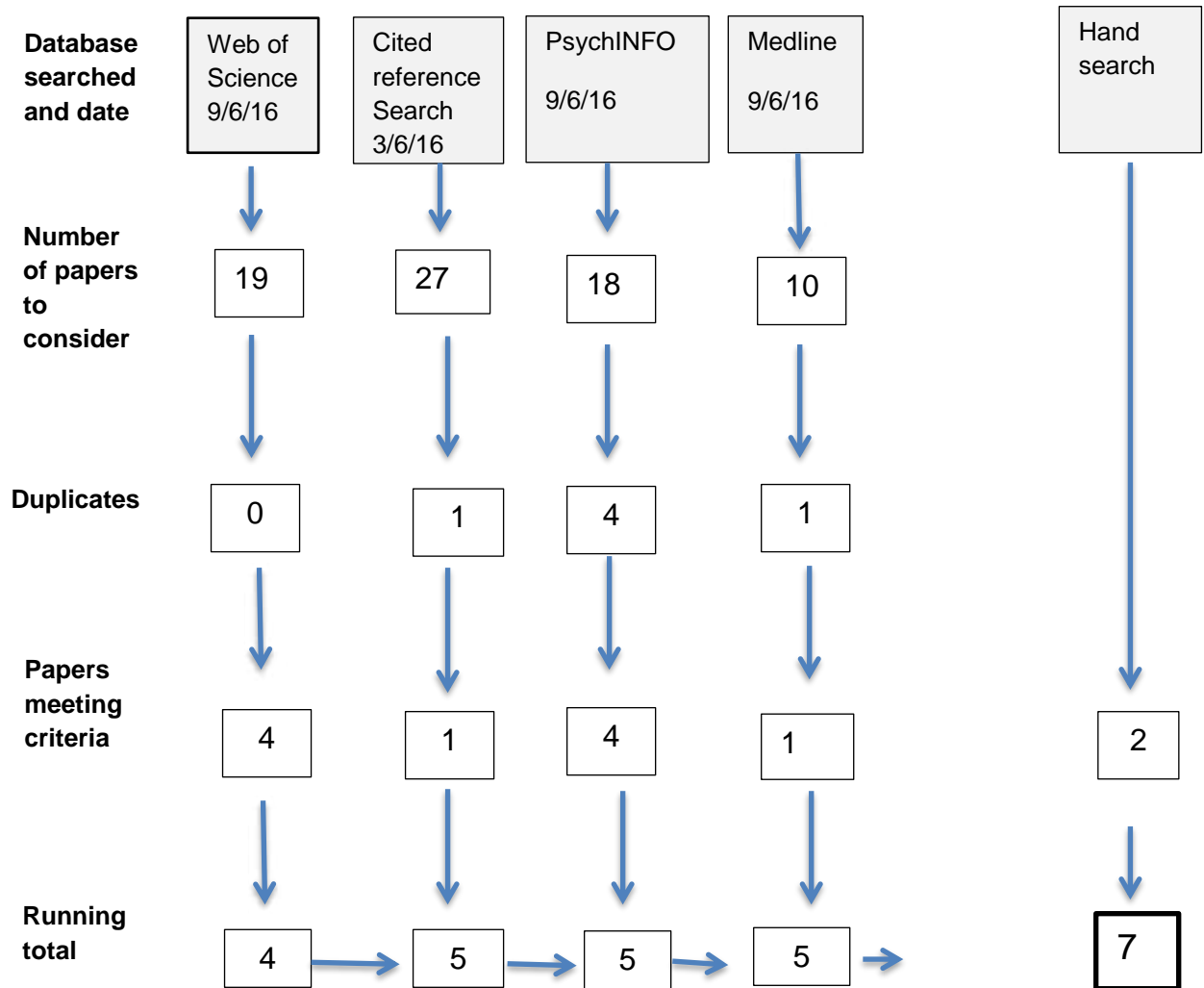
Figure 2.1: Number of papers found through data bases that yielded results and hand searches

CINAL and Google scholar identified no results and have not been included in the table above. Reason for exclusion of papers included those published in books and dissertation abstracts rather than peer reviewed journals.

Details of the papers found are listed in Table 2.2. A more detailed description of the seven papers follows.

Table 2.2: Studies on rapport between people with an intellectual disability and staff or unpaid carers published between 1990 and June 2016

Authors (date)	Participants	Design / Approach	Key outcomes
1. Kemp and Carr (1995)	N=3 autism and severe mental retardation only n=2 required rapport building intervention Job coach staff.	Escape from the job coach was identified for 2 of the 3 participants in this study.	Rapport with job coach built to establish job coach as a generalised reinforcer prior to functional communication training.
2. McLaughlin and Carr (2005)	N=2 autism; profound mental retardation IQ below 20. N=1 autism; severe mental retardation IQ below 35. 8 staff.	Assessed rapport across staff team identified good and poor rapport staff. Coached poor rapport staff to build rapport.	Poor rapport staff could not complete non preferred task without eliciting challenging behaviour. After rapport building training staff could successfully complete non preferred tasks.
3. Guthrie and Beadle-Brown (2006)	Formal tests were not completed all reported to have a moderate learning disability.	A study which used qualitative methods to explore the concept of rapport through focus groups. .	Intellectually disabled participants could identify characteristics of others that would build or damage rapport. Stated that rapport would be damaged by people that control or dominate them. Intellectually disabled participants offered few examples of 'socially acceptable/appropriate behaviour' as an alternative to challenging behaviour.

Authors (date)	Participants	Design / Approach	Key outcomes
4. McClean and Grey (2012)	Severe intellectual disabilities & autism n =4.	Functional assessments completed and rapport building included as one element of the multi-element support plan.	Rapport building was the 2nd phase of intervention following low arousal environment. Resulted in 27.2% further reduction in aggressive behaviour for all 4 participants when rapport building started. Rapport building phase did not reduce self injury for the 2 participants in which self injury was shown as a target behaviour.
5. Jensen et al. (2012)	Moderate intellectual disabilities and autism n=1.	Individual was typically asking for absent staff. Functional assessment extensive medical investigations Preference testing using pictures. Phases choice, alternating choice and no choice and only choice	Decrease in time in restraint occurred after a choice was made rather than after the chosen staff arriving. Even when the choice was made in the morning, & about staff on the PM shift. Unclear if the opportunity to make choices was more important than the relationship with the staff member. Choice procedure may represent an abolishing operation. The procedure may reflect the extent to which staff members have been associated with reinforcing consequences or may involve social relationship aspects such as rapport.

Authors (date)	Participants	Design / Approach	Key outcomes
6. Reuzel et al. (2013)	Intellectually disabled participants n=19 Staff n=19.	Staff participants filmed a regular planned conversation with intellectually disabled participant. Verbal and non-verbal behaviour coded, inc gaze direction, speech. Descriptive study based upon conversation analysis.	Study questions staff and clients different perceptions about what constitutes a desirable interaction with one another. Staff may be focusing on the verbal aspects of communication and helping clients to have their say, at the expense of trying to achieve a proper mutual exchange underpinned by a synchrony of nonverbal behaviours. The focus on verbal behaviour may impact on staff and people with intellectual disability achieving rapport.
7. (Reuzel et al., 2014)	Intellectually disabled participants n=19 Staff n=19.	Data from the 2013 study was reviewed in 2014 to investigate the relationship between interactional dominance and synchronicity of turn taking	Non-verbal behaviour not recognised /synchronised Focus on verbal behaviour alone might not be sufficient for client to feel that they are afforded a proper role in the interaction Relationships between staff and people with intellectual disabilities unbalanced staff led in 13 of the 19 interactions.

Kemp and Carr (1995)

Although rapport is not given a specific definition this study builds on the work of Carr et al. (1994) in which definitions of rapport were given. Kemp and Carr included rapport building as one part of a multi-component intervention to support people with intellectual disabilities in employment. The method of rapport building was to alter the conditioned aversiveness of stimuli (the job coach) by pairing them with positive reinforcers. Although there were three participants in this study only two people presented challenging behaviours to escape from their job coach, physical prompts and the gardening task of planting. Consequently, only two participants were included in the rapport building element of the multi-component support plan. Participants were working in a greenhouse planting seeds. During the assessment a 10 step task analysis had been used to determine how far through the task participants could get before presenting behaviours that posed a challenge.

The assessment had identified that when they were walking with their regular job coach to the work area they would attempt to flee even before being asked to complete a task. When prevented from leaving these two participants 'became aggressive'. Reinforcers for the two participants who needed to build rapport with the job coach were identified. The job coach was paired with a menu of reinforcers that were appropriate to be delivered in a workplace e.g., handshakes, high fives, preferred drinks and, for one participant, sharing a joke or conversation on a subject of interest. To build rapport, reinforcers were initially given noncontingently. Later, participants were required to approach to within arm's length of the job coach and, later still participants were required, with or without prompting, to ask for the reinforcer.

Other elements of the multi-component intervention were implemented, including functional communication training, making choices, building tolerance for delay of reinforcement and embedding demands. The intervention successfully promoted an increase in undertaking work based tasks without presenting challenging behaviours, and an increase in participants' ability to complete steps in the work task. Following the multi-component intervention the participants in the study were able to complete the 10 step task analysis for planting seeds without presenting significant behavioural challenges to the job coaches, to maintain their community based employment and to learn the sequence of a number of other gardening tasks.

It is, of course, rather difficult to determine which specific components of the intervention were functionally related to reductions of behaviour that posed a challenge. This study does not, therefore, allow the conclusion that the building of rapport was a necessary element of the intervention.

McLaughlin & Carr (2005)

The effect of rapport building, with consequent reduction in challenging behaviour presented by people with intellectual disabilities, has been most

successfully demonstrated by Mc Laughlin and Carr (2005). This was the first empirical study to specifically focus on the impact of rapport with staff, on reductions in challenging behaviour by people with intellectual disabilities. Therefore this paper has been examined in some detail.

In the first phase of the study, McLaughlin and Carr identified paid staff with both good and poor rapport, within one service for people with intellectual disabilities. Three participants with an intellectual disability took part in the study. Ratings of rapport between staff and people with intellectual disabilities they supported were made, using three separate methods. Firstly, staff rated their own rapport with each individual. Secondly, staff rated their colleagues' rapport with each individual. Thirdly, during structured preference testing sessions, observations were made of staff members that each individual was more likely to choose to work with.

After identifying staff members with good and poor rapport, a ten step task analysis was set up for all three individuals with an intellectual disability, on a task they had already mastered. A mastered task was used to avoid confounding by task difficulty. The tasks were chosen from the information generated in prior staff interviews, as staff reported that these tasks were associated with increases in 'problem behaviour'. Tasks for the three individuals were eating a meal, vacuuming and doing a delivery job. This on task condition, or demand condition, was directly compared with a non-demand condition, in which the participant was not asked to do tasks but could engage with a leisure activity.

All conditions were terminated upon onset of challenging behaviour. Staff members previously rated as having a good rapport with a specific individual had a far longer average latency until onset of challenging behaviour in the demand condition, and could typically complete the whole task. Conditions in which individuals were working with a staff member rated as having a poor rapport, were typically terminated before the full completion of the task by the onset of challenging behaviour. The non-demand condition did not trigger challenging behaviour when undertaken by staff with either a good or poor rapport.

In the second part of the study McLaughlin and Carr coached staff with a poor rapport to build rapport with participants with an intellectual disability. Staff were coached in three separate areas: noncontingent reinforcement, responsivity training and turn taking which are now described in some detail.

McLaughlin and Carr (2005) clearly builds upon Carr's earlier work by using the approach to rapport building that was outlined in Carr et al. (1994) and Kemp and Carr (1995). In particular, McLaughlin and Carr used noncontingent reinforcement (NCR) in the same way, so that staff became a discriminative stimulus for positive reinforcement. The NCR aspect of intervention is denoted by the solid black line within Figure 2.2.

Additionally, after reviewing the literature, McLaughlin and Carr (2005) identified other potential strategies to build rapport, which included responsivity and

reciprocity strategies. The authors developed responsivity training for staff with a poor rapport using what they termed "the Three A's rule" i.e. Acknowledge, Assess and Address. Staff were trained to identify and acknowledge all communication attempts made by the participant with an intellectual disability. Once a communication attempt was identified, staff learned to assess the function of the communication within the existing context to identify the presumed reinforcer, and address the need identified.

Secondly, turn taking and reciprocity during mutually preferred activities were observed, rated, and feedback given to staff. These additional aspects of rapport building are denoted by the dashed lines in Figure 2.2. Following this intervention the demand condition was repeated. All staff with a previous poor rapport with the individuals could now complete the demand condition without challenging behaviour being triggered.
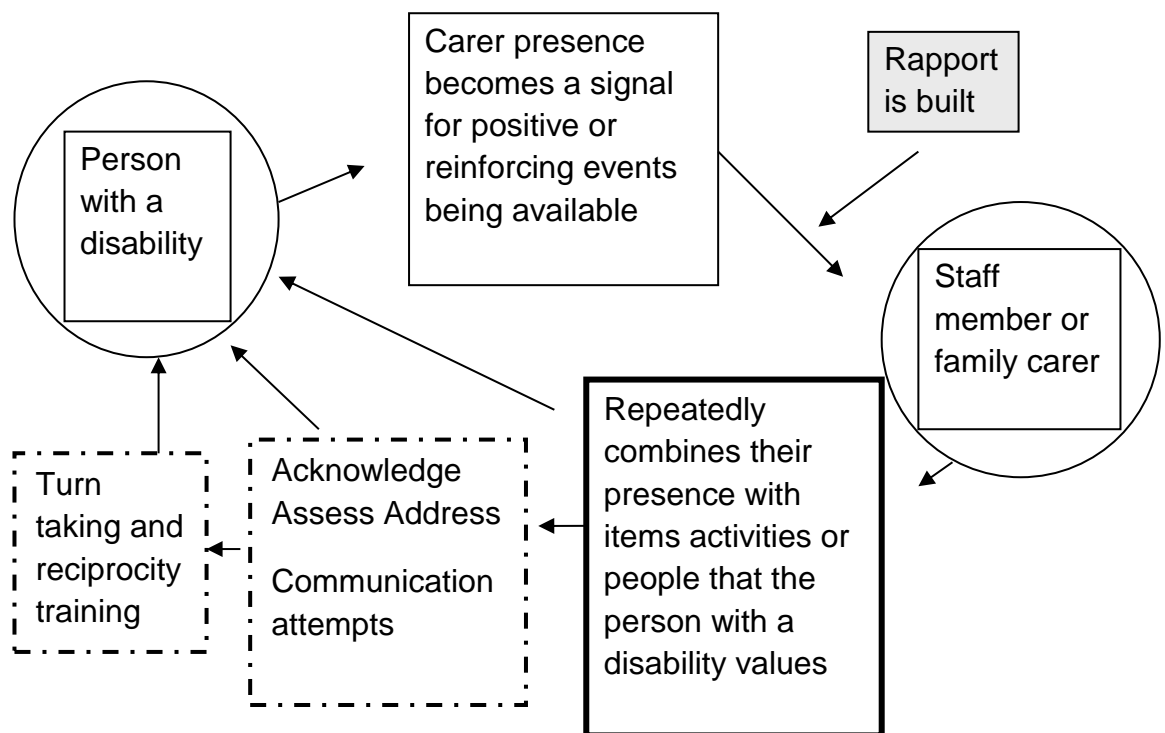
Figure 2.2: Rapport building strategies used by McLaughlin and Carr (2005)

A significant strength of McLaughlin and Carr's study was that, uniquely at the time of publication, it provided empirical measures of rapport. These measures seemed likely to be clinically useful as tools to measure relationships between staff and people with intellectual disabilities, especially where behaviour presented a challenge to services or families. The apparent reliability of these measures was also notable e.g. when the person with an intellectual disability was systematically presented with two staff members and asked to indicate who they would like to support them during their morning routine, they repeatedly

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chose the same individuals, suggesting a consistent pattern of relationships of good and poor rapport.

Guthrie & Beadle-Brown (2006)

Individual experiences of rapport between people with an intellectual disability and their paid staff or family members were examined in this qualitative study. Given the opinion of DePaulo and Bell (1990), that the definition of rapport needs to be based on the experiences of those that participate in the interaction, a significant strength of this study was its capturing of these very experiences. Guthrie and Beadle-Brown were interested in what defines rapport, and drew upon Grahe and Bernieri (1999) who were of the opinion that, when we feel motivated to engage with someone after an initial interaction, we are experiencing an interaction that is 'high in rapport'.

Three separate focus groups were convened, consisting of people with an intellectual disability, paid support workers, and professional staff in the field of intellectual disability. Within the focus groups a number of questions about rapport were put to participants. Staff and professionals were asked: what is rapport? What might lead to us or others building a positive relationship with a person with a disability? What are the broader implications of a poor rapport? Staff and intellectually disabled participants were asked about their own experiences with other people. Questions included what made them feel happy or sad, and made them feel they liked/disliked the person and had a good/poor relationship.

Participants seemed to be more able to give contributions that related to characteristics and personal experiences that were associated with a poor rapport. When asked how those with whom we have little rapport act towards us, the view that they would be 'controlling or dominating' had the highest number of contributions across the groups. All participants were able to offer descriptions of characteristics of staff and family members that would build and maintain, or damage, rapport. However, people with intellectual disability describing poor rapport with staff or family members found it difficult to identify examples of alternatives to challenging behaviour that might be more socially acceptable while still indicating poor rapport.

The participants with an intellectual disability in this study were people considered to have a moderate learning disability. Guthrie and Beadle-Brown (2006, p29), did acknowledge that:

> "in order to include people with profound and multiple disabilities it is essential to develop a way of measuring rapport that does not rely solely on interviews and questionnaires".

McClean, Grey *et al* (2012)

McClean and colleagues implemented a series of interventions (including rapport building) to address contextual variables for four individuals. The participants presented behaviour which posed a challenge to others due to self-injury and aggression. All four participants in the study were described as having a severe intellectual disability and autism. Participants' communication ability was limited. Communication skills ranged from one participant not using words to communicate, to another who could use four word utterances.

McClean and Grey cited the work of Carr et al. (1994) and McLaughlin and Carr (2005) and demonstrated an awareness of rapport with staff being a setting event capable of altering the level of challenging behaviour presented by an individual. As in McLaughlin and Carr's study, the focus was on escape motivated challenging behaviour. The paper did not elaborate on the quality of relationships with staff prior to rapport building.

The rapport building element did not appear to follow the same approach as that outlined in Carr's work in that the noncontingent delivery of preferred activities was not described as a feature for all participants. There was some link to improved access to preferred activities for one person ('Brendan') as he was given free access to requested activities. However requesting activities, which are then made available, differs from activities being given noncontingently. The need to request an activity was seen as a later stage in the rapport building intervention after noncontingent delivery of preferred items or activities by Carr et al. (1994). Part of Carr's rationale for this was that individuals may have a history of their requests being unsuccessful with particular staff and therefore may not make requests.

The rapport building intervention was described as following a 'name wait praise protocol' and included, for one individual, imitating their movements. The imitation and the waiting or pausing within the delivery of intervention appear to have similarities to Intensive Interaction (Nind and Hewitt, 2001).

The study implemented a series of multi-element interventions that addressed setting event variables for all participants. First, a low arousal environment was implemented, followed by rapport building. For all participants there were substantial reductions in behaviour after the first phase of intervention (low arousal environment). For some participants there were further reductions in behaviour directed at others and self-injury following the second intervention (rapport building). Since rapport building was implemented second, as part of a multi-element intervention, it is unclear whether the reductions in challenging behaviour would have differed if rapport building had been the first or the only intervention to be implemented.

Jensen, Lydersen *et al* (2012)

The study carried out by Jensen and colleagues is a single case design demonstrating reductions in the use of mechanical restraint when the participant

was able to choose which staff member supported her. The potential of good rapport was linked to the choice of staff member. The authors were of the view that the opportunity to choose staff may act as an abolishing operation (Michael, 1982) and that the chosen staff may have been associated with consequences that were reinforcing in the past. The participant in this study 'Carol' was a 28 year old woman with moderate intellectual disabilities, autism and bipolar disorder. Carol's level of verbal communication ranged from clear to dysfluent "bursts" that could be difficult to understand. Carol could read and write some short phrases or single words. Prior to the current study Carol had undergone a functional assessment and a series of medical investigations including a neurological assessment, MRI scan, consultation with an Occupational Therapist and examination of her sleep pattern. Carol would self-injure when she was asked to perform tasks. Self-injury included biting, a single low intensity bite but on some occasions leading to intensely hitting her arms together, picking her fingers or kicking hard areas. The severe self-injury was managed using mechanical restraints typically in the form of elbow splints.

Observations of Carol showed that she would ask who would be working with her and sometimes indicate that she would prefer this to be someone else. There were systematic observations of which staff Carol was requesting accompanied by records of which staff members were present when Carol was most likely to be in restraint.

The study was implemented with a series of phases. These were, firstly, 'no choice', secondly, 'alternating choice and no choice' and, thirdly, 'only choice'. To enable Carol to make a choice of staff members, preference testing sessions were held. Between 9.00 -10.00am the names and photographs of staff were spread out for her to look at and Carol was asked 'who is your first choice to work with you on the PM shift?' After the choice she was asked to make a second choice in the same way. The second choice was offered in case the first member of staff chosen was absent on the PM shift. The photographs of the staff Carol had chosen were kept visible for her by posting them on the wall.

The study demonstrated reductions in mechanical restraint when preferred staff members were chosen. Interestingly, the reductions in self-injury were greater once the choice had been made, rather than when the staff member chosen arrived on duty. The authors suggest that being able to make a choice about which member of staff would be supporting her was more important to Carol than the actual relationship with the member of staff.

The authors note that the cost of this intervention was minimal in that preference testing sessions only took a few minutes a day to deliver. Spending this short time giving Carol the choice of staff to support her was associated with a 50% reduction in her time in mechanical restraint.   In reality this meant for Carol that she had 3 more hours in her day in which she was not restrained.

This paper suggests that Carr's earlier work on rapport may generalise to individuals with a less severe intellectual disability. Carol is described as having a moderate intellectual disability which is more able than the participants described in McLaughlin and Carr (2005). Nevertheless, the same preference

testing technique proved useable. Given Carol's ability, it was possible to adapt the technique slightly by creatively using pictures and written staff names instead of needing to be presented with the actual members of staff. Based on the technique used by Jensen et al. (2012) it seems likely that a preference testing assessment could be carried out rather more quickly for someone with a moderate intellectual disability. In a similar way to participants in other studies about rapport and individuals whose behaviour is described as challenging (McLaughlin and Carr, 2005, McClean and Grey, 2012), Carol's self-injury was described as more likely when asked to perform tasks (escape motivated behaviour).

The finding that Carol's time spent in restraint reduced once she had made the choice of staff member, rather than when the chosen staff member came on duty is interesting. An alternative explanation for this would be that Carol felt sufficiently reassured about how the day would unfold once she had important information about the likely quality of connection with staff later that day. Of course a non-rapport based explanation is possible, in that improvements in Carol's behaviour simply reflect her being given a choice.

Reuzel, Embregts *et al* (2013) & (2014)

In the same way as Tickle-Degnen and Rosenthal (1990), Reuzel and her colleagues were interested in the level of synchronicity and attunement that was present in interactions between people with a mild to borderline intellectual disability and their supporting staff. Rapport was defined according to the Tickle-Degnen and Rosenthal (1990, p286) definition in that "rapport consists of three components: mutual attention, mutual positivity (friendliness and caring), and coordination".

Although the general rapport literature was drawn upon, Reuzel and colleagues do not cite the more specific literature about rapport and people with intellectual disabilities (Carr et al., 1994, McLaughlin and Carr, 2005, McClean and Grey, 2012, Jensen et al., 2012). This may be due to the study not having participants with intellectual disabilities who present a challenge or those with severe disabilities. This study placed most focus on minute by minute interaction rather than specifically rapport building.

Nineteen staff members videotaped an interaction between themselves and a person with an intellectual disability they regularly supported. Most of the staff worked in community based residential services. Patterns of dominance in the dialogue, following each other's lead both verbally and non-verbally and attunement were examined. The authors were interested in whether identified dominance or attunement was linked to how independent raters viewed the quality of interaction. Videos were rated by 14 staff and 14 people with an intellectual disability using a questionnaire. The people with an intellectual disability who rated the films had good expressive and receptive verbal skills.

The same authors reviewed the previously collected data to investigate the patterns of verbal interactional dominance (Reuzel et al., 2014) and determine

whether dominance was associated with synchronicity of turn taking. Staff observers were sensitive to dominance in verbal interaction. Dominant staff were viewed as less likely to be listening to the people with ID. Staff observers viewed less dominant staff as having higher quality interactions. The authors reported a greater level of attunement in turn taking behaviour when staff dominated the conversation than when the interaction was dominated by the person with ID.

The study found differences in how members of staff and people with intellectual disability viewed the quality of interactions. People with intellectual disabilities rated the videos where staff and the person with intellectual disabilities looked at each other more frequently, as representing better quality interaction. Staff members rating the videos were sensitive to how much the member of staff in the film talked. The more the staff member talked, the lower the rating of interaction quality by the staff observer. Staff observers rated interactions in which the person with disabilities talked frequently as being of higher quality interaction. This suggests that staff focus their importance on the verbal exchange, possibly because they are trying to involve the person with intellectual disabilities in conversation, without recognising important non-verbal synchronicity. This finding is helpful for training staff in interacting with people with intellectual disabilities. Training staff in interaction which focusses solely on verbal interaction rather than non-verbal aspects such as eye gaze may not leave people with an intellectual disability feeling that they have been fully included in an interaction.

Connections to the general rapport literature

Tickle-Degnen and Rosenthal (1990) neatly classify rapport into two kinds. The first is the type that sales people, therapists or health professionals develop quickly to work effectively with individuals – pseudo-rapport. The second is that more "genuine" rapport between individuals who like each other, possibly resulting in a friendship.

The approach outlined by Carr et al. (1994, p114) would appear to be about this second kind of rapport:
> *"The idea is for you and the individual displaying behaviour problems to* interact with one another, within a context of sharing, entertaining and rewarding activities, and generally enjoying each *other's company".*

For services that adopt a high degree of professional distance from the people with disabilities they support, this has the potential to raise issues, with staff at all levels not knowing whether it is genuine or pseudo-rapport they should be developing. Direct care staff often spend years working with the same person, or small group of people with intellectual disabilities, a quite different scenario to the brief rapport building encountered in sales (Barnett 2002) or the taking of medical histories (Tickle-Degnen, Rosenthal 1990).

Is it important to identify if support staff should be developing pseudo or genuine rapport? It is in that a degree of professional 'distance' is often recommended

to counter the risks associated with the development of 'friendships' with the people being supported. This dichotomy has the potential to disrupt relationships, particularly the co-ordination component of a relationship (Tickle-Degnen, Rosenthal 1990). Views about the type of rapport staff should have with the people being supported are likely to differ across a staff team. An example of this from my clinical work, would be a manager instructing a support worker (with high rapport) to spend less time with an individual, as they felt the presence of this particular support worker was resulting in the individual not wanting to undertake activities with other members of staff.

The construct of rapport as described by Tickle-Degnen and Rosenthal (1990) (consisting of three components: mutual attentiveness, positivity and co-ordination) is interesting to examine in relation to building rapport with people with intellectual disabilities, particularly those whose behaviour presents a challenge. The components of mutual attention and positivity have been identified by individuals with intellectual disabilities themselves, in Guthrie and Beadle-Brown's (2006) qualitative study and interventions to address such issues implemented by McLaughlin and, Carr (2005). The third component of the Tickle-Degnen and Rosenthal (1990) model, co-ordination, outlines the need for 'equilibrium, regularity and predictability' in relationships. If one were using this model, it seems plausible that, following difficult or challenging behaviour, the co-ordination of a relationship i.e. the balance or harmony, would be disrupted for one or both individuals, on either a temporary or permanent basis. Similarly a manager asking a member of staff to work less frequently with an individual they have a good rapport with would seem likely to affect the equilibrium and predictability of the relationship.

Table 2.3 summarises the three main components in the model proposed by both Tickle-Degnen and Rosenthal (1990) and the work in the field of ID of McLaughlin and Carr (2005). Summarised in this way there appears to be a noticeable similarity in the two approaches.

Table 2.3: Main components in Tickle-Degnen & Rosenthal (1990)

and McLaughlin and Carr (2005) studies

(Tickle-Degnen, Rosenthal 1990)	Positivity which could be mutual friendliness and warmth	Mutual attentiveness, which creates focused and cohesive interaction	Co-ordination, and this describes balance harmony and synchronicity with the other person
(McLaughlin, Carr 2005)	Noncontingent presentation of reinforcers to establish staff as a generalised reinforcer	Responsivity training to increase staff responsiveness to communicative attempts	Coaching for reciprocity / turn taking to facilitate equal sharing in activities

Discussion – common themes and limitations

Rapport and behaviour described as challenging

All the studies reviewed, apart from Reuzel et al. (2013), make clear links between the quality of the relationship (rapport) between people with an intellectual disability and their supporting staff or unpaid carer and reductions in the presentation of challenging behaviour. Guthrie and Beadle-Brown (2006) did not set out with a criterion of intellectually disabled participants being those that present a challenge to others. After holding the focus groups and thematically analysing the views of people with an intellectual disability, the link to presenting behaviour that challenged in the presence of a poor rapport member of staff or unpaid carer became apparent. It may be that there is a particular link between rapport and challenging behaviour, behaviours that challenge others might be seen as the direct opposite of the harmonious communication or invigorating interactions underpinning definitions of good rapport.

Participant characteristics

In addition to presenting behaviours which challenge others, participants in the four quantitative studies discussed (McLaughlin and Carr, 2005, McClean and Grey, 2012, Jensen et al., 2012, Kemp and Carr, 1995) had other similarities. The 11 people with intellectual disabilities described across these studies were all noted as having an autistic spectrum condition. Perhaps staff/carers find it easier to establish rapport with people who do not have autism and the characteristics of autism make it harder, especially if staff don't understand autism and have not had sufficient training. These kind of issues are noted or recognised in the broader autism literature and may have contributed to the development of approaches to staff training that emphasise interaction style (Tutt et al., 2006, Povey, 2009).

In terms of the social and cognitive characteristics of participants the levels of intellectual disability and communication ability varied significantly across the studies discussed. Participants ranged from borderline/mild (Reuzel et al., 2013) to profound intellectual disabilities (McLaughlin and Carr, 2005). Communication ability ranged from some participants with no verbal language (McClean and Grey, 2012) to people with good expressive and receptive verbal skills (Reuzel et al., 2013). It looks like rapport may be relevant to people of all cognitive abilities.

Functional context

The function of the behaviours posing a challenge was described, in every case, as being escape from demands. Most direct care staff will have to place demands on people with intellectual disabilities on numerous occasions during the course of a shift. Even if they are seeking to reduce such demands, many are "non-negotiable" e.g. the administration of medication or health-related procedures, support with personal care etc. People with an intellectual disability have told us that, if they did not like the way a family carer or a member of staff

was interacting, they have a 'lack of alternatives to [presenting] challenging behaviour as a way of indicating poor rapport with carers' (Guthrie and Beadle-Brown, 2006 p27). The same authors went on to say that, when they asked participants questions about how people with whom they had a poor rapport acted towards them the highest number of responses linked to a theme of control and dominance. Control and dominance and badly placed demands may well be referring to similar behaviours by carers.

Challenging behaviour, of course, may serve other social functions (Matson et al., 2011, Beavers et al., 2013). As well as escaping from demands it may enable the individual to gain access to social interaction with others or (often via the mediation of staff or carers) to tangible reinforcement (e.g. food, drink or preferred activities). It is interesting, therefore, to wonder if rapport might be related to challenging behaviour serving these other functions. There is no data to go on but it is possible that such behaviour might actually be higher in the presence of staff/carers where there is better rapport since their attention is likely to be more valuable to the person.

Measuring rapport

The description of approaches to the assessment of rapport between people with an intellectual disability and staff was a particular feature of McLaughlin and Carr (2005). They outlined three methods – self rating by staff, rating of other staff and preference testing in which the individual chose the member of staff they wanted to work with. Jensen et al (2012) further developed preference testing by conducting this pictorially with the participant in their study. Pictorial preference testing is likely to be quicker and easier for people with intellectual disabilities that recognise pictures. Jensen and colleagues make the valuable point that the preference testing sessions took very little time to carry out whereas the impact of the intervention (three hours less per day in mechanical restraint) was a quite significant outcome for Carol. There are also likely to be savings on support costs if staff members are spending less of the day responding to challenges. Preference testing would require staff to have skills to deliver the technique accurately but this is likely to be possible with some brief training and procedural reliability checking.

Asking staff to rate their colleagues rapport with individuals being supported as in McLaughlin and Carr (2005) could create difficulties in a team where there was conflict or lack of trust, and lead to low morale in staff with a poor rapport. Staff may also fear ridicule, or being made an outsider by their colleagues (Guthrie, Beadle-Brown 2006).

Methodological issues and limitations

The McLaughlin and Carr (2005) study was designed to ensure that rapport between staff and intellectually disabled participants was based on sufficient history. Only staff who had worked in the service for one year or more were included as participants. Previously mastered tasks were used in the demand condition to avoid task difficulty being a confounding variable. Measurement of

challenging behaviour in the demand condition was based on 'latency onset of challenging behaviour'. Latency onset gives a clear measurement but means that the conditions were terminated once serious self-injury or aggression occurred, which is far more ethically acceptable for all participants.

Mc Laughlin and Carr (2005) used a multiple baseline design which demonstrated that rapport was only improved during the intervention phase of the study. The methods to build rapport were very practical. Pairing staff with reinforcers, increasing responsivity and enhancing turn taking, are easily translated into clinical practice. Although the study does not make it clear whether McLaughlin and Carr were the original authors of the "three A's rule" (**acknowledge** all communication attempts, **assess** function using context and **address),** this was a particularly clear strategy to give staff. Staff members were given feedback at the end of the turn taking and reciprocity sessions which meant areas of good and poor practice were addressed at an individual level. Turn taking intervention had a simple procedure for scoring the quality of the interaction at each stage.

The study gave an entirely new and very logical behavioural explanation for the link between a good and poor rapport and challenging behaviour. Rapport was viewed as a setting event. Good rapport with staff could reduce the aversiveness of a task demand and a poor rapport with staff might increase the aversiveness of the demand for exactly the same task, and increase the likelihood of escape motivated problem behaviour. In retrospect, because contact with good rapport staff may alter the value of social contact, it may be more accurate to describe rapport as a motivating operation rather than a setting event (McGill, 1999, Laraway et al., 2003, Langthorne and McGill, 2009).

Some limitations of the McLaughlin and Carr (2005) study include that two of the three measures of rapport relied mainly on staff opinion. Only preference testing sessions directly involved participants with an intellectual disability. The study was carried out in a single setting and employed measures that really only lend themselves to being used to make comparisons within one setting. In clinical practice it is not unusual to find variable quality in relationships with staff or family carers across settings. For example the individual has strong relationships with staff at school, but not the respite setting, or vice versa. This limits the usefulness of the McLaughlin and Carr (2005) rapport measures both clinically or for future research.

Although McLaughlin and Carr demonstrated clear intervention strategies, the baseline for intervention appears to be limited to one session. Factors about the worker, such as ill health or stress, could occasionally influence interaction style on a given day.

McLaughlin and Carr (2005) utilised a multi-component intervention pairing staff with reinforcers, responsivity training and enhancing turn taking. Using three separate interventions makes it unclear whether all three components were necessary to change staff behaviour and build rapport. Responsivity training was based on a communication profile derived from the functional analysis interview (O'Neill et al., 1990) for each individual. In essence the approach in

responsivity training was to assign communicative meaning to challenging behaviours and teach staff to recognise these and alter their consequent action. It could be argued that the interventions implemented in this study are beyond simple rapport building.

Since the publication of McLaughlin and Carr (2005), Jensen et al. (2012) is the only study that has developed the measurement approach further. Apart from preference testing there is a lack of objective measurement of rapport in any of the studies reviewed. Whilst preference testing is a useful technique it may prove unsuitable for individuals who have not yet learnt to communicate a choice. Objective measurement of the non-verbal behaviour that may indicate the quality of rapport between people with intellectual disabilities and their carers, remains a potential area for further study.

Staff members with a poor rapport in the McLaughlin and Carr (2005, p88) study appeared 'reluctant to express their dissatisfaction' and typically 'characterised their relationship with the individual as neutral, rather than unsatisfying'. They may not have wanted to admit how they really felt about an individual. It is possible that the results of the study would have been further improved if staff members with a poor rapport had been encouraged to speak openly about an individual, to identify barriers, and strategies could have been implemented to address any barriers to rapport.

Potential barriers to rapport are addressed in Carr et al. (1994) and by Guthrie and Beadle-Brown (2006). Carr et al. (1994, p118) stress that:

> *"in reality many teachers and direct support staff find some people with* disabilit*y unattractive, boring or fearsome".*

Feeling this way, those caring for a person with an intellectual disability might actively seek to keep away from the person they are supporting, or reduce the amount of time they spend with them. Carr et al. (1994, p118) go on to say that:

> *"an equally important point, frequently overlooked, is that the person with disabilities should be 'likeable to you".*

They advocate that people working with the individual, such as care staff, need to acknowledge the feelings they have about the individual they are supporting, by writing a list of explanations about why they avoid interaction. Once staff members can explain why they are avoiding interaction they can begin to think about how they could take steps to overcome some of the factors that act as barriers to communication and building rapport. Direct care staff in Guthrie and Beadle-Brown (2006) reported that participants had suggested that challenging behaviour, appearance and difficult habits seen in the person with disabilities could affect the building of rapport.

Chapter summary

Chapter two has explored the general rapport literature that formed a basis for the studies of rapport between people with intellectual disabilities and support staff. The chapter notes that, rapport features in a vast amount of literature across a vast array of professions. The general rapport literature was found to be a source of comprehensive definitions that conceptualise rapport. Some literature reviewed has been proved helpful for considering the non-verbal cues that might suggest something of the relationship quality between people interacting.

Studies that relate to rapport between individuals with an intellectual disability and support staff were of particular interest and have been identified through the process of a systematic review. The systematic review, which helped inform this chapter, is described along with the databases searched and the method used. The systematic review has identified and evaluated seven published studies that used the concept of rapport between people with an intellectual disability and those that support them. Inclusion criteria for literature in the systematic review assisted in defining the most relevant literature. The papers identified in the review are described individually to give the reader a sense of each study and the contribution it makes to the literature. Links to the general rapport literature and potential implications for people with intellectual disability were reflected upon and are discussed. The chapter concludes with comparisons and limitations of the studies in intellectual disabilities and consideration for future research. The discussion of common themes and limitations identified that there were a number of participants in the studies presented who had a diagnosis of autism. Where the studies noted the function of behaviour described as challenging, escape from demands was cited as the behaviour function.

Whilst this chapter has focused specifically on rapport, the literature review identified a number of other concepts that shared similarities to rapport. Many of these concepts, theories or methods of intervention, were specific to the field of intellectual disability. For example, Intensive Interaction has developed as a method of supporting good quality of interactions between people with profound disabilities and carers. This is clearly focussed on the quality of relationships but does not use the concept of rapport and the approach is therefore missed in the systematic review. Although the similar concepts did not meet the criterion to be included in the systematic review, they may have valuable points to consider in examining rapport and people with intellectual disabilities. Therefore, concepts related to rapport will be discussed in the next chapter.

Chapter 3: Concepts Related to Rapport

Chapter outline

In chapter two the notion of rapport was described in detail. The general rapport literature was examined, and consideration was given as to how this literature was connected to studies of rapport and people with intellectual disabilities. A systematic review was conducted that identified seven studies, specifically relating to rapport between people with intellectual disabilities and their support staff. The studies that were identified through the systematic review were discussed in detail. During the process of reviewing the literature on rapport and people with intellectual disabilities, many similar concepts that were not specifically named rapport, were identified. These approaches often had a body of research attached to them, and can be seen as having usefulness as methods to measure and build rapport. As there was such a large range of concepts related to rapport, the intention of this chapter is to focus on these concepts and to present each one individually, with a discussion on how it relates (or might relate) to building rapport.

Introduction

The specific literature on rapport and people with an intellectual disability is very limited. However initial literature searches using search terms such as "relationship quality", "interpersonal relationships" and "interpersonal warmth", had identified a range of other approaches that may be related to the concept of rapport. This chapter considers some of these approaches, examining their similarities and differences from literature specifically relating to rapport.

Some of the approaches reviewed have been used with other populations, in addition to people with an intellectual disability. However approaches that target only specific populations i.e. autism, have not been included (Kaufman, 1994, Howlin, 2005). The wider literature has been drawn upon in these instances.

Literature on general communication development and people with intellectual disabilities or studies that focus on skill development or supporting participation (Jones et al., 1999, Mansell and Elliott, 1996) in activities, have not been included. Studies that include evidence about the quality of relationship between the person with intellectual disabilities and staff, or family carers, are the primary focus of this chapter. The concepts that are similar to rapport derive from both descriptive studies and studies aimed at producing change. Concepts were included where they appeared related, either theoretically or empirically, to the building of rapport between people with ID and their support staff or family carers. While, as far as possible, the review has included all such concepts, no attempt has been made to conduct a systematic review of relevant publications. The literature presented here is, therefore, intended to be indicative rather than comprehensive.

Method

To examine relationship to rapport the model proposed by Tickle-Degnen and Rosenthal (1990) has been used. Tickle-Degnen and Rosenthal (1990) identified three components of rapport: positivity, mutual attentiveness and co-ordination. The approaches included in this chapter all had clear links to these three components.

Each approach is now discussed using the following standard framework:

- A brief summary of the approach and its intellectual origins.
- A table illustrating how the approach incorporates the three components (Tickle-Degnen and Rosenthal (1990)).
- An illustration of the mechanisms by which the approach might be related to the building of rapport between people with ID and their staff or family carers.
- A brief comment on the approach.

Noncontingent Reinforcement

Background

Noncontingent reinforcement (NCR) is a technique within applied behavioural analysis, typically used to reduce behaviours which cause concern (Derby et al., 1996, Kerth et al., 2009). Cooper Heron and Heward (2007, p489) describe NCR as

> *"a procedure in which* stimuli with known reinforcing properties are presented on a fixed-time (FT) or variable-time (VT) schedule completely independent of behavior; often used as an antecedent *intervention to reduce problem behavior".*

Links to rapport

Table 3.1: Rapport and Noncontingent Reinforcement

(Tickle-Degnen, Rosenthal 1990)	Noncontingent Reinforcement
Positivity which could be mutual friendliness and warmth.	Frequent presentation of reinforcers likely to establish staff or family carers as positive reinforcers.
Mutual attentiveness, which creates focused and cohesive interaction.	Attentiveness increased through the regular delivery of reinforcers.
Co-ordination – balance, harmony and synchronicity with the other person.	Potential for increased harmony through interaction which is independent of behavioural challenges.

Underpinning mechanisms

NCR has been cited in the behavioural literature as an integral part of building rapport. As described in Chapter Two, Carr et al. (1994) suggested that staff or family carers could build rapport by becoming "signals" for reinforcement. Through their frequent pairing with preferred activities, it was argued that staff and family carers would become indicators of the availability of pleasing activities and events. Carr et al. (1994) and Kemp and Carr (1995) referred to this as the caregivers presence becoming a "generalized reinforcer". Figure 3.1 demonstrates how rapport might be built using an NCR approach.
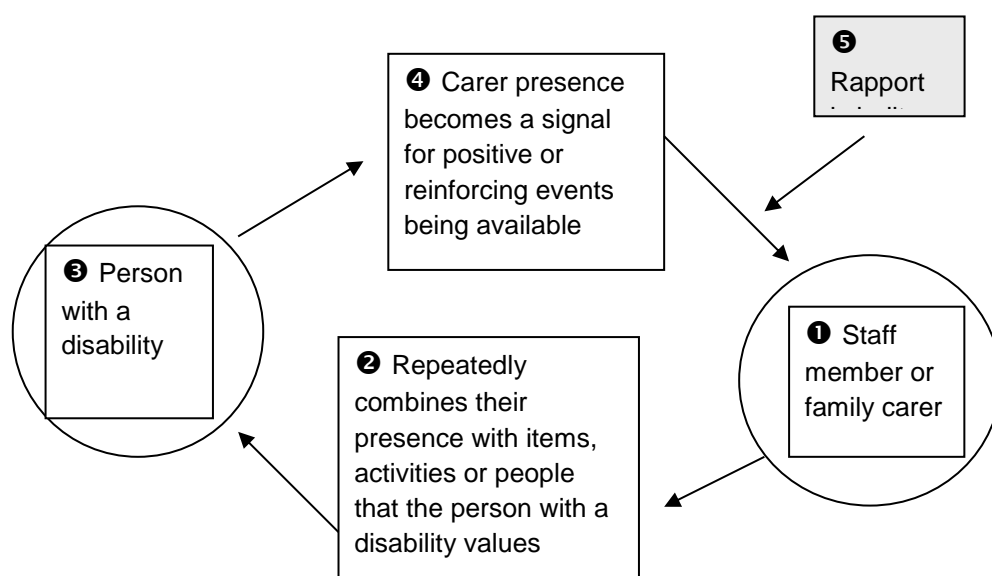
Figure 3.1: Using NCR to build rapport

NCR is a relatively straightforward technique. It can be based on prior functional assessment of challenging behaviour in which case the stimuli found to reinforce such behaviour will be incorporated. Alternatively it can be based on knowledge of an individual's preferences, whether obtained informally or through a formal preference assessment.

Behavioural Momentum

Background

Behavioural momentum (Nevin, 1996) is an antecedent control strategy, used to increase the likelihood that individuals will comply with requests that they would typically refuse. It bears much similarity to an approach known as pre task requesting (Singer et al., 1987). Both behavioural momentum and pre task

requesting demonstrate that if a series of requests (with which the person is very likely to comply) are presented, prior to making a request usually associated with the onset of challenging behaviour, the individual is more likely to comply with the target request and less likely to display challenging behaviour. The metaphor of "momentum" (borrowed from physics) is intended to imply the notion that the person is "on a roll" and likely to carry on even when asked to do something they might otherwise have been reluctant to do.

Links to rapport

Table3.2: Rapport and Behavioural Momentum

(Tickle-Degnen, Rosenthal 1990)	Behavioural Momentum
Positivity which could be mutual friendliness and warmth.	Presentation of easy or preferred requests to the person with disabilities.
Mutual attentiveness, which creates focused and cohesive interaction.	Attentiveness and interest expressed to the student through interactions prior to the task or request.
Co-ordination – balance, harmony and synchronicity with the other person.	The repetition of request-comply, request-comply may produce better coordination.

Underpinning mechanisms

Singer and Singer (1987) demonstrated that students would successfully go to their work area after a break (a request that they were initially not likely to respond to), if pre-task requests such as "give me five" or "say your name" were used. Similarly, Lee (2006) found compliance increased when starting with easy maths problems and then increasing the task difficulty. Mace and colleagues (1988) examined behavioural momentum in a series of single case studies. Commands were split into low-probability (low-p) "do" and "don't" commands with which the participant was unlikely to comply, and high-probability (high-p) commands with which the person had a history of successfully cooperating. Mace found that compliance to both "do" and "don't" low-p commands could be increased by presenting several high-p commands before a known low-p command. Such a pattern of presenting positive and non-demanding interaction prior to placing a low-p command could be regarded as a brief rapport building intervention.
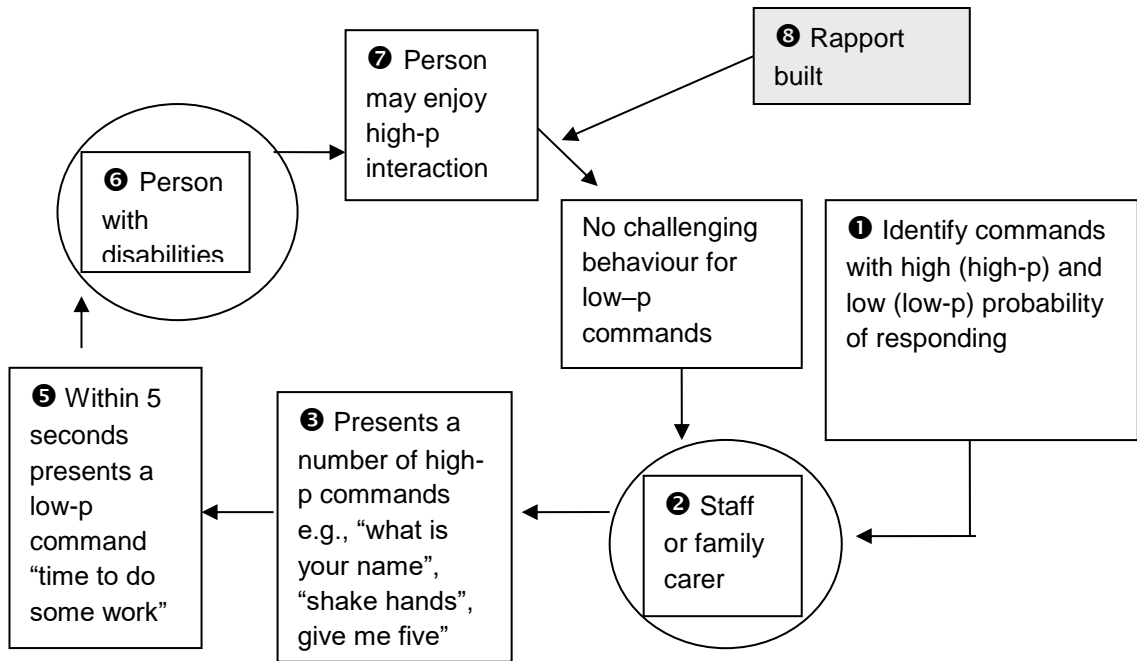
Figure3.2: Using Behavioural Momentum to build rapport

Intensive Interaction

Background

Intensive Interaction (II) is an approach that is aimed at people with an intellectual disability, who have not yet developed verbal language. Intensive interaction was initially called Augmented Mothering and developed by Ephraim (1986). Intensive Interaction targets people with severe intellectual disabilities who can often be difficult to reach and interact with (Nind and Hewitt, 2001). Intensive Interaction gives carers practical methods for connecting with people who have a severe intellectual disability. The aim of II, is to help people with disabilities to learn important prerequisite skills to language (turn taking, sharing attention and recognition of facial expression) (Nind and Hewitt, 2001).

Links to rapport

Table 3.3: Rapport and Intensive Interaction

(Tickle-Degnen, Rosenthal 1990)	Intensive Interaction
Positivity which could be mutual friendliness and warmth.	Staff or family carers are guided to be happy, have fun and celebrate the communication of the person with disabilities.
Mutual attentiveness, which creates focused and cohesive interaction.	Staff or family carers are encouraged to tune into the person's signals and be responsive.
Co-ordination – balance, harmony and synchronicity with the other person.	Regular connection, attending and reliable responsiveness may produce better co-ordination.

Underpinning mechanisms

II sessions are typically brief 1-1 sessions, with a communication partner, usually a known member of staff or family carer. Within the context of a fun or enjoyable session, the carer makes themselves available, while the person with a disability leads the activity. The carer in II sessions is responsive and acknowledges the communication attempts of the person with a disability, typically by mirroring and imitation. Zeedyk et al. (2009) show that improvements in eye gaze, proximity body orientation and smiling can happen between the person with a disability and their interaction partner, even within an initial II session. For many people with intellectual disabilities, II appears to result in rapport being built with their communication partner or carer. It may be easier to get the person's attention, and they may seek out the communication partner and other people generally (see figure 3.3). Alongside showing an increase in smiling or eye contact towards carers, the person may be more willing to be involved in activities and tasks without these triggering challenging behaviours (Leaning and Watson, 2006).
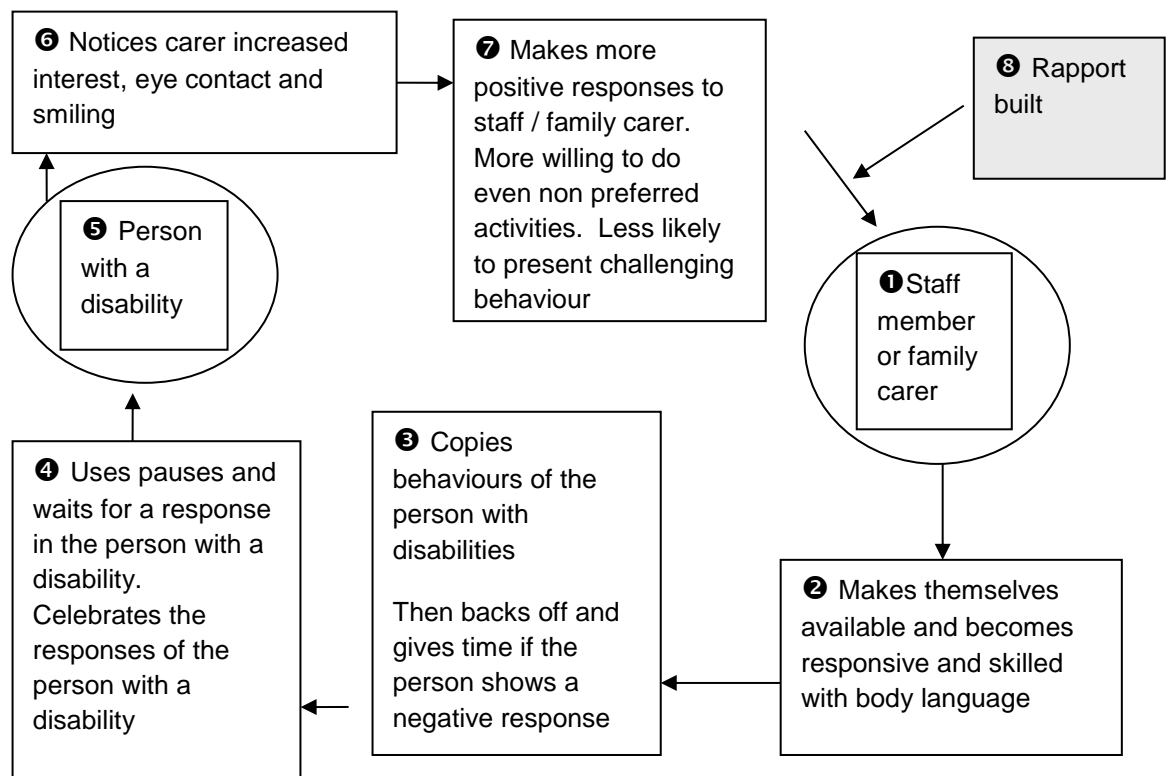
Figure 3.3: Using Intensive Interaction to build rapport

The figure shows a cycle with numbered steps:

❶ Staff member or family carer

❷ Makes themselves available and becomes responsive and skilled with body language

❸ Copies behaviours of the person with disabilities

Then backs off and gives time if the person shows a negative response

❹ Uses pauses and waits for a response in the person with a disability. Celebrates the responses of the person with a disability

❺ Person with a disability

❻ Notices carer increased interest, eye contact and smiling

❼ Makes more positive responses to staff / family carer. More willing to do even non preferred activities. Less likely to present challenging behaviour

❽ Rapport built

Gentle Teaching

Background

Gentle teaching is an approach that is specifically targeted at people with intellectual disability, whose behaviour presents a challenge. Its underpinning philosophy is that the promotion of warm and positive interaction will promote bonding between the person with a disability and their caregiver (McGee et al., 1987).

McGee and Gonzalex (1990, p251) strongly opposed the use of "punitive practices such as time-out, over-correction, physical restraint, mechanical restraint, noxious taste and water mist sprayed in the face in order to deal with aggression". Cullen and Mappin (1998) suggest that Gentle Teaching is not a single, simple procedure but a set of repertoires of behaviour and ways of feeling and thinking about others.

Table 3.4: Rapport and Gentle Teaching

(Tickle-Degnen, Rosenthal 1990)	Gentle Teaching
Positivity which could be mutual friendliness and warmth.	Gentle teaching approach of friendliness, warmth and solidarity.
Mutual attentiveness, which creates focused and cohesive interaction.	Teaching the value of human reward and the giving of freely available rewarding words or touches.
Co-ordination – balance, harmony and synchronicity with the other person.	Gentle teaching requirement for mutually harmonizing and liberating interactions.

Underpinning mechanisms

Gentle teaching encompasses some strategies that are fairly similar to a behavioural approach (Bailey, 1992) including ignoring or giving little value to challenging behaviours and redirecting the person to an activity for which they can be rewarded. Indeed, Bailey (1992 p880) makes the point that "seven of the nine techniques listed as Gentle Teaching are clearly behavioural", including extinction, reinforcement, fading, shaping and errorless learning. Bailey suggests that Gentle Teaching is just a philosophy.

As an approach Gentle Teaching has received a number of criticisms, for lacking evidence of its effectiveness (Mudford, 1995, Cullen and Mappin, 1998, Bailey, 1992), having poorly defined topographies of carer behaviour (Mudford, 1995, Cuvo, 1992, Bailey, 1992) and not having clear procedural guidelines (Jones and McCaughey, 1992). Any effectiveness it has may be for other reasons e.g., Cuvo suggests that:

> *"gentle teaching procedures require caregivers to increase* the rate of providing antecedent conditions intended to increase adaptive behaviour *and decrease maladaptive behaviour"* (Cuvo, 1992, p876).
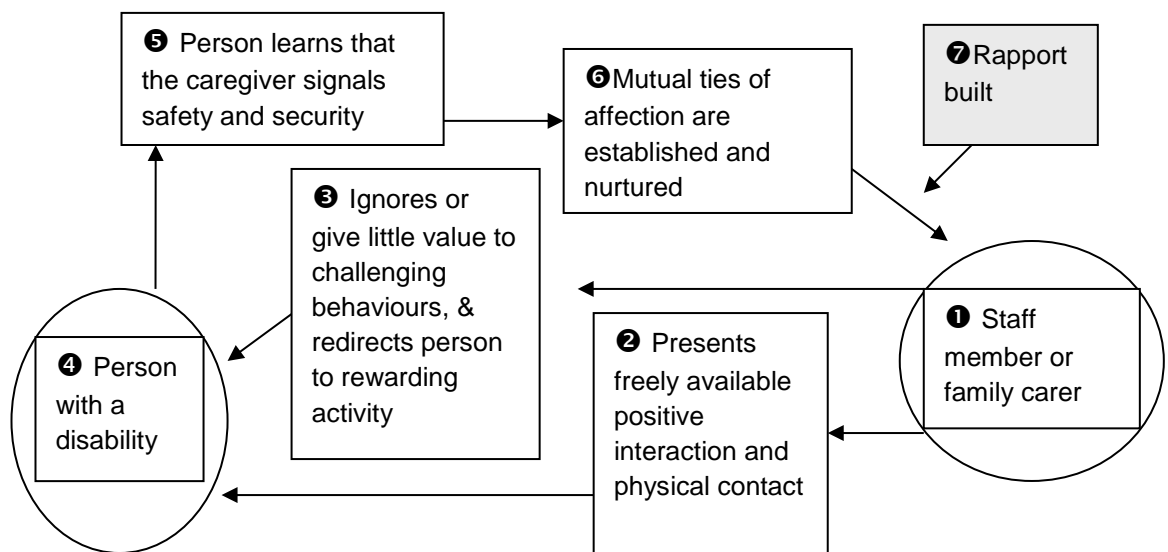
Figure 3.4: Using Gentle Teaching to build rapport

Indicators of happiness and distress

Background

Literature relating to the happiness of individuals with severe and profound intellectual disabilities seems likely to have some relevance when considering rapport. Green and Reid (1996) showed how indicators of happiness were seen to increase over time when individuals were given most preferred stimuli more frequently, rather than least preferred. In another study (Favell et al., 1996) staff were able to increase signs of happiness for the people they support using relatively simple measures such as talking to the person, going for a walk, or providing entertaining activities. Studies of both happiness and distress in people with an intellectual disability have focused mainly on measurement of facial expressions, and vocalisations accompanying the facial expressions (Green and Reid, 1996, Favell et al., 1996, Regnard et al., 2007) . There has also been some work in the disability field to examine the expression of unhappiness and distress. DisDAT is an assessment tool that relies on non-verbal communication, facial expression and vocalisations, to effectively identify indicators of pain or distress presented by people with disabilities (Regnard et al., 2007). Adams and Oliver (2011) believe that increasing expertise in the overall assessment of emotion would reduce the need for informant opinion, if trying to understand issues such as choice, emotional or physical health, for people with profound intellectual disabilities.

Table 3.5: Rapport and Indicators of happiness

(Tickle-Degnen, Rosenthal 1990)	Indicators of happiness
Positivity which could be mutual friendliness and warmth.	Positivity is present through the noncontingent presentation of preferred activities or topics of conversation.
Mutual attentiveness, which creates focused and cohesive interaction.	Attentiveness is a key feature of the studies and the effect of different activities on the level of happiness seen in the participant with disabilities. Participants with disabilities were more responsive or attentive to familiar staff with positive histories (Favell et al., 1996).
Co-ordination – balance, harmony and synchronicity with the other person.	The balance and harmony element of rapport was implied in the Green and Reid (1996) study as participants showed greater indices of happiness over time.

Underpinning mechanisms

In a study described as:

> *"an initial attempt to demonstrate a means of operationalizing, measuring and altering happiness among people with profound multiple disabilities"* Green and Reid (1996, p68)

The study demonstrated that indices of happiness could be systematically increased by classroom staff. To develop happiness indices observations of happiness were defined as:

> *"any facial expression or vocalisation typically considered to be an* indicator of happiness among people without disabilities, including *smiling, laughing and yelling while smiling" Green and Reid* (1996, p69).

In addition to the above definition, familiar caregivers reviewed film of the individuals, and helped define indicators of happiness that were specific to each individual.

In the first instance a stimulus preference assessment was carried out. The stimulus preference assessment examined approach and avoidance behaviours of the participants with multiple disabilities. Various stimuli were presented to the person for equal amounts of time. Measurements of approach behaviours

were made when the person moved towards, made contact with the stimulus, or showed positive facial expressions. Approach behaviours were taken to mean a stimulus was preferred. Non preferred stimuli were measured by the person pushing away, turning away or making negative vocalisations when a particular stimulus was presented. Once clarity was obtained on what constituted preferred and non preferred stimuli, preferred stimuli were presented at more frequent intervals in order to increase happiness.

❼ NB Happiness indices for each participant increased with continual exposure to the programme (Green and Reid, 1996)

❽ Rapport built

❶ Staff member or family carer

❻ Person with a disability

❹ Staff present the individual with a variety of stimuli and monitor the effect on happiness or whether the person approaches / avoids stimuli. Measure intervals in which happiness / unhappiness is observed

❷ Topographically define and agree behaviours that indicate happiness and unhappiness

❺ Choose stimuli that increase indicators of happiness or that the person approaches, and deliver these more frequently (Favell et al., 1996, Green and Reid, 1996)

❸ Measure using film and partial interval recording to obtain agreement on happiness/unhappines

Figure 3.5: Using Indicators of Happiness to build rapport

Mindfulness

Background

Mindfulness training appears to alter the way staff and family carers relate to the person with a disability. Although papers on mindfulness and people with an intellectual disability only date from the last two decades, mindfulness has been practiced for around 2,500 years(Singh et al., 2006) and is derived from ancient Buddhist meditation. Kabat-Zinn (1994, p4) describes mindfulness as:

> *"paying attention in a particular way: on purpose, in the present moment and non-judgmentally".*

It is possibly this paying attention that means those supporting people with an intellectually disability are not missing subtle and important behavioural cues or changes in the person. Mindfulness studies in intellectual disability have been linked with increasing happiness (Singh et al., 2004), reducing stress for support staff (Noone and Hastings, 2010), improving relationships with parents (Singh et al., 2007, MacDonald and Hastings, 2010), reductions in challenging behaviour (Singh et al., 2013, Singh et al., 2007) and reductions in the use of physical interventions (Singh et al., 2009).

Links to rapport

Table 3.6: Rapport and Mindfulness

(Tickle-Degnen, Rosenthal 1990)	Mindfulness
Positivity which could be mutual friendliness and warmth.	Increase in positive interactions through moment to moment kind attention. Non-judgemental acceptance.
Mutual attentiveness, which creates focused and cohesive interaction.	Greater awareness and responsiveness to the needs of the person supported by staying in the present moment.
Co-ordination – balance, harmony and synchronicity with the other person.	Steady increase of happiness indicators suggests that the co-ordination between the person being supported and staff increases giving a greater amount of balance, harmony and synchronicity.

Underpinning mechanisms

The studies which have used mindfulness in the field of intellectual disabilities contain a significant element of training, and have trained either staff or family carers (Singh et al., 2004, Singh et al., 2007, Singh et al., 2006, Noone and Hastings, 2010).

Singh and colleagues (2004) trained staff in the practice of mindfulness, in order to alter staff behaviour and increase the happiness of three people with profound and multiple disabilities. Singh et al were keen to determine whether happiness among people with profound and multiple disabilities could be increased when engaged in 1-1 interactions with staff who had been trained in Mindfulness. The definition from Green and Reid (1996) was used to define happiness.

Six regular staff took part in the Singh et al. (2004) study, a pair of staff for each participant with an intellectual disability Three staff were trained in Mindfulness. Training in the Singh et al. (2004) study consisted of Mindfulness based training programme, a mindfulness text book to read, followed up by ongoing mindfulness practice by the member of staff.

There were three staff participants not taught mindfulness techniques who met with the experimenter for the same amount of time, and discussed behavioural methods and skills training appropriate for the person they were supporting.

The percentage intervals in which happiness indicators were shown, by the person with an intellectual disability, steadily increased in the presence of staff that had undergone mindfulness training. The intervals when happiness indicators were shown by the person with intellectual disability stayed the same when supported by staff that had not had this training.

The use of mindfulness as a technique shows promise to change the thinking style of staff at a fairly deep level. Singh et al. (2006 p86), talk about the internal changes for participants of mindfulness training as, "transforming the hearts and minds and this is evident in their overt behaviour towards the individuals they serve".
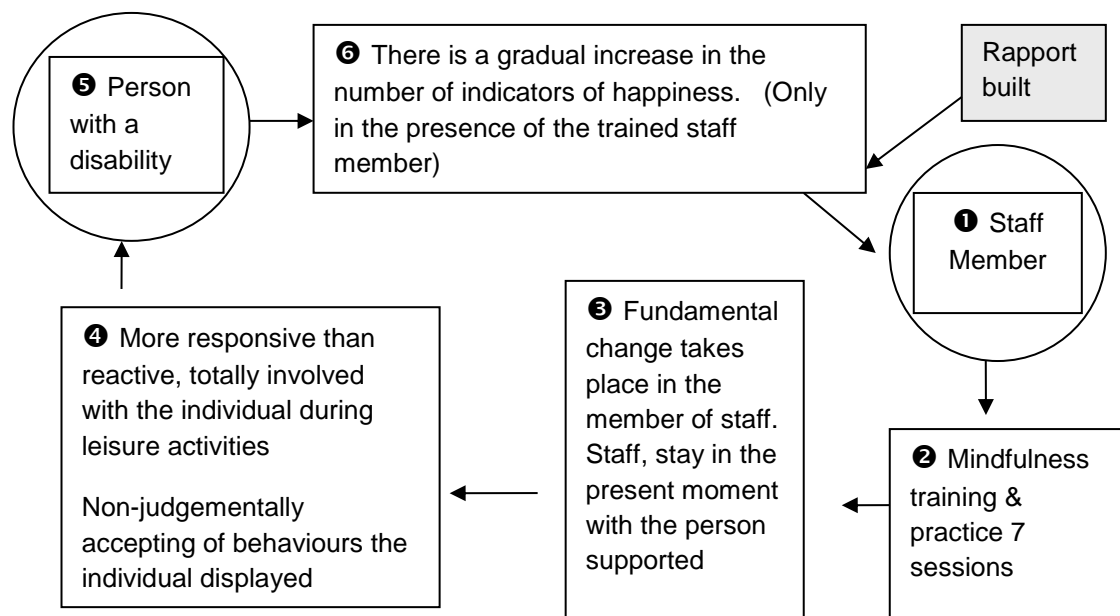
Figure 3.6: Using Mindfulness to build rapport

Parent child interaction therapy

Background

In 1969, Constance Hanf developed a two stage operant model for modifying maladaptive interactional patterns between mothers and their young children with multiple handicapping conditions. Hanf's work has formed the basis of parent child interaction training which is more broadly used for children with disabilities (McIntyre and Phaneuf, 2007, Bagner and Eyberg, 2007) and without disabilities (Jenner, 1999, Forehand and Long, 1981, Webster-Stratton et al., 2001), both with fathers and mothers. More recently work on pre session pairing (Kelly et al., 2015) has similarities to child centred interaction therapy, as the therapist spends 2-4 mins engaged in reinforcing activity, prior to placing academic demands.

Links to rapport

Table 3.7: Rapport and Parent Child Interactions

(Tickle-Degnen, Rosenthal 1990)	Parent Child Interactions
Positivity which could be mutual friendliness and warmth.	Verbally attending / commenting positively and enthusiastically on the child's appearance or activity. Increase in warm physical contact.
Mutual attentiveness, which creates focused and cohesive interaction.	Non demanding attention from the adult conveys interest to the child, which results in the child becoming more attentive to the adult.
Co-ordination – balance, harmony and synchronicity with the other person.	Reduction in behavioural challenges, child and adult more aware and responsive to each other.

Underpinning mechanisms

In the first stage of this approach, the parent is coached to develop skills in differential reinforcement (see figure 3.7). Parents are taught to recognise and give intensive attention to the positive behaviours that a child displays. Forehand and Long (1981) describe setting up play sessions in which the parent or parents are taught the skills of 'Attending to and Rewarding' the child's behaviour. Parents are taught to run a play session with the child. In the play session they give no instructions or directions, and ask no questions. The approach directs parents to use emotion and enthusiasm when making positive comments to the child. This first stage of the approach is referred to by some authors as 'The Child's Game' (Jenner, 1999) – it is thought to strengthen the relationship or build rapport between a parent and child, with resulting

decreases in behaviour causing concern. In the second stage of treatment the parent is taught to encourage compliance by giving clear directions and praising the appropriate response from their child.
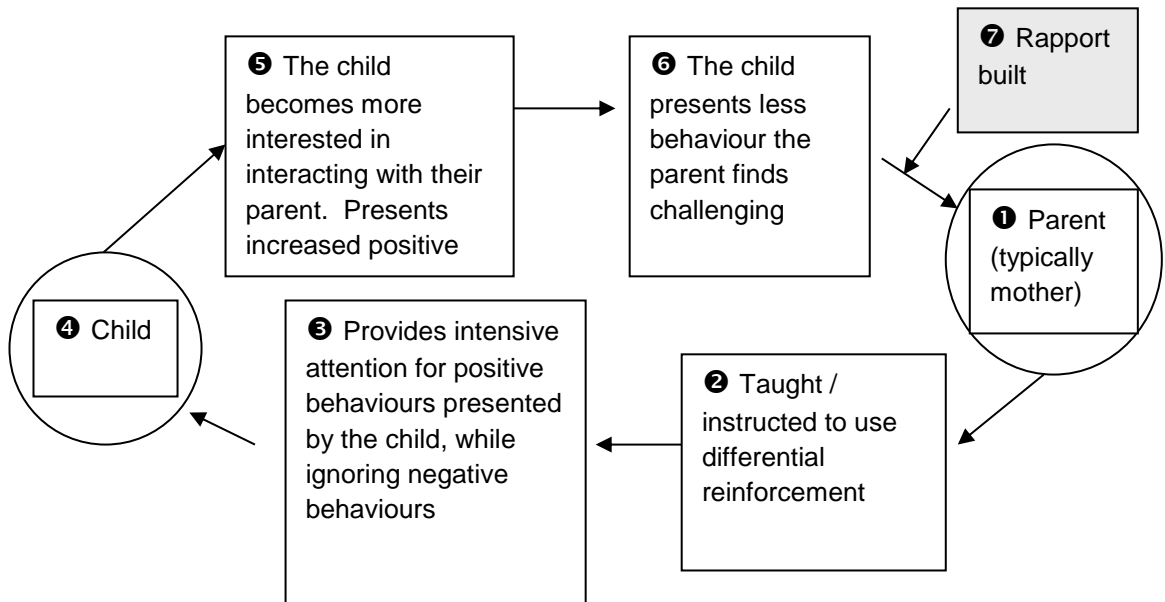
Figure 3.7: First stage of, Parent Child Interaction Therapy to build rapport

Expressed Emotion

Background

Work on Expressed Emotion stemmed from research with families of people who had been diagnosed with schizophrenia. Following admission to hospital because of a relapse in the condition of the person with schizophrenia, family members were asked about their relationship with the relative who had become unwell.   The original measure consisted of two separate sub measures Expressed Emotion (EE) and Emotional Over Involvement (EOI).

EE studies may relate to rapport in that they are examining interpersonal relationships and interactional style. The model of EE that seems to be most frequently cited in the literature is that of Leff & Vaughn (1985) who conceptualised high and low EE in a trait-like manner. The characteristic style of low EE relatives was described as tolerant, nonintrusive, and sensitive to patient needs. Quite the opposite description is given to high EE relatives who were inclined towards intolerance of the patients' problems, intrusiveness and using inappropriate and inflexible strategies in dealing with difficulties.

There is some evidence that high EE (Hastings et al., 2006, Dossetor et al., 1994) is linked to increased levels of challenging behaviour in children or adults with intellectual disability. Lam and Giles (2003) found that parents of children

with a learning disability rated as high EE and highly critical were more likely to view the behaviour of their child as a 'definite problem' than parents rated as low EE. Table 3.8 focuses on how low EE may be linked to the concept of rapport.

Links to rapport

Table 3.8: Rapport and Low Expressed Emotion

(Tickle-Degnen, Rosenthal 1990)	Low Expressed Emotion
Positivity which could be mutual friendliness and warmth.	Makes positive and supportive statements.
Mutual attentiveness, which creates focused and cohesive interaction.	Sensitive to the person's needs which suggests a style of attentiveness and noticing.
Co-ordination – balance, harmony and synchronicity with the other person.	Does not disrupt the co-ordination with commands but influences with proposals.

Underpinning mechanisms

Measurement of EE in carers is typically carried out by tape recording interviews in which family carers are asked to describe the person they care for and their interactions with him/her. The measurement of EE during the interview is an attempt by professionals to gain insight into the emotional climate in the home, in order to prevent a relapse in the persons condition. Hubschmid and Zemp (1989) talk about the high level of stress for the person being supported and the relative, in high EE relationships, and that both parties are continually placing themselves in rigid and opposed positions. In low EE relationships, both parties tend to interact more skilfully by giving each other more space to communicate.

Measurement is by semi structured interview known as the Camberwell Family Interview (CFI) (Brown and Rutter, 1966). The CFI measures a carer's criticism, hostility, warmth, positive comments and emotional over involvement. Scores are derived by taking what is said by the carer and assigning this to categories, followed by a straightforward count of the comments. More recently a briefer measure, the Five Minute Speech Sample (FMSS) (Magana et al., 1996), has been used in a number of studies as a brief measure of expressed emotion.
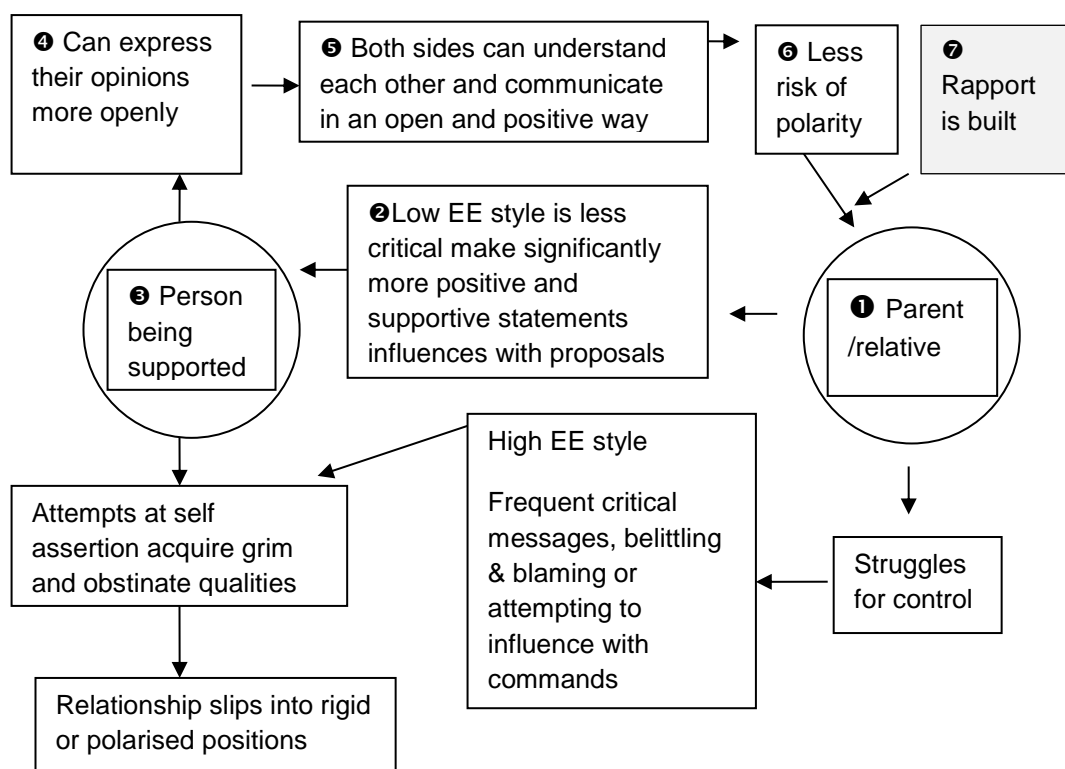
Figure 3.8: Using Expressed Emotion to build rapport

Attachment theory

Background

Attachment Theory, in the intellectual disability field, is typically concerned with relationships between people with intellectual disabilities and support staff or family carers. Clegg and Sheard (2002) recognised that, despite human service goals of independence, people with an intellectual disability are likely to need ongoing support from others because of their disability. Schuengel et al. (2010) suggest that, as attachment approaches are linked to child development, they may have been little discussed in intellectual disability literature, as care staff are aiming to treat adults with an intellectual disability as adults rather than children. Attachment theory may however be useful in its focus on developmental stages of moving from immature to more mature attachment rather than necessarily being about complete independence (Clegg and Sheard, 2002).

Clegg and Lansdall-Welfare (1995) were of the opinion that emotional and relationship difficulties were relatively common within the intellectual disability population because of a number of factors including difficulties with infant bonding and high levels of staff turnover in residential services. Insecure attachment behaviour might then be triggered in people with learning disabilities

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because of their previous experience of separation, maltreatment and abandonment (Watt and Brittle, 2008). Work with three individuals with intellectual disabilities who have become emotionally enmeshed with particular staff was described by Clegg and Lansdall-Welfare (1995).

Links to rapport

Table 3.9: Rapport and Attachment Theory

(Tickle-Degnen, Rosenthal 1990)	Attachment Theory (from (Sterkenburg et al., 2008)
Positivity which could be mutual friendliness and warmth.	Therapist provides sensitive and encouraging responses with the aim of making contact with the person.
Mutual attentiveness, which creates focused and cohesive interaction.	Sensitive to the positive and negative reactions of the person, verbally or nonverbally acknowledging the signal for interaction.
Co-ordination – balance, harmony and synchronicity with the other person.	Therapist anticipates the person's actions as closely as possible with the aim of achieving synchronicity.

Underpinning mechanisms

To avoid people with intellectual disabilities becoming enmeshed with one carer Clegg and Lansdall-Welfare (1995) suggest building a secure base, so that the physical location is perceived by the person with an intellectual disability as a place where they have reliably obtained emotional support. Attachment is built by providing sensitive and encouraging responses, with the aim of getting to know the person, and could include singing, telling stories or talking. The therapist needs to react sensitively to both the positive and negative reactions that the person makes. The person begins to show signs of recognising the therapist and seeking their proximity. Enjoyable contact can easily be restored after a break in contact (Sterkenburg et al., 2008). The monitoring and careful management of potentially dysfunctional attachment relationships is felt to be essential by Watt and Brittle (2008), in order to provide a therapeutic alliance with the people being supported and appropriately guide staff.
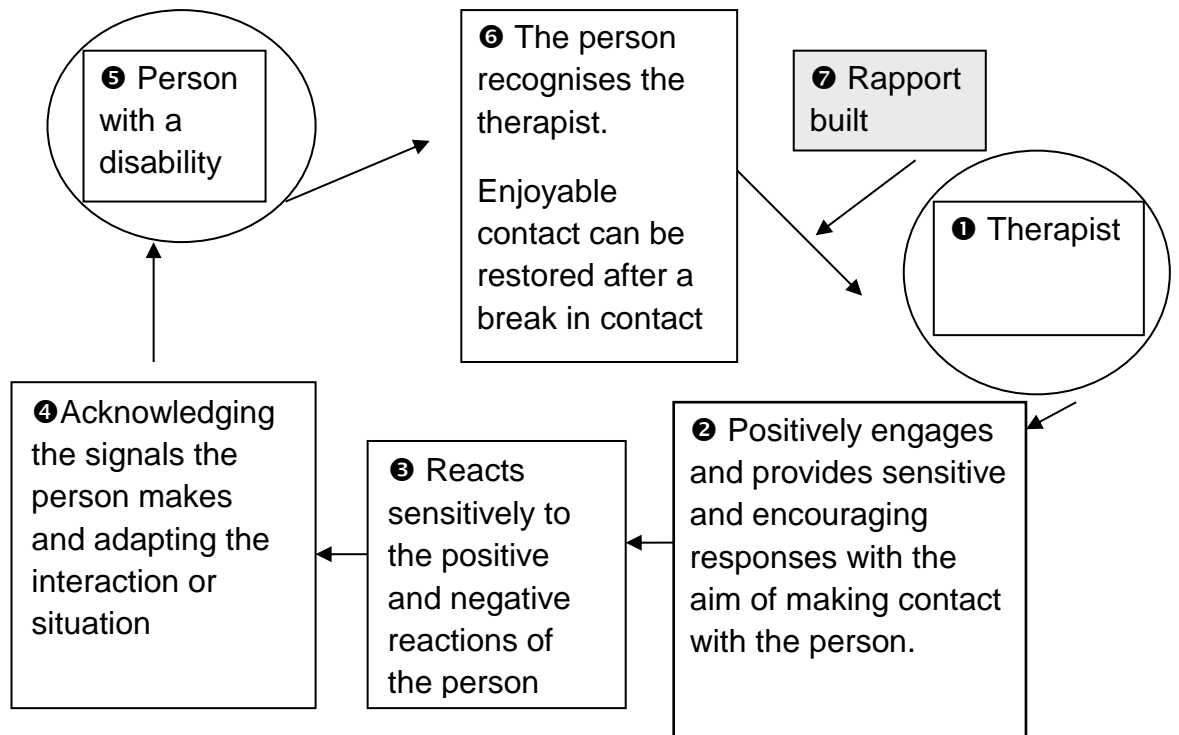
Figure 3.9: Using Attachment Theory to build rapport

In the figure:

❺ Person with a disability

❻ The person recognises the therapist.

Enjoyable contact can be restored after a break in contact

❼ Rapport built

❶ Therapist

❹ Acknowledging the signals the person makes and adapting the interaction or situation

❸ Reacts sensitively to the positive and negative reactions of the person

❷ Positively engages and provides sensitive and encouraging responses with the aim of making contact with the person.

Dementia Care Mapping

Background

Dementia care mapping (DCM) is an assessment tool which uses direct observation to measure the quality of care from the perspective of the person receiving care. DCM seeks to collect information that shows the life experiences or quality of those experiences for the person being observed, namely the quality of social interactions between staff and the people being supported. Observational data on the quality of the interactional experience can be regarded as feedback from people who may struggle to express their experiences verbally. The information collected is then used to make quality improvements to the service. As the name suggests this method of data collection started out within services for people who have a diagnosis of dementia. Given that both intellectual disability and dementia care are aiming to provide person-centred support, DCM may have benefits for intellectual disability services (Jaycock et al., 2006). Persaud and Jaycock (2001) used DCM to make observations of 22 people with intellectual disabilities.

Links to rapport

Table 3.10: Rapport and Dementia Care Mapping

(Tickle-Degnen, Rosenthal 1990)	Dementia Care Mapping
Positivity which could be mutual friendliness and warmth.	Observed person being 'in positive well-being' showing personal enjoyment, engaged in happy conversation / enjoying a session (Finnamore and Lord, 2007).
Mutual attentiveness, which creates focused and cohesive interaction.	Care focussed on the person's emotional needs and wellbeing.
Co-ordination – balance, harmony and synchronicity with the other person.	Coaching staff to alter practice and work in a 'person centred way' may lead to improvements in balance and synchronicity.

Underpinning mechanisms

To make the observation a coding system is employed, using Behavioural Category Codes (BCC). Codes are rated at five minute intervals, and based on the previous five minutes of observation. The BCCs are subdivided into those behaviours that are thought to have high potential for well-being (Type one) and those with low potential (Type two). The mapper makes a decision for each time frame based on behavioural indicators about the relative state of ill-being or well-being experienced by the person with dementia, called a well or ill being value (Brooker, 2005).

The data collected in DCM observation places major importance on measuring social interactions between carers and the person being supported. In addition to picking up positive events or good practice DCM is looking at 'Personal Detractions', usually brief events where the person being observed is demeaned or discounted in some way, such as carers talking over someone or delivering care without interacting with the person. Personal Detractions are described and coded according to type and severity.

DCM relates to rapport in that it seeks to measure carer interaction styles that would be likely to impact on the quality of the relationship between the person being supported and carers. Figure 3.10 shows interactions that DCM would regard as a positive relationship. It seems likely that if DCM picked up social interactions that contained a high level of 'personal detractions' these would be directly at odds with the model of rapport described by Tickle-Degnen and Rosenthal (1990).
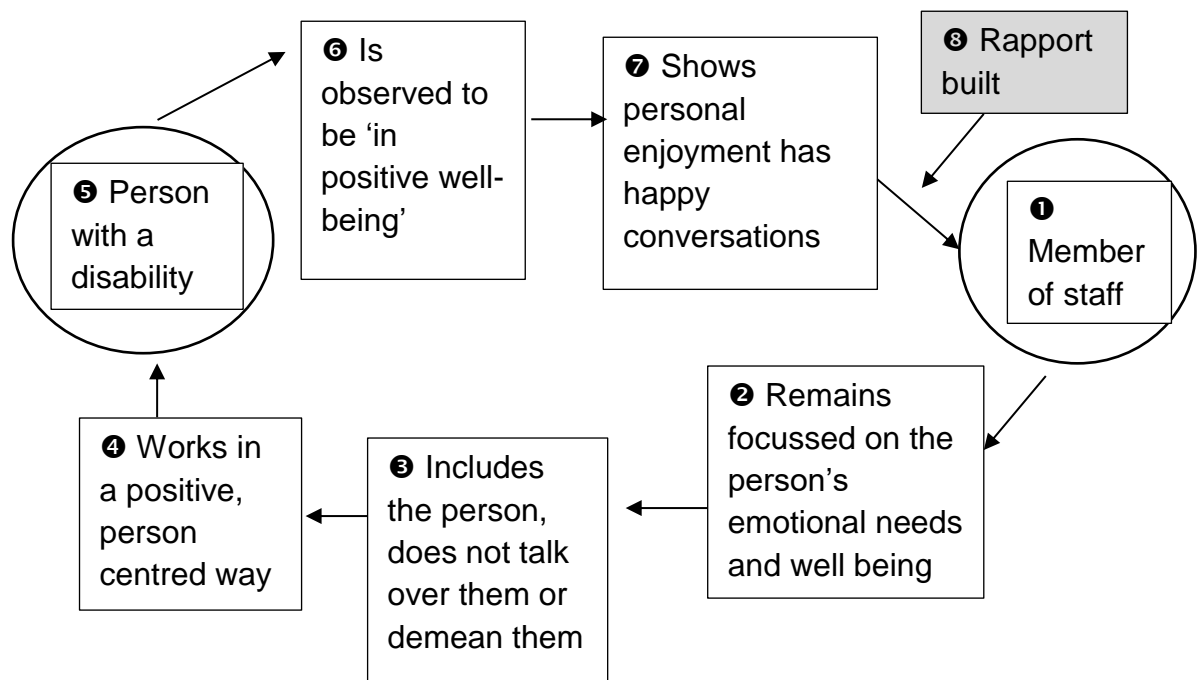
Figure 3.10: Dementia Care Mapping and Rapport

Cognitive Analytic Therapy

Background

Cognitive Analytic Therapy (CAT) is a therapeutic approach that is relational in nature. Therapists specialising in CAT seek to help the person recognise underlying causes to some of their problems, and how these link to their early life and relationships. Within the therapy session unhelpful ways of relating to others are explored so that the person receiving the therapy can become aware of alternative ways of relating (The Association for Cognitive Analytic Therapy, 2014). Despite being predominantly a talking therapy, adaptations for its use with people with intellectual disabilities and family carers, or staff teams, have allowed it to steadily grow (King, 2005, Lloyd and Williams, 2003, Greenhill, 2011, Lloyd and Clayton, 2014).

Links to rapport

Table3.11: Rapport and Cognitive Analytic Therapy

(Tickle-Degnen, Rosenthal 1990)	Cognitive Analytic Therapy
Positivity which could be mutual friendliness and warmth.	Therapist provides a developmentally needed or reparative relationship with the person in situations where early relationships were poor.
Mutual attentiveness, which creates focused and cohesive interaction.	CAT develops a working alliance or person to person relationship at the start, which deepens as therapy progresses.
Co-ordination – balance, harmony and synchronicity with the other person.	Within CAT the therapist seeks to foster a climate of 'relational attunement' with the client (Clayton, 2014 p45).

Underpinning mechanisms

Clinically, interactions are described in terms of reciprocal roles, which staff and people with intellectual disabilities can move in and out of on a moment by moment basis. If one person is critical the other feels criticised. There are many combinations of reciprocal roles, examples of which include controlling to controlled, abandoning to abandoned, supporting to supported.

CAT can be used in a 1-1 therapy situation and has usefulness in working with staff teams in intellectual disability services, to improve the relationship with the person or people being supported. The diagram below (Figure 3.11), is aimed to demonstrate how CAT may be effective with the person with a disability and their staff team (Lloyd and Brown, 2014, Lloyd and Clayton, 2014).

❻Adapted version of CAT tools used with individual in 1-1 therapy

❼ Due to increased understanding the person with a disability alters the way they relate to staff

❽ Rapport built

❺ Person with a disability

❶ member of staff

❸ Explanation written in a letter about the reciprocal roles that staff and the person with a disability are engaged in

❹ Staff understand the person / their history better and alter their relating style

❷ Workshop with staff to consider care giving dynamics

Figure 3.11: Using Cognitive Analytic Therapy to build rapport

Discussion - common themes and limitations

Although the approaches have been selected because of their relationship with rapport, it is not possible to conclude that all the approaches discussed effectively build rapport, as there is no specific measurement of rapport within the approaches.

The literature drawn upon for this review describes approaches that ascribe to a particular interaction style such as Intensive Interaction, or Parent Child Interaction therapy. Some approaches are rooted or appear to be rooted in applied behaviour analysis e.g., Noncontingent Reinforcement, Behavioural Momentum and (to some extent) Gentle Teaching. Although there are a range of approaches presented in this chapter there are other relevant studies, which at present have a less developed literature base, such as the work on positive interactions of staff working in intellectual disability services (Vanono et al., 2013).

The work of Carr et al. (1994) using NCR and (Hanf, 1969) Child centred interaction were cited as the first work on building rapport. Playing the parent child game is similar to NCR, as no demands are issued and preferred (reinforcing) activities for the child are made freely available. The approach taken by Green and Reid (1996) also involves identifying reinforcing stimuli and delivering the reinforcer more frequently than the non-preferred stimuli. II (Nind

and Hewitt, 2001) imitates and responds to the non-verbal behaviour of the person with ID, tuning in to their activity and joining in. NCR, parent child interaction therapy, the work on indicators of happiness and the approach used in II, have in common that they alter carers style, typically in specific sessions and alter the delivery of reinforcers.

Carers style is altered in behavioural momentum (Mace et al., 1988) and pre task requesting (Singer et al., 1987) but for shorter periods and directly preceding a forthcoming demand. Behavioural momentum and pre task requesting could almost be thought of as a brief form of rapport building.

Gentle teaching (McGee et al., 1987) directs carers to alter their approach, requiring that carers make interaction and physical contact freely available. It is unclear whether the type of interaction /physical contact is assessed, to ensure it is reinforcing for the person with ID.

Across the concepts related to rapport there is a split between approaches that work on altering carers, thoughts and styles and those that direct carers to specific ways of working with the person with ID, sometimes without work to alter carers thinking or style.

The depth of altering the style of carers appears to differ across the approaches presented. For example it seems likely that Mindfulness training for carers (Singh et al., 2006), CAT (Lloyd and Williams, 2003) and Attachment Theory (Clegg and Lansdall-Welfare, 1995), require a deep level of personal growth by carers. On the other hand Dementia Care Mapping (Jaycock et al., 2006) and recognition of EE (Leff and Vaughn, 1985), raise awareness of the need to change or alter ways of connecting with the person supported, through advice and coaching.

Some of the approaches were specifically developed or work well, for supporting people who present behaviour described as challenging. NCR, parent child interaction therapy, behavioural momentum, pre task requesting, II, low EE, gentle teaching and mindfulness training have all been associated with reducing behavioural challenges.

As well as helpful styles of interaction that build rapport, some attention has been paid in the literature to interaction styles that are unlikely to build rapport, and studies where individuals with an intellectual disability avoid interaction. High EE, carer stress, and a controlling interaction style are all suggestive of developing a poor rapport and potentially associated with increases in challenging behaviour. It seems likely that selecting the right style or approach for an individual, reflecting their characteristics, in order to build rapport would be important. For example, approaches based on Intensive Interaction or Happiness Indicators might be most suitable for someone with limited verbal ability and a profound intellectual disability. Mindfulness techniques may be a useful approach with staff or family carers who are presenting as high in EE.

Literature on attachment theory needs to be carefully interpreted as it may be that a situation in which an individual with an intellectual disability has a good

rapport with carers is dismantled, in the name of over attachment or being in an 'enmeshed relationship'. Indeed this links back to the lack of guidance for support staff on exactly what type of relationship they should be developing with the person with intellectual disabilities. For support staff with very little training the issue of the type of relationship they have with an individual is a potential minefield. Should the relationship develop genuine or pseudo rapport; should it involve touch or non-touch; should staff joke, and have fun or is this a therapeutic relationship?

The literature suggests that it is possible to see changes in the relationship behaviour of people with intellectual disabilities when rapport with carers is built. Within Carr's (1994) work people with an intellectual disability were more responsive to carers, looking at carers more often, smiling and not walking away once staff had approached. Green and Reid (1996) found that intellectually disabled participants in their studies were showing positive facial expressions, smiling and laughing and moving towards a preferred stimulus. The opposite of these relationship behaviours have been found in studies measuring social avoidance (Koegel et al., 1987). The category codes for Koegel et al. (1987) included: gaze aversion, closing eyes, hanging head or dropping head down to chest, facing away, or moving away.

The descriptions of how indicators of rapport may be shown when the individual with ID is with carers with whom they have a good relationship are particularly interesting, especially if these non-verbal indicators are the only way the person with an ID can tell you something about relationship quality. These non-verbal indicators have been helpful in identifying approaches to begin the process of measuring rapport between people with ID and those that support them described in the next chapter.

Reviewing these concepts related to rapport has demonstrated many points of connection between rapport and a wide variety of approaches used to support people with ID. The variety of approaches is helpful when considering rapport building as some may be more suited to an individual, their situation or carers than others. The range of approaches, all addressing rapport or relationship quality suggests that rapport needs to be a central concept in understanding the lives of people with ID.

Chapter summary

Despite wide literature searches it was of little surprise that the systematic review in chapter two only identified seven studies that directly addressed rapport and people with an intellectual disability. Given the limitations in literature specifically addressing rapport and people with an intellectual disability, chapter three has identified and examined more broadly related literature.

A systematic review of such a diverse range of literature would be problematic. Therefore, the material in chapter three should be regarded only as indicative of

material which examines relationships between people with intellectual disabilities and carers. Nonetheless, this has enabled the identification of an extensive range of concepts, methods and measures, all linked in some way to rapport. The Tickle-Degnen and Rosenthal (1990) model of rapport, which identified the components of positivity, mutual attentiveness and co-ordination was useful for identifying concepts related to rapport. The concepts examined in this chapter have given suggestions for changes in verbal and non-verbal behaviour that may be seen by people with intellectual disabilities when rapport with carers is good.

This literature in this chapter has demonstrated similarities across a theoretically diverse range of approaches. In particular, the nature/quality of relationship between carer and person has been identified as an important influence on other outcomes e.g. challenging behaviour, reductions in the use of physical interventions, happiness and less likelihood of relapse. The finding that such a range of approaches are associated with influencing outcomes, suggests the potential importance of further studying the nature/quality of relationships and, in particular, developing more effective ways of measuring the elements of such relationships.

Using the literature identified, chapter four describes the process of designing, developing and testing a measure of rapport. In later chapters of this thesis the measurement of rapport is explored from a variety of different perspectives.

Chapter 4: Indicators of Rapport in the Behaviour of People With Intellectual Disabilities Towards their Carers.

Chapter outline

Chapter two reported a systematic review of studies that had specifically focused on rapport between people with intellectual disabilities and their paid or family carers. The systematic review only identified seven studies that met the criteria for the review. In chapter three a number of concepts that conceptually related to rapport were described, and links made between this theoretically diverse range of approaches. The literature identified in chapters two and three has proved useful in outlining the observable behaviours that might be seen when rapport has been built. The observable behaviours associated with a good rapport have formed the basis of considering how to measure rapport. The current chapter describes the first in a series of empirical studies focussing on the measurement of rapport in the relationships of people with intellectual disabilities. This chapter will describe the development and testing of a new measure of rapport - the Indicators of Rapport Measure (IRM). Chapter four concludes with discussion of the potential further use and development of the IRM, including consideration of possible further studies.

Introduction

The literature review in chapter two showed that research about rapport between people with intellectual disabilities and their paid or family carers consisted of only seven studies. Whilst the research identified has made a valuable contribution there are also some limitations in the studies to date.

McLaughlin and Carr (2005), measured rapport using three measures, preference testing, staff rating of other staff rapport and staff self-rating of rapport (see chapter two).

The study by McLaughlin and Carr (2005) was carried out in one setting, and developed measures that could only really be used in a single setting. Clinically, it is common to find that staff across settings can vary considerably, in the relationship they have with the person supported, and it would be useful to have ways of systematically measuring such variation. Apart from preference

testing, the measures used in McLaughlin and Carr (2005) might also be criticised for their lack of objectivity, being based on staff opinions. Jensen et al. (2012) used a form of preference testing, to choose staff members from photographs, and are the only other authors to add to the original rapport measurement tools developed by McLaughlin and Carr (2005). Preference testing as an approach may prove difficult if an individual has not yet learned to make a choice. It is also possible, with preference testing, that the staff member chosen could vary for reasons other than rapport, eg age gender, hair colour or other individual characteristic.

Guthrie and Beadle-Brown (2006) noted the need to develop measures of rapport that do not rely on interviews and questionnaires so that people with profound and multiple disabilities could be included. Changes in the non-verbal behaviour of people with intellectual disabilities when they have built rapport with staff are well described by Carr et al. (1994), which suggested more objective measurement may be possible. The results of the systematic review have, however, shown that no formal measure of non-verbal behaviour indicative of rapport has yet been developed.

A rigorously tested and objective tool, that demonstrated ability to measure rapport across different settings and with people of all severities of disability, would have potential benefits to clinicians working with people with an intellectual disability. If rapport, or lack of rapport, could be more easily identified, understood, and empirically measured, the scope for intervention strategies, based on building rapport, would be enhanced.

Such a tool would also be useful in future research as well as clinical work. For example, it would allow the systematic investigation of the relationship between rapport and a range of putative independent variables, such as staff activity, training, or beliefs.

In the absence of existing measures the current study sought to meet these various requirements by developing and piloting an observational measure of rapport. This could be used within or across different settings, and would measure the non-verbal behaviour of people with an intellectual disability. It was also decided to focus on individuals who present challenges to others, since most of the studies had focussed on this group. Such a measure should be less susceptible to the possible biases inherent in staff perceptions of rapport, or discrete choices made in preference testing.

For two reasons, it was decided to measure the behaviour of people with intellectual disabilities, rather than direct support staff or family carers. Firstly, there were already other measures of carer behaviour likely to impact on the quality of relationships e.g. Forehand and Long (1981) and Jenner (1999). Secondly, it was felt that people with an intellectual disability would be less likely than carers to alter their behaviour in the presence of an observer. Therefore, a measure based on the behaviour of people with intellectual disabilities might provide more valid data.

There were four main aims to this study:

- to draw on previous research in order to develop an observational measure – the IRM;
- to pilot the IRM;
- to investigate the extent to which the IRM was able to detect consistent patterns of variation in relationship quality;
- to investigate the validity of the IRM through correlations with the measures used by McLaughlin and Carr (2005) (MLC).

Method

Ethics and Governance

Ethical Approval for the study was granted on the 1st March 2009, after revisions were made (appendix A.1.).

The Ethics Committee required that the necessary extensive pilot stage involved in developing the IRM, be carried out in a way that minimised intrusion or risks to intellectually disabled participants (IDP). It was agreed that initial piloting should be carried out using pre-existing video of people with an intellectual disability interacting with paid carers. The pre-existing video was held in the University, with prior permission in place for general use by students as part of their studies.

As the research was taking place in an NHS service and the researcher was employed by the NHS, research governance approval from the host NHS organisation was obtained before the study commenced. Prior to approval the governance framework required approvals from the professional lead line manager, for the researcher and academic supervisor. Approval from the service manager for the host service, was required, along with peer review of the proposal and Research and Development team approval.

Care managers of potential IDP were contacted and informed about the study, being given copies of paperwork relating to National Research Ethics Service (NRES) approval. They were advised of the likely need to appoint 'consultees' for all IDP in line with the Mental Capacity Act Code of Practice (2005), and the Guidance on Nominating a Consultee for Research Involving Adults Who Lack Capacity to Consent (Department of Health, 2008).

Care managers were asked to discuss the study with their manager, and advise about any action required to comply with the local authority's research governance procedures. It was established that one Social Services Department had comprehensive governance procedures. These were followed and written approval was granted. The second SSD had no formal procedures. The Care manager wrote giving approval after discussing the project with his manager.

Letters explaining the project and the involvement of the three IDP were sent to the GPs (appendix A.2.) responsible for each.

Setting

The original intended setting for the study had been approved through Site Specific Assessment as part of the Ethics Application. The project had been discussed with the staff team during meetings with their manager. At the end of June 2009 (after ethical approval and site specific assessment), during a question and answer session about the study, a number of staff expressed reluctance to be participants. The staff were formally thanked in writing for considering the project and a new research site was sought.

A new research site was identified by speaking to service managers in the context of clinical work. The project commenced in October 2009, with the support of both the house manager and the majority of staff. Ethical approval of the change was gained through submission of a Site Specific Information Form (SSI). Responsibilities for both finance and the care provided differed in the second research site, where potential IDP were the responsibility of two Social Service Departments (SSD) rather than Health.

The research site was a seven bedroomed bungalow situated within a group of six similar bungalows. The bungalow was positioned on the edge of a former NHS campus, in which a new housing estate was being built. Six of the potentially seven bedrooms in the service were occupied with no plan to admit to the seventh bedroom. Despite its size the bungalow was fairly homely and the people living there had sufficient living space without the rooms feeling overly large. The service was managed by the NHS and was registered as a social care service.

Development of the IRM

The original rapport measure started as an untested clinical rapport assessment developed within Surrey and Borders NHS Foundation Trust. The codes were partly based on the descriptions by Carr et al. (1994) in which they describe changes in the person when rapport is built:

> "You will know when the person becomes more responsive to you. He or she will look at you more often, stay close to you and continue to interact with you. He or she will be happy to see you and smile, laugh or if verbal talk to you when you are around and ask for you when you are not around" (Carr et al., 1994, p114) .

In addition to codes of responsiveness the original assessment included codes associated with a poor rapport such as the person walking away from staff, and codes describing staff interaction style.

Previous clinical data collected with the measure was examined, and rarely used codes were removed to make the measure easier to use. Each remaining code was examined and consideration was given to the code's necessity and usefulness. Codes related to poor rapport were removed leaving only the codes which suggested a good rapport, as a poor rapport would be suggested by the absence of good rapport indicators. Literature was reviewed and any additional indicators of a good rapport identified in the literature were added to the measure. The codes added to the measure from the literature included rate of eye contact (Carr et al., 1994, Leaning and Watson, 2006), smiling laughing or happy vocalisations (Green and Reid, 1996, Carr et al., 1994, Leaning and Watson, 2006, Favell et al., 1996), seeking out or staying close to carers (Carr et al., 1994, Leaning and Watson, 2006). Operational definitions for each of the codes were drafted.

The literature on the development of observational measures (e.g.,Cooper et al., 2007, Bakeman and Gottman, 1997) was considered. The codes within each category were not mutually exclusive as several items could be coded at the same time. It was, however, possible to make codes exhaustive by including 'none of the above'. The overall category and individual codes for the measure are shown in the table 4.1 below. Full details of individual IRM code topographies are contained in appendix A.3.

To use the IRM observers had to monitor 24 separate behaviours and document if they did/did not occur. Observation methods considered were event recording, momentary time sampling and partial interval recording. With event recording it would have been difficult to capture all the information accurately, if there was no specific time built into the observation session, to record. Momentary time sampling would have only been useful for some individual codes that had a longer duration (close to stationary carer to or following a moving carer). Codes with shorter durations, smiling or gestures would have been missed using momentary time sampling, if they had occurred outside the moment of observation.

With partial interval recording, the observer records if the behaviour of interest occurs during any point in the interval period, rather than how many times the behaviour occurred. Partial interval recording was selected as the method of recording:

> "because an observer using partial-interval recording needs to record only that a behaviour has occurred at any point during each interval (compared to having to watch the behaviour throughout the entire interval with whole interval), it is possible to measure multiple behaviours concurrently" (Cooper et al., 2007, p93).

Therefore partial- interval recording was selected to make data collection across the twenty three behaviour codes a manageable task.

The IRM was piloted on pre-existing film featuring a minimum of three people with an intellectual disability. There were ample opportunities to observe and record codes using this pre-existing film. The interval for partial interval coding

was adjusted after the pilot, to make recording more manageable. Prior to piloting the observation interval was 15 seconds, including 10 seconds observing the individual and 5 seconds recording. The observation interval was changed to a 30 second interval with 20 seconds observing and 10 seconds in which to record the observation. Piloting using the pre-existing film also highlighted potential coding difficulties if staff moved out of shot. When filming for the current study, therefore, this was avoided if at all possible. All codes were reviewed following the pilot and no new codes were added.

Measures

Participant characteristics

Information was collected about the adaptive skills of IDP, using the **Vineland II Adaptive Behaviour Scale** (VABS) (Sparrow et al., 2005). The Vineland II measures the social and personal skills of individuals from birth through to adulthood. The VABS II is a reliable and valid rating of adaptive behaviour. (Sparrow et al., 2005)

Data on challenging behaviour was collected using the **Behaviour Problems Inventory** (BPI), (Rojahn et al., 2001). The BPI is an informant-based assessment which collects information on three subscales of behaviour – Stereotyped, Self-injurious and Aggressive/Destructive. The BPI has been shown to be a valid and reasonably reliable measure (Rojahn et al., 2001).

The above measures provided information on challenging behaviour and adaptive skills so that a full description of participant's characteristics could be provided.

McLaughlin and Carr measures of rapport

The **Staff Self-Rating** (McLaughlin and Carr, 2005) is a simple rating made by each staff participant (SP) on a six point Likert scale. To use the staff self-rating form the SP is asked to rate their relationship with a person with ID they support. The single question on the Likert scale ranged from 0 (relationship is unsatisfying) to 5 (relationship is satisfying).

0 = The majority of my interactions with this person are awkward, unpleasant and stressful. I do not feel particularly close to this person, and often it is difficult for us to find any "common ground."

5 = The majority of my interactions with this person are enjoyable, satisfying and interesting. Together we share a warm, open, balanced relationship. I find that we have a lot in common and enjoy each other's company.

Staff Rating of Other Staff (McLaughlin and Carr, 2005) measures how SP rank their colleagues, in terms of the level of rapport each SP has with each IDP. SP are given a list of the names of their colleagues and asked to write a 1 next to the name of the staff member that they view as having the best relationship with each IDP, 2 next to the SP they view as having the second best relationship etc., until all staff have been rank ordered by the member of staff, based on their perceptions of relationship quality.

The Manager of the first service was keen for the study to take place within the service, and assisted in piloting the staff recorded MLC measures to ensure these were straightforward for staff to understand. Comments back after piloting were that both the Self Rating and the Staff/Carer Rating of other Staff were easy for staff to understand. An adjustment to the Staff Rating of other Staff was suggested to make more space for SP to write the names of their colleagues. This piloting took place with the manager, and was prior to the staff in the first service declining to be research participants. Adjustments to the form were made following this feedback.

Preference Testing (McLaughlin and Carr, 2005) To perform Preference Testing each IDP is asked, in a structured way, to choose which SP they want to support them, in order to identify their preferences across the available staff. Preference ratings are made by systematically presenting the IDP with two staff members at a time, and asking "who would you like to help you?" This procedure was carried out across all combinations of staff and the results recorded.

For the purpose of this study the information required from a preference test was set up on small cards so that they were straightforward for staff to complete.
The back and front of the cards used can be seen as Figure 4.1 below.

```
┌─────────────────────────────────────────┐
│  Date of testing:                        │
│                                          │                Front
│  Staff to be tested                      │
│                                          │
│                                          │
│  _____ and _____ │
│                                          │
│  For testing both staff must be in the   │
│  same room a similar distance away from  │
│                                          │
│  See back of card                        │
└─────────────────────────────────────────┘


┌─────────────────────────────────────────┐
│  Staff member who did the test:_____  │                Back
│                                          │
│  What is the activity being offered:____ │
│                                          │
│  Say to……….                              │
│                                          │
│  "Who would you like to (name of activity)│
│  with you today" ____(      )_____ or    │
│  ____(      )_____.                       │
│                                          │
│  To ensure reliable testing     must     │
│  hear both choices before he/she makes   │
│  a choice.                               │
│                                          │
│  Name of the staff member chosen:_____  │
│                                          │
└─────────────────────────────────────────┘
```

Figure 4.1: Preference testing cards

Preference testing is calculated by scoring 'one' for the SP selected on the preference test and 'zero' for the SP who was not selected.   A high score in the preference testing reflected that the IDP selected this SP more often.

The MLC measures have only been used by MLC who found them usable and to provide consistent results. The only measure to be elaborated on is preference testing in which Jensen et al. (2012) used a similar approach, but adapted this using staff photographs rather than having staff members present.

Indicators of rapport measure

The IRM operationally defines and measures (mainly) non-verbal behaviours that are presented by people with an intellectual disability. The measure is designed to be used in a variety of settings and with either paid staff or family

carers. The non-verbal behaviours on which data is collected in the IRM are those that indicate the individual has a relationship 'high in rapport' with staff or family carers.

The measure used in the current study included the following categories of behaviours:
- actions,
- positive facial expression,
- vocal sounds and speech,
- physical contact,
- gestures,
- eye gaze.

Between them, the categories contained twenty four non-verbal behaviour codes as shown in Table 4.1.

Table 4.1: IRM overall category and individual codes

Category	Individual Code
Actions	- Approach stationary carer - Close to stationary carer/Maintain proximity - Follow moving carer - None of the above
Positive facial expression	- Smiling, giggling or laughing - None of the above
Vocal sounds and speech	- Word approximations - Vocalisations while smiling - Singing, joking - Asking for an absent carer or calling a carer by name - None of the above
Physical contact	- Cuddle/hug - Kissing - Touching - Lightly tapping - Stroking - Hand holding - High five - Leading carer - None of the above
Gestures	- Beckon - Pointing - Mimicking - Thumbs up - Sign language or attempts - Nodding head - None of the above
Eye gaze	- Tracking a moving carer /moving eyes or head - Looking at a stationary carer - None of the above

Participants

Intellectually Disabled Participants (IDP)

Participant number were targeted at three to keep this similar to McLaughlin and Carr (2005). Although there were six people with ID living in the service the other three had far more verbal language and consequently would not have been suitable participants.

Consultees were appointed for the three IDP, in line with the Mental Capacity Act Guidance on Nominating Consultees (Department of Health, 2008). All consultees made declarations that IDP would, if they had capacity to do so, give consent for participation in the research. For the three participants two had a personal consultee and one had a nominated consultee appointed.

Once consultation over the participation of IDP was completed, information about their adaptive and challenging behaviour was collected.

Bernie

For Bernie (not his real name) his mother was appointed as a personal consultee. A visit was made to Bernie's mother to discuss the project and the information sheet for consultees was given prior to her signing the consultee declaration form (see appendix A.4. for the consultee information sheets and appendix A.5. for the consent form).

Bernie was male and 41years, 7 months old at the start of the study. He was British of African descent and had diagnoses of severe intellectual disability and autism.

The main behavioural challenges for Bernie identified on the Behaviour Problems inventory (Rojahn et al., 2001) were extreme drinking, grabbing and pulling others, having bursts of running around, discarding objects into toilet. (Scores can be found in table 4.2).

The VABS showed that Bernie had no verbal language and could understand an instruction with two actions or an action and two objects. Bernie would smile at others and make sounds of pleasure. Bernie could eat independently with cutlery dress himself and carry out household tasks such as vacuuming, clearing tables and loading the dishwasher. (Scores can be found in table 4.3).

Alanis

For the participant Alanis (not her real name) a visit to her sister was offered but she was happy to discuss the project over the telephone. The Information sheet for consultees was posted to her and she returned the signed consultee declaration form.

Alanis was female and 47 years, 11 months old at the start of the study. She was British of Caribbean descent and had a diagnosis of intellectual disability of unspecified severity.

The behavioural challenges for Alanis identified on the Behaviour Problems inventory (Rojahn et al., 2001) were, yelling and screaming, hitting, kicking, grabbing /pulling, scratching, pinching or spitting at others, being verbally abusive to others and destroying items. (Scores can be found in table 4.2).

The VABS identified that Alanis could speak in short sentences, ask brief questions and call staff. Alanis could recognise some letters of the alphabet and copy her own name. Alanis could wash / dress herself independently and, help around the house preparing meals cleaning and tidying without direct assistance. (Scores can be found in table 4.3).

Ajay

Ajay (not his real name) had no contact with relatives and, therefore, required a nominated consultee. A meeting was arranged with the manager of the service and Ajay's care manager. Following the meeting the care manager and manager of the residential service agreed to act as joint consultees for the study and signed the consultee declaration form.

Ajay was male and 43 years old at the start of the study. Ajay was British of unknown ethnic origin, though believed to be of Afro-Caribbean descent. He had diagnoses of intellectual disability (unspecified) and autism.

The behavioural challenges noted for Ajay on the Behaviour Problems inventory (Rojahn et al., 2001) were, yelling and screaming, having bursts of running around, hitting and spitting at others. (Scores can be found in table 4.2).

The VABS established that Ajay could follow instructions with two actions or an action and two objects and could use simple words to describe things. Ajay could dress himself reasonably independently, coping with buttons but struggling with zips that are not fastened at the bottom. Ajay was able to assist with tasks in his home such as clearing the table or putting possessions away but could not use any household appliances. (Scores can be found in table 4.3).

Behaviour Problems inventory scores

The scores for each IDP, as identified on the Behavior Problems Inventory (Rojahn et al., 2001), are shown in Table 4.2.

Table 4.2: Behaviour Problems Inventory scores

IDP	Subscales	Frequency score	Severity score
Bernie	Self-Injurious Behaviour	3	1
	Stereotyped Behaviour	15	7
	Aggressive/Destructive Behaviour	1	1
Alanis	Self-Injurious Behaviour	0	0
	Stereotyped Behaviour	3	1
	Aggressive/Destructive Behaviour	11	12
Ajay	Self-Injurious Behaviour	0	0
	Stereotyped Behaviour	30	17
	Aggressive/Destructive Behaviour	5	4

Vineland adaptive behaviour scale scores

Table 4.3 shows the scores obtained by IDP on the VABS (Sparrow et al., 2005).

The VABS II is a measure of adaptive behaviour for ages birth to 90. There are four domains of the VABS II Communication, Daily Living, Social Skills and Relationships, Physical Activity and Problem Behaviour. The problem behaviour section was not used as information was collected separately on the Behaviour Problems Inventory (Rojahn et al., 2001).

The subsections of the VABS II and number of items are: Listening and understanding (20 items) Talking (54 items), Reading and writing (25 items), Caring for self (41 items), Caring for home (24 items), Living in the community (44 items), Relating to others (38 items), Playing and using leisure time (31items), Adapting (30 items), Using large muscles (40 items), Using small muscles (36 items). Items are scored on a three 3- point scale (0=Never, 1= Sometimes or partially 2=Usually).

Table 4.3: Summary of VABS scores for each IDP

Vineland II subdomain	Bernie			Alanis			Ajay		
	Raw score	Age equivalent	%ile rank	Raw score	Age equivalent	%ile rank	Raw score	Age equivalent	%ile rank
Receptive Communication	23	1:11		33	4:11		25	2:5	
Expressive Communication	10	0:6	<0.1	71	3:2	<0.1	41	2:1	<0.1
Written Communication	0	1:10		6	3.10		0	1:10	
Communication raw score Sum	**33**			**110**			**66**		
Personal Living Skills	55	4:2		64	5:11		55	4:2	
Domestic Living Skills	18	6:6	<0.1	32	8:0	<0.1	12	4:7	<0.1
Community Living Skills	0	Below 0:1		14	3:6		0	Below 0:1	
Daily living skills raw score sum	**73**			**110**			**67**		
Interpersonal Relationships	13	0:3		36	2:4		29	1:6	
Play and Leisure Time	4	0:4	<0.1	4	1:10	<0.1	6	0:7	<0.1
Coping Skills	12	2:3		30	5:6		19	3:4	
Socialisation raw score Sum	**29**			**70**			**54**		
Gross Motor Skills	63	2:9		52	2:0		64	2:10	
			<0.1			<0.1			<0.1
Fine Motor skills	24	2:1		52	4:7		30	2:8	
Motor skills raw score Sum	**87**			**104**			**94**		

Age equivalents are presented in years and months. For example 7:10 = 7 years 10 months.

Staff Participants

A meeting was held with potential SP in the second research site. Copies of the SP information sheet (appendix A.6.), together with consent forms (appendix A.7.), were given to each person in the team. During the meeting the rational for the study and the consents obtained from the National Research Ethics Committee and Surrey and Borders Partnership NHS Foundation Trust were described. Potential SP were reassured about filmed material, questionnaires being stored confidentially, and shared only with research supervisor or people involved directly with the project.

Initially staff who worked on a night shift were considered for inclusion in the project. After discussion with the manager, night staff were excluded, as it was felt that limited data would be obtained. Limited data were felt to be likely as all three of the IDP, retired to bed or their own rooms fairly soon after the night staff came on duty.

Of the eleven staff approached nine agreed to participant in the study. Two staff declined as they disliked being filmed. SP signed consent forms and copies of the signed form were given to each SP.
At the beginning of the study there were three staff members who had been in the service for 6 months, rather than the year that the study protocol had outlined as inclusion criteria for SPs. The three staff had expressed a willingness to be study participants, and the manager of the service was of the opinion that the newer staff had built up a good rapport with the IDP.

Therefore, a substantial amendment was submitted to the Ethics Committee to alter the original protocol so that staff who had been in the service for six months rather than a year could be included in the study. The amendment was approved on the 5th May 2010 and the three additional staff members were recruited as SP.

Basic information about SP such as age, length of time working in the service, total length of intellectual disability service experience and qualifications was collected, as shown in Table 4.4. Names used are pseudonyms.

Table 4.4: Information on SP

Participant identifier	Gender	Age (yrs)	Length of time working in the service (yrs)	Total length of experience in ID services (yrs)	Highest academic qualification
Ava	F	41	4	4	NVQ Level 2 (Social Care)
Ron	M	58	8	14	NVQ Level 3 (Social Care)
Helen	F	57	1	30	NVQ Level 2 (Social Care)
Tom	M	52	1	15	NVQ Level 2 (Social Care)
Ed	M	40	2 ½	23	NVQ Level 3 (Social Care)
Carl	M	55	6	9	NVQ Level 2 (Social Care)
Beth	F	45	1	12½	NVQ Level 2 (Health and Social Care)
Sim	M	26	3 ½	3 ½	None
Matt	M	58	2	27	RGN / RMN /RNLD

Procedure

Filming started on the 5th of May 2010 and finished on the 22nd October 2010. Filming was primarily carried out in half hour periods, and arranged between 4-6 pm on week day evenings, chosen as times when IDP were at home, with no structured activity. Times of no structured activities were selected so that participants were unrestricted, in moving between staff, to seek out those with whom they had the best rapport. Some difficulties with the 4-6pm film time occurred, as the same small core group of staff tended to work on the midweek late shifts. Consequently some filming was carried out during the morning at weekends to capture times with the SP that tended to work infrequently during the week.

Keeping Track of the Filming

Each film remained focused on one IDP. During each occasion of filming a subset of SP were present. Sufficient films of each IDP were made until there were at least 150 minutes for each SP, in the presence of each IDP

Filmed data collection was continued until each of the nine SP had 150 minutes of film, which had been shot at times when they were accessible to the three IDP.

There was a different combination of staff on many shifts. Because of annual leave, attending courses, sick leave and the times they generally worked, this meant that some SP reached the 150 minute total far quicker than others. In order to keep track of the amount of filming undertaken, a running total was kept of the number of minutes filmed. All nine SP had three separate running totals one for each of the three IDP, giving twenty seven separate running total logs. The running totals for each SP were updated after each occasion of filming.

Filming difficulties

IDP were filmed for the full half an hour, unless they went to their own rooms or into private areas such as toilets or bathrooms, at which point filming was stopped. On some occasions planned filming was not carried out or stopped part way through. Some of the individual reasons for this included Bernie being out of the house on a trip to the coast and not due back, staying in his own room or falling asleep during the observation period.

For Alanis there were a greater number of interruptions to filming. On one occasion she requested that filming be stopped after nine minutes and later asked why she was not being filmed! On two other occasions she went to her room, once after 27 minutes and on another occasion after 18 minutes. During one scheduled film time Alanis was asked if she wanted to be filmed but opted to stay in her own room. During another planned filming period she was asleep in her room. On two occasions there were warning signs of or displays of challenging behaviour. Once when she had previously been shouting loudly at Ajay and had gone to her room. On another occasion Alanis appeared unsettled, saying to the researcher "I'll put you on the floor". She was asked "if she wanted filming to stop" and said "yes".

Ajay was generally the easiest person to film, as he spent the majority of his time in communal areas of the house. There was, however, one planned film time where he was asleep in his own room, and another where he stayed in his room due to bad hay fever and new medication. One planned filming period was stopped part way through as he was presenting behaviour that posed a challenge, appearing quite distressed and shouting and it was thought being filmed might increase his distress.

Each 30 minute period of filming was typically stopped and restarted one or more times, particularly for Bernie and Ajay. These two participants were the most physically active and would go in and out of rooms, such as toilets, to play with water or watch the toilet flush. Once a participant entered the bathroom or toilet, filming could not take place and had to be paused.

Monitoring the whereabouts of SP

During filming SP did not always remain in the building, or went into rooms where the IDP could not interact with them. Examples of this were staff leaving to go to other services to borrow equipment or going out to do grocery shopping. At times staff would be in meetings, such as review meetings for other people who lived in the house. Documenting which SP were available for interaction or were unavailable initially posed a difficulty. For example, saying the names out loud of available staff so that this was noted on the film may have increased reactivity to the presence of the camera. As it was only staff absence that needed to be noted, a small recording sheet was drafted and carried in a belt bag so that absence could be recorded. SP continued availability was checked at five minute intervals. A small timer was used, which vibrated to unobtrusively signal the 5 minute interval period and a note was made of absent SP. SP were also asked to inform the researcher if they were going out, which they generally did.

Completing Comparison Measures (McLaughlin and Carr, 2005)

Staff Recorded Information

Over the period that filming was being carried out, SP completed the Staff / Carer Rating of Other Staff / Carers and the Self Rating Form (McLaughlin and Carr, 2005). Separate measures were completed in relation to each of the IDP. The measures were described to staff in a staff meeting. Included with the forms were addressed envelopes in order to return the completed forms to an administrator. Each SP completed a self-rating form for each IDP. The self-rating form asked SP to rank how they viewed their relationship with the IDP. Self-Rating forms generally seemed to be accurately completed. With the Staff Rating of other Staff form, SP were asked to rank the relationship that each IDP had with each of the SP who supported them. Staff were requested to think of each IDP in turn, and consider who they felt this person got along with best (rated 1), then second best (rated 2) and so on. Each SP then ranked their colleagues (all the other SP) in order of preference.

The Staff / Carer Rating of Other Staff / Carers and the Self Rating Forms, were checked by an administrator without being seen by the lead researcher. After checking a number of the Staff /Carer rating of Other Staff/Carers forms were found to be incomplete and had to be returned to SP.

Preference Testing

Preference testing (McLaughlin and Carr, 2005) was carried out by a member of staff who wanted to help with the study but had not wished to be filmed. Advice and modeling of the procedure was given by the lead researcher who remained 'blind' to the results in order to eliminate bias. The IDPs were presented with two SP on each occasion and asked who they would like to support them. IDP choices were always honored. Preference testing results were recorded on small cards, placed in an envelope and then forwarded to an administrator for checking.

There was no specified order for when preference tests must be completed. The member of staff assigned to carry out the preference tests, took the opportunity to complete a preference test when staff on duty had not been tested.

Preference testing was relatively straightforward for two of the three IDP (Alanis & Ajay). Preference Testing with Bernie proved more difficult as he did not seem to understand the process of making a choice. SP tried preference testing in which they both held an identical tangible (e.g. dinner, drinks) and Bernie was asked 'who would you like to give you your drink, staff A or staff B'. When presented in this way, Bernie was more able to successfully make a choice.

Analysis

Coding the Filmed Data Collected

Reliability

An initial practical difficulty of coding was the discovery that the film timer on windows media player was not always accurate. As it was often necessary to rewind or fast forward the film, this created a risk that segments of the film would be missed or coded twice. An alternative media player (VLC) was found to be accurate and was used for all coding.

Filmed data were viewed by the lead researcher and a second observer. Initially the film was coded in intervals without a pause in the film, using partial interval recording. The partial interval was 20 seconds of observation and 10 seconds of recording. Using this approach reliability of coding between observers was poor. Accuracy between observers improved when films were coded by viewing 30 seconds of film and then pausing the film in order to code data. Therefore, given the large array of behaviours, the shortest interval compatible with reliable recording (30 seconds) was selected.

Because the coding of filmed data were time consuming and other Community Learning Disability Team professionals were under pressure, several volunteers assisted in being second observers. These included a volunteer Psychology

Graduate, Behavioural Specialists, a Psychology Undergraduate and a Speech and Language Therapist. Cohen's kappa co-efficient (Cohen, 1960) was used to calculate the chance-corrected agreement between two observers. The first film being coded for each participant was always coded by two observers to ensure that the codes were being applied consistently from the beginning. The selection of subsequent films for dual coding primarily reflected the availability of a second observer at the time the film was being coded by the main observer. During observations the film was paused every 30 seconds to record. In a similar way to observing in a live clinical situation both observers made the observation at the same time. Observers sat apart and viewed the same screen, ensuring that both observers were coding the same piece of film.

For Bernie 616 minutes of film were used in the study and reliability was investigated for 180 minutes of this film, 29%. For Alanis 627 minutes of film were used in the study and reliability was investigated for 171 minutes of this film, 27%. For Ajay 674.5 minutes of film were used in the study and reliability was investigated for 182.5 minutes of this film, 27%. Cohen's kappa scores were calculated for each individual IRM code irrespective of which SP the behaviour was directed towards. Therefore, kappa scores show agreements on whether or not the behaviour was seen in the recording interval. All kappa scores were above 0.6 (see Table 4.5 below). The range shown in table 4.5 reflects the kappa scores across the different films with which reliability was checked. Percentage of exact agreement of the same SP being identified by both observers was calculated. Exact agreement on the films ranged from 91-100%

Table 4.5: Cohen's kappa for IRM categories

Cohens kappa, range and mean scores for individual codes that make up each category						
	Bernie		Alanis		Ajay	
Category code	Range	Mean score	Range	Mean score	Range	Mean score
Actions	0.76 -1.00	0.96	0.93-1.00	0.98	0.93-1.00	0.98
Positive facial	0.74 -1.00	0.94	0.78-1.00	0.95	0.96-1.00	0.99
Vocal sounds	0.93-1.00	0.89	0.71-0.97	0.90	0.74-1.00	0.92
Physical contact	1.00	1.00	1.00	1.00	1.00	1.00
Gestures	0.79 -1.00	0.95	0.66-1.00	0.89	1.00	1.00
Eye gaze	0.78-1.00	0.91	0.93-1.00	0.99	0.60 -1.00	0.85
Staff agreement	99-100%	100%	93-99%	97%	91-99%	96%

Ease of coding differed between IDP depending upon the number of channels of communication used by the participant. For example, one IDP could use a number of gestures and had slightly more verbal language than the other participants. Another IDP had no verbal language and rarely used any form of

sign language or gestures. As table 4.5 shows, however, it proved possible to reach good levels of inter observer agreement with all IDP.

Coding Changes and difficulties

Early in the process of coding it was evident that some of the previously defined IRM codes needed to be redefined, as coding was missing potential rapport indicators that had been seen on the film.

Changing the definition of IRM codes was approached with some caution because of the need to recode previously coded film. All such changes were dated and all films have been coded using the final version of code definitions (dated 11/2/11). The main changes made are outlined below as shown in Table 4.6.

Table 4.6: Changes in coding

Individual IRM code changed	Original definition / Date	Changed definition /date	Rationale
Looking at a stationary carer	2/2/09 Individual with a disability keeps their eye gaze / head directed towards a stationary carer for more than three seconds.	11/2/11 Individual with a disability clearly pauses their eye gaze / head towards a stationary carer within the observation interval.	A number of examples of clearly directed eye gaze that did not last the three seconds initially required by the definition
Pointing	2/2/09 Person with disabilities using one finger to direct a carer's gaze to something or someone.	11/2/11 Person with disabilities pointing /using a hand gesture to direct a carers gaze something or someone.	Good examples of IDP using all their fingers or a thumb in order to point.
Asking for an absent carer or calling a carer by name	11/2/11 Individual with disabilities asking for a carer by name (regardless of whether they are present or not). (Record carer's name).	12/5/11 Separated into two codes in the coding of data. 1) asking for an absent carer or 2) calling a carer who was present by name.	As coding was linked to staff who were present in an observation a separate coding area was needed to capture instances of absent carers being asked for, to link this data to a particular SP.

Due to shift patterns and certain staff working additional shifts, some staff were seen more frequently during observations and there was more overall footage of some SP than others. To keep the time equal for all SP, Asking for staff when absent, was only coded until the full 150 minutes of each SP observation was completed.

For each IDP there were a number of observations of times when their behaviour scored on the Codes, but did not appear to be fully under their own volition. For example if SP called or asked an IDP to come here and the person did, this was coded as 'Approached a Stationary Carer'. Consideration was given to altering the coding to reflect this but as SP asked an IDP to come here on very few occasions it was not likely to make a marked difference in the results obtained.

Other examples of SP prompting an IDP to perform behaviour that scored on the IRM codes included, being asked to smile, asked to say the name of an absent or present SP/ the observer or asked to point to something in a book. There were very few observations of this nature.

On occasions where there were two SP standing together and an IDP approached, the 'Approached Stationary Carer' code was scored for both staff if they were within 1.5 meters of the IDP. In reality, however, the IDP may have wanted to interact with one of the two SP. In much the same way measures of approaching carers and maintaining proximity were also difficult to code if the SP was near to something that the IDP wanted, such as food beverage or activity.

An IDP touching staff was problematic if touching naturally occurred as part of an activity. For Alanis most of the touching coded was associated with nails being painted. The desire for the activity appeared to be the motivation for touching SP rather than the activity per se.

On the other hand each occurrence of Ajay's lower 'touching others' score was associated with touching SP as part of his way of approaching and interacting with SP. In effect this means that Ajay's lower score for touching SP is perhaps more meaningful than Alanis's high score.

As the data were filmed prior to coding there were infrequent occasions when it was not possible to see exactly what was happening in the film. For example, if the camera was directed towards the IDP it was not always possible to see everyone else in the room.

During filming, despite being advised to not change their style of interaction, one SP (Beth) appeared to increase interaction with IDP in the presence of the observer. On a number of occasions, as filming for one IDP finished and moved onto the next participant, Beth would immediately turn attention to the new person being filmed.

Beth was advised twice not to alter her typical interaction style with IDP but this continued to happen at what appeared to be an unusually high level. During

some filmed observations her interaction with an IDP was almost continuous, significantly increasing the frequency of some IRM codes such as 'Close to Stationary Carer'.

The number of proximity codes recorded for Beth compared to other SP is shown in Table 4.7 below. The difference between frequency of coding for Beth and other staff was particularly apparent for Bernie. Beth's proximity and interaction with all the IDP during film times also influenced other codes such as word approximations, smiling gestures and eye gaze.

Given Beth's alteration in interaction style, and the likely effect on results, it was decided that it would be necessary to undertake analysis of the IRM without data from Beth.

Table 4.7: Total SP scores for the 'Close to Stationary Carer' code

Category Code Close to Stationary Carer Maintain Proximity			
Staff member	Bernie	Alanis	Ajay
Ava	15	158	22
Ron	1	47	3
Matt	4	4	32
Sim	14	0	73
Carl	21	16	56
Ed	7	32	84
Beth	65	167	71
Helen	0	138	44
Tom	2	5	4
OBS	0	0	0

Standardised observation length

For some SP it took seven rather than six observation sessions to reach 150 minutes, see for example Ron in Figure 4.2. This meant that observation intervals, due to their differing length, were not comparable. To make observations comparable each category code was standardised to a 30 minute length (category code total x 30 divided by observation length).

Within the analysis the normality of data distribution will be tested and non-parametric statistical tests used, if data is not normally distributed.

Results

The results section has been transparently structured so that the systematic steps taken in the analysis of the data should be clear. The first section describes the raw data including the consistency of the data obtained from the IRM, and gives illustrative data for individual codes. There is a summary of the findings in section one at the raw data level.

The second section describes the data when examined at the wider category code level. To summarise the IRM at category code level, graphical information showing the IRM category totals, overall totals and a correlation matrix for the category and overall totals are provided. Descriptive statistics for the IRM data are provided in this section.

The third section introduces the results of the MLC measures. Section three presents raw data for each of the measures and compares findings with those in MLC's original study. The data are used to group and rank order SP in terms of good/poor rapport. The section concludes with a brief commentary on the use of the MLC measures.

Section four is focussed on investigating the relationships between the IRM and the MLC measures. Correlations between IRM and MLC scores are presented. Overall IRM totals and IRM category code totals are presented graphically and stratified in terms of the groupings derived from the MLC scores. Group differences are investigated statistically.

1. Summarising IRM data

Consistency of IRM Scores Across Observation Sessions

Consistency was examined to determine whether SP who scored highly on the IRM obtained high scores uniformly across observation sessions. That is, were high levels of behaviour indicative of rapport regularly directed to some SP or only in one or two observations. Note that the number of observation sessions for SP varied from 5-7 depnding on how long it took to gather the necessary 150 minutes of data. Data were coded on every 30 seconds of film.

The figure is similar to the type of figures in an alternating treatment design where each observation refers to the staff members score within their own first observation. Each observation shown on the figure had been standardised to a 30 minute length.

Two examples of the results at the category codes level were selected for each IDP. Two of the most varied overall categories were selected. Figures 4.2 to 4.7 show the number of intervals of coded observations for the overall category codes selected. SP with mid ranging scores have been removed to make the figures easier to read.

Figure 4.2 shows that in his first observation SP Carl had 8 indicators of rapport directed towards him, 1.88 in the second observation, this rose to 6 in the third observation, 9 in the fourth observation, 0 in the fith observation and 1.25 in observation six. Data labels have been attached to SP Carl's data to demonstrate the result. Data for Carl was gathered in six rather than seven observation sessions.
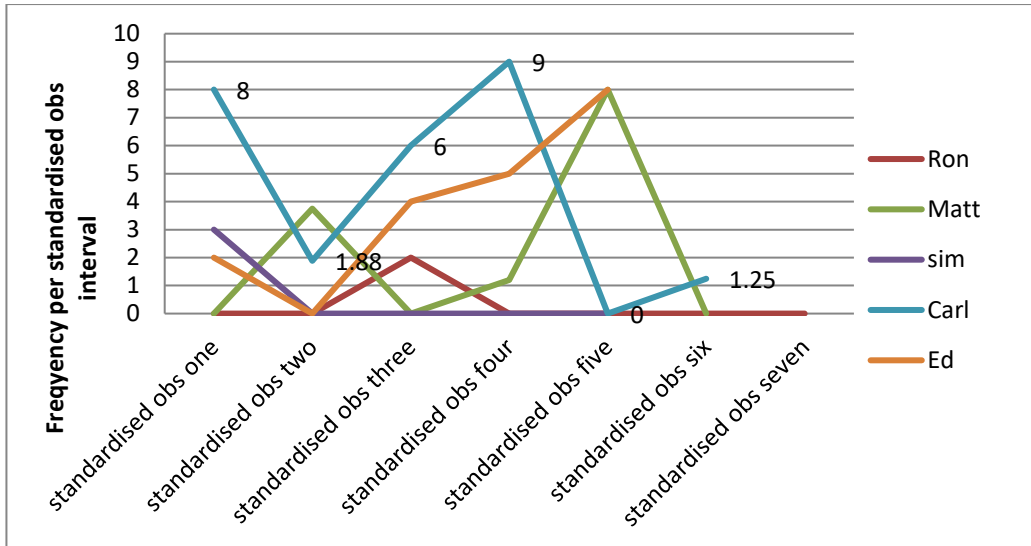
Figure 4.2: Bernie: Varation across the category code Proximity

Figure 4.2 shows Carl, Ed and Matt scoring on a number of observations with Ron and Sim rarely scoring.
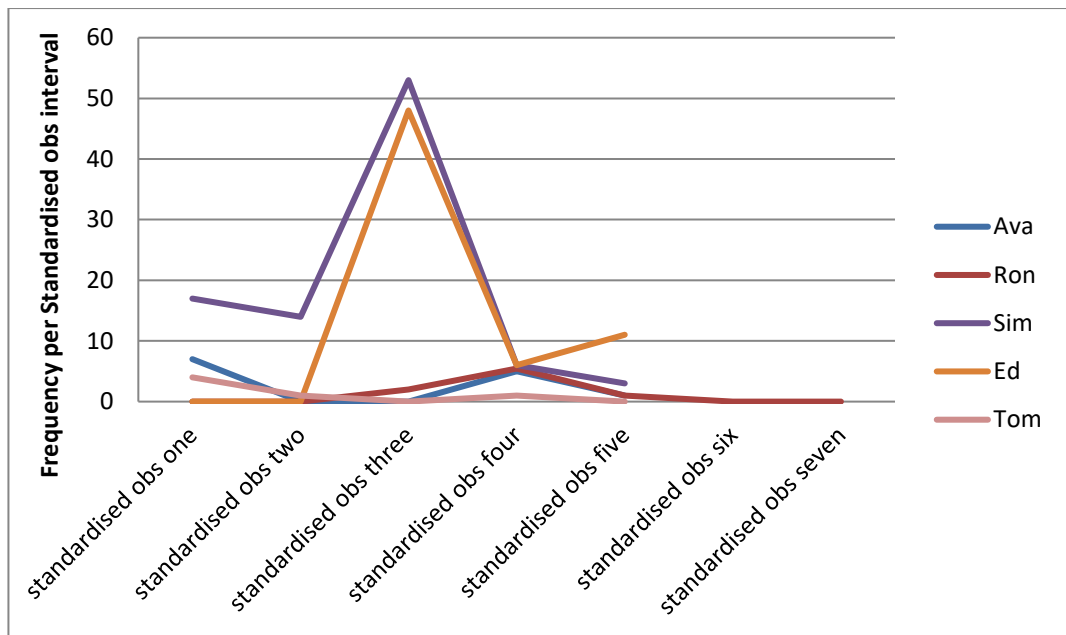
Figure 4.3: Bernie: Variation across the category code Eye Gaze

In Figure 4.3 Sim and Ed had some high scores on more than one observation session while Tom, Ava and Ron regularly scored poorly.
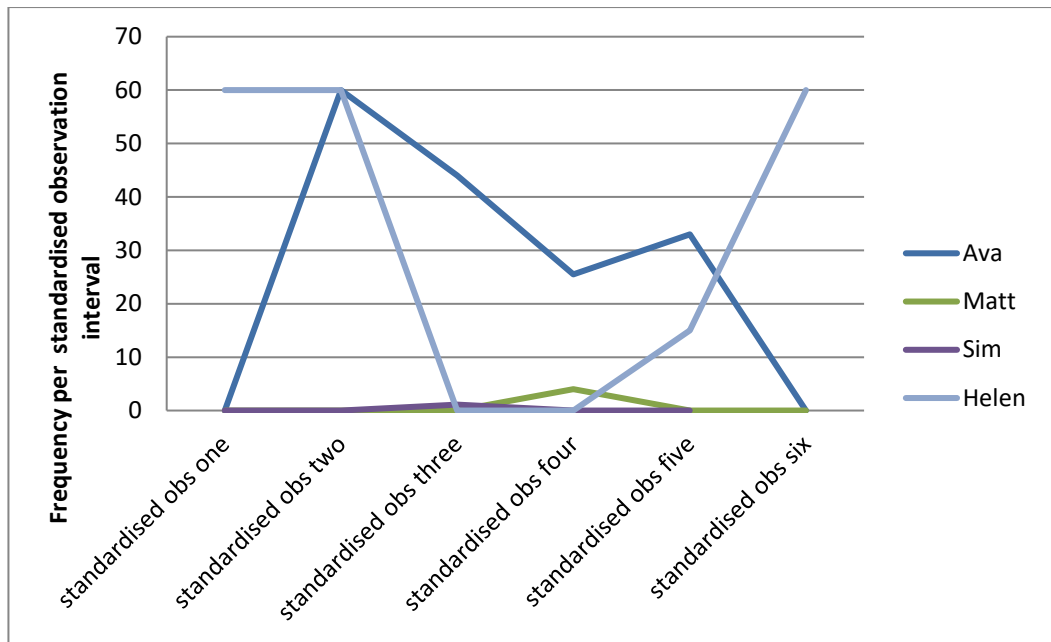
Figure 4.4: Alanis: Variation across the category code Proximity

Figure 4.4 shows Alanis remaining in close proximity to SP Ava and Helen on a number of observations. She was very rarely in close proximity to SP Sim and Matt.
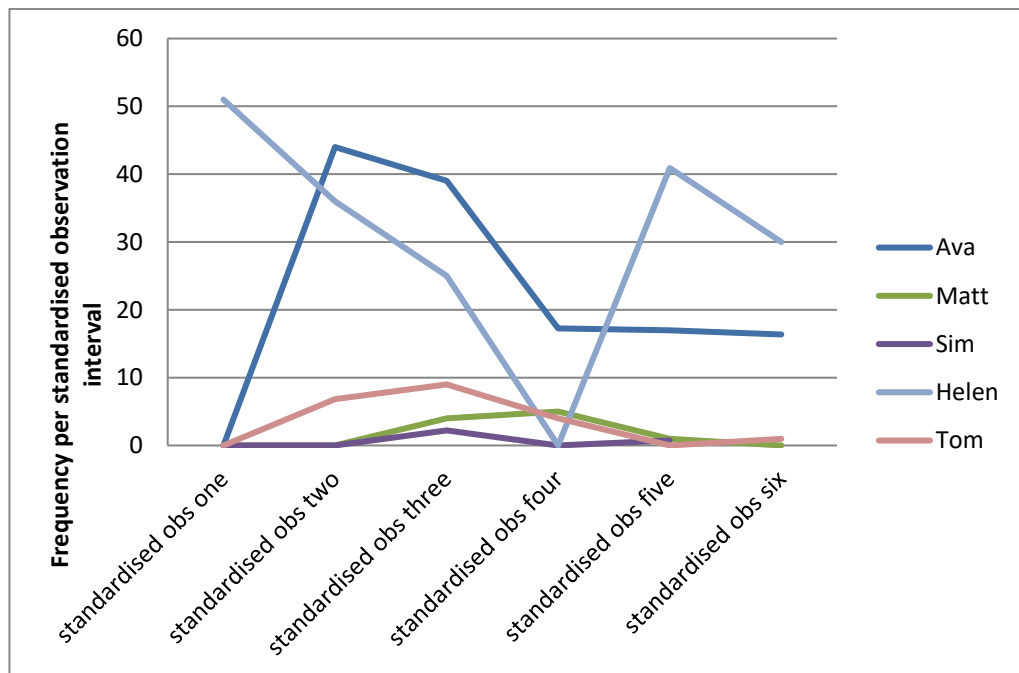
Figure 4.5: Alanis: Variation across the category code Word Approximations

Figure 4.5 shows that verbal interactions (word approximations) were regularly directed by Alanis towards SP Ava and Helen and rarely directed at SP Matt, Sim and Tom.

For Ajay Gestures were directed at SP Ed, Carl and Sim on the majority of observation sessions shown in Figure 4.6 below. Ajay rarely used gestures with their colleagues SP, Ava and Tom.
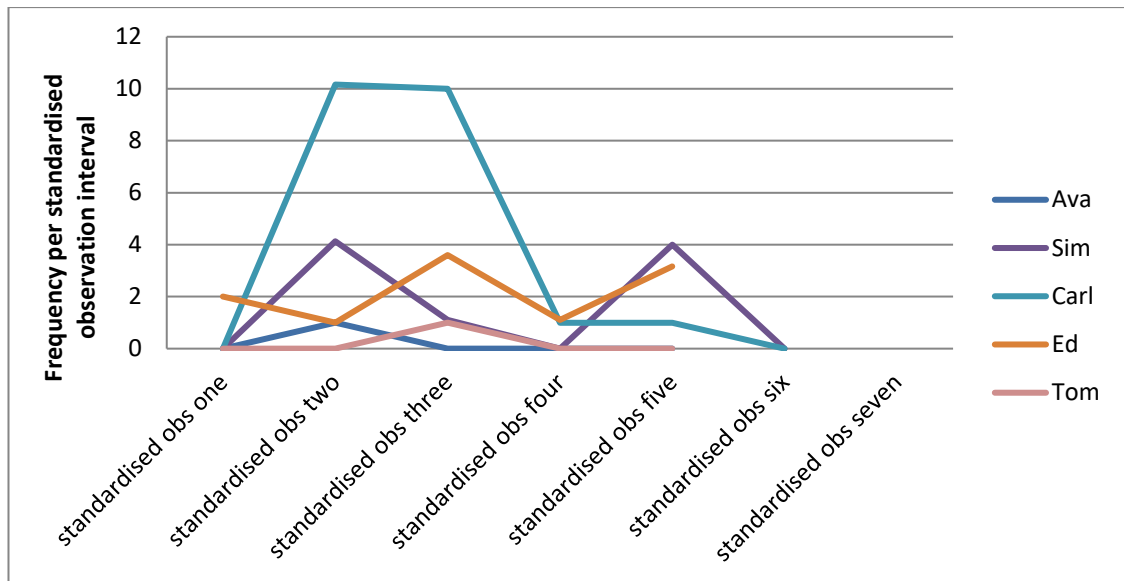
Figure 4.6: Ajay: Variation across the category code Gestures
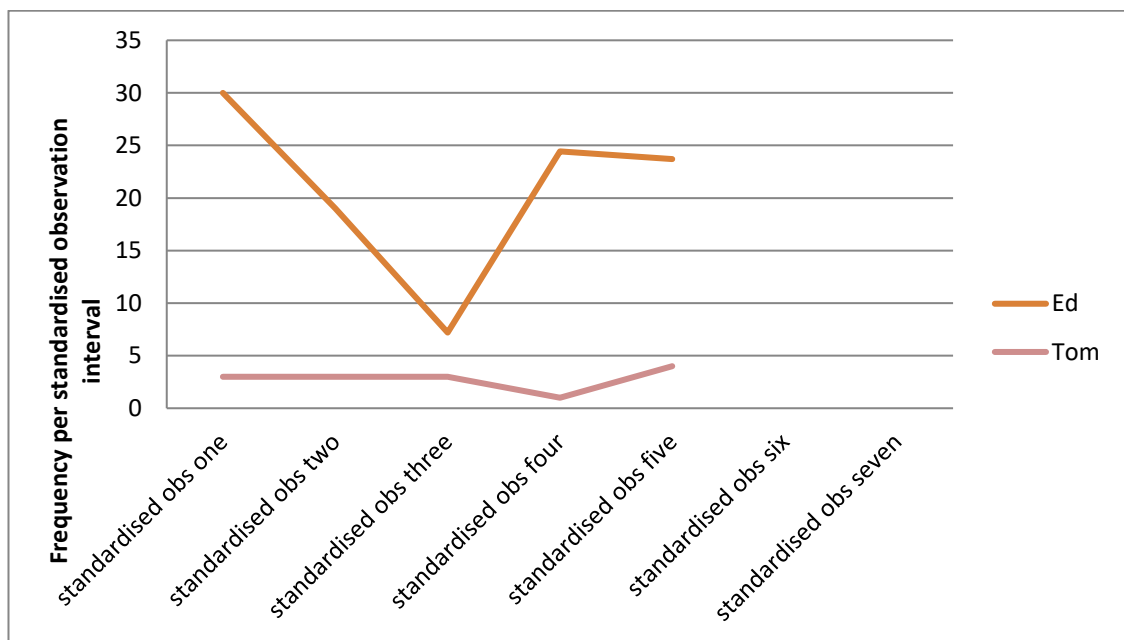
Figure 4.7: Ajay: Variation across the category code Word Approximations

As shown in Figure 4.7 Ajay consistently spoke more to SP Ed and less to SP Tom.

In summary, some SP scored poorly across all observation sessions. Some SP scored highly on certain observation sessions but even these SP did not score

consistently highly across all observations. This variation suggests that there needs to be a number of observations to collect data successfully. Day to day environmental conditions could impact on this variability. For example, in hot weather when the doors are open, the amount of floor space available is greater as the garden is accessible. The amount of floor space could in turn affect proximity measures, as IDP have further to walk to access SP. Characteristics or skills of SP could be a factor such as SP that tended to do cooking, or draft the duty rota, and were less accessible during some sessions.

Data entry

Prior to inputting into SPSS, IRM data were summarised on data summary sheets which noted how many times, across the whole filmed observation each of the rapport indicators was displayed towards each SP. An additional variable was added to SPSS to track how many times in any filmed observation, an IDP asked for a SP when they were absent from the service/not on duty.

A second person checked all data transfer from original recording sheets to data summary sheets and subsequent entry to SPSS.

Staff Self-rating scores, staff rating of other staff/carers and preference testing scores were also entered into SPSS. On the self-rating forms two members of staff had, for one participant, entered a decimal rating 2.5 rather than sticking to the 1-5 scale. Scores for SP were, therefore, entered as decimals. A high score on the Staff Self Rating form represented the SP seeing their relationship with the IDP as high in rapport.

Three SP did not return the Staff Rating of Other Staff/Carers form. Within those returned there was some data missing. Some SP neglected to include one or more of their colleagues. To allow for missing data the average rating by other staff was entered into SPSS. A low score on the Staff Self Rating of Other Staff/Carers represented rating as having a good relationship with the IDP.

At the end of the study there were three preference tests that had not been completed. Non-completed preference tests meant for the SP involved, no opportunity to be tested and missing data. Where the preference testing had missing data each SP was given an additional 0.5 each (half the test total) to reflect that there had been no opportunity to be preference tested.

Raw Data from the IRM

Data were coded, at individual code level, on every 30 seconds of film. The structure of the IRM was that, for the most part, groups of individual codes made up a category code. Raw data from the IRM at the individual code level proved difficult to work with. One reason for the difficulty was that there was great variability across SP and observation intervals, limiting the conclusions that could be drawn. Also, some individual codes were used rarely or not at all. There were, however, some good examples of differences between the

frequency of coding IRM individual codes for particular SP. The data from Alanis yielded more data at the individual code level than for the other two IDP. To illustrate the difficulties at the individual IRM code level some examples of data are presented below. Graphs for each of the individual codes, including the examples in Figures 4.8-4.10 below, are contained as appendices A.8. to A.10.

This series of graphs (beginning with Figure 4.8) shows the frequency with which the individual IRM code was observed with respect to each SP during standardised observation sessions. The wide variability of scores across SP and observations is well illustrated in Figure 4.8. Bernie was recorded as showing very variable rates of smiling/giggling/laughing across both SP and observation sessions, with no clear pattern. For example, for SP Carl and Sim there were high levels of smiling etc coded on some observations, and zero or near zero on others.
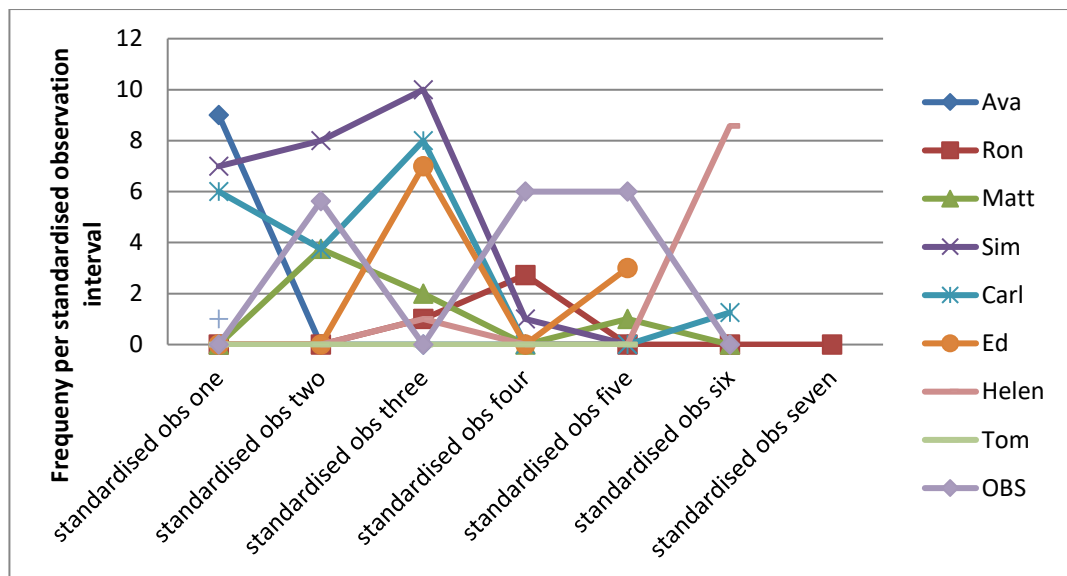
Figure 4.8: Bernie: Smiling Giggling Laughing

There were many IRM individual codes that yielded little or no data particularly for IDP Bernie. This may have reflected Bernie's limited range of communication skills. For example Figure 4.9 shows no instances of Singing or Joking were observed. There are many similar examples of individual codes with no data shown in Appendices A.8. to A.10.
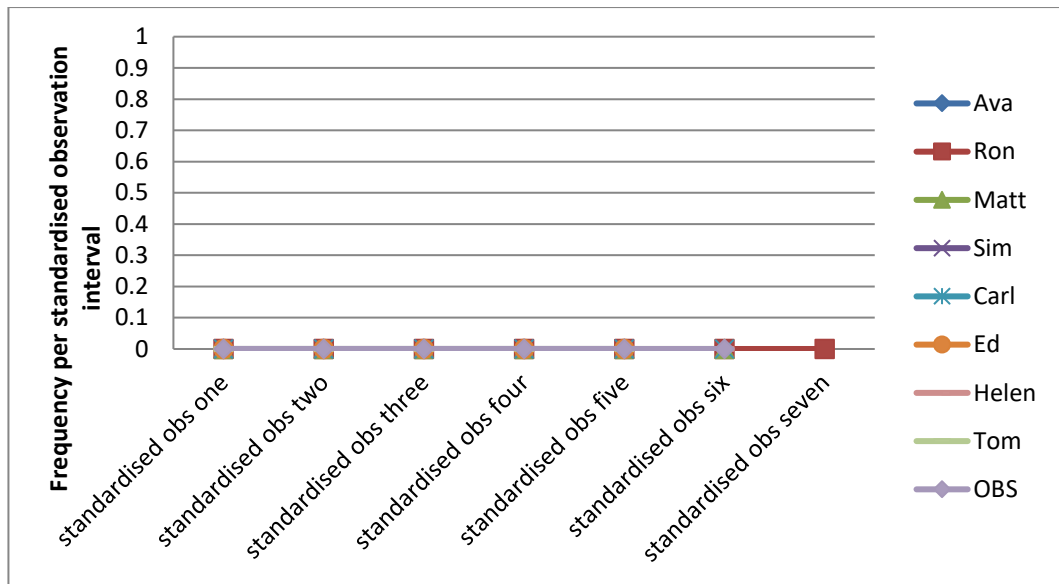
Figure 4.9: Bernie: Singing or Joking

At the individual code level there were some examples of data that could be clearly differentiated. Alanis Vocalising while Smiling (figure 4.10) was coded as directed towards only two SP Ava and Tom. For both SP this behaviour was coded on more than one observation.
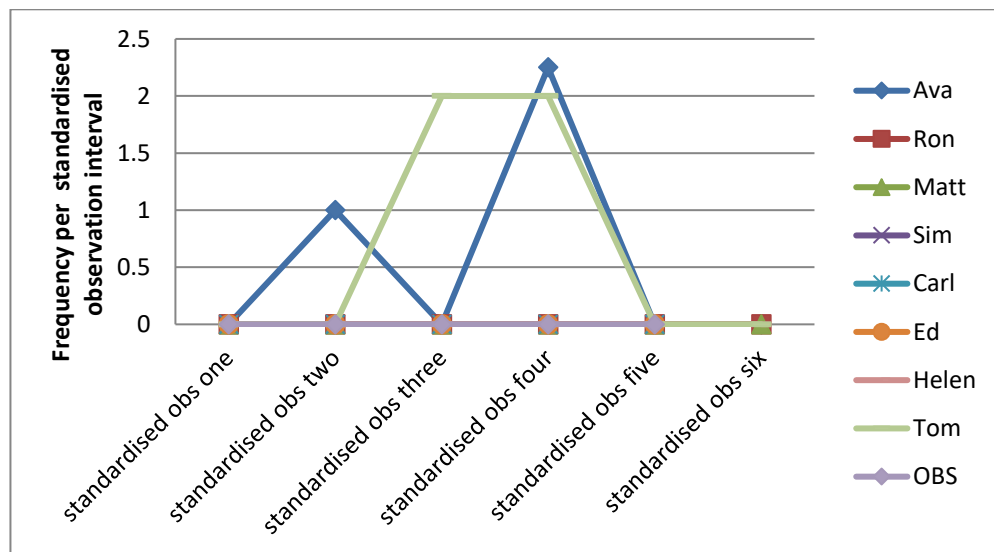
Figure 4.10: Alanis: Vocalising While Smiling

In summary, because of the high level of variability or limited occurrence of specific behaviours, it was difficult to identify any systematic variation between SP at individual code level. Therefore, further analysis at the individual code level was not carried out.

2. IRM data at category code level

When data were examined at the category code level, patterning was easier to detect with clear, systematic variation between SP. Within this section category data are summarised in tables and graphs and correlations between category scores are investigated.

The extent to which rapport behaviour identified by IRM categories was directed to each SP can be seen in tables 4.8-4.10 below. The tables show the number of intervals (during 150 minutes of observation) in which each/all categories were scored.

Table 4.8: Bernie: Rapport behaviour in IRM categories across staff

SP	Actions	Positive Facial	Vocal Sounds /	Physical Contact	Gestures	Eye gaze	Total
Ava	16	9	6	0	0	13	44
Ron	2	2	2	0	0	5	11
Matt	11	5	1	0	1	18	36
Sim	17	26	42	1	2	93	181
Carl	30	17	41	1	16	58	163
Ed	17	10	8	0	6	65	106
Helen	2	5	5	0	1	11	24
Tom	2	0	0	0	0	6	8
Mean	12	9	13	0.25	3	34	
Range	2-30	0-26	0-42	0-1	0-16	5-93	
Median	13.5	7	5.5	0	1	15.5	

Table 4.9: Alanis: Rapport behaviour in IRM categories across staff

SP	Actions	Positive Facial	Vocal Sounds / Speech	Physical Contact	Gestures	Eye gaze	Total
Ava	171	28	132	17	45	189	582
Ron	51	7	48	0	7	64	177
Matt	4	0	10	0	4	12	30
Sim	1	0	4	0	1	6	12
Carl	21	4	54	0	18	84	181
Ed	32	8	50	0	22	87	199
Helen	147	23	152	44	35	205	606
Tom	7	7	19	0	7	35	75
Mean	54	10	59	8	17	85	
Range	1-171	0-28	4-152	0-44	1-45	6-205	
Median	26.5	7	49	0	12.5	84.5	

SP	Actions	Positive Facial	Vocal Sounds / Speech	Physical Contact	Gestures	Eye gaze	Total
Ava	27	1	22	0	1	44	95
Ron	8	0	22	0	2	32	64
Matt	42	2	23	0	5	51	123
Sim	86	5	51	7	9	83	241
Carl	69	10	59	2	22	109	271
Ed	128	8	109	16	11	130	402
Helen	58	1	47	2	8	48	164
Tom	11	6	14	2	1	19	53
Mean	54	4	43	4	7	59	
Range	8-128	0-10	14-109	0-16	1-22	2-130	
Median	50	4.5	35	2	6.5	55	

It is clear in the Tables that there was even more variation across SP in Actions, Vocalisations and Eye Gaze than other categories. This is similar for all three IDP.

The graphs in below show the category code totals for each SP (Figures 4.11, 4.13 and 4.15) for each IDP. One combined (all category codes added together) graph for each IDP (Figures 4.12, 4.14 and 4.16) is also presented.
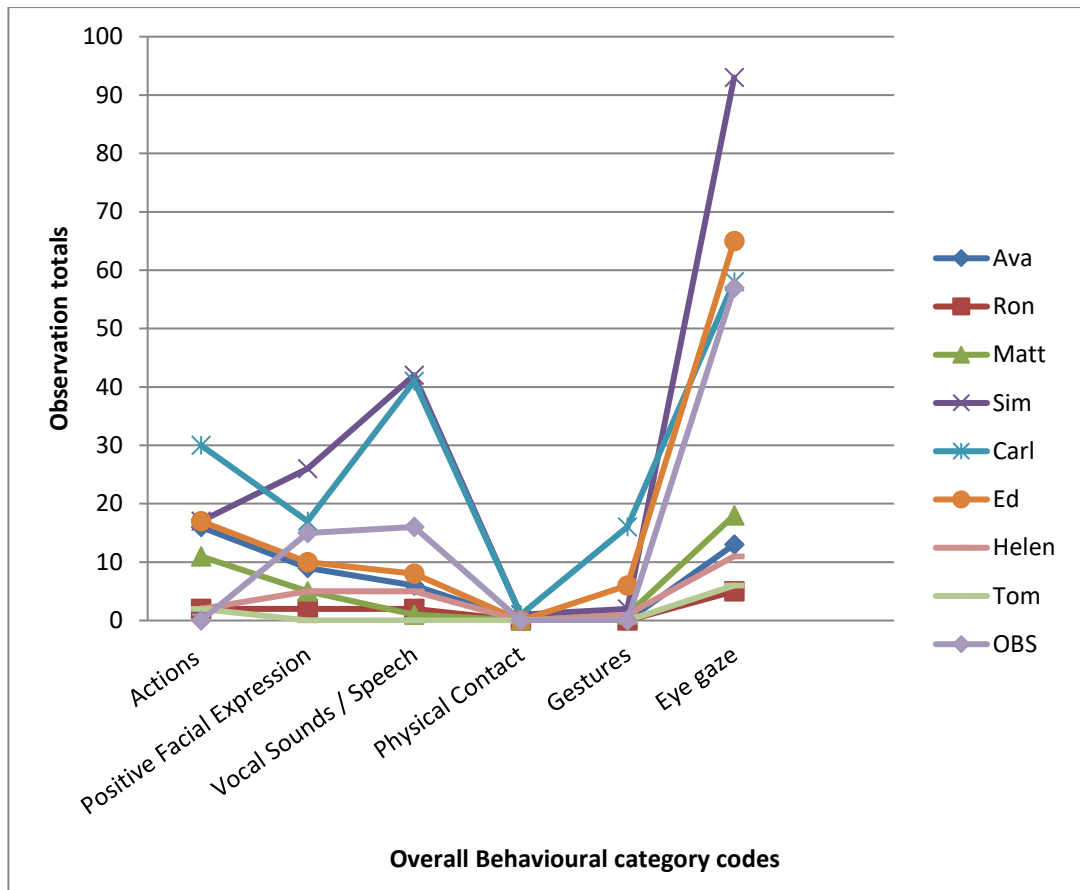
Figure 4.11: Bernie: Rapport behaviour in IRM categories across staff

Figure 4.11 shows that for Bernie at the overal category code level, SP Sim and Carl had a greater amount of rapport behaviour directed towards them. Actions, Positive Facial Expression, Vocal Sounds and Eye Gaze were generally higher than for other SP. The opposite picture is true for Helen, Ron and Tom who have lower levels of rapport behaviour directed towards them.

The same picure is true when examining data combined across all category codes. Figure 4.12 shows that Bernie directed more rapport behaviours towards Sim and Carl than other SP, and that little rapport behaviour was directed towards Ron, Tom and Helen.
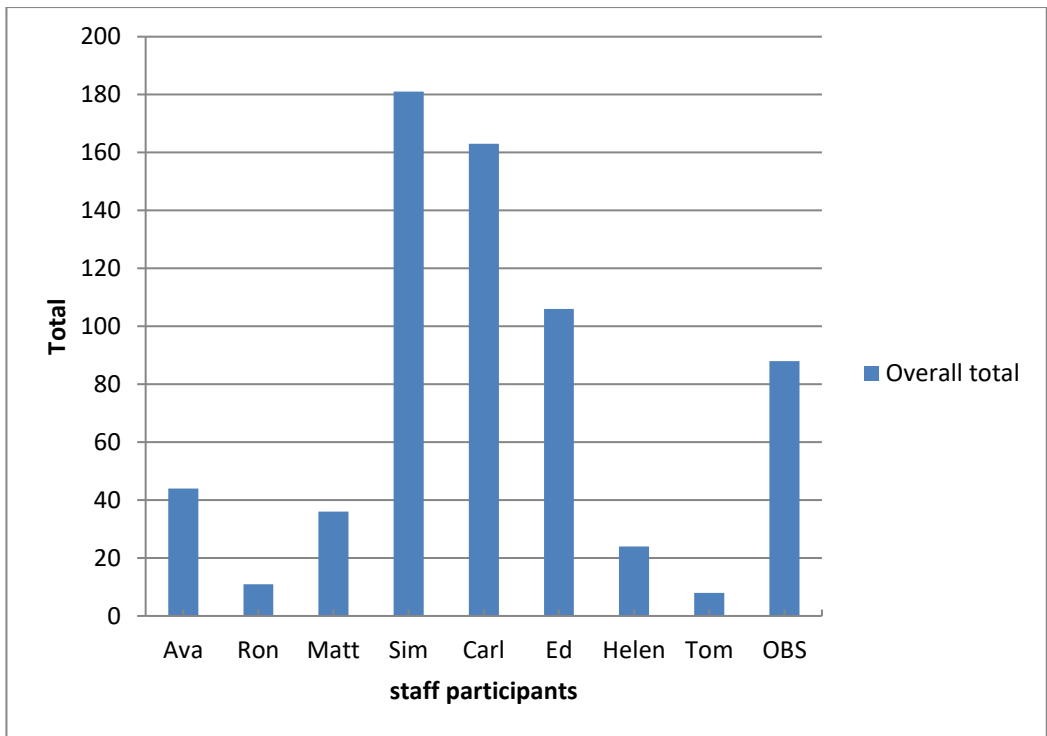
Figure 4.12: Bernie: Total rapport behaviour across staff
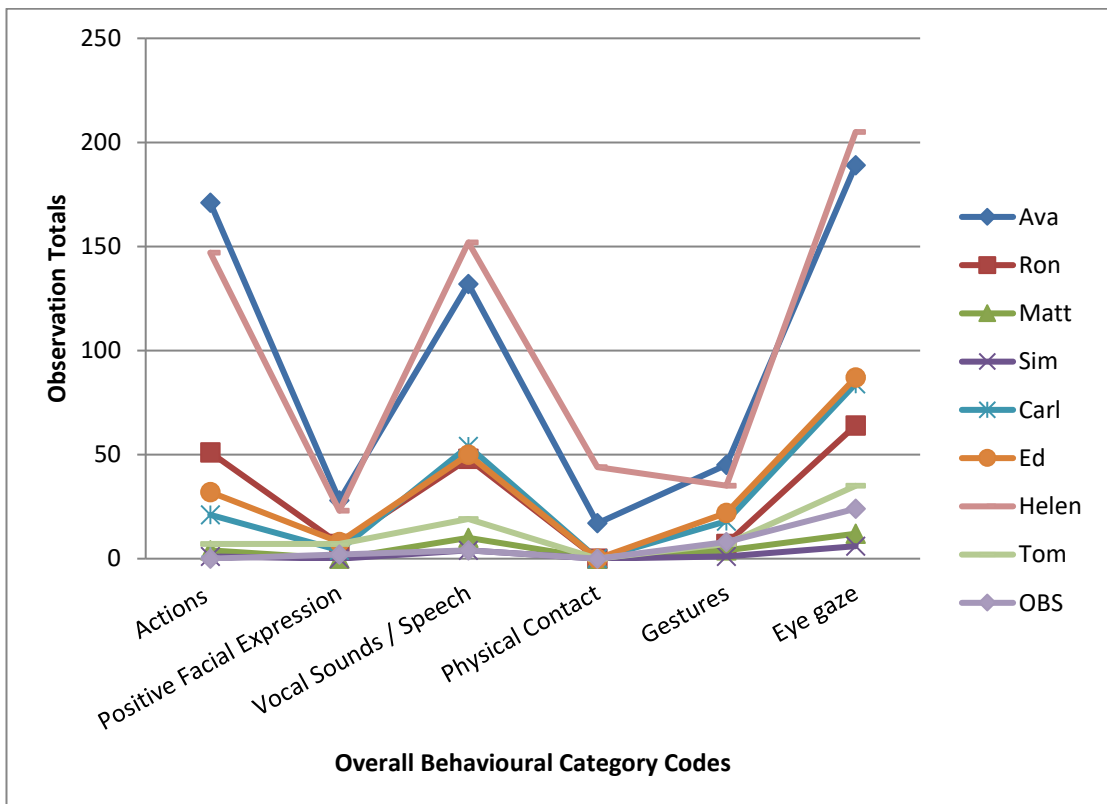
Figure 4.13: Alanis: Rapport behaviour in IRM categories across staff

Variation across SP was also marked at the overall category code level for Alanis. Figure 4.13 shows that SP Ava and Helen had a greater amount of rapport behaviour directed towards them for all six of the overall category codes. Actions, Speech and Eye Gaze were coded more frequently than Positive Facial Expression, Physical Contact or Gestures. There was a marked difference between overall category code totals, with some SP having low levels of rapport behaviour directed towards them by Alanis. SP with low levels of rapport behaviour directed towards them were Matt, Sim and Tom.

The overall total of rapport behaviour directed at each SP by Alanis is shown as Figure 4.14 and reflects the data presented above. Alanis directed high levels of rapport behaviour at SP Ava and Helen and low levels towards SP Matt, Sim, and Tom.
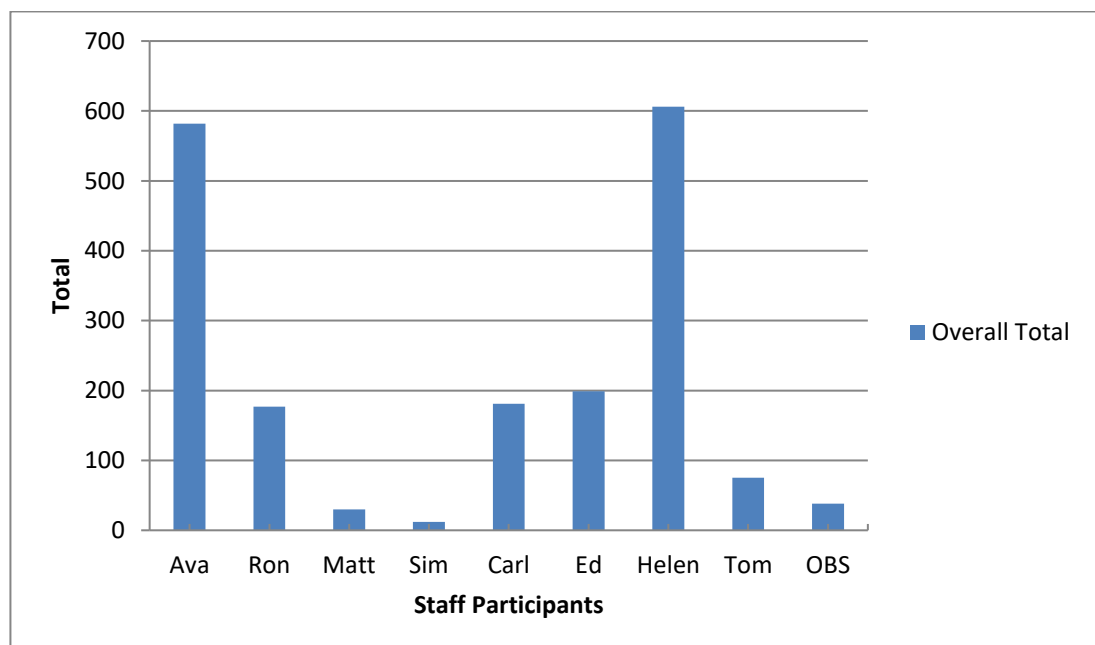
Figure 4.14: Alanis: Total rapport behaviour across staff

At the overall category code level, Ajay showed differences in the level of rapport behaviour directed towards SP. SP Ed had higher levels of behaviour indicative of rapport directed towards him on four of the six category codes (see Figure 4.15). SP Carl, Sim and Helen also had higher scores. SP Ava, Ron and Tom had lower levels of behaviour that would indicate rapport directed towards them. In the same way as Bernie and Alanis, the overall category code data for Ajay shows that the same three category codes Actions, Vocal Sounds / Speech, and Eye Gaze were coded most frequently.
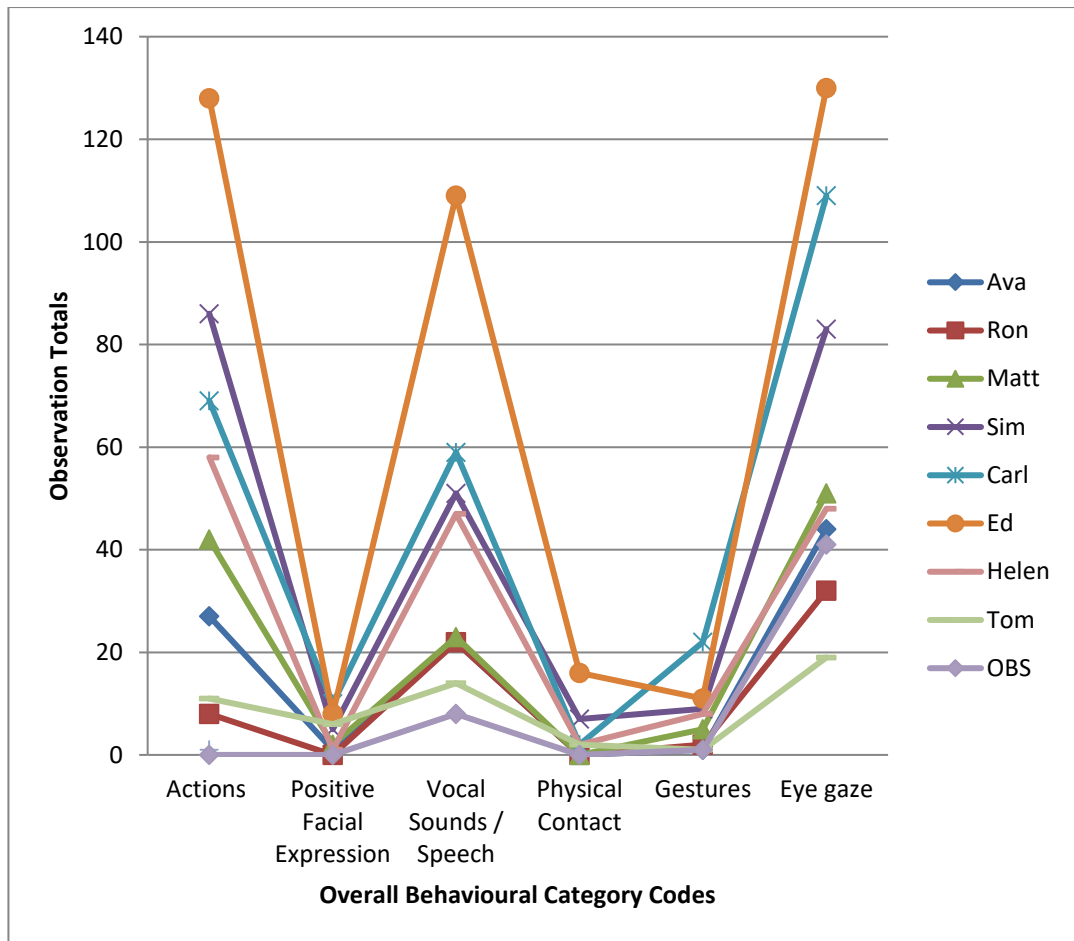
Figure 4.15: Ajay: Rapport behaviour in IRM categories across staff

Figure 4.16 shows a similar pattern for total scores.
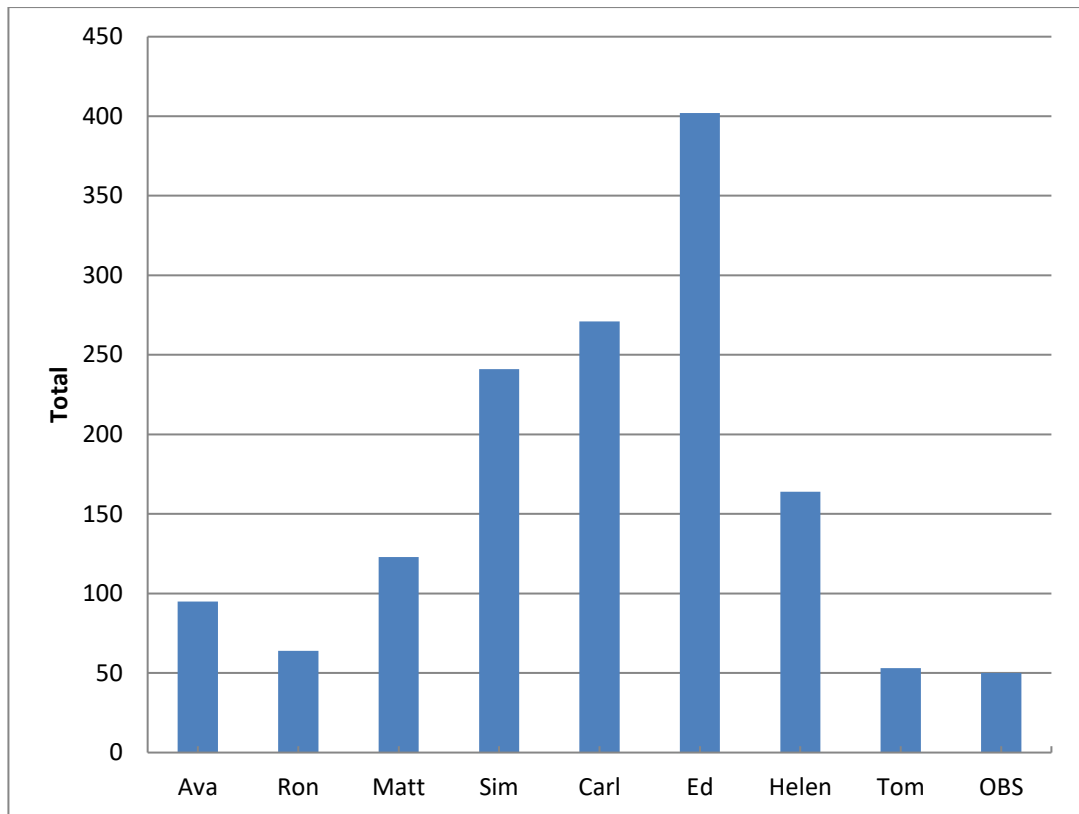
Figure 4.16: Ajay: Total rapport behaviour across staff

The Observation totals within the IRM show a very clear range of totals for SP. The range of totals presented is one form of validation, as it supports the notion of specific relationships between IDP and SP. Some SP show a total that is high for one IDP and low for another. To view these differences more clearly Figure 4.17 compares the total score on the IRM for each SP across all IDP. Variations in the overall height of scores, with Alanis being the highest, probably reflect differential skill repertoires, since the more skills, the more ability to use behaviour indicative of rapport.
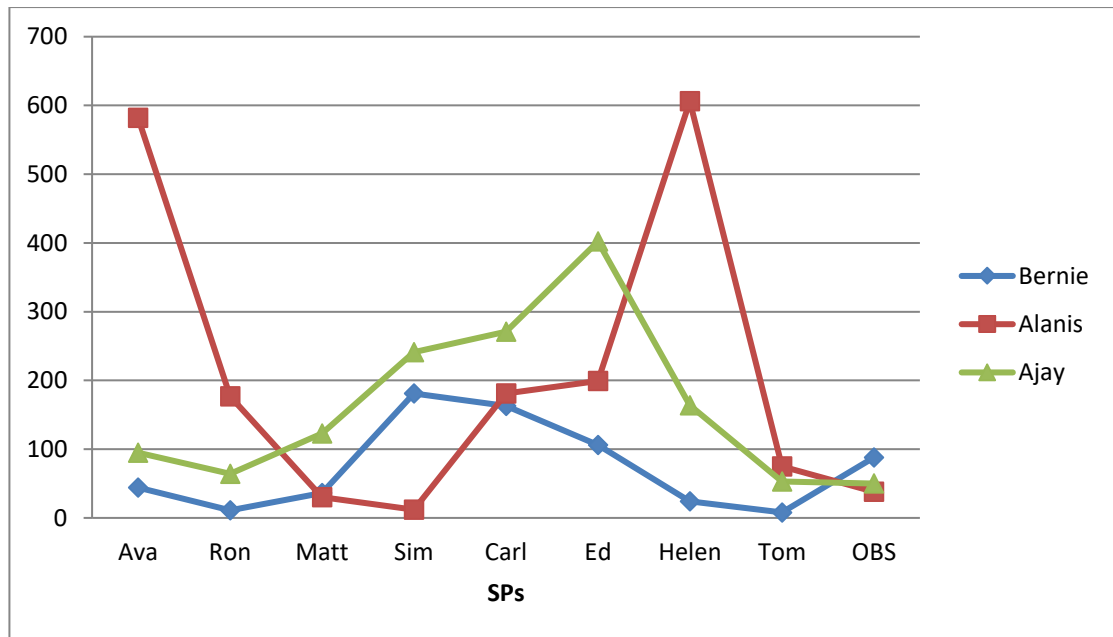
Figure 4.17: Comparison of SP totals across IDPs

Perhaps of more interest, Figure 4.17 shows that, for some SP, there was a high level of rapport behaviour directed towards them by one IDP and a low level by another. For example, Helen had a high level of indicators of rapport directed towards her by Alanis and a low level of rapport indicators from Bernie and Ajay. The opposite picture is true for SP Sim, who had a high level of rapport behaviours directed at him by Bernie and Ajay, but a low level from Alanis. Matt and Tom had a fairly low level of rapport behaviour directed at them from all three IDP. Rapport behaviour directed towards the observer, who had no history of relationship with any of the IDP, was low for all three IDP.

Relationships between categories

Spearman correlations (for each IDP separately) were calculated to examine the relationships between the category codes within the IRM.

Using a Spearman correlation all category codes totals were correlated with each of the other category code totals and the overall IRM total score. The same correlation was conducted with data for each of the three IDP. An example of the non-parametric correlation matrix, for IDP Alanis, is shown as table 4.11. The full correlation matrix can be found as Appendix A.11.

The matrix is summarised in Table 4.12. Most category-category correlations were positive and significant, often at $p < 0.01$.

Spearman correlation data including SP Beth and excluding her can be found in appendices A.12 and A.13.

Table 4.11 Example of spearman correlations between categories for Alanis

		Actions	Positive facial expression	Vocalisations
Actions	Correlation Coefficient	1.000	.891**	.912**
	Sig. (2-tailed)	.	.001	.001
	N	9	9	9
Positive facial expression	Correlation Coefficient	.891**	1.000	.840**
	Sig. (2-tailed)	.001	.	.005
	N	9	9	9
Vocalisations	Correlation Coefficient	.912**	.840**	1.000
	Sig. (2-tailed)	.001	.005	.

Correlation is significant at the 0.01 level = *

The correlations involving Physical Contact were less significant with only one reaching p<0.01. Physical Contact was infrequently observed / coded within the data collected which may explain its relatively low correlation with other category scores.

Table 4.12 Example of spearman correlations between category code total score and overall IRM total score

	Positive Facial Expression			Vocal sounds			Physical Contact			Gestures			Eye Gaze			Overall Total		
	Bernie	Alanis	Ajay	Bernie	Alanis	Ajay	Bernie	Alanis	Ajay	Bernie	Alanis	Ajay	Bernie	Alanis	Ajay	Bernie	Alanis	Ajay
Actions	.573 /	.891 ++	.731 +	.519 /	.912 ++	.954 ++	.687 +	.707 +	.816 ++	.804 ++	.728 +	.865 ++	.655 /	.883 ++	.900 ++	.696 +	.883 ++	.967 ++
Positive Facial Expression				.971 ++	.840 ++	.675 +	.728 +	.713 +	.729 +	.597 /	.861 ++	.650 /	.904 ++	.924 ++	.622 /	.979 ++	.924 ++	.689 +
Vocal Sounds							.725 +	.733 +	.721 +	.542 /	.832 ++	.953 ++	.817 ++	.954 ++	.921 ++	.933 ++	.954 ++	.996 ++
Physical Contact										.652 /	.710 +	.676 +	.621 /	.730 +	.594 /	.725 +	.730 +	.718 +
Gestures													.726 +	.929 ++	.881 ++	.691 +	.929 ++	.932 ++
Eye Gaze																.950 ++	1.000 ++	.933 ++
Overall Total																		

The size of each correlation is noted in the table followed by a symbol to denote the level of significance.

Non-Significant = / Significant at the 0.05 level = + Significant at the 0.01 level = ++

In summary, at the category code level the data were much more patterned and showed considerable variation in overall indicators of rapport. The variation between SP appeared to be systematic and measurable. Across all IDP there was more variation between staff in certain categories – actions, vocal sounds, and eye gaze.

Significant relationships were found between most category scores as illustrated by Figures 4.11 to 4.17 and the correlation matrix in Table 4.11. With the exception of Physical Contact, most correlations between category scores and overall IRM total scores were significant at $p < 0.01$.

Some IRM categories were coded less frequently than others. Tables 4.8 to 4.10 show that Gestures and Physical Contact were infrequently coded for all three IDP.

Consistent variation between SP, differentiated across IDP, was found (see Figure 4.17). This variation is consistent with the view that the IRM focusses on relatonships rather than the more general quality of staff interaction.

Keyworkers

Some SP seem to score consistently well for one IDP and consistently poorly for another. For example, Ava is consistently in the good rapport group for Alanis (table 4.24) and in the poor rapport group for Ajay (table 4.25). Similarly, Helen is consistently in the good rapport group for Alanis and in the poor rapport group for Bernie. Keyworkers for the three IDP were Sim (for Bernie), Ava (for Alanis) and Carl (for Ajay). It is interesting to note that the keyworkers for all three IDP fell into the good rapport group across the majority of measures.

IDP & SP Gender

Data were examined by gender of SP and gender of IDP. There appeared to be some patterns with female IDP showing more indicators of rapport towards female SP and male IDP showing more indicators of rapport towards male SP, (See Figures 4.18-4.20 below).
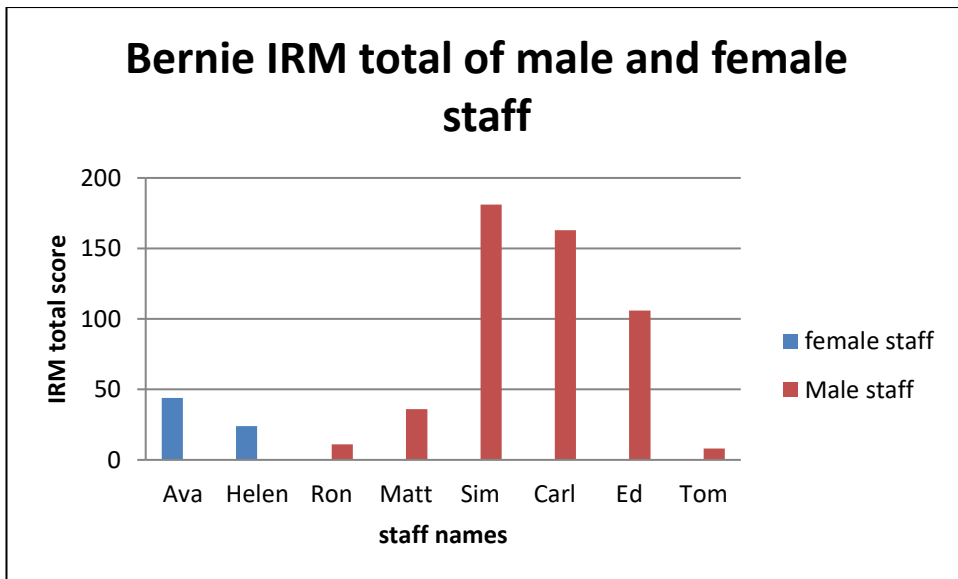
Figure 4.18 Bernie IRM total and SP gender
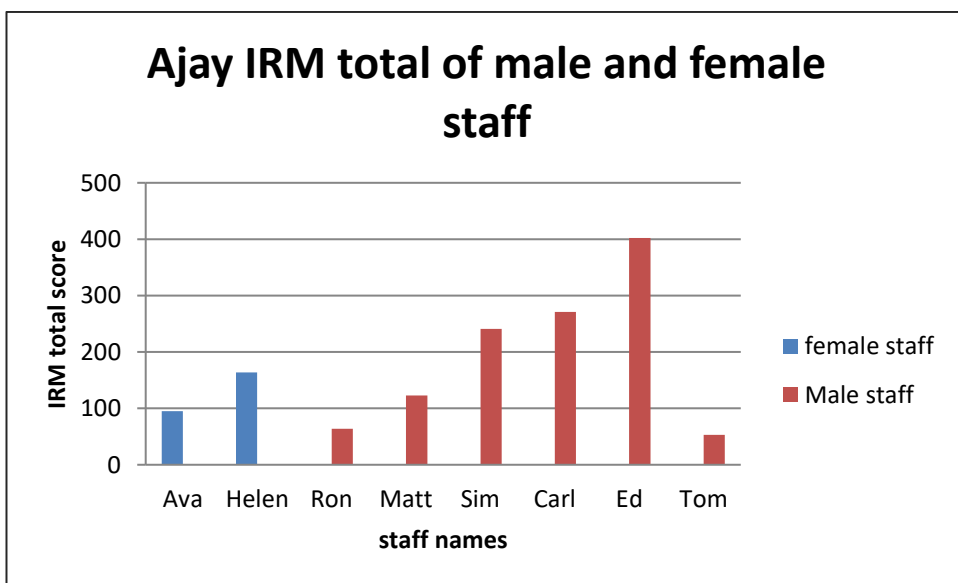
Figure 4.19 Ajay IRM total and SP gender

The two male IDP, Bernie and Ajay, show the highest IRM total scores for male SP in Figures 4.18 & 4.19.

Alanis the only female IDP has far higher total IRM scores for the two female SP, Ava and Helen, (see figure 4.20).
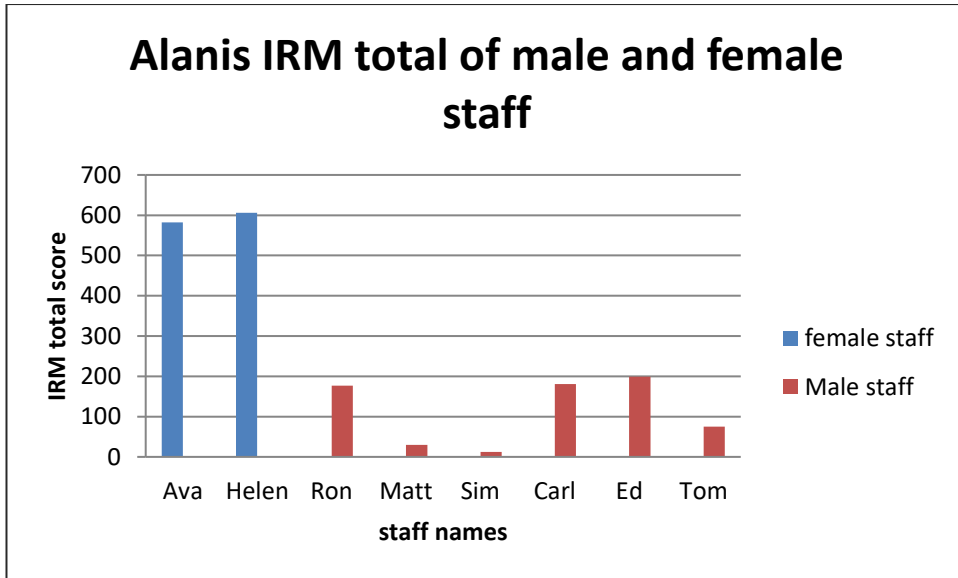
Figure 4.20 Alanis IRM total and SP gender

3. McLaughlin & Carr measures

Results from use of the three MLC measures (preference testing, staff self-rating and staff rating of other staff) are now described. For each of the three measures the raw data are presented and compared with MLC original findings. The results for each IDP are presented in two ways. Firstly, rapport with SP is presented as a rank order and, secondly, SP are grouped into those with a good, neutral, or poor rapport.

Preference Testing

On Tables 4.13 - 4.15 below, a score of 1 shows the staff member selected in the preference test. A score of 0 denotes the SP who was not selected. Where tests were not conducted, missing data were inputed as 0.5. That is it was assumed that both SP had an equal chance of being chosen.

Table 4.13: Preference testing results for Bernie

	Ava	Sim	Helen	Ron	Matt	Carl	Tom	Ed	Total score	Percent. Chosen
Ava		1	1	0	1	0.5	0	0	3.5	50%
Sim	0		1	0	1	1	0.5	1	4.5	64%
Helen	0	0		0	1	1	1	0	3	43%
Ron	1	1	1		0	1	0	1	5	71%
Matt	0	0	0	1		1	1	1	4	57%
Carl	0.5	0	0	0	0		1	1	2.5	36%
Tom	1	0.5	0	1	0	0		1	3.5	50%
Ed	1	0	1	0	0	0	0		2	29%

Table 4.14: Preference testing results for Alanis

	Ava	Sim	Helen	Ron	Matt	Carl	Tom	Ed	Total score	Percent. Chosen
Ava		1	1	1	1	1	1	1	7	100%
Sim	0		0	0	1	1	1	0	3	43%
Helen	0	1		1	1	1	0	0.5	4.5	64%
Ron	0	1	0		0	1	1	1	4	57%
Matt	0	0	0	1		1	0	1	3	43%
Carl	0	0	0	0	0		0	0	0	0%
Tom	0	0	1	0	1	1		0	3	43%
Ed	0	1	0.5	0	0	1	1		3.5	50%

Table 4.15: Preference testing results for Ajay

	Ava	Sim	Helen	Ron	Matt	Carl	Tom	Ed	Total score	Percent. Chosen
Ava		1	0	0	0	0	0	0	1	14%
Sim	0		0	0	0	1	1	1	3	43%
Helen	1	1		0	0	1	0	0	3	43%
Ron	1	1	1		1	1	0	1	6	86%
Matt	1	1	1	0		1	0	1	5	71%
Carl	1	0	0	0	0		1	0	2	29%
Tom	1	0	1	1	1	0		0	4	57%
Ed	1	0	1	0	0	1	1		4	57%

MLC rated SP as having a good rapport if they were consistently preferred (i.e., chosen in four out of five trials) by the participants with disabilities. There was one trial for each combination of staff participants. In order to apply the MLC methodology to the current data, four out of five trials equates to being chosen 80% of the time or above. The figure of 80% or above was only reached on two occasions (see Alanis and SP Ava, Ajay and SP Ron). Conversely, MLC included SP in the poor rapport group if they were rarely, if ever, preferred (i.e., chosen in zero – one trial out of five) by the IDP. This would equate to being chosen 20% of the time or below. When examining the data from the current study and applying the MLC Methodology, the figure of 20% or below was reached on only two occasions (see Alanis and SP Carl, Ajay and SP Ava). Most of the scores in the current study were within a narrower mid-range than those reported by MLC.

Grouping SP by percentage alone was problematic, as there was considerable variability across IDP. The top score for Alanis was 100% while the top score for Bernie was only 71%. Similarly, the lowest score for Alanis was 0%, but for other IDP, 14%.

Therefore, SP were grouped into good, poor and neutral rapport, based on their percentage score relative to their colleagues. The aim of the grouping was to select the three of the eight SP with the best and poorest rapport. SP were included in the good rapport group if their percentage score was between 57-100% and the poor rapport group if the percentage score was 0-43%. Percentage scores used in the MLC study were good rapport 80-100% and poor rapport below 20%.

Groupings were made using the following method, see table 4.16.

- Good = Top 3 SP + others with the same score
- Poor = Bottom 3 SP + others with the same score
- Neutral = Any remaining SP

Table 4.16: Preference testing results

	Bernie percentage score	group	Alanis percentage score	group	Ajay percentage score	group
Ava	50%	N	100%	G	14%	P
Sim	64%	G	43%	P	43%	P
Helen	43%	P	64%	G	43%	P
Ron	71%	G	57%	G	86%	G
Matt	57%	G	43%	P	71%	G
Carl	36%	P	0%	P	29%	P
Tom	50%	N	43%	P	57%	G
Ed	29%	P	50%	N	57%	G

Note: (G) = Good (N) = Neutral and (P) = Poor Rapport

Staff Self-Rating of Rapport

SP self-ratings of their relationship with each IDP are shown in Table 4.17.

Table 4.17: Staff self–ratings of rapport with each IDP

Staff member	Self-rating scores		
	Bernie	Alanis	Ajay
Ava	5	4	3
Sim	4	2.5	3
Helen	3	4	4
Ron	3	4	4
Matt	5	4	4
Carl	5	5	5
Tom	5	4	5
Ed	2.5	3	3

Tables 4.17 and 4.18, show how staff scored themselves on the staff- self rating scale a score of 0-1 indicates SP feel they have a poor rapport and 4-5 that

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rapport with the IDP is good. MLC rated SP as having a good rapport with IDP if they had high self-ratings (i.e., four or five on the rapport scale)

SP in the poor rapport group had neutral to low self-ratings (i.e., 0–3 on the rapport scale)

The methodology described by MLC was applied to the data in the current study (see Table 4.18).

Table 4.18: Staff self-ratings as determined by MLC criteria

Staff member	Self-rating scores					
	Bernie		Alanis		Ajay	
Ava	5	Good	4	Good	3	Poor
Sim	4	Good	2.5	Poor	3	Poor
Helen	3	Poor	4	Good	4	Good
Ron	3	Poor	4	Good	4	Good
Matt	5	Good	4	Good	4	Good
Carl	5	Good	5	Good	5	Good
Tom	5	Good	4	Good	5	Good
Ed	2.5	Poor	3	Poor	3	Poor

Staff Rating of Other Staff Rapport

Not all SP returned their questionnaires, and some returned questionnaires were only partly completed. Due to missing data some SP had more data provided by their colleagues than others. Consequently, information from SP Beth about other staff has been used in the study¸ even though she was removed as a study participant. Although Beth's behaviour altered during filming there were no concerns about the data completed in questionnaires. For details of missing data and results see table 4.19.

Table 4.19: Staff rating of other staff rapport

| | SP completing the rating | | | | | | | | |
	Ava	Beth	Sim	Helen	Matt	Ed	Total	Average score	Rank order of SP
Bernie									
Ava		7	5	7	5	7	**31**	**6.2**	**8**
Sim	1	1		1	1	1	**5**	**1**	**1**
Helen	6	8	6		4	6	**30**	**6**	**7**
Ron	5	6	1	4	6	4	**26**	**4.3**	**5**
Matt	2	3	4	5		3	**17**	**3.4**	**3**
Carl	4	2	1	2	2	2	**13**	**2.2**	**2**
Tom	7	5	3	3	7	5	**30**	**5**	**6**
Ed	3	4		6	3		**16**	**4**	**4**
Alanis									
Ava		1	1	1	1	1	**5**	**1**	**1**
Sim	3	4		4	3	3	**17**	**3.4**	**3**
Helen	6	2	2		2	2	**14**	**2.8**	**2**
Ron	1	5	4	5	6	6	**27**	**4.5**	**5**
Matt	4	7	6	6		5	**28**	**5.6**	**7**
Carl	5	3	3	2	4	4	**21**	**3.5**	**4**
Tom	7	6	5	3	7	7	**35**	**5.8**	**8**
Ed	2	8		7	5		**22**	**5.5**	**6**
Ajay									
Ava		8	3	7	5	4	**27**	**5.4**	**8**
Sim	3	2		4	1	1	**11**	**2.2**	**2**
Helen	7	4	6		4	5	**26**	**5.2**	**6**
Ron	5	7	3	5	6	6	**32**	**5.3**	**7**
Matt	4	5	3	3		2	**17**	**3.4**	**3**
Carl	1	1	1	1	2	5	**11**	**1.8**	**1**
Tom	6	3	2	2	7	3	**23**	**3.8**	**4**
Ed	2	6		6	3		**17**	**4.3**	**5**

Missing data: There was no data returned for the three IDP from SPs Tom, Carl or Ron

A score of 1 in table 4.19 would show that this SP was rated as having the best rapport with the IDP by their colleague completing the rating.

MLC separated SP into the good rapport group, if they were consistently ranked by their fellow staff members as being at the 50th percentile or above relative to other staff. SP who ranked below the 50th percentile on rankings made by fellow staff members were included in the Poor Rapport group.
In the current study ratings of different SP were rather closer and it was difficult to interpret what MLC meant by 'consistently ranked'. For example, did all SP have to be in agreement that a particular colleague was above the 50th percentile or was it sufficient that a majority of SP made such a rating?[1]

To allow for some SP having more data relating to them than others, the overall scores were divided by the number of times the SP was rated, to produce an average rating. Low scores indicate that the SP was deemed by colleagues to have a relationship high in rapport with the IDP (See Table 4.19). The four SP with the lowest average ratings were deemed to be in the good rapport group and the four with the highest average rating in the poor rapport group (see Table 4.20).

Table 4.20: Classification into good/poor rapport on basis of staff rating of other staff

SP	Bernie		Alanis		Ajay	
	Average rating	G = good above the 50th Percentile	Average rating	G = good above the 50th Percentile	Average rating	G = good above the 50th Percentile
Ava	6.2	P	1	G	5.4	P
Sim	1	G	3.4	G	2.2	G
Helen	6	P	2.8	G	5.2	P
Ron	4.3	P	4.5	P	5.3	P
Matt	3.4	G	5.6	P	3.4	G
Carl	2.2	G	3.5	G	1.8	G
Tom	5	P	5.8	P	3.8	G
Ed	4	G	5.5	P	4.3	P

General Comments

It was not possible in the current study to fully replicate the results reported by McLaughlin and Carr (2005). The degree of variability across SP was rather less in the current study. Preference testing showed that SP were more likely to fall into a mid-range on the number of times when they were chosen, rather than these being the consistently high or low choices found by MLC. Staff Rating of Other Staff forms produced a similar picture, with a number of staff

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[1] Advice was sought from Darlene McLaughlin, in an email, on how "consistently ranked" should be interpreted. There was no response to the email.

showing a mixture of high and low ratings.   The methodology used by MLC was straightforwardly replicated with data collected on the Staff Self-Rating of rapport measure.

4. Investigating Possible Relationships between IRM and MLC measures

Correlations between IRM and MLC Measures

Spearman correlations were calculated between IRM category code totals, overall total and MLC measures. MLC measures used were average times chosen in preference testing, average rating by other staff and staff self-rating of rapport score. Table 4.21 gives an example of how some of the IRM individual codes and the MLC measures were correlated. Table 4.22 shows the significance of the correlations calculated.

Table 4.21 Example from Ajay's data of Spearman correlations IRM and MLC Measures

Spearman's rho		Approach stationary carer	Close to stationary carer	Following moving carer	Total of Times Chosen on Preference Testing	Staff Self Rating Ajay	Average Rating By Other Staff Ajay
Approach stationary carer	Correlation Coefficient	1.00	.92	.53	-.11	-.22	-.40
	Sig. (2-tailed)	.	.00	.14	.80	.61	.33
	N	9.00	9.00	9.00	8.00	8.00	8.00
Close to stationary carer	Correlation Coefficient	.92	1.00	.61	-.34	-.40	-.50
	Sig. (2-tailed)	.00	.	.08	.41	.32	.21
	N	9.00	9.00	9.00	8.00	8.00	8.00
Following moving carer	Correlation Coefficient	.53	.61	1.00	.07	.03	-.44
	Sig. (2-tailed)	.14	.08	.	.87	.95	.28
	N	9.00	9.00	9.00	8.00	8.00	8.00
Total of Times Chosen on Preference Testing Ajay	Correlation Coefficient	-.11	-.34	.07	1.00	.17	.06
	Sig. (2-tailed)	.80	.41	.87	.	.68	.89
	N	8.00	8.00	8.00	8.00	8.00	8.00
Staff Self Rating Ajay	Correlation Coefficient	-.22	-.40	.03	.17	1.00	-.37

Table 4.22: Significance of correlations between IRM category and overall total scores with MLC measures

	Preference Testing			Staff Rating of Other Staff			Staff Self Rating		
	Bernie	Alanis	Ajay	Bernie	Alanis	Ajay	Bernie	Alanis	Ajay
Actions	/	+	/	/	/	/	/	/	/
Positive Facial Expression	/	+	/	/	/	+	/	/	/
Vocal Sounds	/	/	/	/	/	/	/	/	/
Physical Contact	/	+	/	+	+	/	/	/	/
Gestures	/	/	/	+	/	/	/	/	/
Eye Gaze	/	/	/	/	/	/	/	/	/
Overall Total	/	/	/	/	/	/	/	/	/

Key: Non-Significant = /   Significant at the 0.05 level = +

No correlations were significant beyond $p < 0.05$. Correlations significant at $p < 0.05$ included those between some IRM category codes and the MLC Preference Testing and Staff Rating of Other Staff measures. IRM Total score was not significantly correlated to any of the MLC measures. Neither were Staff Self Ratings significantly correlated with either IRM category code totals or IRM overall total. Full correlation matrices for the three IDP, are shown in appendix A.11.

Relationship between IRM and MLC rankings

To aid further analysis IRM scores were organised in a manner more comparable with the MLC measures. The overall totals for each SP taken from the IRM are shown in Table 4.23. SP were ranked from 1 (highest IRM total score) to 8 (lowest IRM total score). Further, SP were classified as Good

rapport (G) if ranked from 1-4 and Poor rapport (P) if ranked from 5-8. This process was repeated for each IDP.

Table 4.23: Good and poor rapport rankings and groupings on IRM scores

	Bernie			Alanis			Ajay		
	Overall total	Ranking	Grouping	Overall total	Ranking	Grouping	Overall total	Ranking	Grouping
Ava	44	4	G	582	2	G	95	6	P
Sim	181	1	G	12	8	P	241	3	G
Helen	24	6	P	606	1	G	164	4	G
Ron	11	7	P	177	5	P	64	7	P
Matt	36	5	P	30	7	P	123	5	P
Carl	163	2	G	181	4	G	271	2	G
Tom	8	8	P	75	6	P	53	8	P
Ed	106	3	G	199	3	G	402	1	G

IRM data from Table 4.23 were then compared with MLC measures as shown in Tables 4.24 to 4.26. Note that the use of MLC method of interpreting preference testing data meant that some SP were classified as Neutral rather than Good/Poor.

Table 4.24: Ratings of rapport with Bernie across measures

SP / Bernie	Rapport Behaviours on IRM	Self-Rating	Preference Test	Staff Rating of Other Staff
Ava	+	+	/	-
Sim	+	+	+	+
Helen	-	-	-	-
Ron	-	-	+	-
Matt	-	+	+	+
Carl	+	+	-	+
Tom	-	+	/	-
Ed	+	-	-	+

Table 4.25: Ratings of rapport with Alanis across measures

SP	Rapport Behaviours on IRM	Self-Rating	Preference Test	Staff Rating of Other Staff
Ava	+	+	+	+
Sim	-	-	-	+
Helen	+	+	+	+
Ron	-	+	+	-
Matt	-	+	-	-
Carl	+	+	-	+
Tom	-	+	-	-
Ed	+	-	/	-

Table 4.26 Ratings of rapport with Ajay across measures

SP	Rapport Behaviours on IRM	Self - Rating	Preference Test	Staff Rating of Other Staff
Ava	-	-	-	-
Sim	+	-	-	+
Helen	+	+	-	-
Ron	-	+	+	-
Matt	-	+	+	+
Carl	+	+	-	+
Tom	-	+	+	+
Ed	+	-	+	-

Interrogation of Tables 4.24-4.26 suggests some patterns. For example, there were twelve examples of SP being classified as good or poor rapport on the basis of IRM total score and receiving the same classification on at least two of the MLC measures.

Checking agreement

To check the chance-agreement between measures Cohen's kappa co-efficient (Cohen, 1960) was used. Kappa scores were calculated separately for each of the MLC measures and the IRM using the good and poor rapport groupings. Individual and collective results for the three IDP were used to calculate the kappa score. All kappa scores are shown in table 4.27 below.

IDP	Staff Self Rating & IRM		Preference Testing & IRM		Staff Rating of Other Staff & IRM	
	Kappa	Strength of agreement	Kappa	Strength of agreement	Kappa	Strength of agreement
Bernie	0.25	Fair	-0.25	Less than chance	0.50	Moderate
Alanis	0.00	Poor	0.25	Fair	0.50	Moderate
Ajay	-0.25	Less than chance	-0.50	Less than chance	0.00	Poor
Participants combined results	0.00	Poor	0.17	Less than chance	0.33	Fair

Key: Poor < 0.20, Fair 0.21 - 0.40, Moderate 0.41 - 0.60 (Cohen, 1960)

The MLC measures, staff self-rating and preference testing showed little agreement with the IRM results. There was moderate agreement for both Bernie and Alanis, between the IRM and the MLC measure, staff rating of other staff rapport.

Statistical analysis of relationship between IRM scores and MLC ratings

Figure 4.21 compares overall total scores on IRM between good and neutral/poor rapport SP identified by Preference Testing. The mean IRM score for SP identified as having a good rapport during preference testing was 223.50 and, for SP who were identified as having a poor or neutral rapport, 115.21. Neutral and poor SP were combined to follow the methodology of McLaughlin and Carr (2005) in self-rating of rapport. Figure 4.21 has been produced by drawing upon the data for all three IDP. Each column represents the IRM score of one SP with one IDP. With three IDP and eight SP, there are 24 sets of data, each set represented in one column.

As much of the data presented was not normally distributed the non-parametric Mann-Whitney U test was used for all comparisons. IRM total scores for good and neutral/poor rapport SP were compared using one tailed Mann-Whitney U tests, since it had been hypothesised that staff in the good rapport group for each of the MLC measures, would have higher IRM scores at overall score and category code level. For the data presented in Figure 4.21, (U = 54.500 p = .186) which shows that , there was no significant difference at the 0.05 level, between the groups. The standard deviation for the combined data set was 161.37 and the effect size (Cohen's d) of the difference was 0.67 (medium).
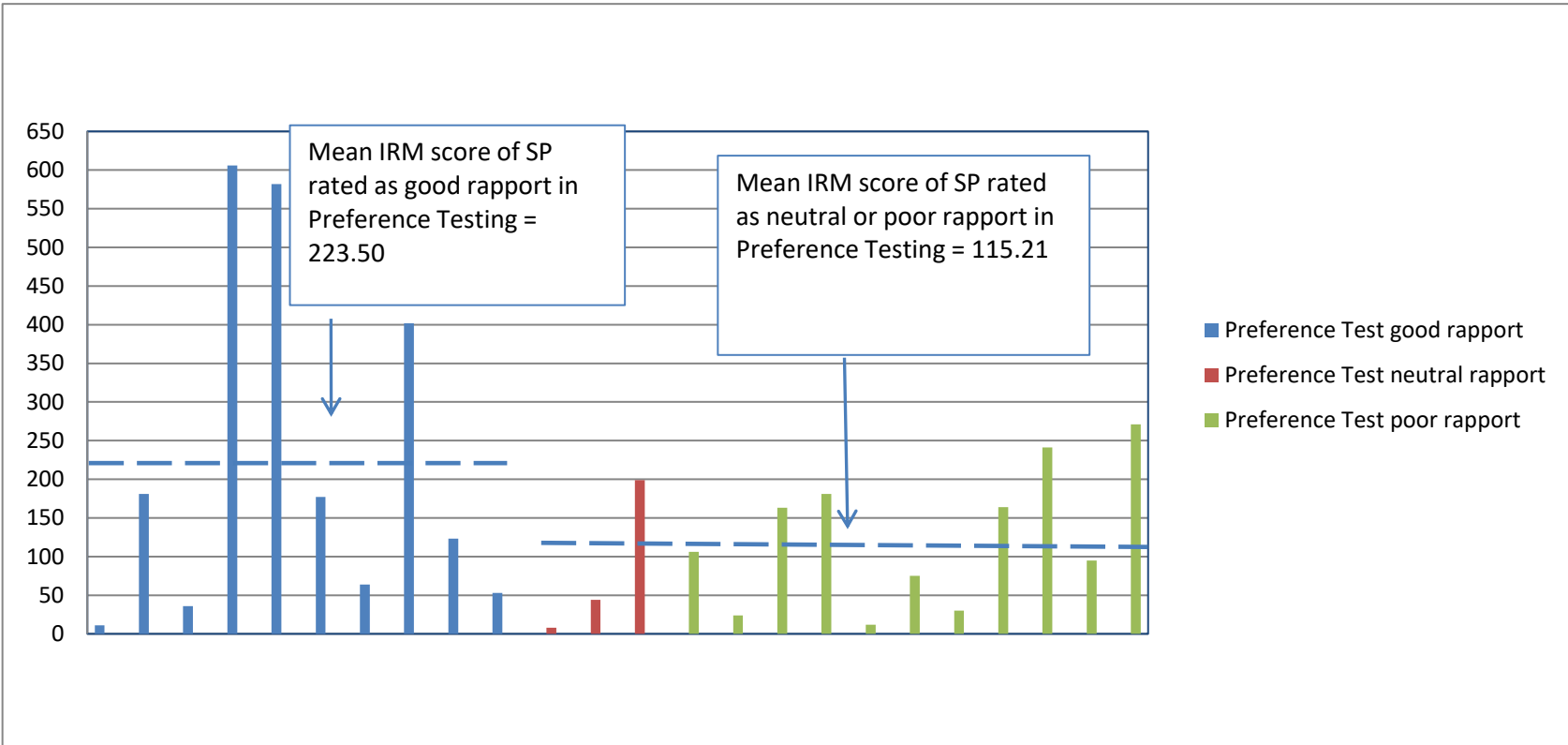
Figure 4.21: IRM scores of good vs neutral/poor rapport SP in preference testing

A similar comparison was made of IRM scores of SP who rated themselves as good/poor rapport (Figure 4.22). SP who rated themselves as having a good rapport had a mean IRM score of 272.38 while SP who rated themselves as having a poor rapport had a mean IRM score of 136.25. The difference between the groups was not significant (U = 57.000 p = .349). The standard deviation of the overall data set was 161.37 and the effect size of the difference was 0.22 (small).
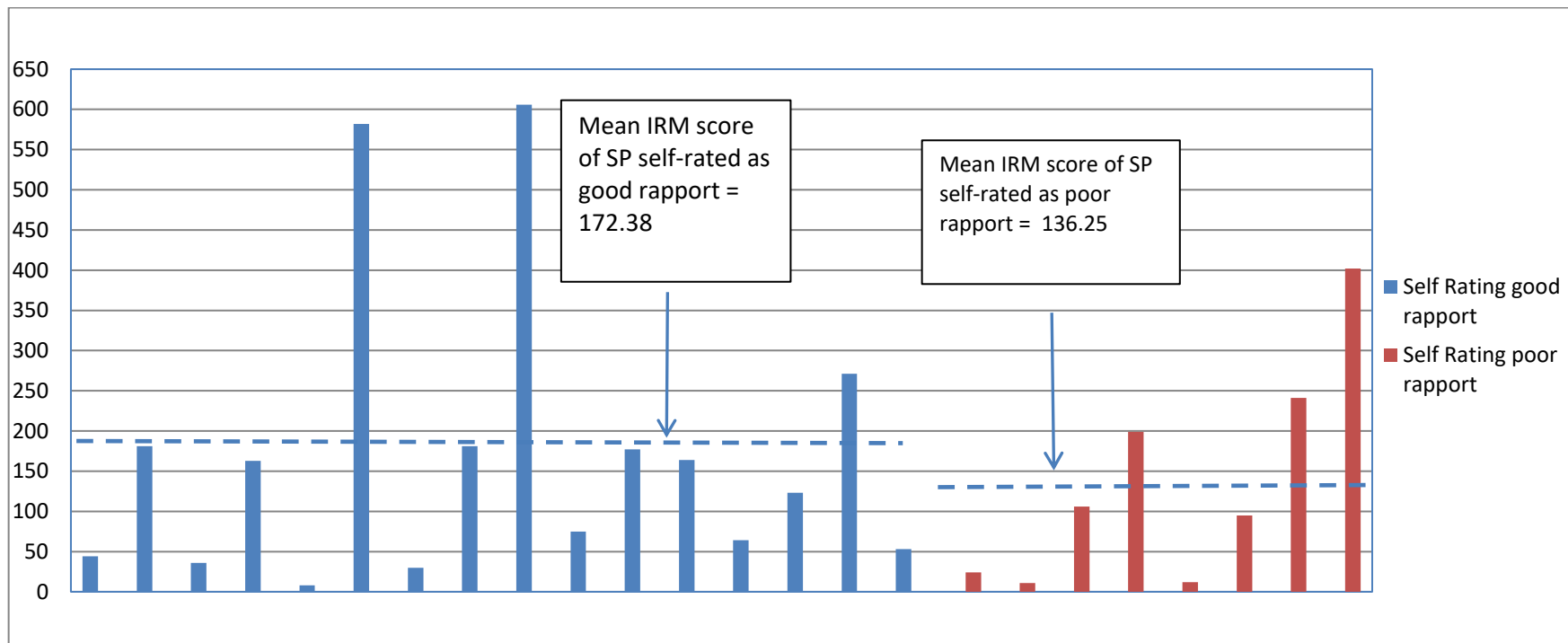
Figure 4.22: IRM scores of self-rated good vs poor rapport SP

A comparison was also made of IRM scores of SP rated by other staff as good/poor rapport (Figure 4.23). SP rated as having a good rapport had a mean IRM score of 212.92 while SP who rated themselves as having a poor rapport had a mean IRM score of 107.75. The difference between the groups was not significant (U =43.000 p = .510). The standard deviation of the overall data set was 161.37 and the effect size of the difference was 0.65 (medium).
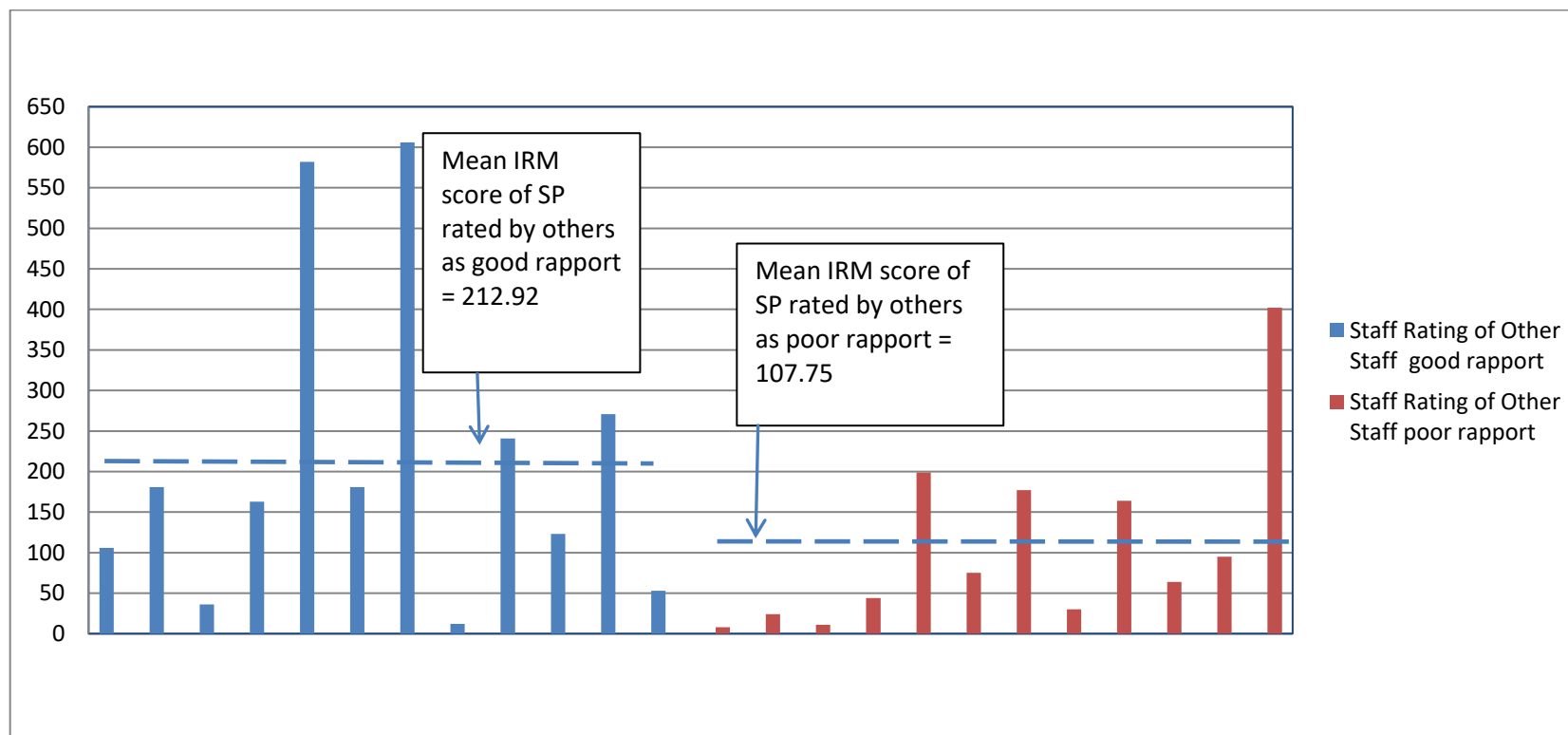
Figure 4.23: IRM scores of SP rated good vs poor rapport

The standard deviation for this data were 161.37 with a medium effect size of 0.65 (Cohen's d).

Despite the differences shown in Figures 4.21 to 4.23 not being statistically significant, there was a clear pattern within the data. For all three MLC measures, SP in the good rapport group had higher IRM scores (on average) than those in the poor (or neutral) rapport group. While the groups overlapped substantially, this difference typically reflected the highest IRM scores being in the good rapport group.

Given this pattern the data were examined in more detail. Category codes from the IRM (Actions, Positive Facial Expression, Vocal Sounds /Speech, Physical Contact, Gestures & Eye Gaze) were compared between SP in good and poor/neutral groups on the MLC measures. In much the same way as Figures 4.21 to 4.23 graphs were produced (Appendix A.14.) that show the results at the IRM category code level rather than at the level of IRM total score. Tables 4.28-4.30 summarise the resulting data.

Table 4.28: Comparison of IRM category code scores for staff self -rating good and poor rapport groups

IRM category code	Average IRM category code score for good rapport group	Average IRM category code score for poor rapport group	U	p (one tailed)	Effect size (Cohen's d)
Actions	42	37	55.500	.305	0.10
Positive Facial Expression	9	5	54.000	.285	0.53
Vocalisation	42	31	53.500	.264	0.26
Physical Contact	4	3	55.000	.305	0.15
Gestures	11	6	53.500	.264	0.39
Eye Gaze	65	54	56.500	.327	0.20

Table 4.29: Comparison of IRM category code average score and staff rating of other staff, good and poor rapport groups

IRM category code	Average IRM category code score for good rapport group	Average IRM category code score for poor rapport group	U	p (one tailed)	Effect size (Cohen's d)
Actions	52	28	48.000	.089	0.51
Positive Facial Expression	11	4	39.000	.030	0.92
Vocalisation	48	28	51.000	.121	0.50
Physical Contact	6	2	43.000	.051	0.49
Gestures	13	5	45.000	.064	0.71
Eye Gaze	82	41	38.500	.026	0.77

Table 4.30: Comparison of IRM category code average score and preference testing, good and poor rapport groups

IRM category code	Average IRM category code score for good rapport group	Average IRM category code score for poor rapport group	U	p (one tailed)	Effect size (Cohen's d)
Actions	59	27	52.500	.156	0.69
Positive Facial Expression	11	6	53.500	.171	0.66
Vocalisation	55	27	55.500	.202	0.69
Physical Contact	8	1	50.500	.130	0.75
Gestures	11	8	69.500	.489	0.23
Eye Gaze	81	47	53.000	.171	0.62

In comparisons across all MLC measures the same pattern was found. At overall IRM score and at category code level, SP in the good rapport groups consistently had higher mean IRM scores than SP in the neutral /poor rapport groups. A summary is shown in Figure 4.24.
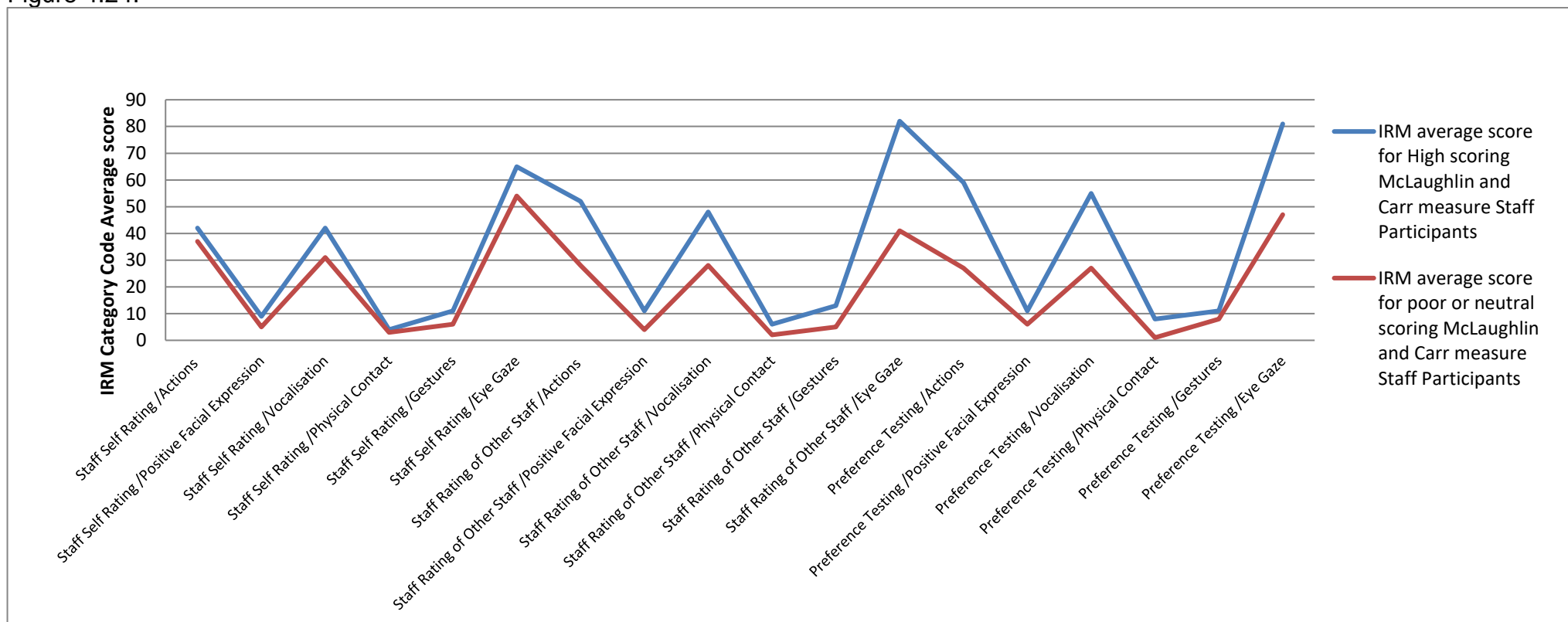
Figure 4.24: Comparison of high and low scoring staff in MLC measures and average IRM category code score

Figure 4.24 shows that, for all category codes and all MLC measures, IRM scores were higher for SP in the good rapport group. As confirmed by Tables 4.25-4.27, the degree of difference was somewhat lower for the Staff Self Rating groups.

Effect sizes are collated in Figure 4.25, rounded down to one decimal point. The range of effect sizes (calculated using Cohen's d) across IRM overall, Category Code Scores and MLC measures was 0.2-0.9. The figure of 0.2 is generally taken to be a small effect size with 0.4 as a medium effect size. An effect size of 0.8 or above is regarded as large (Dunst and Hamby, 2012). The effect size of the difference between good and poor rapport SP on the IRM Category Code Positive Facial Expression was large across all three MLC measures.
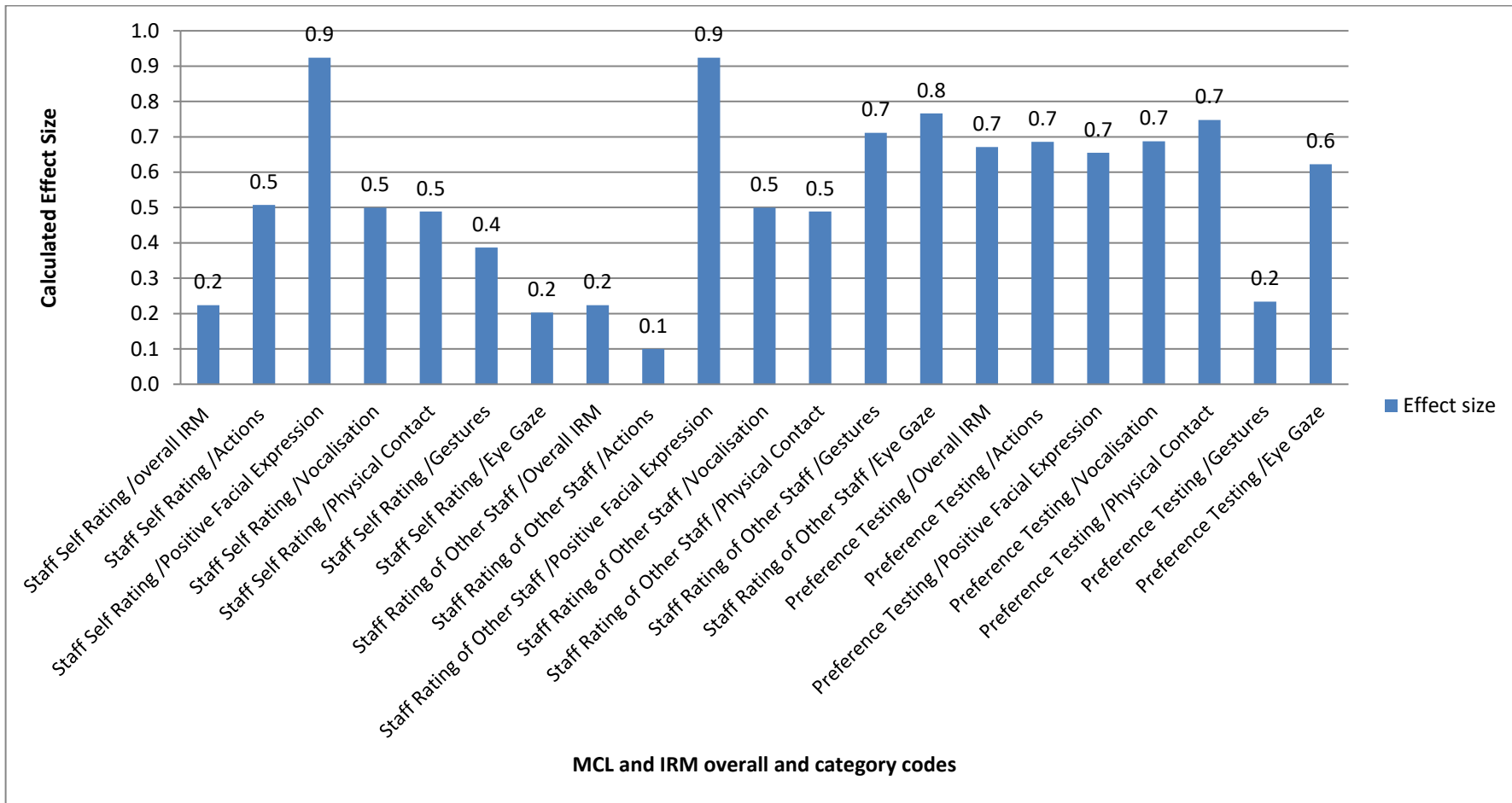
Figure 4.25: Summary of effect sizes of differences on IRM between good and poor rapport groups on MLC measures

Discussion

Summary of findings

The IRM data proved difficult to work with at individual code level. There were two main reasons for this difficulty. Firstly, in some of the IRM categories, there was little or no data, particularly Gestures and Physical Contact. Secondly, there was a great deal of variability in the data coded at individual code level. Individual codes within three category codes (Actions, Vocal Sounds / Speech, and Eye Gaze) were the behavioural categories that were coded most frequently. Positive Facial Expression as a category code had only one individual code, Smiling Giggling or Laughing, which was also frequently coded.

Once data were examined at the level of overall category code, more patterning was apparent. At overall category code level, differences between rapport indicators directed at SP started to emerge.

The clearest patterns were obtained with IRM total scores. IRM total score was the combined total of all category code data i.e. the total incidence of rapport behaviours. Some SP had an IRM total that was high for one IDP, and low for another. Such differentiation suggests that the measure was picking up information about relationships rather than the interaction style or skills of specific SP. Some SP did have a consistent pattern of IRM scores across all IDP e.g., Carl and Ed had mid ranging IRM scores for all three IDP while Tom had low IRM scores for all three IDP.

The consistency of coding across observations was examined. Poor scoring SP tended to be consistently poor scoring, while high scoring SP showed more variation and did not score highly on every observation. Such day-to-day variation is not surprising. During one observation, for example, most SP had received letters earlier in the day, identifying them as at risk of redundancy. The observations made on this day were uncharacteristic as none of the IDP showed much behaviour indicative of rapport towards SP. It seems plausible that the behaviour of SP had altered that day, given the distress of receiving the letter, and that normally high scoring SP did not present their usual signals for positive interaction.

It should be noted that variation between IDP in total IRM scores reflected different skill levels. A greater repertoire of skills meant the ability to use a wider range of behaviour that was indicative of rapport.

It seems probable that the rapport behaviours that an IDP was likely to present could have been predicted by someone who knew the person well, or could possibly have been determined by inspecting documentation on their communication and interaction style, e.g. as might be identified in a recent Speech and Language Therapy report. A good knowledge of the IDP may also point to idiosyncratic behaviours for an individual. For example, in the current

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study Ajay would hold his hand out for staff to touch/tap. This specific behaviour is likely to have accounted to some extent for the frequency with which Ajay scored on the physical contact category code.

Attempts were made to replicate the use of MLC measures as closely as possible to the original study. However there seemed to be a difference in the level of rapport found between SP and the IDP and the levels of rapport reported in the McLaughlin and Carr 2005 study. In the current study SP did not appear to have the very clearly good or poor rapport described by MLC and differences in rapport appeared less apparent. Alternative ways of grouping SP following preference testing had to be sought, as the current study did not find the same consistent variation in the times that staff were chosen. Preference testing scores in the current study were within a narrower mid-range than those identified by MLC. Due to some missing data, staff ratings of other staff were analysed by giving SP an average ranking. Analysis of staff self-ratings was relatively straightforward and amenable to the same methodology as that used by MLC.

Given the differences between SP in this and MLC study, it seems plausible to think that, if the staff team suddenly changed, the amount of rapport behaviour presented by IDP could be far greater, or far less.

As far as possible, similar methods of grouping SP into good and poor rapport groups, according to MLC scores, were used. When groupings were compared with each other and with a similar grouping based on IRM total scores, some SP were in the good or poor rapport group across the IRM total score, and all three MLC measures. Two SP were 'good rapport' across all measures for one participant and 'poor rapport' for another IDP. Kappa's co-efficient (Cohen, 1960) was used to check the agreements between measures and showed little overall agreement between the IRM and the MLC measures, preference testing or staff self-rating. There was moderate agreement for two IDP between the observations made on the IRM and the ratings made by staff on their own observation of their colleagues.

Average IRM scores for the group of SP in the good rapport or poor rapport groups for each of the MLC measures were examined. The average IRM scores for the good rapport staff were consistently higher than those for poor rapport SP. This applied both at overall IRM score and at category code level.

Generally, however, these differences were not statistically significant. The majority of the effect sizes (Dunst and Hamby, 2012) were in the medium to high range. It might be suggested, therefore, that the current study was under-powered and significant differences might have been found with the inclusion of more participants. Based on the average effect size found, the power of the current study was 0.24, substantially less than the 0.8 sought in an adequately powered study. The n (multiple of IDP and SP) needed would be 100 to achieve

this compared to the actual figure of 24. An underpowered study is, of course, more likely to accept the null hypothesis when it is false i.e. make a type two error.

The effect size for the IRM category code Positive Facial Expression was particularly high, 0.9 for both Staff Self Rating and the Staff Rating of Other Staff, 0.7 for Preference Testing. This may suggest that Positive Facial Expression (smiling, giggling or laughing) being a particularly useful indicator of rapport. Positive facial expression has been the subject of a number of other studies (e.g., Favell et al., 1996, Green and Reid, 1996, Davis et al., 2004) for measuring happiness of people with an intellectual disability.

The keyworkers of all three IDP fell into the good rapport group for IRM total score, and at least two of the MLC measures. SP all rated highly the colleague who was keyworker. Keyworkers were rated as number one or two, on the Staff Rating of Other Staff Rapport Form. SP would have been fully aware of who, among their colleagues, was key worker for which IDP. It is possible that they have considered keyworkers as having an important relationship rather than the best rapport. Keyworkers have however scored as good rapport on the more objective measures also.

Keyworkers in services are often assigned to activities that might be expected to build rapport, such as supporting people to do personal shopping, or to go on holiday. Such activities, if they incorporate individual likes or preferences, are likely to place keyworkers in a position where they noncontingently deliver reinforcers. This is, of course, one of the original rapport building strategies outlined by Carr et al (1994).

IDP showed their highest IRM total scores towards SP of the same gender, although not all male staff scored highly. The issue of SP gender is a confounding variable with keyworkers because all IDP had keyworkers of the same gender.

The issue of relationships between direct care staff and people with an intellectual disability remains highly topical. Not all relationships between staff and people with an intellectual disability are high in rapport. Grahe and Bernieri (1999 p258) state:

> *"terms like engr*ossing, friendly, harmonious, involving and worthwhile *describe interactions that are high in rapport".*

The shocking abuse at Winterbourne View exposed by the BBC Panorama documentary in May 2011 /October 2012 and the Mencap and Challenging Behaviour Foundation 2012 Out of Sight report drive home a picture of relationships between people with intellectual disabilities and their paid carers that are certainly not engrossing and worthwhile (Grahe and Bernieri, 1999). Both the documentaries and the Out of Sight report show that abuse can be missed by Care Quality Commission inspections and adult safeguarding teams. It seems valuable therefore to know more about how people with little or no verbal communication can, through their behaviour, express something about their relationships with the people that support them.

Even for the group of SP this study defined as 'good rapport' staff, there were fluctuations in rapport indicators and these staff did not score highly on all observations. The fluctuation of rapport indicators on some observations may be linked to the issue of synchronicity or harmony discussed by Tickle-Degnen and Rosenthal (1990). These authors conceptualise rapport as incorporating three interlinked components: mutual attentiveness, which creates focused and cohesive interaction; positivity, such as mutual friendliness and warmth; and co-ordination, which describes balance, harmony and synchronicity. Observation of rapport indicators presented towards SP appeared low on the day some SP had received letters putting their jobs at risk. It seems plausible to consider that the harmony or synchronicity of relationships may have been altered on this day due to staff distress.

Poor rapport scoring staff tended to remain poor across the majority of observations. For example, SP Tom spent much time in the kitchen engaged in meal preparation without involving anyone who lived at the service. Participants in this study were free to go in and out of the kitchen and engage with Tom but rarely chose to do so. This task orientated way of working appeared to put a degree of distance between Tom and the IDP for much of the observation period.

As noted above, IDP Alanis would isolate herself on days when there were not any preferred staff on duty. Carr et al. (1994) talk of staff setting themselves up as a generalised reinforcer:

> *"if you associate yourself repeatedly with a wide variety of activities,* people, and things that the person values, then eventually your presence will become a signal that many rewarding activities and events are available with you. In technical terms your presence becomes a *generalized reinforcer"*(Carr et al., 1994 p112).

SP who had a good rapport with Alanis seemed to have set themselves up as a generalised reinforcer. Ava for example was the only SP that could successfully do Alanis's hair in the way she liked it. On the shifts she worked, Ava would typically be engaged in styling Alanis's hair which was a fairly lengthy process. IDP Helen would regularly file and paint Alanis's nails which she enjoyed. Ajay,

on the other hand, frequently spoke about being taken for a walk, perhaps for him a reinforcing activity. He would approach particular SP and say 'walk walk' in a bid to get staff to go out with him. These qualitative observations were interesting and may suggest scope for research on rapport which is more qualitative or ethnographic.

As in Carr's (1994) work the array of reinforcers that would be likely to be needed for each of the three participants appeared to be very different. With overall poorer communication, no verbal language but varied vocal sounds and good eye contact, Intensive Interaction (Nind and Hewitt, 2001) would be a potentially useful way to build rapport with IDP Bernie. During one informal observation with an agency member of staff who was using an approach similar to Intensive Interaction, Bernie was giggling, laughing and appearing to find this approach highly reinforcing. The approach, however, was not in general use and it is quite possible that SP in the service had never had formal training in Intensive Interaction.

The overall category code Positive Facial Expression which contained only the one individual code Smiling, Giggling or Laughing was frequently used. Irrespective of their general skill level, all three IDP engaged in smiling, giggling or laughing. This code was broadly based on Green and Reid's (1996) study where they defined happiness:

> "as any facial expression or vocalization typically considered to be an indicator of happiness among people without disabilities including smiling, *laughing, and yelling while smiling"* (Green and Reid, 1996, p69).

Participants in Green and Reid's study were defined as having profound disabilities which adds weight to this being a useful category irrespective of a participant's ability.

Issues and limitations

Preference Testing

McLaughlin and Carr's (2005) findings of substantial variability across SP were not completely replicated. The variability found in the current study was rather less than that previously reported. For example, SP were less likely to be consistently chosen or not chosen. Many factors may have contributed to these differences. There may have been real differences in the distribution of rapport between the participants in this study and those in the MLC study - the number of participants was relatively small in both studies. There may have been skill differences between IDP in the two studies, influencing how much rapport behaviour they were able to show. For example, IDP Bernie appeared to have poor skills in making choices and struggled to understand what was expected of him during preference testing. Consequently it was necessary to use a different method of preference testing with Bernie in which SP presented themselves with items of interest to Bernie (e.g., cups of coffee or food) to determine from which

SP he would take the items. While necessary, this was rather different to the procedure described by MLC.

Staff Rating of Other Staff Rapport

The rate of responding was slow for the Staff Rating of Other Staff Rapport and there was an incomplete response from SP who were asked to complete the forms. Most SP had to be reminded to send the forms. Due to the slow rate at which the forms were returned, they were not all rated at the same time. Fluctuations in rapport could have occurred within the staff team during this period.

Some returned forms were only partly completed. Due to missing data some SP had more data provided by their colleagues than others, and an average rating was used to collate data. SP understanding about how to complete this form may have differed. One SP returned poorly completed data, and was asked to rectify this on two separate occasions. As a researcher who had to be blind to the data contained on the forms, it was difficult to provide sufficient coaching on how to complete them without becoming un-blinded. The forms were sent to an administrator who did not have the skills to advise or coach SP.

It is possible that SP needed a more in-depth briefing session about how to complete this measure. Sending completed forms to a second researcher who had a clearer idea of the data to be collected might have aided this process.

SP Ed's sick leave at the beginning of the study may have also influenced the Staff Rating of Other Staff Rapport forms as they had not observed him working with the IDPs for a number of weeks. Ed, who was already recruited as a participant, requested that the MLC measure forms be sent to him at home. Despite his sick leave Ed was included in the study as he was keen to be a participant. Data collection on staff rating of other staff started before Ed returned. Ed's fairly low or missing scores on the Staff Rating of Other Staff Rapport form may have been because his colleagues had not worked with him recently, and could not remember what his rapport with the IDPs was like. It was clear during observations that he was actively sought out by some IDP.

Staff Self Rating of Rapport

The rate of responding to the staff self-rating form was slow and SP typically needed reminding by the administrator to send back the forms.

Ed's Self-Rating of Rapport Form scores were relatively low, perhaps influenced by his feeling unwell.

The time frame for returning both the Staff Self Rating form and the Staff Rating of Other Staff Rapport needed to be shorter and it may have been helpful if SP

had completed the forms independently within a group session where help was available. It might also have been useful to repeat the MLC measures at the end of the study to investigation fluctuation over time.

During the period of data collection SP Beth consistently appeared to alter her interaction style for the duration of the filming, moving between IDP as filming moved from one person to another. Although the issue of interacting on an almost constant basis with each of the IDP was discussed with Beth twice, her interaction style did not alter. Beth's interaction style resulted in potentially inflated IRM scores for all three IDP. Consequently it was decided not to use IRM data for Beth. Time consuming data collection could have yielded more useful data had Beth been given a better explanation of her role at the beginning of the study, or if collected film had been used to specifically show her how she was altering her own interactions in response to filming.

Alanis was inclined to stay in her room or leave communal areas if SP were not directly interacting with her. This led to atypically high proximity measures in a number of observations, as staff tended to support her closely once she had left her room.

IRM data proved impossible to reliably code using the initial approach to partial interval recording. Consequently, it was necessary to stop and start the film every 30 seconds to allow time for recording. This made data coding a slow process and the IRM time consuming to use. It may have been possible to obtain similar results using a simplified observation tool in which, for example, the presentation of indicators of rapport to each staff member are recorded as occurring or not. Such a simplified tool might be used over a similar timescale of thirty minutes.
Some IRM codes were frequently used, such as the movement, vocalisations and eye gaze of IDP. Others such as gestures or physical contact were observed far less frequently. This suggests the potential for revising the IRM to focus on a smaller number of codes. An additional factor in the time-consuming nature of the IRM, and a disincentive to its use in future studies or clinical practice was the length of observation employed (150 minutes per SP). It may be possible to find ways of reducing the length of observations required.

The ability of IDP reflected the type of rapport behaviours each individual had, within their skill repertoire, to direct towards SP. An individual with poor mobility may be expected to use eye gaze rather than physically following SP. With the skills of IDP in mind, there would be scope for developing a more personalised measure based on a person's skills or abilities. The IRM only coded behaviours indicative of a good rapport and not those that may have been associated with a poor rapport. This could mean that indicators of a poor rapport are present but not identified through this measure. On one occasion, for example, IDP Alanis

could be heard to say (twice) that she hated a particular SP, and this was not reflected in the coding. This was, however, the only occasion when a fairly strong indicator of poor rapport was observed.

A number of observation dates for IDP Alanis were cancelled because she wanted to stay in her room. This pattern seemed to illustrate the potential importance of rapport - SP in the team were able to predict whether Alanis would be in or out of her room for a planned observation, based on whether particular SP would be on duty. When Alanis was supported by someone that she did not have a particularly strong rapport with, she spent more time alone in her room. Spending time alone could be regarded as the opposite of close proximity or seeking staff out. Preferred staff also seemed somewhat more confident with Alanis, and had more success at encouraging her to leave her room and get involved in activities.

IRM and MLC data did not correlate highly. There are a number of reasons that could be associated with limited correlation between data. SP Ed returned from sick leave part way through the data collection, and although he scored highly on the IRM with IDP Ajay his scores were less good on the MLC measures. It is possible that colleagues could not remember what his relationship was like with IDP and rate this accordingly. Bernie an IDP in the study really struggled with making choices in preference testing, and it is possible that this data would read differently if he was more skilled at choosing staff members to support him. There was some missing data within the MLC measures which could have influenced the overall results if this had been collected. The service was closed by the organisation, with little prior notice, which put some pressure on SP to complete the MLC measures. Reminders for missing data had to be given to some SP. It is possible that SP gave less consideration to some of the measures than they might if they could have been completed at a slower pace.

The results were formulated using more than one correlation. Using more than one correlation is a limitation of this study, as it increases the likelihood of an error.

Next steps

Following reflection on issues discussed above it was decided that some combination of the following changes may be worth considering.

It might be helpful to review the recording format of the IRM to simplify the process of recording. The simplified measure would be based on the IRM but aim to capture indicators of rapport without the need for lengthy filming. The simplified measure would code data in real time without the use of film.

One way of simplifying the IRM would be to review codes not regularly used and consider individualising the measure. The overall category codes of Gestures

and Physical Contact contain a number of individual codes some of which were rarely used. It may be that grouping positive gestures and positive physical contact together as one code would be possible and more efficient.

Another approach to making the IRM easier to use would be to match the measure to the known skills of the IDP being observed, particularly where other recent assessments (Speech and Language Therapy or adaptive skill assessments) highlight the likely strategies that the IDP use to demonstrate rapport with others. Many people with ID are well known by staff, who have often supported them for years, this staff knowledge may be valuable. Staff who know the person well might easily be able to pick out the most likely ways the individual will indicate they have a good rapport with staff.

Some of the film used in the current study showed some excellent examples of differing levels of rapport. It might be possible to use film gathered in current study to develop a simplified IRM. For example, comparisons could be made between the IRM and a simplified version to ensure the latter's validity. With the necessary permissions in place, sample films, selected via the IRM, of good neutral or poor rapport could be presented to observers to rate on a simplified IRM recording sheet. Accurately identifying the level of rapport on a simplified version of the IRM would begin to validate this as a useful tool.

A simplified version of the IRM would make it easier to collect data in the course of routine clinical activity. Further studies might use the simplified IRM to investigate the relationship between good rapport and independent variables, such as staff experience, activity, training, or beliefs.

The data from the current study suggest that rapport may be better with keyworkers. However, there were only three IDP and keyworker relationships considered in this study, so that the link with keyworkers might look very different with a larger sample. Further studies investigating whether such rapport develops after the assignment of a keyworker, or whether keyworkers are assigned on the basis of a pre-existing good rapport, would be of interest. Such studies should gather information about keyworker-IDP relationships, and the history of these relationships and how they have changed over time, prior to the commencement of the study.

Rapport is not a static state and it seems likely that there will be fluctuations in rapport between people over time. Fluctuations in rapport between staff and people with intellectual disabilities would also be interesting to study. It may be beneficial from a service delivery perspective to know something about fluctuations. For example, whether they come about through staff spending positive time with individuals, or if there is damage to rapport following incidents where behaviour is challenging. Taking data at different time points may show something of the fluctuations, particularly when combined with qualitative accounts from staff regarding changes in the relationship.

The MLC measures were useful as a comparison measure in this study, but some SP struggled to complete them fully. If MLC measures are used in future studies, it may be of value to provide SP with a greater degree of training on how to complete the measures, particularly the Staff Rating of Other Staff Rapport Form. For example, staff are likely to benefit from being given more instruction about exactly which SP they should be ranking on the form. It may also be beneficial to ask any future SP to complete the Staff Self Rating form at a time when they are feeling in good health. Staff recorded MLC measures would lend themselves to being completed both at the beginning and end of any future studies, to pinpoint fluctuations in rapport and increase the internal validity of the measures.

Chapter Summary

Chapter four has described a study in which the non-verbal behaviour indicative of rapport between 3 people with an ID and supporting staff was defined and measured. The IRM was designed and piloted. IDP were filmed in the presence of SP and the filmed data was coded on the IRM. SP in the study also completed measures used in an earlier study, McLaughlin and Carr (2005). The resulting IRM data were compared to that arising from the MLC measures.

Efforts were made to replicate the use of MLC measures in the same way as the original study. The results of this study did not show the same consistent variation with preference testing as MLC as SP were within a closer mid-range than those identified by MLC.

On the IRM some SPs showed a total IRM score that was high for one IDP and low for another. This difference supports the notion that the IRM is picking up information about specific relationships rather than more general staff characteristics or skills. In comparison all IDP had a low IRM score for the observer (who had no history of relationship with them). Staff who scored as having a poor rapport, tended to remain poor across the majority of observations.

Data from the IRM, individual codes, category codes and overall IRM total were presented. In a similar way to McLaughlin and Carr (2005) staff were grouped into good and poor rapport groups.

Mean IRM total score and category code score was higher for SP across all 3 McLaughlin & Carr measures good rapport groups

Once the MLC good and poor rapport groups were compared with each other and with a similar grouping based on IRM total scores, some SP were in the good or poor rapport group across the IRM total score, and all three MLC

measures. However, these differences were not found to be statistically significant with the use of Mann Whitney U tests. The majority of the effect sizes for this data were found to be in the medium to high range.

Keyworker relationships were evident in IRM scores. Good IRM scores for keyworkers raised the question of whether keyworkers were assigned on the basis of a pre-existing good relationship or the assignment led to the development of better relationships.

There appeared to be a link between SP and IDP of the same gender. SP were more likely to have higher scores on the IRM or be included in the good rapport group for the MLC measures of IDP who were of the same gender. There were however some male staff that did not score highly on the IRM with IDP of either gender.

The IRM was time consuming to use and it was concluded that it should be simplified. Some IRM category codes were rarely used and had the potential to be reduced or combined.

A discussion of the potential further use and development of the IRM including consideration of possible further studies concluded chapter four.

Chapter 5: Simplifying Rapport Measurement: Development and Testing of the Rapport Rating Scale

Chapter outline

Chapter four described the development of the IRM. This was the first in a series of studies focussing on the measurement of rapport between people with intellectual disabilities and direct care staff. Chapter five explains the process of reviewing and simplifying the IRM to enable the development of an easier to use measure, the Rapport Rating Scale (RRS). The RRS was tested using volunteer observers who rated specially made films depicting good, poor and neutral rapport. The results of the study are analysed and presented. The final part of this chapter outlines possible directions to develop this work on rapport in further studies.

Introduction

In the study described in Chapter four, the IRM was developed and piloted. The IRM collected information on primarily non-verbal indications made by people with intellectual disability that were thought likely to reflect their rapport with support staff. The IRM appeared to provide a useful measure of the quality of relationships between people with intellectual disabilities, and their care staff. It was however difficult to use: it relied on the use of video; data analysis; was complicated; and it would have been time consuming to use in clinical practice.

Following the IRM study, consideration was given to how to develop the work on rapport measurement. Despite the difficulties in using the IRM, a measure of rapport between people with intellectual disabilities and direct care staff that could be used across settings was still considered useful. As identified in the systematic review reported in Chapter 2, no other such observational measure existed. The most logical next step, therefore, seemed to involve improving the IRM to overcome some of the difficulties identified.

Consideration was given to the development of personalised versions of the IRM, only including the category codes likely to be observed with a particular individual. For example, if an individual was unable to walk or propel themselves in a wheelchair, the category code for movement could have been removed from the observation recording sheet as it would not be seen. Ultimately, however, it was thought that the preparatory work of drafting or adjusting the IRM individually before an observation could start would be even more time consuming for clinicians.

A more generally simplified IRM was next considered. It seemed likely that both the codes used in the IRM and the recording/scoring procedure could be simplified. For example, it might be possible to focus only on those codes where there was likely to be most variation. Ideally, such a measure could be quickly scored and would not require the lengthy and repeated observations employed with the IRM. Nonetheless, it was felt important to link the measure to the IRM, rather than develop a completely new measure,

since this would increase the scope for replication/ confirmation of the findings reported in Chapter 4.

In considering the best way forward, attention was drawn to other observational measures used in the field of intellectual disability, in particular those that were the most straightforward for clinicians to use. The Active Support Measure (Mansell and Elliott, 1996) is one such measure that succinctly gathers data on engagement / Active Support on a single page. It is worth noting that this measure has allowed the collection of data on activities and interactions that would previously only have been collected from fairly lengthy direct observation. So, to some extent, there seemed a direct analogy with respect to the measurement of rapport.

All individual codes within the IRM were examined to determine the extent of their use in the previous study and consideration given to both the case for retention within the new measure and the possibility of their combination with other codes to reduce the size and complexity of the IRM. A new measure was drafted, entitled the Rapport Rating Scale (RRS). The RRS maintained the elements of the IRM that had proved valuable in the previous study. In drafting the RRS, the Active Support Measure was used as a model, with the aim being to produce the RRS using straightforward, succinct wording and a single page layout.

The current study sought to test the usability of the RRS by professional staff, while viewing interaction on short pieces of video. To validate the RRS, comparisons were made against data gathered using the original IRM.

The principal research question for the RRS study was 'can the RRS be used to produce ratings of rapport which are consistent with those from the IRM?'

Alongside the principal research question, there were a number of more specific aims:

- To identify useful adjustments to the RRS following its initial piloting.

- To evaluate the ability of the RRS to discriminate examples of good, poor and neutral rapport.

- To evaluate the internal consistency of the RRS.

- To compare actual and predicted scores for the RRS at category code level.

- To examine whether participants' level of experience results in differences in the data collected on the RRS.

Method

Ethics and Governance

Advice was sought from the Research and Development Facilitator at Surrey and Borders NHS Foundation Trust and the Research Ethics and Governance Officer at the University of Kent. Their view were that work to develop a simplified version of the IRM could be regarded as an amendment to the original IRM study.

Application for ethical approval of a 'Substantial Amendment' to the original study was made. The application noted that the original study had been successfully carried out and written up, and appeared to provide a measure of rapport between people with an intellectual disability and their staff carers. It was further noted that the aim of the original study (to develop a useful tool for clinical practice) had not yet been accomplished. Accordingly, the application sought ethical approval to;

- test the use of a simplified version of the IRM by professional staff.

- As part of the testing procedure, allow professionals and trainee professionals in the field of intellectual disability to view brief clips of the original video footage, using the simplified IRM to code rapport behaviour.

It was explained that permission from the original SP, and participants with an intellectual disability /consultees, would be sought before using video footage. Professionals recruited would be asked to sign a University of Kent Confidentiality Form before viewing filmed data.

The original protocol was changed and a section added which stated 'Following the study the IRM will be reviewed and if necessary simplified to enable this to be easily usable by professional staff. The content of the measure will be revised and individual codes reviewed for their usefulness. Testing of the measure will be undertaken by professionals and trainee professionals viewing brief clips of the video footage, and using the measure to assess rapport behaviour'.

The ethics committee gave approval for the substantial amendment in November 2012, see appendix A15.

Subsequently, the personal consultee for the participant with the clearest clips of film showing good, neutral and poor rapport was approached.   In the intervening time period the participant had moved out of the area and her consultee did not want her relative to take part in any further aspects of the study. Follow up for a second participant was attempted but he had sadly died. This left no suitable participants whose filmed data could be used. Therefore, despite ethics committee approval, existing films could not be used.

A possible alternative was to ask some NHS staff to volunteer to role play some scenarios (good, poor and neutral rapport) so that new films could be made. Application for this further change was made as a 'Minor Amendment' and approved by the REC in March 2013.

The amendments to the study received Research Governance approval by Surrey and Borders NHS Foundation Trust.

Developing the RRS

The IRM was reviewed with the aim of reducing the length and complexity of the measure. The original category codes were reviewed one individual code at a time and the information arising from this is presented in Appendix A.16. The review included reference to all the material developed in the course of using and writing up the results from the use of the IRM. If a code had not been used this was noted; where codes had been scored the frequency of their use was examined as well as the extent to which they had been useful in the discrimination of good, poor and neutral rapport. Consequently, the recording format was simplified, and codes that were rarely scored in the original IRM study were removed, or grouped together with other similar codes to make a single code. A summary of the review process and the conclusions reached regarding design of the RRS are shown in table 5.1.

Category	Learning from the IRM	Implications for RRS design
Proximity	SP putting themselves in close proximity to the Intellectually Disabled Participant (IDP) or calling IDP into close proximity. Movement was not always under the volition of the IDP.	Noted on the RRS that movement needed to be under the volition of the person with intellectual disabilities. The overall category code was re named movement.
Positive Facial expression	Useful code for all IDP.	Included on the RRS.
Vocal sounds, speech	Vocalisation while smiling was infrequently coded.	Combined with the category codes of singing or joking.
Physical contact	Many physical contact codes scored zero for all three IDPs. The range of individual physical contact codes was too great (eight physical contact codes).	Physical contact codes grouped and the number of codes reduced to three.
Gestures	5 gesture codes, beckoning rarely coded.	Reduced to 4 codes beckoning and pointing combined as one code.
Eye gaze	Useful codes for all IDP.	Remained within the RRS, wording shortened.

As in the IRM, RRS category codes were grouped under six main headings. Other than altering one category code title 'Proximity' to the more straight forward term 'Movement' the category code wording has remained the same.

The final version of the RRS after piloting can be seen below in Figure 5.1.

Rapport Rating Scale

Observer name:	Age:	Number of years working in intellectual disability services:
Gender:	Date:	Profession or current training:

Name of person being observed   Staff name

Scale **0 = not seen during observation** **1 = seen once during observation (or less than half the observation period)** **2 = seen 2-3 times during observation (or half to three-quarters of the observation period)** **3 = seen more than 3 times during observation (or more than three-quarters of the observation period)**		
INDICATORS OF RAPPORT	**Tally** **times seen**	**Rate 0-3**
Movement (of own volition)		
★ Stays directly beside stationary carer (touching distance)		
★Approaches stationary carer		
★ Follows moving carer		
Positive facial expression		
★Smile, giggle or laugh which is directed at carer		
Vocal sounds and speech		
★Directs words or word approximations at carer		
★Vocalises while singing or joking which is directed towards a carer and typically accompanied by smiles / laughing		
★Asks for an absent carer or calls a carer by name		
Physical contact		
★Makes affectionate physical contact with carer e.g. cuddling, hugging, kissing or holding carer's hand		
★Makes brief physical contact with carer e.g. touching, lightly tapping, stroking or high fiving carer		
★Makes persistent physical contact with carer e.g. leading carer by the hand to take them somewhere or show them something		
Gestures		
★Gestures to carer in directing manner e.g. beckoning or pointing		
★Gestures agreement to carer e.g. thumbs up or nodding head		
★Uses formal or informal sign language towards carer		
★Mimics carer in order to joke		
Eye gaze		
★Moves eyes or head in order to track a moving carer		
★Looks at stationary carer		

Observe the person with a disability not the staff member. **Tally each rapport indicator you see.**

Make a rating between 0- 3 for each indicator of rapport marked with a red star (★). (There should be 16 rapport indicators rated in total)

Figure 5.1: Rapport Rating Scale final version

Recording for the RRS is based on a tally count of the number of times particular rapport behaviour is seen. Using the rating scale at the top of the measure tally counts are scored and a total score derived.

Making the films

Using the filmed material from the IRM study, three five minute clips of film were identified, that were examples of good, poor and neutral rapport. The clips were selected based on the IRM score. The clips were coded using the IRM and checked with the RRS, in both cases by the author. The good rapport film had a higher IRM score than the neutral rapport film, and the poor rapport film had a lower IRM score than the neutral rapport films. It was planned that different groups of participants would view the three films.

As noted above it was not possible to use the original footage. Therefore, role play films were made, based on the original film. The three new films were made to depict examples of good, poor and neutral rapport between a person with a learning disability and a member of staff. The films were made within an NHS residential service for children. Children were not at home during the time of filming. The service was selected to give the films a realistic backdrop of a home like setting rather than using an office environment. An information sheet about the study was given to staff (appendix A17) and two staff who worked at the service were recruited as participants for the role play films. Both staff signed a consent form for acting as volunteer observers, see appendix A18. Management approval was given for the use of the building and involvement of staff to make the films.

Although films were scripted (scripts being based on the originally identified footage), role play participants made suggestions about the content and ways they could present the script. Details of the scripts used can be found in appendix A19. Both staff undertaking role plays chose to use their own names throughout. To ensure consistency across films the same two staff role played in all films. All role plays were rehearsed and then filmed as final versions. Copies of the three role played films are contained in appendix A20. Films were coded by the author using both the IRM and the RRS to check consistency between the RRS and the IRM. This is reported in more detail in the results section.

Piloting the Rapport Rating Scale

The Rapport Rating Scale (RRS) was piloted on the good, neutral and poor rapport films by five independent raters. A copy of the RRS prior to piloting can be seen in appendix A21, and the final version is presented above as figure 5.1. The raters were a Speech and Language Therapist, a Behaviour Specialist working in Intellectual Disability Services, a Learning Disability Nurse Manager, a Psychology Undergraduate and a trainee Physiotherapist working within the Community Team for People with a Learning Disability.

Feedback was requested from raters on the ease of recording and layout of the RRS. Pilot raters made a number of suggestions for improving its ease of use. An explanation of each of the suggestions made by the independent raters and the subsequent changes made to the RRS form, are presented in Table 5.2.

Table 5.2: Suggestions and responses from piloting of the RRS

Suggestion	Response
Make the recording space larger to include a space for tally counting during the observation particularly for the code 'Looking at a Stationary Carer' which is observed frequently.	The layout was changed to make a larger space for recording tally counts.
Areas to record and category code headings need to be clearer so that raters only code the categories and not headings - to avoid, for example, putting a score in the category heading 'Movement (of own volition)' rather than the code 'Stays Close to Stationary Carer'.	Category code headings were greyed out to show that they were headings and not items to be coded.
It was difficult to know who to observe because the member of staff was unresponsive in some films and it would be better to make very clear that it was the person with an intellectual disability that was the subject of observation and not the member of staff.	At the bottom of the RRS it was noted in red that the person with an intellectual disability was the subject of the observation and not the member of staff.
There was valuable feedback about the scoring system, with the view that this would be better if the score given for 'not seen during observation' was a zero rather than a 1 as this would reduce confusion.	The score system for tally count was adjusted so that that it ranked from 0-3 rather than 1-4 with zero being 'not seen during the observation'.

Participants

Participants were identified primarily from clinical contacts at Surrey and Borders Partnership NHS Foundation Trust and students / staff from the Tizard Centre, University of Kent. To ensure that the study had sufficient power an initial power analysis (Cohen, 1992) suggested that an acceptable level of power (0.8) could be achieved with each group having a minimum of N = 21 for a large effect size (d = .4) at α = .05.

Participants came from a range of professional groups, or were training in Intellectual and Developmental Disabilities (IDD) through courses held at the

Tizard Centre, University of Kent. As shown in Table 5.3, the age, experience in years, gender and professional group of participants in the three groups were reasonably similar.

Table 5.3: Participant information by group

Group	Age	Gender	Experience in years	Professional / student background
Film one =neutral rapport N = 27	Range 21 – 55 Mean 37.7 years	M 4 F23	1 - 34	Assistant psychologist x 1 Behaviour specialist x 4 House manager x 2 Lecturer ID x 1 Music Therapist x 1 Nurse LD / Mental Health x 4 Nursing student x 1 Occupational Therapist x 1 Psychiatrist x 1 Psychologist x 2 Psychology student x 1 Research Assistant ID x 1 SALT student x 1 Social worker x 1 SALT x 1 student ID x 4
Film two = poor rapport N =24	Range 23 – 63 Mean 40.4 Years	M 5 F19	0 -35	Behaviour specialist x 3 House manager x 1 Nurse LD / Mental Health x 9 Physiotherapist x 1 Psychologist x 3 Psychology Student x 1 Research Assistant ID x 3 Speech Therapist x 1 student ID x 2
Film three = good rapport N=28	Range 21 – 56 Mean 37.4 Years	M 10 F 18	0 - 35	Assistant psychologist x 1 Behaviour specialist x 5 House manager x 1 Lecturer ID x 1 Nurse LD / Mental Health x 10 Nursing student x 1 Psychologist x 2 Psychology Student x 1 social worker x 1 student ID x 5

Procedure

Participant packs were given to 107 potential participants. The participant pack consisted of the Participant Information Sheet (appendix A22), Participant Consent Form (appendix A23), a blank RRS (figure 5.1), and a CD rom of one, of the three rapport films (appendix A20), to be viewed and rated.

Participants were randomly assigned to film one (neutral rapport group), film two (poor rapport group) or film three (good rapport group), by strict rotation during the distribution of participant packs. The films were marked only as film 1, 2 or 3. All three films started with an introduction to the RRS and the task. The film gave an introduction to Diane (the 'member of staff'), and Lee (the person with a 'learning disability' who lives at the service where Diane works). Still pictures of both were shown so that participants were clear that it was Lee they needed to observe.

Participants were prompted in the introduction to:
- Watch the film which was just over 5 minutes long
- Use the Rapport Rating Scale to tally each time they saw an indicator of rapport.
- Rate their observations using the scale.

Once packs had been sent out, participants were given a reminder to return their data and a deadline for final data collection. On completion of the RRS all participants were thanked and given feedback on their rating of the RRS.

Some participants had technical difficulties with viewing films on their PC. These were mainly resolved by advising participants to upload newer versions of a free media player or view the film on a different / more up to date PC. Two participants dropped out of the study due to technical difficulties that could not be resolved.

Of the 107 participant packs given out, 79 complete packs were returned giving a response rate of 74%.

On examination of the data collected it was apparent that some participants had not correctly added up the tally counts on the RRS form they had completed. Scores were checked to ensure tally counts and scores were accurate, and results have been based on the tally count made at the time participants viewed the film.

A sample of data from 20 randomly selected participants was re checked for the accuracy of data entered into SPSS. There were no errors identified. Within the analysis normality of the data will be checked.

Results

Consistency with the IRM

The films used in the study were coded by the researcher with the original IRM. Reliability of this data was checked by a second observer who was a psychology graduate and trainee behaviour specialist. Cohen's Kappa was used to compare results between raters. The results were good rapport film Kappa = 0.93, neutral rapport film Kappa = 0.94 and poor rapport film Kappa = 0.96. All Kappa scores were considered to be in the 'very good' range.

For detailed reliability about the IRM see pages 95-96 in chapter 4. Use of the IRM and the RRS allowed examination of the similarity of results found between both measures. Results are shown in Figure 5.2, which shows IRM category codes rather than individual codes, as category code data had been shown to be the most useful in the previous study. The range of possible scores for each of the category codes on the IRM was far higher than the RRS. For example on the IRM the category code physical contact could have scored anywhere between 0-88, whereas the range of RRS score for physical contact was 0-9.
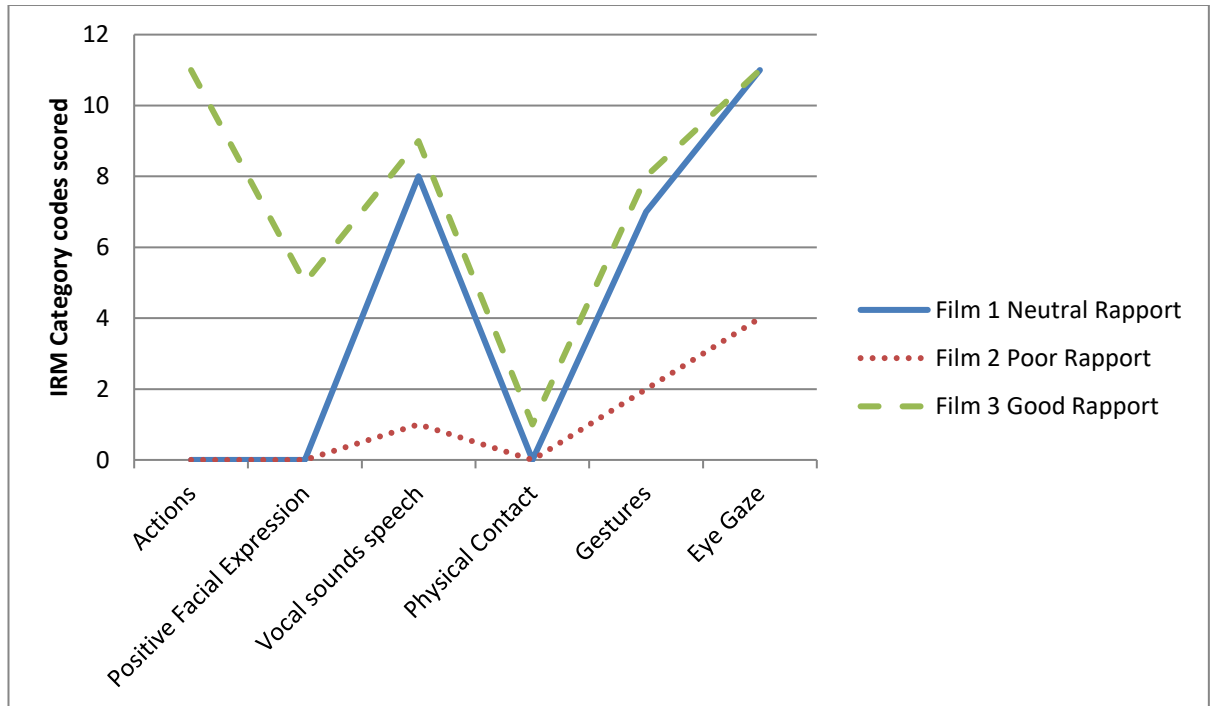
Figure 5.2: IRM Category Code Score for Films 1-3

RRS data were graphed, also at category code level (see figure 5.3) in order to make a comparison with the IRM.
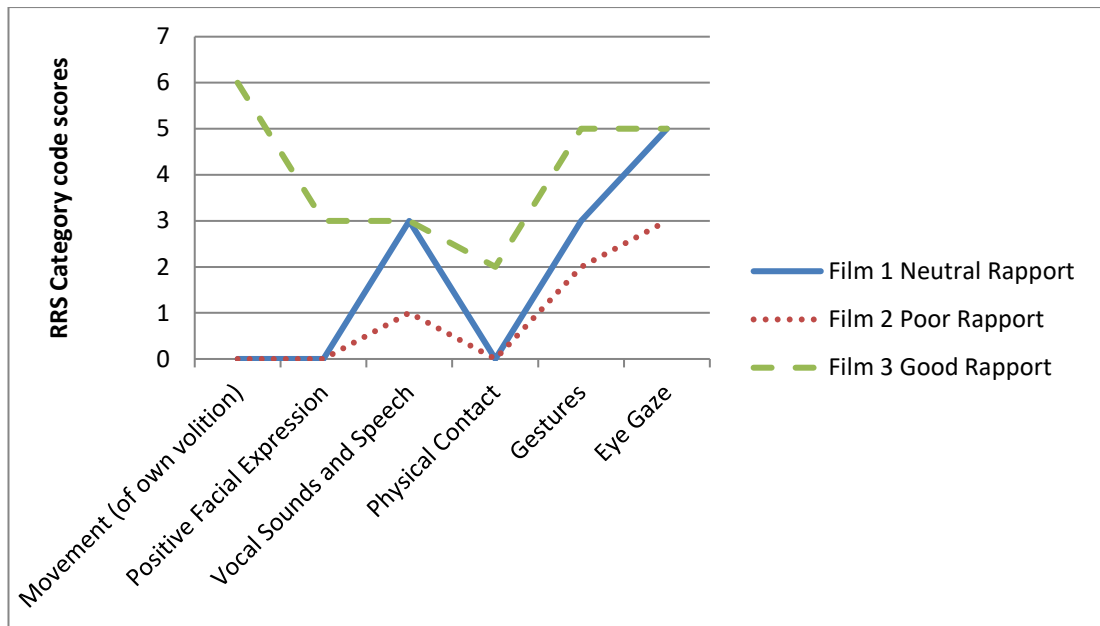
Figure 5.3: RRS Category Code Score for Films 1-3

At category code level both IRM and RRS scores were equal or higher for the neutral rapport film than the poor rapport film. Similarly the category code score for the good rapport film was equal or higher than the neutral rapport film for both the IRM and the RRS. Whilst the score totals for the IRM and the RRS differ due to the nature of the scoring, the comparison suggests that both measures would rate observed rapport behaviours at a similar level.

As it was a new measure Spearman correlations were carried out between the IRM and the RRS to check the validity of the measure. Correlations between the IRM and the RRS on the poor, neutral and good rapport films were, respectively, r= .987 (p<0.01), r= .994 (p< 0.01) and r=0.596 (p>0.05)." The correlation for the correlation for the good rapport film was not significant. Because of the nature of the recording system when the good rapport film was recorded on the IRM the figures recorded were much higher than on the RRS. Because of the lower incidents of rapport behaviour in the poor and neutral films the difference between the IRM and RRS scores was les wide, and this may have influenced the correlation result.

Group differences in RRS scores

Table 5.4: Mean Scores and Standard Deviations for the RRS Total Score

Descriptive Statistics			
film type	Mean	Std. Deviation	N
good	23.61	4.19	28
neutral	9.33	1.78	27
poor	5.54	2.13	24
Total	13.24	8.40	79

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Descriptive statistics are shown in Table 5.4.

As there were more than two groups of participants a statistical test that could compare three or more groups was required. Kolmogorov – Smirnov (KS) tests were carried out on data for each film type group, to check that they were normally distributed. Results of the KS tests (all two tailed) were: Film one (neutral rapport) D= 0.21, exact P = 0.20; Film two (poor rapport) D= 0.29, exact P = 0.04; and Film three (good rapport) D= 0.10, exact P = 0.93. The KS tests suggested that data for film two were not normally distributed. Therefore a non-parametric, Kruskal Wallis test was used to compare means.

Table 5.5: Differences between group means for RRS Total Scores

Kruskal Wallis test results					
Film type	N	Mean Rank	Chi Square	df	Sig.
Neutral	27	36.02	64.78	2	.000
Poor	24	14.73			
good	28	65.50			

The Kruskal Wallis test (see Table 5.5) showed that the mean rank differed significantly across the groups. The good rapport group mean was significantly higher than both the neutral and poor group mean, and the neutral rapport group mean was significantly higher than the poor rapport group mean. The chi square for the overall group comparison was significant at p < .001.

Post hoc tests were carried out by running Mann Whitney U tests for all pairs (neutral vs poor rapport group, neutral vs good rapport group, poor vs good rapport group). As there was a risk of making type 1 errors because of multiple comparisons a Bonferroni correction was used to set the p required for significance at 0.05/3 = 0.017 All paired comparisons were significant at the p<0.01 level.

Internal Consistency

Cronbach's Alpha was used to examine the internal consistency of ratings made using the RRS. Cronbach's alpha tests whether items in a scale are consistent with each other to a level where they can be justifiably seen as part of a single measure or scale. The Cronbach's Alpha coefficient for the

16 items in the RRS was .875, a high degree of internal consistency.
Coolican (2007) states that alpha values of .70-.75 represent good reliability.

Between group differences at category code level

The validity of ratings made with the RRS were investigated further by using IRM scores to predict the likely differences in RRS category scores across the three groups. The procedure used was as follows.

- Firstly, scores were taken from the researcher's original IRM and RRS recording sheet for the good, poor and neutral rapport films.
- Secondly, IRM score of the category codes (Movement, Positive facial expression, Vocal sounds and speech, Physical contact, Gestures & Eye gaze) were examined alongside the RRS results.
- Thirdly, in advance of carrying out the Kruskal Wallis test and post hoc tests the likely results were predicted (see Table 5.8).

For example, based on the researcher's IRM scores see figure 5.2, it was suggested that, for the category code Movement, there would be no difference between RRS scores for the neutral and poor rapport films, and the score would be significantly greater in the good rapport film. These predictions were made in the same way for each category code comparing all combinations of the films. All predictions of likely results were made before carrying out Kruskal Wallis and Post Hoc tests for RRS category code level data.

- Fourthly, a Kruskal Wallis tests were completed using RRS category code scores. Significant differences were found in all of the Kruskal Wallis tests carried out on category code level data as shown in Table 5.6.

Table 5.6: Differences between group means for RRS category code Scores

RRS Category	Chi Square	Significance
Proximity	67.15	P<0.01
Positive Facial Expression	66.76	P<0.01
Speech	57.72	P<0.01
Physical Contact	70.53	P<0.01
Gestures	43.11	P<0.01
Eye Gaze	36.37	P<0.01

The mean scores and ranges are presented in table 5.7 below.

Table 5.7 RRS mean score and range

	Films					
	good Rapport n=28		Neutral Rapport n=27		Poor rapport n=24	
RRS code	Mean	Range	Mean	Range	Mean	Range
Beside	2.3214	2 - 3	0.0000	0 - 0	0.0000	0 - 0
Approach	1.3571	0 - 3	.0741	0 - 2	.1250	0 - 2
Follow	1.9643	1 - 2	.0741	0 - 1	0.0000	0 - 0
Smiles	2.7143	0 - 3	.0741	0 - 2	.0833	0 - 1
Words	2.6429	0 - 3	2.8148	0 - 3	1.0000	1 – 1
Singing /Joking	1.5000	0 - 3	.0370	0 - 1	0.0000	0 - 0
Asking for Absent Carer	0.0000	0 - 0	0.0000	0 - 0	.0417	0 - 1
Affectionate Physical Contact	.3214	0 - 2	0.0000	0 - 0	0.0000	0 - 0
Persistent Physical Contact	.4286	0 - 3	0.0000	0 - 0	0.0000	0 - 0
Physical	2.2143	0 - 3	0.0000	0 - 0	0.0000	0 - 0
Beckoning	2.2857	0 - 3	1.4444	0 - 3	1.4583	0 - 2
Gestures Agreement	1.1786	0 - 3	0.0000	0 - 0	.0417	0 - 1
Sign Language	.8929	0 - 3	.2593	0 - 3	.1250	0 - 0
Mimic	.3571	0 - 2	0.0000	0 - 0	0.0000	0 - 0
Tracks Moving Carer	1.0357	0 - 3	1.5185	0- 3	.2500	0 - 3
Looks at Stationary Carer	2.4286	0 - 3	3.0000	3 - 3	2.4167	2 - 3

Following the Kruskal Wallis test, post hoc tests (Mann Whitney U tests) were carried out to investigate differences within each two-group combination (i.e. good vs neutral, good vs poor, neutral vs poor). The results from the post hoc tests were entered onto Table 5.8 to allow comparison with the previously predicted results.

Table 5.8: Predicted differences at category code level from researcher's IRM scores compared with actual differences on RRS scores

Rapport Rating Scale category codes		Neutral vs Poor	Poor vs good	Neutral vs good
Movement (of own volition)	**Predicted**	No difference	Good greater than Poor	Good greater than Neutral
	Actual	**NS**	**Good significantly greater than Poor (P< 0.001)**	**Good significantly greater than Neutral (P< 0.001)**
Positive facial expression	**Predicted**	No difference	Good greater than Poor	Good greater than Neutral
	Actual	**NS**	**Good significantly greater than Poor (P< 0.001)**	**Good significantly greater than Neutral (P< 0.001)**
Vocal sounds and speech	**Predicted**	Neutral greater than Poor	Good greater than Poor	Good greater than Neutral
	Actual	**Neutral significantly greater than Poor (P< 0.001)**	**Good significantly greater than Poor (P< 0.001)**	**Good significantly greater than Neutral (P< 0.001)**
Physical contact	**Predicted**	No difference	Good greater than Poor	Good greater than Neutral
	Actual	**NS**	**Good significantly greater than Poor (P< 0.001)**	**Good significantly greater than Neutral (P< 0.001)**
Gestures	**Predicted**	Neutral greater than Poor	Good greater than Poor	Good greater than Neutral
	Actual	**NS**	**Good significantly greater than Poor (P< 0.001)**	**Good significantly greater than Neutral (P< 0.001)**
Eye gaze	**Predicted**	Neutral greater than Poor	Good greater than poor	Good greater than Neutral
	Actual	**Neutral significantly greater than Poor (P< 0.001)**	**Good significantly greater than Poor (P = 0.001)**	**Good significantly greater than Neutral (P = 0.001)**

NS = No significant difference.

All but one of the original predictions were consistent with the results of the statistical analysis. The difference between score for Gestures in the neutral and poor rapport films was not statistically significant, but had been predicted to be so. This has been marked by a solid box in table 5.8. Gestures in Film 1 (neutral rapport) and Film 2 (poor rapport) as measured by the RRS were only different by one point. Film 1 scored 3 and film 2 scored 2. The closeness of the scores may give some indication of why the difference did not reach statistical significance on the post hoc tests.

Participant experience level and RRS results

Participants' years of experience of working with people with intellectual disabilities were examined to determine whether there was a relationship with RRS scores. As the previously conducted KS test scores had indicated data for Film 2 were not normally distributed; Spearman's rho correlations were calculated, between RRS score and participant experience for the 3 groups. Years of experience and film one($r= .203$, $p= .331$), film two ($r= .072$, $p= .751$) and film three ($r =.115$, $p = .574$). None of these correlations were statistically significant. Years of experience and RRS score were not related.

Discussion

Summary

The findings indicate that professionals and trainees, in the fields of health /psychology/applied behaviour analysis, were able to use the RRS to discriminate between good, neutral or poor rapport towards carers, from a role play of a person with an intellectual disability interacting with a carer. The RRS scores for the films were comparable with IRM scores. The null hypothesis for this study, i.e. that there would be no difference in mean scores for participants rating the good, neutral and poor rapport film, was therefore rejected. Analysis of variance of total RRS scores showed that group mean scores were significantly different. Post hoc tests showed that there were also significant differences between all pairs of groups. The results suggest, therefore, that the RRS can provide meaningful information about one aspect of the current relationship between a person with a disability and the person supporting that individual. The perspective measured here is that of the person with disabilities, rather than that of the person supporting the individual.

Prior to analysis of the category code data, predictions were made based on the researcher's own coding using the IRM and RRS. These predictions were almost entirely consistent with the actual ratings made by participants.

Participants in the study varied from psychology undergraduates or student nurses yet to have much clinical experience to senior health professionals and academics with up to 35 years' experience. Correlations of the years of experience participants had and their RRS scores showed no statistical significance. Experience made no difference to RRS ratings.

Limitations

Some rapport codes were not specifically role played on the films such as, 'Asking for Absent Carers', 'Mimicking Carer' and 'Singing and Joking'. These codes were recorded as occurring by a small number of raters suggesting an element of error.

Role plays in the current study were pre-planned, and the good rapport film showed rapport indicators or behaviours presented at a high level. Although this was based on a real example of a person with an intellectual disability and their carer, such good examples may be observed infrequently. This could mean that the data collected in everyday practice will not show the same extent of variability making the results harder to interpret.

During the analysis of data collected it was noticed that some participants had not correctly added up the tally counts on the RRS form they had completed. It is possible that giving those using the RRS a more detailed explanation, on how to calculate the scores, may increase the accuracy of recording.

Participants completed the observation in their own time rather than in controlled conditions. Some participants may have viewed the film several times and others only once. Live clinical observation will mean that the observation cannot be seen multiple times, which may mean that the measure is not as accurate in live situations although this remains to be tested.

A limitation, in the design of this study, was that it was not possible to conduct inter-rater reliability as groups of raters were all rating one of three films, rather than pairs of raters rating behaviour of different people.

The length of observation that would be required has not been determined by this study, as films were only five minutes long. In clinical practice observations are likely to be longer and may need to be of varying length. Observation length using the RRS is one of the issues addressed in the next chapter.

Many of the limitations could be addressed by further research, in which the measure is tested in a range of different situations, by a number of raters. Future research could focus on live situations rather than pre-recorded role played films.

Implications

Despite the impressive findings of McLaughlin and Carr (2005) there has been no apparent increase in published case studies or research that demonstrate the clinical use of rapport measurement and interventions. As a result it remains unclear whether the MLC measures are easy to use in clinical practice.

The RRS was reported as simple to use by many participants in this study, particularly for the poor and neutral rapport films where there was less rapport behaviour to record. Although it was a far simpler measure to use, the RRS achieved similar results to the more complex IRM.

Feedback given by one of the participants suggested rearranging the order of the items into a 'body scan', so that 'eye gaze' is at the top of the RRS followed by items related to other parts of the body in descending order. This small change is likely to make observation easier, should not affect the content of the measure and may be worth considering.

The RRS, like the IRM, can be used across a number of settings in which an individual spends their time. It is not uncommon for people with intellectual disabilities to have a good rapport with carers in one setting and not in others. The MLC measures only lend themselves to measuring rapport in one setting at a time and it is difficult to make comparisons of rapport across settings.

As data for this study was based on role played films, a possible future study could focus on the use of the measure as part of the clinical assessment of people with intellectual disabilities. It may be most useful to evaluate a number of measures in clinical practice, including the RRS as well as the MLC measures. Combining the RRS with measures such as Staff Self Rating of Rapport and Staff Rating of Other Staff Rapport could help clinicians look at more than one aspect of the relationship between the person with intellectual disabilities and their carers.

The RRS and MLC preference testing provide information about the relationship from the perspective of the person with an intellectual disability. The Staff Self Rating of Rapport and Staff Rating of Other Staff Rapport provide information about the relationship from the perspective of carers. All these measures could be combined into a 'tool kit' for use by clinicians so that they can select the measure most appropriate for use. Capturing a variety of clinicians' experiences of using these measures, as part of assessment, may yield helpful data about the utility of the measures in clinical practice.

Relationships are important and their quality can be measured. Being able to measure rapport, means being able to assess and intervene to improve it. We owe it to people with ID to enthusiastically pursue such improvements.

Chapter summary

Chapter five has described the development of the RRS resulting in the production of a simplified measure of rapport based on the IRM. Despite its simplification the RRS has been demonstrated to collect reliable data about indicators of rapport.

To test the RRS role played films were produced depicting good, poor and neutral rapport. The RRS was successfully piloted, using the role played films, prior to the main study. Independent observers piloting the RRS, identified adjustments, which were made prior to the study, to further simplify the RRS.

The RRS was shown to be consistent with the IRM. In the same way as the IRM, the RRS neutral rapport category code scores were shown to be equal or higher than the poor rapport category code scores. Similarly the good rapport film RRS scores were shown to be equal or higher than the neutral rapport RRS scores.

Despite being blind to which film they were viewing, participants were able to identify good, poor or neutral rapport from the role played film.

The results of the study showed that, participants rating the good rapport film recorded a significantly higher mean score than the neutral or poor rapport film group. Participants rating the neutral rapport film recording a significantly higher mean score than the poor rapport group. The internal consistence of the RRS was examined.

The characteristics of participants and their experience were considered and included as part of the analysis. There was no difference found between years of experience and RRS score.

Chapter five concluded that as a tool the RRS can provide information about one aspect of the current relationship, between a person with a disability, and the person supporting. Based on the behaviour of the person with ID, the RRS shows the relationship with staff from the perspective of the person with ID, even if the person has little or no verbal language.

The limitations of the study were discussed and used to inform consideration of future work in this area. Thoughts on taking the work on rapport forward and possible future studies have been suggested.

Chapter 6: Bringing Rapport into Clinical Practice by Supporting Clinicians to Use Rapport Measurement Tools

Chapter outline

Chapter five explained the development of the Rapport Rating Scale (RRS), which was based on the earlier IRM described in chapter four. The process of reviewing and simplifying the IRM, followed by designing and testing the RRS, was presented in chapter five. The testing procedure used films depicting good, poor and neutral rapport, which were made for the study and rated by volunteer observers using the RRS.

Chapter six describes an Action Research study in which the RRS and the McLaughlin and Carr (2005) measures (MLC) were used in clinical practice. Clinicians were trained in the use of rapport measures and guidance was given about how to use the measures in their clinical practice. Clinicians' experiences of the use of rapport measures were obtained from focus groups and individual meetings over a period of approximately ten months. Clinicians' feedback provided ideas on how to develop and improve the measures.

Introduction

The focus throughout this thesis has been on studying relationship quality and developing rapport measures that might lead to improvements in clinical practice. Poor quality of relationships between people with intellectual disabilities (ID) and their carers is often evident in cases of abuse and neglect, such as that identified at Winterbourne View in Bristol (Department of Health, 2012a). Conversely, positive relationships with carers are associated with improved quality of life and reductions in challenging behaviour (Jensen et al., 2012, McLaughlin and Carr, 2005, Kemp and Carr, 1995).

A greater understanding and the opportunity to measure rapport may, therefore, lead to interventions which improve the lives of people with an ID. The recognition of good and poor rapport between people with ID and their carers requires those visiting a service to pick up on subtle differences in the behaviour of the person with an ID. Lack of rapport with carers may be one way that a visiting professional or inspector begins to get a sense that all is not well within a service (Marsland et al., 2015). It is possible that successfully "reading" non-verbal indications suggestive of a poor rapport could prove to be helpful in preventing behaviours described as challenging and the development of abusive service environments.

Both the measures of rapport developed so far have included indicators of rapport, as measured through coding or rating the behaviour of people with ID directed towards staff. It appears to be possible for both to be used reliably and to reach potentially valid conclusions about the quality of relationships between an individual and the sometimes many different staff in the settings where the individual spends their time.

The second measure developed, the RRS, is particularly straightforward and was used successfully both by clinicians and trainees. However, it had only been used in a controlled situation, on pre-recorded films, and had not been tested in everyday clinical practice. It seemed appropriate to build on this through investigating the use of the measure as part of the clinical assessment of people with ID. The other measures available (MLC measures) may also have benefited from evaluation in clinical practice. In so doing, the aim was to give clinicians a 'tool kit' from which they could chose appropriate assessments, to assess the relationship between the person with ID and their carers.

Therefore, the current study sought to support clinical staff, involved in undertaking functional assessments and Positive Behaviour Support (PBS) planning, to incorporate rapport measurement into the assessment process. It was hoped that this would enable clinicians to identify individuals, or situations, where rapport intervention could usefully be undertaken, possibly forestalling the need for more expensive or complex intervention strategies.

A number of options were considered as to how to carry out such a study and enable the views of clinicians to be gathered. Many of the potential clinicians were known to the lead researcher; some attended shared meetings or local forums. Other clinicians had been trained by, supervised by, or been involved in clinical practice led by the researcher. In summary all clinicians approached would have had some interest or knowledge in PBS and / or rapport. To shape the design of the study, views were sought from a parent who is Co-Chair of the Surrey Positive Behaviour Support Network and their suggestions incorporated in the study protocol.

Because of the existing links with clinicians a collaborative approach was favoured within which clinicians would play an active part. Action Research was selected as the approach that would most encourage such collaboration and participation. The Action Research approach can be defined as a period of inquiry in which a social situation is examined (Waterman et al., 2001) and is described in more detail in the method section of this chapter. Organisational politics in action research were considered (Coghlan and Brannick, 2014) to ensure as much as possible that there was access to clinicians, with support and cooperation for the study without this being blocked. In the current financial climate where staff resources are less available, clinicians were more likely to be supported by their managers and given time away from their existing role if participation in the study was a genuine development opportunity. It was planned that by recruiting clinicians who had an interest in PBS and /or rapport they would be more likely to find the study useful as part of their professional development.

In human services one of the challenges;

> *"in making use of science is how to build the science and quality into the daily performance of millions of practitioners across the nation"*
> (Fixsen et al., 2009, p532).

Leading individuals within any change process can be fraught with difficulties, Coghlan and Brannick (2014), advise on determining the need for change and using a positive message when expressing aspirations for the future. For this reason change management literature was drawn upon to examine the likelihood of success for an action research study of rapport. Gleicher's Change Formula cited in Buchanan and Boddy (1992, p59) examines whether the necessary elements are in place in order to effectively bring about a change. Gleicher's formula, K x V x D > C, states that change will occur when the following elements are in place. Knowledge of the first practical steps (K), a positive Vision of the future (V) and Dissatisfaction with the status quo (D) which is greater than the Cost or resistance to change (C). On balance it was considered that change was reasonably likely to occur because:

- the lead researcher had some knowledge of the first practical steps;
- the lead researcher, and some of the participating clinicians, already had a desirable vision of the future;
- there was a level of dissatisfaction with the status quo, the lead researcher and some clinicians were aware that despite its potential importance, rapport with carers was rarely considered in assessment and PBS planning for people with ID;
- participating clinicians considered for inclusion were those who were likely to understand the lead researcher's dissatisfaction with the status quo and be able to embrace, rather than resist, changes in clinical practice. Participating clinicians with an interest in PBS / rapport were likely to be supported by their manager rather than the manager viewing time spent on the study as a cost to the service.

As a further means of ensuring the best possible outcomes, the readiness of clinicians to make changes to their practice was considered using the Hersey and Blanchard's (1993) situational leadership model. This model considers readiness to make changes across two separate continuums - whether "followers" are willing vs. unwilling, and able vs. unable to carry out a task. High follower readiness is characterised by being both willing and able and is likely to require less leadership support.

The clinicians were all routinely carrying out assessments as part of their role which gave some demonstration of their ability to cope with the demands of the study. A number of participating clinicians had expressed an interest in earlier studies about rapport and were enthusiastic about being recruited as a participant for this study, suggesting a level of willingness. With readiness to change being seen as vital for implementing research (Wiese, 2015), it was encouraging that the majority of clinicians who had volunteered appeared to be both willing and able.

In outline, the plan was that participating clinicians would receive training in the use of rapport measurement tools, then be supported to use them over the study period. Support was to be provided primarily through a series of focus groups, which would, additionally, allow the researcher to capture information from participants' experiences. It was intended that individual

interviews would be conducted, where possible, if participants were unable to attend a focus group.

The data for the current study consisted, therefore, of the interview and focus group transcripts that explored clinicians' experience of using the rapport measures. It was intended that rapport measures would be incorporated in the wider assessments already being conducted by clinicians, so that they would be able to comment both on their experience of specific rapport measures and the extent to which the measures linked helpfully to other assessments, such as functional assessment of behaviour that posed a challenge.

Principal research questions were:

- Do the rapport measurement tools provide useful data which can be used in routine clinical practice for people with an ID, whose behaviour presents a challenge?
- Do the rapport measurement results impact on the Positive Behaviour Support Plan developed by clinicians?

Given the previous finding in chapter four that indicators of rapport were greater with keyworkers, the opportunity to explore this with a larger group was taken, and the third research question reflected this. Therefore a secondary research question was:

- Is there any noticeable difference in relationships with keyworkers compared to other staff?

Method

Design

The design was a qualitative study based upon the methodology of Action Research. Action Research was first defined by Lewin who had the view that 'Research that produces nothing but books will not suffice' Lewin (1948, p202-3). Action research can be defined as:

> *"A period of inquiry that* describes, interprets and explains social situations while executing a change intervention aimed at improvement and involvement. It is problem-focused, context-specific and future-oriented. Action research is a group activity with an explicit critical value basis and is founded on a partnership between action researchers and participants, all of whom are involved in the change process. The participatory process is educative and empowering, involving a dynamic approach in which problem identification, planning, action and evaluation are interlinked. Knowledge may be advanced through reflection and research, and qualitative and quantitative research methods may be employed to collect data. Different types of knowledge, including practical and prepositional, may be produced by action research. Theory may be generated and

refined, and its general application explored through the cycles of
the action research process" (Waterman et al., 2001, p11).

Therefore, in this study the lead researcher was involved rather than removed from the environments being studied. The study applied research methodology to clinical situations in an on-going and evolving way. Meetings with participant clinicians were exploratory and they were treated as co-researchers. This meant that the lead researcher was also visiting some of the services where the clinicians were supporting people with ID. The participating clinicians were recruited to assist as co-researchers and were responsible for recruiting participants with ID and ensuring that supporting staff consented to taking part.

Participating clinicians routinely collected assessment data during the course of their work. Data collection was targeted at referrals of people with ID whose behaviours were experienced as challenging by their carers. Participating clinicians needed to be working with the person at the point of assessment, for the latter to be identified as a learning disabled participant.

Participants

There were three groups of participants in this study. The three groups included participating clinicians, participants with ID and participating staff who worked in services. All participant groups are described within this section.

Participating clinicians

The participating clinicians were psychologists, behaviour specialists, community nurses, and residential staff responsible for writing PBS plans for people with an ID.

Clinicians were approached if they worked directly with people who presented a challenge and had some responsibility for assessment and PBS planning. This included: PBS and assistant PBS specialists both internal and external to the NHS; NHS psychologists and nurses; managers of NHS and local services, specifically for people whose behaviour was described as challenging.

There were 19 clinicians recruited into the study. Participating clinicians are shown by type of employing organisation, role and related qualifications in Table 6.1.

Number of participants by employing organisation				
NHS		Private company		Voluntary organisation
13		5		1

Role				
House /Service manager or deputy	Behaviour specialist /assistant	Clinical psychologist	Nurse prescriber	Senior staff member in a residential service
7	8	2	1	1

Qualifications (some participants held more than one)			
Clinical psychology	Registered Nurse Learning Disabilities	Tizard centre qualifications[2]	Diploma in PBS Abertawe Bro Morgannwg University[3]
2	6	7	6

Participating clinicians were asked to reflect on their knowledge and use of rapport-based strategies prior to the study. It had been intended to collect this information at the first reflective meeting but unfortunately the clinicians training over ran and there was not time to collect this information from participants attending. When information on prior knowledge was collected some participants were not available, or it was well into the project by the time the information could have been collected. A brief feedback sheet was used to collect the information. Information on prior knowledge was collected from n=11 clinicians. A summary of the prior knowledge feedback of eleven clinicians is shown in table 6.2.

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[2] Tizard centre qualifications included the Diploma in Positive Behaviour Support, MSc in Analysis and Intervention

[3] Abertawe Bro Morgannwg University qualifications included the Professional Diploma in PBS and the Advanced Professional Diploma in PBS.

Table 6.2: Summary of clinicians' prior knowledge of rapport

What do you understand by the notion of rapport?	All could answer this question confidently. Words and comments used in describing rapport were; "The building up of or existing relationships between people". "The quality of the reciprocal relationship". "Trust and mutual interest". "The quality of the relationship between individuals / groups". "Rapport has a positive effect on the people you work with which enables better and more effective outcomes". "If people build good rapport then they will benefit from an enriched relationship with someone". "Relationships based on shared experiences and being respected by others". "Characterised by mutual warmth and understanding. Very important for people with learning disabilities to have this with staff → quality of life and reduced frequency of behaviours of concern".
How much do you use the notion of rapport in your current work?	One clinician used Cognitive Analytic Therapy (CAT)[4] and felt that rapport was "a central part of the work I do". A second clinician felt that "rapport figures a lot in my day to day work – often when assessing the relationships between people with learning disabilities and their carers". Other clinician quotes included "take the time and effort to build rapport with service users". "Making sure that I give equal respect to all…I get to know the person, use my listening skills". The remainder of clinicians gave less specific answers to the question or felt that perhaps they use rapport "unknowingly" in their work.
Do you have a way of measuring rapport as part of your current work?	Two participants had tools that they described as previously using to measure rapport. "Maps to identify reciprocal roles or the mapping out of relationships". Maps are another term for Sequential Diagrammatic Reformulation, a CAT technique to diagrammatically show the reciprocal roles played out within a relationship or interaction (Lloyd and Clayton, 2014). A second person had used the "Staff Self Rating" and "Staff Rating of Other Staff" (McLaughlin and Carr, 2005). Other than informal observations, the remainder of the participating clinicians who were questioned said they did not have ways of measuring rapport.

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[4] CAT is a particular therapeutic approach that emphasises the importance of relationships. See chapter 3 for a more detailed discussion.

Do you currently use rapport building interventions as part of Positive Behaviour Support (PBS) planning for the individuals you support?	Three clinicians described implementing rapport building interventions in the past. Within CAT there was "a process of looking for road blocks regarding implementation…the road block is usually relational". One clinician had "suggested to new staff that they nurture their relationship with someone". Another clinician suggested "identify which staff works the most effectively with a person and for others to try and have a similar approach". Some rapport building work was thought to be unintentional, such as "spending time with a person on a daily basis and doing nice activities without knowing that this was paying into an emotional bank account". Other participants were not implementing rapport building interventions as part of PBS plans.
As a practitioner what do you know about the research on rapport?	Knowledge of research on rapport included "Ted Carr's work" (Carr et al., 1994) knowing about "Steven Covey and the emotional bank account (Covey, 1989)" [5]. Two clinicians mentioned "psychodynamic or attachment theory work" and the link to relationships. Other participants had been involved in the earlier IRM or RRS studies. Eight clinicians had attended a training course locally (Essential Skills for Positive Behaviour Support) in which rapport is briefly covered. Some clinicians reported having no knowledge of research that related to rapport.

Not all participating clinicians who stayed in the study completed any rapport measurement, see participants April and Debbie in table 6.4 below. April worked very part-time (two days a week or less) and was slowly picking up work as she had not long returned from maternity leave. Debbie changed role soon after being recruited into the study and whilst still expressing an interested in the study, found the new role to be very demanding. Despite not undertaking direct rapport measurement these clinicians attended and contributed to reflective groups. Three participants left the study prior to completion, the reasons given being: a career break, health reasons and difficulties with existing work load, Participants with details shaded in grey in table 6.4. are those that left the study.

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[5] These participants deliver training with the lead researcher and regularly present this approach.

Intellectually disabled participants

People with an ID were regarded as participants as some of the rapport measurement tools were new measures, and consent for these to be used was important. In line with the earlier IRM and RRS studies participants with an ID were people who had little or no verbal language. Participants with an ID were 18 years old or above.

As the primary data for this study came from interviews with participating clinicians, details about the participants with an ID remained anonymous to other participating clinicians and the lead researcher. Therefore, there was no demographic information collected on the participants with ID with whom clinicians worked. Participating clinicians were responsible for holding any information about participants with an ID with whom they worked.

Staff participants

Direct care staff in residential settings needed to complete some of the measures, or have participating clinicians observing and collating information about interaction directed towards them. Therefore, staff working within the services of participants with an ID, were also invited to be staff participants. To be participants staff had to have worked with the person with an ID for six months or more, to ensure that the rapport was based on sufficient history, rather than being a newly developing relationship.

Ethics and Governance

There were two main ethical considerations. Firstly, the study involved adults lacking capacity who were, therefore, subject to the Mental Capacity Act 2005. Secondly, although data were obtained through interviews with clinicians, the study required the use of assessment tools that were new rather than being routinely used in clinical practice. As some of the measures were new assessment tools, reassurance was given to the ethics committee that consent from people with ID or nominations from their consultees would be sought prior people with ID participating in the study.

Ethical review was sought from the National Research Ethics Service via Camden and Islington Research Ethics Committee (REC). Following the meeting in February 2014, the REC required the following changes to be made:

1. To document the time required by the clinician to participate in the study.

2. To make it explicit that the captured data would be going into learning disabled participants' patient notes.

3. To specify the age range of the participants as 18 years and above.

4. To document that Camden and Islington REC had reviewed the study.

5. To record how long the training session would be and where this would be held.

6. To document the time frame after training before the clinicians would reconvene as a reflective group.

Changes to reflect the REC requirements were made to the information sheets for participating clinicians, people with ID, personal and nominated consultees, staff working in services, and healthcare providers. Changes were submitted for approval to the Chair of Camden and Islington REC. A favourable ethical opinion was given in March 2014, see appendix 24.

Because the research was being undertaken in NHS services and the researcher was employed by the NHS, research governance approval from the host NHS organisation was sought before the study commenced. The research governance process required approvals from the professional lead, line manager and academic supervisor for the researcher. Research governance approval was granted in March 2014.

Recruitment for the study took a little longer than planned, and close to the anticipated completion date, some participant clinicians were still gathering information. In November 2014 a request was, therefore, made to the Camden and Islington REC to alter the study end date to 1st March 2015 in order to support participating clinicians for a slightly longer time. Application, for this further time, was made as a 'Minor Amendment' and approved by the REC in December 2014.

Procedure and measures

Clinicians and trainee clinicians that had the potential to participate in the study were approached, and the study discussed with them. Prior to consenting to take part in the study, a copy of the participant information sheet (appendix A.25) and consent form (appendix A.26) was provided. The participant information sheet for clinicians outlined that participating clinicians could withdraw from the study at any point. Participating clinicians signed to say that they consented to participate in the study, and were given a copy of their signed consent form.

The study started by providing clinicians who had consented to participate with a half day training session. Four of the 19 clinicians could not make the original training date and were trained separately. All participants were trained between May and July 2014. Details of the Rapport Action Research half day session plan, slides and Rapport Measurement Handbook can be found in appendices A27-A29.

The training summarised research about rapport and available literature and the results of the IRM and RRS studies. Within the training the clinicians were introduced to the rapport measures that they could use during the study. By introducing clinicians to a variety of rapport measures it was intended to give clinicians a "tool kit" for the measurement of rapport so that, in principle, they could use different tools in different situations. Clinicians were not introduced to the IRM as the data collection and analysis would take a longer time than most clinicians were likely to have available to them. Training introduced the following rapport measures:

- Rapport Rating Scale (RRS) is an observational measure of non-verbal behaviour, indicative of a good rapport, recorded and scored depending upon the frequency of behaviours observed. This measure has been developed and used for observations of people with ID and rapport indicators towards carers (see Chapter 5). The measure is used most easily with a multi coloured pen. Each staff member within the observation can be assigned a colour of the pen, to keep track of rapport indicators directed to each staff.

- Preference Testing (PT) (McLaughlin and Carr, 2005) involves the person with an ID being asked, in a structured way, to choose which staff member they want to support them, in order to identify their preferences across the available staff. Preference ratings are made by systematically presenting the person with an ID with two staff members at a time, and asking "who would you like to help you?"

- Staff Rating of Other Staff (SROS), (McLaughlin and Carr, 2005) measures how staff rank their colleagues, in terms of the level of rapport each member of staff has with the person with an ID. Staff are given a list of the names of their colleagues and asked to write a 1 next to the name of the staff member that they view as having the best relationship with the person with an ID, 2 next to the member of staff they view as having the second best relationship etc., until all staff have been rank ordered by the member of staff, based on their perceptions of relationship quality.

- Staff Self Rating (SSR) (McLaughlin and Carr, 2005) is a single rating made by each member of staff on a six point Likert scale. The member of staff is asked to rate their own relationship with a person with an ID that they support. Ratings on the Likert scale ranged from 0 (relationship is unsatisfying) to 5 (relationship is satisfying).

The measures were presented to participants as part of a 'Rapport Measurement Handbook'. The handbook included information on how to use each measure and how to analyse the data collected.

The RRS was practiced using the film from the RRS study. Staff who had role played films in the RRS study gave their written consent for films to be used in training.

During the training participating clinicians were coached on selecting appropriate settings, including more than one setting if possible, selecting a range of key staff to involve, the significance of comparing keyworkers and other staff, and the number of observation or measurement tools to most effectively use.

Information and documentation about the ethical review process, and how to take consent, were shared with participating clinicians during the training. They were advised on capacity and consent and of the likely need to appoint 'consultees' for many ID participants in line with the Mental Capacity Act Code of Practice (2005). For participants with an ID who lacked capacity, participating clinicians were advised to seek a 'Personal Consultee' in the first instance, typically a family member or friend. The personal consultee was defined for participating clinicians as:

> "Someone who knows the person who lacks capacity in a personal capacity, who is able to advise the researcher about the person who *lacks capacity's wishes and feelings in relation to the project and* whether they should join the research" (Department of Health, 2008, p3).

In the situation where there was no one to act as a personal consultee, clinicians were advised to seek and appoint a 'Nominated Consultee'. All clinicians were given a copy of the Guidance on Nominating a Consultee for Research Involving Adults Who Lack Capacity to Consent (Department of Health, 2008). Information sheets (appendix A30) and consent forms (appendix A31) for people with ID, consultees (appendices A32-A35), staff working in services (appendices A36-A37) and healthcare professionals supporting the person with an ID (appendix A38) were discussed with participating clinicians. Support around the consent/capacity issue was provided on an ongoing basis within focus groups and individual meetings as clinicians became involved with potential new ID participants.

The frequency of reflective groups and the time periods between groups was discussed with participating clinicians during the half day training. Clinicians decided how often they would like to meet, and times that suited them best to hold reflective group meetings. After the agreed period of time the participating clinicians re-convened as a reflective group, facilitated by the researcher to share learning, report progress, obtain advice and further evolve the rapport measurement tools.

Clinicians were encouraged to share experience of data collected, and analysis of data they had collected in the interviews and focus groups. Measure selection was based on the opinion that they were likely to provide clinically useful information to better support the participant with an ID. Wherever possible, participating clinicians unable to attend a reflective group were interviewed individually around the same time. Individual interviews were often linked to regular clinical meetings that the researcher had with the participating clinician.

Reflective group meetings and individual interviews were semi-structured and followed a loose pattern in which progress was explored. Table 6.3 gives the questions posed in reflective groups by the lead researcher. The meetings allowed room for clinicians to raise issues and make suggestions about the research that were not directed by the lead researcher.

Table 6.3: Questions posed in reflective groups by the lead researcher

Have you used the rapport tools presented to you during training?
If you have used the rapport measurement tools, have they produced information about the relationship quality between the person with disabilities and those supporting them?
Have the rapport measurement tools given you information that other assessment tools have not picked up?
Is there any noticeable difference in relationships with keyworkers compared to other staff?
Has information about relationship quality with carers changed the way in which you have designed PBS plans for the person you support?
Have you included interventions for building rapport that you would not have otherwise included in the PBS plan?
Do they feel this made any difference to the outcome of the PBS plan?
What further developments in the measurement of rapport would be useful to you in your clinical work?

Audio recordings and/or a written record were made of all reflective groups or individual meetings. Some individual meetings were conducted over the telephone if the lead researcher or the participating clinician was not able to meet face to face.

Information about clinicians' progress on consenting participants into the study, measure usage and completion was gathered during interviews and reflective groups to track progress over time.

Analysis

Thematic analysis was conducted using the NVivo qualitative data analysis programme (NVivo for Windows, 2012). All recorded interviews and focus groups were transcribed directly into NVivo and written records were uploaded and stored in the programme.

All the transcripts were listened to and any written documents from participant interviews and reflective groups were read through. Listening to and reading documents took place over a short (two day) period to facilitate a greater immersion in the data.

A table was produced which showed each participating clinician's attendance at reflective groups and individual follow up meetings (see table 6.4 below). The table showed rapport assessments undertaken and planned by each clinician at given points in time, allowing tracking of progress across the study time frame. The names of all participating clinicians, staff participants and intellectually disabled participants have been anonymised.

Table 6.4: Clinicians training date and attendance at training, reflective groups and individual meetings

Participants & date of training	Reflective group one 2nd October 2014	Meetings in between	Reflective group two 4th Dec 2014	Meetings in between	Reflective Group Three 25th February 2015	Meetings after
1. Vidah - 22/5/14	Consultee did not feel the 1st person identified should be involved		Has now completed RRS with a 2nd person. Very little rapport behaviour towards busy manager. RRS obs were done with keyworker present as more likely to see rapport behaviour		Attended	
2. Bryony - 22/5/14	Did not attend	Follow up interview 9th October 2014 Has done 1 RRS with 1st person and PT with a 2nd person.	Fed back earlier PT. Tried PT with the 2nd person but she did not seem to find making choices easy.		Did not attend	
3. Kasia - 22/5/14	Did not attend		Did not attend		Working with a person who is only confident with certain staff. SROS have been sent out. Identified a problem with night staff not building rapport. Set up intervention with manager so that night staff work some days to build rapport.	

Participants & date of training	Reflective group one 2nd October 2014	Meetings in between	Reflective group two 4th Dec 2014	Meetings in between	Reflective Group Three 25th February 2015	Meetings after
4. Janna - 22/5/14	Has identified a potential participant & has another team in mind		Doing the SSR at the moment with 1st person		SSR being repeated for 1st person in March as things seem to be going well after making changes to the PBS plan. Keyworker rated herself high. Did not use PT as diagram looked complicated.	
5. Karen- 22/5/14	Had done RRS and SROS for 1st person with useful results. There were 2 staff present. Keyworker higher in rapport on RRS.		Had another go at the RRS with 2nd person. Harder to do as the person interacting with others at a busy day service. Meeting up with this person again to try another time.		Did not attend	16th of March PT done with 2nd person showing him two names written on cards. Asked him to rate staff from 1-5 almost like SSR. Great detail from him about why he liked certain staff. Keyworker best rapport. Coached staff to build relationships. Major improvement in behaviour.
6. Amelia- 22/5/14	Dropped out of the study due to ill health. Date (30.6.14)					

Participants & date of training	Reflective group one 2nd October 2014	Meetings in between	Reflective group two 4th Dec 2014	Meetings in between	Reflective Group Three 25th February 2015	Meetings after
7. Richard - 22/5/14	Did not attend		Planning work with 1st person.		Did not attend	6th March Did PT with the 1st person using pictures. Tested twice. Was very consistent in which staff he got on well with. Staff who took him on holiday last year came out as high rapport. Has on off relationship with keyworker, other staff have better rapport.
8. Carol - 22/5/14	Did not attend		Did not attend		Did not attend	
9. April - 22/5/14	Identified somebody from the waiting list needs to make contact. Had identified another person but home situation has broken down.		Has not managed to find a participant.		Did not attend	
10. David - 22/5/14	Dropped out of the study due to workload pressure. Date (15/9/14)					

Participants & date of training	Reflective group one 2nd October 2014	Meetings in between	Reflective group two 4th Dec 2014	Meetings in between	Reflective Group Three 25th February 2015	Meetings after
11. Janet- 22/5/14	Did not attend	Follow up interview 21st October 2014 SSR &SROS with 1st person. Intervention for him used reinforcement inventories for staff with poor rapport and this man. Also pairing up the good rapport manager with staff who are less confident. 2nd highest staff for this person is keyworker.	Did not attend	1st Person intervention = connection time with staff & more control for him. Poor rapport staff shadowing good rapport staff. 2nd person PT planned. 3rd person SSR arranged today. 4th person has done some SSR and PT with photographs. Problems with SSR, staff rating in the middle of scale. For the 5th person SROS and RRS. The RRS showed he was seeking out the manager. SROS for 5th person seems to be picking up information. 5th person keyworker scores were low. Intervention for 5th person = having choice of support staff. .	Analysed SSR for 3rd person and all staff rated themselves as 4 which Janet would not have rated them as she would have thought 2 would have been a better score. Janet bringing rapport into staff induction. Janet felt managers rate themselves high on SSRs.	

Participants & date of training	Reflective group one 2nd October 2014	Meetings in between	Reflective group two 4th Dec 2014	Meetings in between	Reflective Group Three 25th February 2015	Meetings after
12. Virginia	Did not attend	Follow up interview 8th Oct 2014. Preference testing for 1st person. Picked up info. Preference testing better if done over time. RRS for 2nd person 3rd person SROS and SSR. Could see difference with keyworker for 3rd person. For 3rd person pairing staff with reinforcers for him. Training staff in rapport	PT with staff present for 1st person he was overloaded in the one session. Fed back 3rd person's intervention to the group. This included reinforcement inventories and pairing staff. 1'st person chose the keyworker over everyone else.		Did not attend	
13. Barbara- 22/5/14	Did not attend	Follow up Interview 14th Nov 2014 Used RRS four times, twice with one person and once with two people. Barbara would like to use this measure as a formal review for staff. Identified plans for one person not being followed.	SSR done in one service. Staff rated themselves highly but their manager thought that rapport with this person was poor. Following an RRS observation where support plan was not being followed so staff have been retrained in how to work with this person. SROS worked well in a service where staff have experience of being observed and having feedback. Barbara had found no difference with keyworkers		Barbara has asked the manager to use the measures with one person, to repeat the RRS measures after support plan changes. Talking about how to bring rapport measurement into staff induction. So that time is spent on getting to know people. Barbara noticed that for LD participants with more speech there were less sections of the RRS completed.	

Participants & date of training	Reflective group one 2nd October 2014	Meetings in between	Reflective group two 4th Dec 2014	Meetings in between	Reflective Group Three 25th February 2015	Meetings after
14. Jasmine 15/5/15	Did not attend	Follow up interview 7th Oct 2014 had used the RRS, SROS and SSR with one person. Jasmine will look into other people that she can use the measures with.	Did not attend		Did not attend	19th March SROS used but staff member with a poor rapport did not return form. Other staff rated the same staff member as having a poor rapport.
15. Lauretta - 22/5/14	Found it difficult to meet the study criteria. Identified someone but behaviour is no longer challenging. Consultee for another person said not to include the person in the study.		Used the RRS twice with a 1st and 2nd person. Also used SSR and SROS with the 1st and 2nd person. All staff had rated themselves differently. On the SROS there was one staff who everyone said had a good rapport. Lauretta will use the information as part of the PBS plan.		Did not attend	19th March Rapport building for 2nd person has been included in the PBS plan and people that support him have built better rapport. Suggestions in the PBS plan were shared activities and staff supporting a project about WW1 which is 2nd person 's interest. Previous support plans would have focussed on community links, but rapport with staff is now even more important. Work with 1st person has been useful in reassuring staff about the quality of relationship with him.

Participants & date of training	Reflective group one 2nd October 2014	Meetings in between	Reflective group two 4th Dec 2014	Meetings in between	Reflective Group Three 25th February 2015	Meetings after
16. Debbie- 15/7/15	Not able to identify participant yet. Identified someone already in the study		Did not attend		Did not attend	
17. Mary - 22/5/14	Dropped out of the study as taking 6 months unpaid leave. Date (26/5/15)					
18. Tony- 21.7.14	Did not attend	22nd Oct 2014 RRS with 1st and 2nd person has done five observations. Picking up info about keyworkers. Intervention for both people grouping staff Green good rapport, Amber neutral and red poor. Working hard to support one staff member to build rapport with 1st person as he is being targeted by this person.	Did not attend		Wanted to include a 3rd person but 3rd person's consultee appeared disinterested in study. Still doing work with 1st and 2nd person. 1st person now goes out with 2 staff not 3 and has more opportunity to go out. One green one Amber group staff. Keyworker for 2nd person has an excellent relationship with him but he is the staff member originally targeted by 1st person, is now building rapport successfully with 1st person. House rota now planned re rapport.	

Participants & date of training	Reflective group one 2nd October 2014	Meetings in between	Reflective group two 4th Dec 2014	Meetings in between	Reflective Group Three 25th February 2015	Meetings after
19. Daisy 21.7.14	Did not attend		Did not attend		Staff using the SSR and the SROS at the moment Daisy has not had these back yet. Staff have these for four people. Daisy should be able to feed back on the SSR and SROS by the end of March 15.	1st persons keyworker rated top. One member of staff can be viewed as not performing because he does not always get tasks done. Staff rated him as highest rapport for 3 out of 4 tenants. The same 4 staff came out as good rapport for all 4 tenants. Daisy wants to do further rapport work in the service. Would be useful in annual quality assurance review.

The number of ID participants that took part and number of each of the rapport measures used, are summarised in table 6.5 below.

Table 6.5: Number of IDP and measures used

Summary	Number
Intellectually disabled participants	31
RRS observations conducted	20
PT used or attempted	6
SROS questionnaires undertaken	14
SSR questionnaires undertaken	13

After reviewing all the data collected, initial labels were generated in order to commence coding and collating the data collected. The Node function (another word for code) in NVivo (NVivo for Windows, 2012) assisted the labelling and systematic coding of data. Data were coded in main codes and smaller sub codes. Sub codes are linked to a main code as a branch or filing system, and a main code can have any number of sub codes within the Nvivo system. Codes were identified by paying particular attention to suggestions and ideas that were frequently reported. Ideas and findings were discussed with others as they emerged.

New codes emerged as coding progressed such as evidence of rapport skills being transmitted to other staff (staff supported by study participants). Similarly, a new code was developed for general reflective comments about rapport made by participating clinicians. Where a new code was generated, previously coded data were checked to see if there was information that needed to be collated under the new code.

Once all the data were coded, searches were made for themes. The word frequency function in NVivo was utilised to find words within the coded data that repeated most frequently. Coded data were read through to identify themes. The themes identified were named and reviewed prior to themes being finalised. The initial codes that were used are shown in table 6.6 along with how these codes fed into finalised themes.

Table 6.6: Initial codes and themes developed

Initial codes	Fed into the following themes
- Outcomes - Behaviour change - Intervention - Assessment - Staff self-rating - Staff rating of other staff - Preference testing - Rapport rating scale - Observation length	- Clear usefulness or strengths as part of functional assessment and PBS planning - Difficulties and challenges as part of functional assessment and PBS planning
- Service level rapport initiatives - Clinicians' growing confidence in measure usage - Clinicians transmitting skills to other staff	Supporting better staff practice
- Key worker information - Relationship with house manager - Relationship with named nurse	Relationship with keyworkers
- Clinicians' views about general rapport experience in services - Function of Challenging Behaviour - Further development of handbook - Clinicians' reflective comments	These codes contained only a small amount of information which was insufficient to form a clear theme. Therefore the content of these codes was systematically checked and useful information transferred into any of themes already identified.

Once all data had been coded initial themes were presented as a map, in order to see how the themes linked. Mapping enabled the broader group of codes to be pulled together into a smaller group of key themes (see table 6.6). The codes were checked to look at whether the main codes and sub codes linked together appropriately. Similar codes were merged and where necessary more appropriate labels applied to codes. All codes that had not become a theme, because they contained little information, were reviewed to make sure that any important data had been reflected in another theme.

The four main themes were set up in NVivo (NVivo for Windows, 2012). The NVivo node system was used so that a main theme was set up as a 'parent node' and sub themes set up under the main theme, as a 'child node'. The themes and subthemes are described in the results section below.

This smaller group of four key themes or main points have formed the structure and conclusions of the study.

To ensure reliability of data, transcripts were coded by the lead researcher and a second person as a reliability checker. The reliability checker was a PhD student based within the department. The reliability checker selected two transcripts, one from a focus group and one from an individual interview. Two transcripts amounted to 25% of the data. The reliability checker was presented with the four main themes and given a written description of material that was reflective of each theme. The initial agreement about the theme 'supporting better staff practice' was not good enough. Further details about the type of material to include in the 'supporting better staff practice' theme was given to the reliability checker, then a second transcript for a focus group and individual interview were selected by the reliability checker and coded. For the theme 'strengths and usefulness of the measures' the lead researcher coded this 13 times, of which the reliability checker coded the same material on 10 occasions. For the theme 'difficulties and challenges' the lead researcher coded this 14 times, of which the reliability checker coded 9. The theme 'supporting better staff practice' was coded 11 times by the lead researcher and 7 times by the reliability checker. The 'keyworker' theme was coded three times by both the lead researcher and the reliability checker.

Results

The results are presented in the first instance as a thematic map showing the main themes and their relationships (see figure 6.1). The four main themes were:

- Clear usefulness or strengths as part of functional assessment and PBS planning
- Difficulties and challenges as part of functional assessment and PBS planning
- Relationship with keyworker
- Supporting better staff practice.

Following Figure 6.1 each of the main themes is presented via its own thematic map illustrating the content of the theme and its sub-themes. After each thematic map presenting a main theme, the material that follows, broadly presents the views of participating clinicians that contributed to each theme.
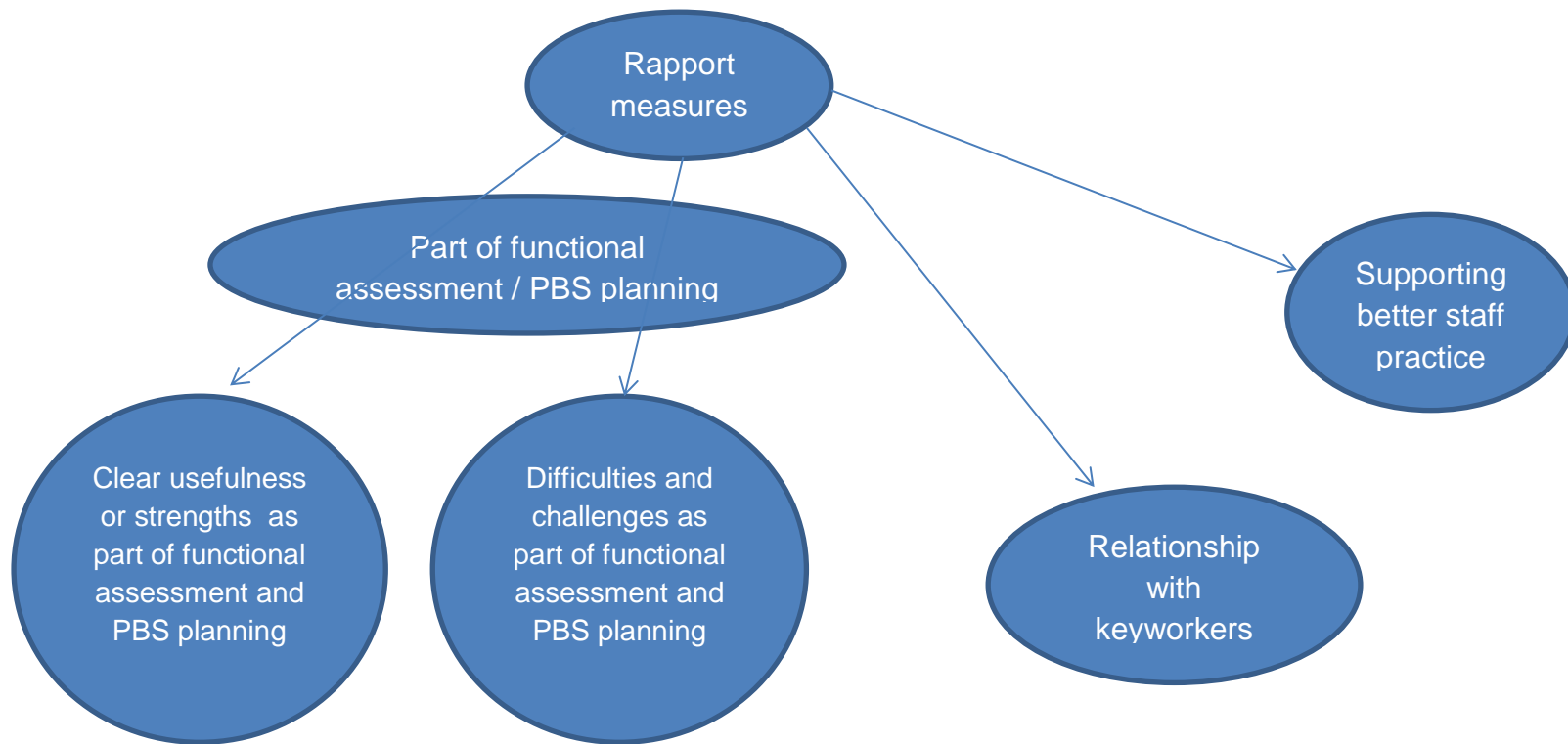
Figure 6.1: Map showing main themes

Summary of themes and sub-themes

Much of the feedback from clinicians focussed directly on the use of rapport measures, as part of the functional assessment or PBS plan the clinician was undertaking for the person with an ID. Unsurprisingly, therefore, themes emerged relating to the usefulness or strength of the measures and any difficulties or challenges clinicians experienced with their use as part of functional assessment and PBS planning. Subthemes were used to link the themes to the particular measure (RRS or MLC measure) that the material related to.

The quality of keyworker relationships, particularly those with a good rapport, identified by the rapport measures was a recurring theme within the reflective groups and interviews. The sub-themes for keyworker relationships were separated into good and poor rapport.

As the study progressed examples of the participating clinicians increasing confidence, skills being transmitted to others and ideas for service level intervention formed the theme of supporting better staff practice. Subthemes for supporting better staff practice were, service level rapport initiatives, clinicians' growing confidence in rapport and measure usage, and clinicians transmitting skills to other staff.

Each of the main themes will now be presented in turn, drawing on clinicians' reports to provide examples. The names of all clinicians, SP and IDP in the study have been changed.

Theme - clear usefulness or strengths of rapport measures as part of functional assessment and PBS planning.

This and the next theme presented were associated with clinicians primary purposes i.e. the collection of information in order to enhance understanding of behaviours of concern (in particular through functional assessment), or developing better ways of preventing and managing such behaviours (in particular through development and implementation of PBS plans).

This first theme will describe the findings that related to strengths and usefulness of the measures. The sub-themes were the usefulness of each of the rapport measures in turn. This section of the results describes the findings by each measure separately. Areas of usefulness felt to relate to more than one measure are described at the end of the section. Figure 6.2 provides a thematic map summarising clinicians' views about the usefulness or strengths of using rapport measures in clinical practice.
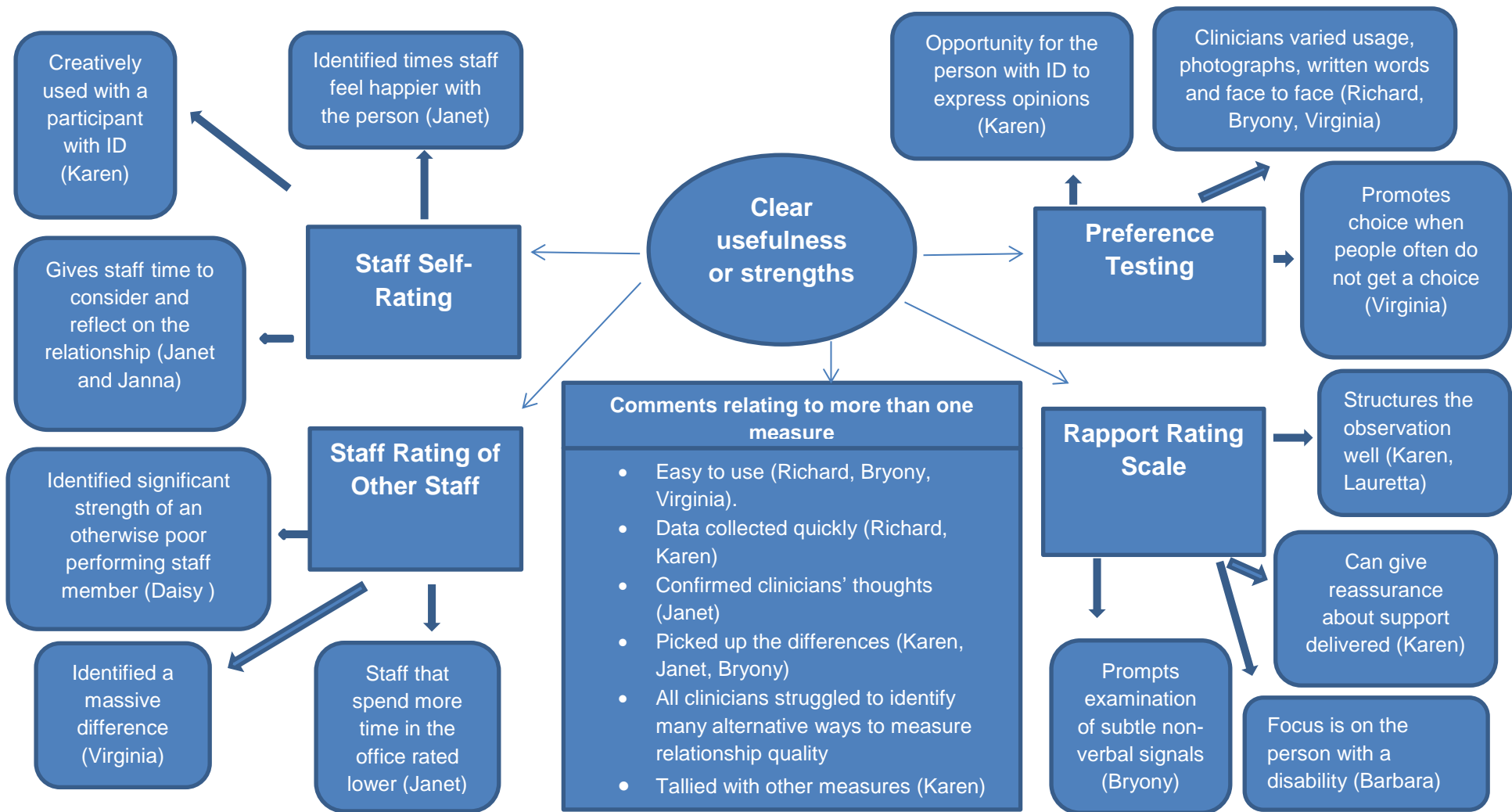
Figure 6.2: Clear usefulness or strengths of measures

Staff Self Rating (SSR)

The SSR was the only measure requiring direct care staff to consider their own rapport with the person with an ID that they supported.

SSR identifying improved relationships with staff

One clinician said that she had used the SSR following a workshop for the staff team, in which they had been discussing behaviours of concern, and identifying action. After the workshop staff were all very positive and motivated:

> *"They'd put into practice what we'd spoken about at the workshop"* (Janet).

Staff were now supporting the person differently, and challenging behaviour had reduced. Completion of the SSR at this point resulted in many staff rating themselves as having a good relationship with the person:

> *"Things had improved and he was responding better so it was generally a happier feeling in the house" (Janet).*

Staff reflection on relationships & SSR

During one reflective group, participating clinicians were discussing the SSR from the perspective of staff they support and were of the view that:

> *"the SSR gives people the opportunity to consider their relationship" (Janet) or "gives staff some time for reflection" (Janna).*

There was recognition about the value of making time to consider the relationship between the person supported and the staff team:

> *"I don't think as staff we have time to do that do we...we don't make the time to do that" (Janet).*

This time for reflection may mean that as staff:

> *"you look at what you might be doing, what you could do differently,* rather than changing the person, you look at what you can change *within you or the environment" (Janet).*

Use of SSR with a participant with ID

The SSR may have some usefulness with individuals who have a mild ID as they could be asked to rate their relationship with each member of staff. One of the clinicians (Karen) did some work with Rory, someone with a mild ID,

and asked questions about staff. Karen drew on the SSR scale to do this work, listing staff names on cards so that Rory could rate each person from 1-5:

> *"Because Rory had a mild LD he was almost able to use tools* designed for staff (SROS and SSR) to explore differences in relationships with staff, these could be effectively used with people *with ID who can understand them" (Karen).*

Preference testing (PT)

Opportunity for the person with ID to express an opinion

The usefulness of asking the person with a disability who they have the best relationship with was summed up well by one participating clinician (Bryony). Aware that she was going to conduct preference testing with David, some members of the domiciliary support team had already mentioned to Bryony that they had the best rapport. The staff member chosen as having the best rapport Adrian, had got off to a bad start with David, to the extent where David had said in the past he did not want Adrian to provide domiciliary support. David defined clearly to Bryony who he liked to be supported by:

> *"It was very surprising and just shows ask the person rather than assume from staff that they are going to be the favourites".*

David had been very consistent within the preference testing, however the person he chose was the person he seemed to like to support him least during their initial meetings and the preference testing highlighted this change in preference:

> *"I know at the beginning David was refusing to have Adrian because he was too bossy and he was asking to change him" (Bryony).*

Bryony's example describes clear changes or fluctuations in rapport.

Bossiness, or control and dominance by staff, as a reason not to choose particular staff was also expressed by Rory in the work carried out by Karen. Guthrie and Beadle-Brown (2006) quoted similar findings in their work in focus groups of adults with ID. The staff Rory preferred were the ones who:

> *"Come and chat to me in the morning, hav*e a joke with me, treat me *like an adult, they don't tell me off. I like it if they treat me like an adult" (Karen).*

In this example rapport intervention followed the assessment work in which Rory expressed his preferences for staff. For Rory:

"behaviours of concern have significantly improved. Staff had feedback about the importance of new staff building up relationships with Rory so that if they ask him to do something he is less likely to present challenge" (Karen).

Promotes choice for people with ID

A particular strength of PT is that it gives the person with ID an increased opportunity to make a choice:

"He kind of looked at both of them, like he was thinking 'hang on a minute I've got a choice here. Then we praised him as well and the activity was followed through - yeah it was good" (Virginia).

There was the recognition for this SP, probably because of the way Colin had responded, that:

"People often do not get a choice. Colin enjoyed making a choice" (Virginia).

One participating clinician (Richard) did preference testing with Adam and found that:

"It was pretty consistent with Adam he has staff that he does not like. One particular support worker came out as consistently having poor rapport. This stems back to a time when physical intervention was used. The staff who took Adam on holiday last year came out as having a good rapport" (Richard).

Clinicians varied usage of PT

There were examples of clinicians completing PT using different communication mediums, face to face (Virginia), (McLaughlin and Carr, 2005), with photographs (Richard & Janet) and using written staff names (Bryony & Karen) (cf. (Jensen et al., 2012).

Staff Rating of Other Staff (SROS) Rapport

Staff with less contact with the ID participant had poorer rapport

There were results from the SROS that the participating clinicians (one a PBS Specialist and the other a Service Manager) would have expected:

"One member of staff from the service, the assistant manager, who doesn't spend a lot of time actually working with the clients she does a lot more work in the office, she was rated further down by the staff" (Janet).

SROS was completed within a staff team by one participating clinician and resulted in staff listing colleagues in the same way as she did, in her role of their service manager:

> *"They came out with a list that I put in order of, as well actually so I* thought that worked really well. This group of staff are really quite used to analysing each other because they do their own Active Support observations on each *other" (Barbara).*

Agreements in results with participating clinician

The SROS seemed to be strongest at picking up agreements on staff with a clear relationship (both very good and very poor) with the individual:

> *"They both agreed that the keyworker had t*he strongest relationship. *They could identify who they thought didn't have the best relationship but then they had different opinions about some individuals" (Karen)*.

Similarly another participating clinician noted:

> *"So there was clearly one person that* everyone felt had a good *relationship with both gentlemen" (Lauretta).*

There was general discussion within the October 2014 reflective group about those with a clearly very good or poor rapport being easier for colleagues, and those external to the service, to identify:

> *"Maybe you are conscious of those that have got really good and those that have got really bad [rapport]…. If it's really bad you worry* about them. If a person has got a really good rapport, you think in times when there are problems she might be able to help us, or we *can think about doing…what she's doing so we can improve" (Karen).*

Identified strengths of an otherwise poor performing member of staff

One clinician the manager of a service found that, for a member of staff who regularly fails to do tasks and does not always get the best feedback on his performance at supervision or appraisal meetings, that:

> *"Staff member Mike comes out on top for 3 of the 4 tenants I* completed measures for. Mike was rated by everybody else as the *best"* (Daisy).

Measure easy for staff to use

SROS was reportedly easy to complete within a staff team that struggled with paperwork:

"As soon as I said I've got something would you look at this scale they went 'oh no not another measure! Not another thing to have to write down'. I showed them and said you can probably do it in about 30 seconds and then they said 'oh all right then'. There was definitely a sense of I don't want to have to write something else down - not more paperwork, but this didn't require virtually anything from them which was really nice" (Karen).

Rapport Rating Scale (RRS)

Helpful structure of RRS

The structure of observations was viewed as helpful. One clinician described previous experience of doing observations:

"I remember doing obs and I was having to write everything they were doing you know. You come back and actually what did I summarise from that was well a little bit of this, I saw a little bit of that I didn't see any of that. You're frantically making notes on anything on everything. Yet this individual's interaction with the carers, there was so much going on because they were sort of playing with her really, that that would have been really hard to write down" (Karen).

The relative ease of collecting information using the RRS was also summed up:

"It's just easier to look at specific things rather than make notes about what's going on and what people are doing and then not having to go back to the office and kind of processing what you've seen. I can get the information I want out of it quickly it's not going to take a lot of analysis" (Karen).

Promotes examination of subtle non-verbal signals

One clinician noted that the RRS made her notice factors about the person with a disability that she would not have otherwise looked for:

"It was the miniature body language that I would not have looked for like eye tracking" (Bryony).

Focus of the RRS is on the person with ID

The fact that the RRS looked at the individual rather than at staff behaviour was cited as a strength:

"I really like this because it really focuses on the person because everything else focuses on the staff" (Barbara).

Reassurance from RRS observation

Some participating clinicians were reassured by the observations:

> "I already knew that she is quite happy in her service but it really picked up for me that she is very comfortable, especially with that female member of staff. She was doing her nails at one point when I was watching and she was quite happy to give her hand to her and I really noticed the closeness between her and that particular member *of staff which was interesting" (Barbara).*

In situations where there had been concerns in the service the RRS observation was seen as helpful:

> *"It was sti*ll useful for me to actually provide a bit of reassurance. I have had problems with the staff, just getting hold of the keyworker in *particular. It's been going on for months and so I had some concerns about what their care's like towards this individual*. Because I am getting some really mixed messages but when I observed the individual with them she gave lots of eye contact and smiles and indications that she had good rapport. It made me think that - well even if I am finding it difficult to engage thi*s keyworker that's something about my relationship with her and it doesn't necessarily reflect the quality of her rapport with the individual" (Karen).*

The value of the RRS collecting information about eye contact was notes as an important part of this measure:

> *"We forget to look at the eye contact and how close people are* standing. Because there are a lot of people we support who don't *want to stand very close to some of the staff and that isn't picked up"* (Barbara).

Monitoring support plans with RRS

During rapport building intervention work one clinician noted changes on the RRS for the member of staff he was supporting:

> *"Initially his scores were very low [on RRS] but he started to develop* [following rapport building intervention] his scores are cha*nging"* (Tony).

There were observable differences between the person that was building rapport and a long standing member of staff / keyworker for the individual. With Gerry the long standing member of staff, Tony was aware that:

> *"When [Gerry] is doing* anything Carl will look at him if Gerry says anything he will do it even if [he is] doing something and [Gerry says] *'oh can we go to the sensory' room happily [Carl] just pack[s] up and goes to the sensory room" (Tony).*

Tony also commented that Carl would often not respond when asked to do something by other staff.

One participating clinician identified that a support plan was not being followed through use of the RRS :

> *"It's quite apparent that Jason's plans weren't being followed with that particular person that was doing a 1-1. His guidelines that say he needs somebody upbeat and animated. They were not giving him what he needed. For Jason it's so important. If you are not animated and prepared and upbeat and engaging then he'll go off and find something to get that. Set off a fire alarm or something" (Barbara).*

Support plans for Jason were reviewed with staff as a consequence of the RRS observations.

Usefulness and strengths cited for more than one measure

There were a number of strengths that were noted as being associated with more than one rapport measure. These are listed below with supporting quotes.

Easy to use:

> *"They both [RRS & SSR] were quite easy to administer or to do in terms of it wasn't labour intensive" (Karen).*

> *"I thought it [SSR] was straight forward to use" (Lauretta).*

> [PT] *"Would be easy to do it with something like personal care in the morning and then do it throughout the day" (Virginia).*

> *"Adam did this [PT] without difficulty"* (Richard).

Data collected quickly:

> *"[Observed for] 20 minutes I think, it might have been 25" (Karen).*

> *"I used 20 minutes [RRS] for Andrew because he is just non-stop on the go all the time"* (Virginia).

> *"Did the PT over a cup of coffee"* (Richard).

Confirmed clinician's thoughts:

> *"They actually backed up what I thought and by collecting other data and putting that together it has confirmed what people have said in the rating scales" (Janet).*

Rapport measures picked up differences between staff:

"There were two different staff for this person [observed with RRS] and interestingly I thought she related better to the female staff than *the male" (Barbara).*

"Staff will say that's a problem, he's obsessed with this certain member of staff and you say, you need to turn it around what is it about that member of staff that they are so obsessed by because *that's what the other staff need to be like so that you can't tell that* person (staff) you don't work with that person. That's not very fair is it *if they've got a good relationship with them" (Vidah).*

"We did the SROS then we did the SSR and then from that we identified a massive difference" (Virginia).

All clinicians struggled to identify many alternative ways to measure relationship quality:

"I don't think I've ever come across another tool that measures [rapport]" (Barbara) "No I'm the same really" (Vidah).

Measures tallied with each other:

*"It tallied with the rating [RRS] when I asked the*m to do the staff relationship one [SSR] (Karen).

Theme difficulties and challenges of rapport measure use, as part of functional assessment and PBS planning

This section reports the views of clinicians about the difficulties and challenges they identified in using rapport measures in the study. In the same way as the previous section, difficulties and challenges are reported for each of the rapport measures in turn. The difficulties are presented at the start of this section in a thematic map, figure 6.3, which summarises clinicians' views.
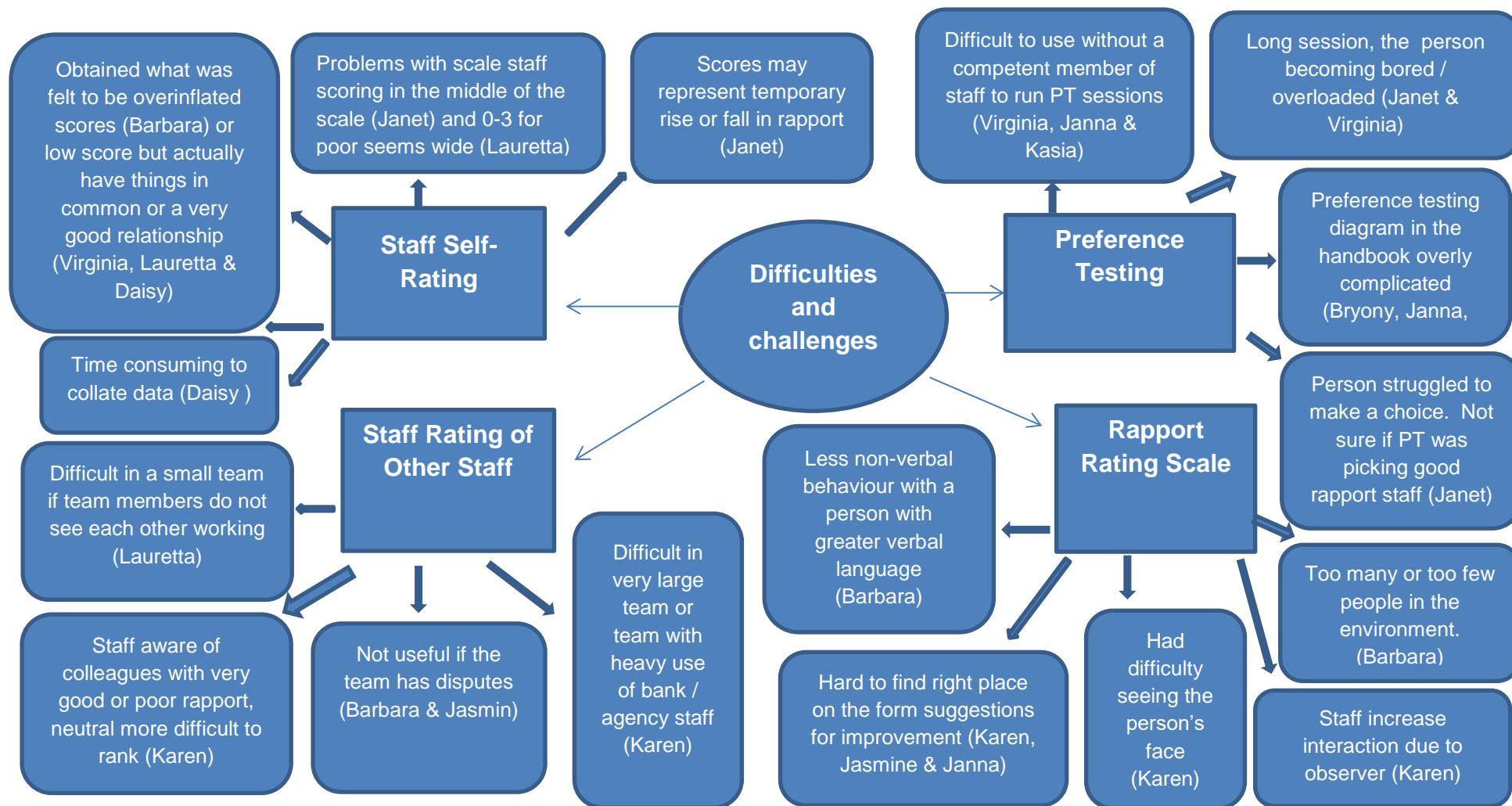
Figure 6.3: Difficulties and challenges as part of functional assessment and PBS Planning

Obtained what was felt to be overinflated scores (Barbara) or low score but actually have things in common or a very good relationship (Virginia, Lauretta & Daisy)

Problems with scale staff scoring in the middle of the scale (Janet) and 0-3 for poor seems wide (Lauretta)

Scores may represent temporary rise or fall in rapport (Janet)

Difficult to use without a competent member of staff to run PT sessions (Virginia, Janna & Kasia)

Long session, the person becoming bored / overloaded (Janet & Virginia)

Staff Self-Rating

Difficulties and challenges

Preference Testing

Preference testing diagram in the handbook overly complicated (Bryony, Janna,

Time consuming to collate data (Daisy)

Staff Rating of Other Staff

Rapport Rating Scale

Person struggled to make a choice. Not sure if PT was picking good rapport staff (Janet)

Difficult in a small team if team members do not see each other working (Lauretta)

Less non-verbal behaviour with a person with greater verbal language (Barbara)

Too many or too few people in the environment. (Barbara)

Staff aware of colleagues with very good or poor rapport, neutral more difficult to rank (Karen)

Not useful if the team has disputes (Barbara & Jasmin)

Difficult in very large team or team with heavy use of bank / agency staff (Karen)

Hard to find right place on the form suggestions for improvement (Karen, Jasmine & Janna)

Had difficulty seeing the person's face (Karen)

Staff increase interaction due to observer (Karen)

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Staff Self Rating (SSR)

Problems with scoring

The scale on the SSR caused some frustration for one participating clinician:

> "I think that the SSR one needs to be clearer [about choosing] a number rather than choosing half way between the numbers. I have *three out of four who have done it, look!" (Janet).*

Despite the frustration Janet acknowledged:

> "Last time I actually said to them you've got to do it around a number don't do it in between and I didn't explain that properly this time" (Janet).

Overinflated or under represented scores

Service managers sometimes reported their disagreement to participating clinicians with their own staff's SSR scores. For example, one staff team all rated themselves at 4 ('good rapport'):

> "So it was all at 4 but it was all the same and I don't know whether they had spoken about it… The manager has probably got the best relationship and rapport with this guy and she said actually I would only rate myself a 4 and when you see how the staff team interact with him I wouldn't have put them at a 4 probably would have put them at a 2" (Janet).

Similarly, in another service, the clinician's view was:

> "The staff we are not certain are always truthful they thought they were going to get told off if they didn't have a good rapport. So they said they were skirting around the 5 end of the scale. The manager had got them in the middle which was interesting" (Barbara).

Another staff team marked themselves as lower than the participating clinician / their manager thought they would. There was a view by one clinician that the scores on the scale did not accurately reflect the level of rapport:

> "Self-rating scale being 0-3 for 'poor' was a bit wide and meant that people that marked themselves at 3 were being rated as having poor rapport when they actually have a reasonable relationship with the person" (Lauretta).

One participating clinician found that:

> "some staff rated themselves as middle on the SSR but actually had a lot in common with Martin [This was identified] when I did some reinforcement inventories for staff and Martin" (Virginia).

Some participants thought that the SSR may be scored differently if completed when staff are either feeling frustrated or positive about the person. The day-to-day frustrations experienced by staff may affect the quality of their relationships with people supported:

> *"We had a workshop and they were having a particularly difficult time* relating to this one guy that they were working with. [We] did the workshop and they all came out feeling quite motivated and positive and all the staff team rated themselves quite highly. I know people are getting quite frustrated and I wonder if how they feel now is how they as how they felt after the works*hop" (Janet).*

Time consuming to collate data

Whilst the SSR had been noted by participating clinicians as fairly easy to use, the analysis was reported to be more time consuming:

> *"It was quite time consuming putting all the data in to the tables and* adding the scores up – perhaps the use of an excel spreadsheet so *that scores can be totalled automatically" (Daisy).*

Preference Testing (PT)

Overloaded the participant with an ID

For two participating clinicians the participant with an ID wanting to stop PT or finding the exercise overwhelming was reported as a difficulty:

> *"He has severe autism, so it was quite an overload of information. I* did it over the course of a couple of hours with the staff that were on shift that day and by the end of it he had shut *down and ignored me"* (Virginia).

Likewise preference testing with staff photographs:

> "*He sort of got fed up half way through"* (Janet).

Difficult to use without a competent member of staff to run PT

There was some suggestion that the challenges could be overcome by doing PT differently:

> *"What I would do next time is I would hand it over to the managers on* that day as well, because obviously I am not in that service all the time it would be easy to do it with something like personal care in the mornin*g and then do it throughout the day" (Virginia).*

Two clinicians shared that they had been:

> "*nervous about attempting the PT…you would need a competent* member of staff in the service to assist with this and get the forms *back*" *(Janna & Kasia).*

Preference testing diagram overly complicated

Several clinicians found the diagram for PT administration provided in the 'Rapport Measurement Handbook' to be daunting:

> "*The preference testing organisational diagram… I took one look and* my heart sunk this loo*ked complicated*" *(Jasmine).*

> "*The pyramid diagram in the hand book looks complicated*" *(Janna).*

> "*The grid [diagram] I found it a bit difficult*" *(Bryony).*

Person with ID struggled to make a choice

There were concerns about the effectiveness of PT for one participant with an ID:

> "*I don't know how effective it really is. His understanding is pretty good but I don't know that he was actually making a proper choice. You have to be aware, when you choose to use it in a certain way, choose who you use it with*" *(Janet).*

Staff Rating of Other Staff (SROS)

Difficult in a very small or very large team

SP being supported by one clinician completed the SROS but:

> "*They all rated each other very differently, there was almost no consensus*" (Lauretta).

As a team they had wanted to rate the whole team equally but were discouraged from doing so by the participating clinician. Following a discussion in a reflective group a difficulty relating to how often they might observe one another work was suggested by another participating clinician:

> "*I think that is a major factor because there are only two gentlemen* that live there. There are only ever two staff and a manager on shift at any time. So although they do eventually work with everybody across *the team it's quit*e far apart. They are not all working as one big *group*" *(Lauretta).*

Within the reflective group it was suggested that staff who do not work with each other regularly might struggle to observe and differentiate the level of rapport across their colleagues.

Clinicians also noted difficulties for SP if they worked in very large staff teams because of the number of colleagues being compared. Selecting a small group of key staff may be one way around this difficulty:

> *"They said 'there are about 30 people that work with these clients'. I did say are there a group of people that generally work more with these individuals? They said 'yeah'. So that's why I said how many is that and they said 'roughly six'. I said just pick the first six" (Karen).*

Unclear what staff understood by rapport

There was one staff member that was rated as clearly having the best rapport in information collected on SROS forms but the clinician was unsure of what the rating was based upon:

> *"I am not sure that their criteria for* what made a good relationship were perhaps the same as it was intended to be within the rapport measures. I think the fact that this staff member is quite efficient, he's quite good to help other staff out if they can't remember what the guidelines read or he'd always know all those sorts of things that made them feel that he had a better relationship with these service *users, rather than being about warmth and interactional quality"* (Lauretta).

Not useful if the team has disputes

For some teams participating clinicians decided SROS would not be a suitable tool to use:

> *"SROS was tricky because there are disputes within the team"* (Jasmine).

> *"I think I would struggle in some of my other services, I think it would* be a bit of a personal vendetta. So that's probably not the best tool to *use in those services at the moment" (Barbara).*

A discussion in the reflective group took place and views of where SROS may be best suited for environments where staff are confident and have experience of being observed and being given feedback, for example in:

> *"A well-established team, with a good tuned in manager" (Barbara).*

Rapport Rating Scale (RRS)

Number of staff in the environment too many or too few

Consideration about the number of staff that were available during completion of the RRS was a challenge for participating clinicians, and became a discussion point in reflective groups and individual meetings. One participating clinician realised that it would be difficult to look at rapport across the staff team unless there were sufficient staff available for the person to connect with:

> *"During the RRS observation it was only her and the one staff in the* house at the same time 'so I was only able to observe one member of staff at each session. I did think that I need to go back at a busy time, *maybe a tea time, when there are lots of people around" (Barbara).*

Similarly another participating clinician:

> *"Observation was problematic because high rapport staff was there so* only saw a good session [*we] went out to McDonalds" (Jasmine).*

Situations in which there were a particularly high number of people present also posed a difficulty when using the RRS:

> *"Whilst I did pick up quite a few things I couldn't really use it because* there was lots of different people there in the room so the client themselves was interacting with other users of the day service. This made it a little bit more difficult to focus on just their relationship with staff. Even though I was trying to do it within a time when people can *do what they want, it was break time" (Karen).*

Observation obscured

A difficulty arose in trying to observe the facial expression of the person with an ID if the observer was not in front of the person:

> *"When I was observing suddenly the client had* her back to me and so *I couldn't see who she was responding to - which one" (Karen).*

Staff altering and increasing interaction

SP altering their interaction style in the presence of an observer was a difficulty experienced by one clinician. Within the RRS this is likely to result in a higher score for the code 'Stays directly beside a stationary carer':

> *"There was lots of intensive interaction because they knew I was* observing and I did say - just carry on about your business. They did not carry on about *their business" (Karen).*

Hard to find codes on the RRS

Within a reflective group one issue about being able to find codes quickly on the RRS was raised. There had been a suggestion previously (see Chapter 5) that this should be organised as a kind of 'body scan'. Ratings would then start with the person's head and the code for eye gaze and work down the body in order. This suggestion was greeted favourably:

> *"I like that idea going through them quite quickly, but was difficult when* she was showing a lot [of rapport indicators] There was a sense you'd *have to be familiar with and used to doing it in order to do it quickly"* (Karen).

Further suggestions included the use of pictures beside the code headings to make them easier to find e.g. picture of an eye for eye contact, mouth for talking etc.

Participants with some verbal language

Not all participating clinicians stuck rigidly to participants with ID having little or no verbal language. One participant had tried to use the measure with someone who had good speech. Although this was a slight variation away from the protocol, this participant did note that for someone with good speech:

> *"the RRS generally had less parts of the form completed. There was* less reliance on the non-verbal elements of the reco*rding sheet"* (Barbara).

Keyworker Relationships

The question as to whether or not there was any noticeable difference in relationship quality with keyworkers was raised in all reflective groups and individual meetings. Sometimes participating clinicians were unaware of who the keyworker was for the participant with an ID. Where the keyworker was known, data about these relationships was coded in terms of whether the measures had recorded keyworkers as having a good or poor rapport. Table 6.7 summarises recorded rapport with the keyworker relationships identified.

	Keyworker relationships	
Example number	**Keyworker reported by the clinician as having a good rapport with the person with ID**	**Keyworker reported by clinician as not having a good relationship with the person with ID**
	Preference testing	
1.	"Yeah, I did the preference testing and Colin chose his keyworker over everybody" (Virginia).	"Has an on off relationship with his keyworker, other staff are higher" (Richard).
2.	"Rory's keyworker came out as the person with the best rapport" (Karen).	
	Staff rating of other staff	
3.	"What they said in their rating scale that the keyworker has the best relationship" (Karen).	"She's a 6 on there (another SROS we were looking at). Yeah, and actually she said it herself she is not confident. She had had a really rough shift with him because I think she felt the staffing levels weren't right" (Janet).
4.	"Oh ok so you think that second person on the list is probably keyworker now do you?" (researcher, MH). "He is his keyworker because he told me that last time I went in there" (Janet).	
5.	"When I was keyworking Martin and doing all the staff rating he wouldn't bath without me being there if I wasn't on shift he would go three days without having a bath and he wouldn't eat healthily". (Virginia).	
6.	"John and Alasdair have the same two staff at the top of their rating (SROS) and one of these is John's keyworker" (Daisy).	

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7.	"Paul's keyworker had better rapport but Paul needed better rapport with others. Keyworker had more time to do the rapport building" (Lauretta).	
8.	"Simon's keyworker came third when rated by other staff" (Daisy).	
	Rapport Rating Scale	
9.	"So really this picked up that the person with the very long history [Gerry] got a good score. Gerry is keyworker" (Tony).	
10.	"I didn't when I did the formal observation but I was looking at some video footage and it makes you think along all these lines she does have a good relationship with the keyworker and she is more likely to deliver, and she is more likely to go out and do nice things with the person" (Vidah).	
11.	"Keyworker to James has an excellent relationship with him" (Tony).	
	Staff Self Rating	
12.	The keyworker "felt she did have a good relationship and she obviously felt that she knew a lot about this lady" (Janna)	
13.	"John's keyworker marked himself as 5" (Daisy)	

There were 13 examples of keyworkers that were reported by the participating clinician as having a particularly good relationship with the participant with ID. Therefore, there was feedback across all four rapport measures about examples of keyworkers having a better relationship with the individual with an ID than other staff. Conversely there were only two examples, cited by participating clinicians, where keyworkers were considered to have a poor rapport on any of the 4 rapport measures.

Supporting Better Staff Practice

This theme focussed on the frequent descriptions by clinicians of how they were seeking to develop their own or more junior staff members' practice. Three sub themes are considered: clinicians' growing confidence in rapport measure usage; their transmission of their newly acquired rapport measurement skills to other staff; and creative ways in which they were implementing rapport related assessment and support within service level initiatives. These are presented in more detail in Figure 6.4.
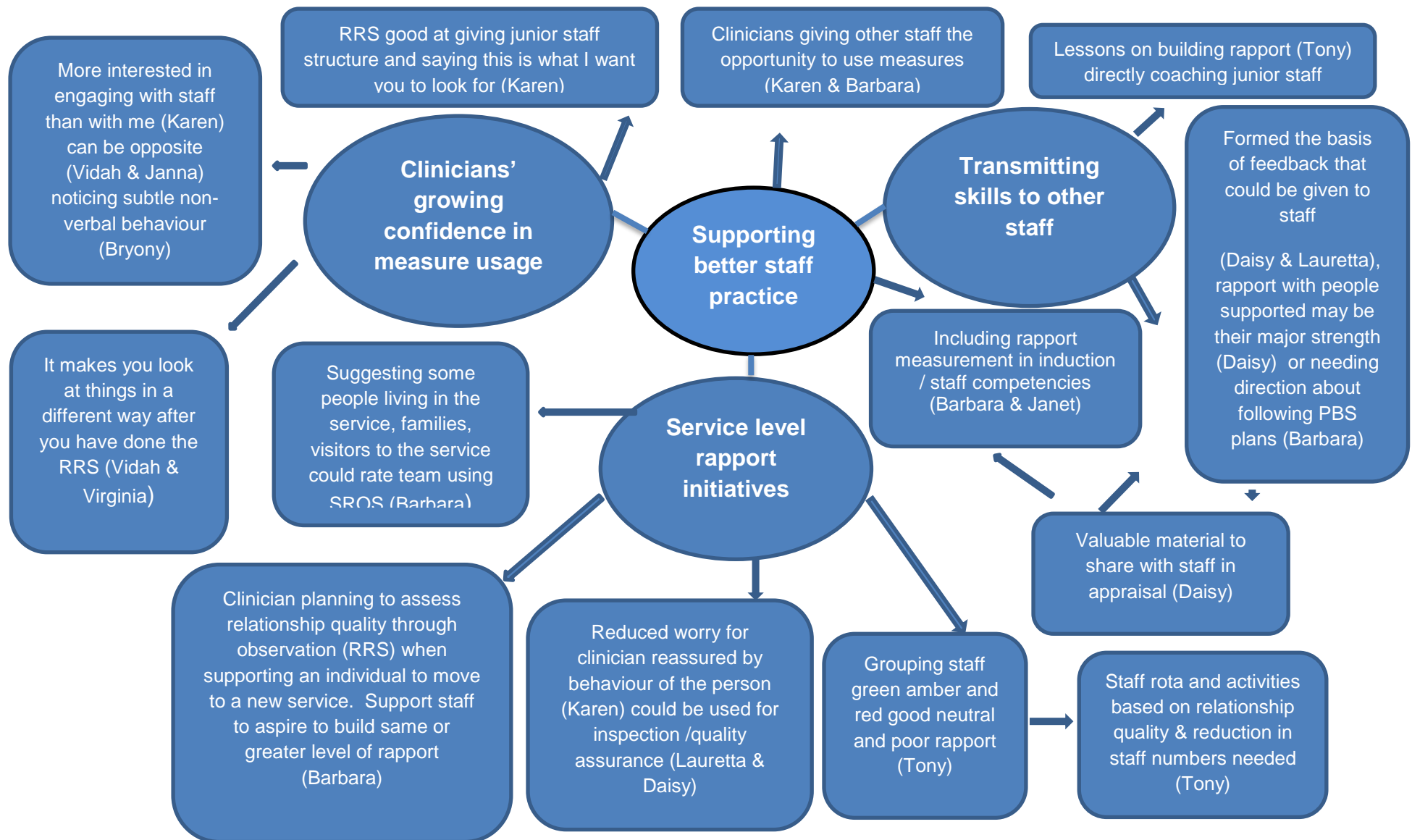
Figure 6.4 Supporting better staff practice

Clinicians' growing confidence in rapport measurement

Improved observation skills

Clinicians' feedback on using the measures suggested that their confidence in rapport measurement had grown during the study. Some participants described how they were now identifying examples of rapport in their day to day work on a regular basis:

> *"It makes you look at things in a different way after you have done the scale" (Vidah).*

> *"I am reading it all the time now no matter where I go, it's in my head all the time!" (Virginia).*

One participant talked about how she was more likely to recognise subtle non-verbal language between the person she was observing and staff, after using the RRS:

> *"I would not have looked for eye tracking" (Briony).*

Participant with ID interested in connecting with staff

There was a growing view among clinicians that it was suggestive of a good relationship with staff if the person being observed was more interested in interacting with their regular staff supporters rather than the observer.

> *"She wasn't really bothered at all* by me. She came up a little bit briefly and looked at me and that was it, she was back with the others, which *says something in itself actually that she's much more interested i*n *engaging with staff rather than with me" (Karen).*

There was a view among clinicians that, in some services, the picture can be very different and that relationships with regular staff could be better:

> *"sometimes I think if you go into a home and every*one swarms around *you, you'd think oh it's the opposite" (Vidah).*

Transmitting skills to other staff

Supporting junior staff

With increased confidence in measure usage came examples of clinicians passing on some of the skills they were developing to other staff. For example, some gave junior staff the opportunity to use measures. One clinician said:

"if I was trying to think about quality of relationship with the staff and I was sending out somebody that was an assistant or someone that hadn't had much training, or even if they had, I think [the RRS] is quite good at giving *them some structure and saying this is what I want you to look for"* (Karen).

In another service, rapport had become damaged between an excellent junior member of staff and one of the people he supported. Perhaps consequently, the member of staff was receiving a marked increase in aggressive behaviour directed at him from this individual. The staff member was coached by the clinician to understand the concept of an Emotional Bank Account (Covey, 1989):

"When I explained the emotional bank account, he understood that process" (Tony).

With the help of the clinician the relationship the staff member held with the person was gradually repaired. The participating clinician described some of the advice and coaching he offered:

"When he is in a good mood and you're on duty take him to the kitchen or *do a drink, not on a daily basis but as much as you can" (Tony).*

Following coaching there was some change demonstrated in the scores from the RRS in repeated observations:

*"Initially his scores were very low but he started to develop, they a*re *changing" (Tony).*

Rapport measurement forming the basis of feedback to staff

Both the SROS and RRS produced information about staff skills that had not previously been recognised:

"It was interesting for me because we did the RRS, one in particular rated himself as neutral and he wasn't very sure how much rapport he had with people but actually he had a really lovely rapport. It's just that the service user being non verbal and also having mobility issues was not so obviously interactive. So every time he [the member of staff] passed him he was watching him, giggled, every time he walked past he'd make a vocalisation and the gentleman would vocalise back he just was missing it because he was comparing it to something that was much more obvious I think. So it was nice to be able to feed that back to him and say actually you are doing all right there" (Lauretta).

This observation resulted in Lauretta recommending Intensive Interaction (Nind and Hewitt, 2001) training for staff.

Staff feedback for appraisal

For another clinician the results of the SROS were interesting in relation to one particular member of staff. Mike came out at the top of the SROS for 3 of the 4 people with ID he supported:

> *"Mike is quite a laid back person and as a Manager I can find it difficult to* find out aspects of his job that he has done well. Rapport measurement is a nice way of assessing how good a member of staff is at their job, because a lot of the time assessment of staff is about tasks and aspects of the job that he is not that good at. Rapport with people supported is the most important aspect about whether or not you are a good support worker. The information obtained about Mike will be helpful for me as a manager to give feedback to Mike in appraisal so that he feels he is doing *a good job…. Mike talks about his work in LD almost as a stop gap rat*her *than a long career" (Daisy).*

Identifying strengths in the quality of the relationship a member of the team has with an individual, or several individuals they support, has the potential to accord a member of staff more value within the team.

Service level rapport initiatives

As clinicians' familiarity with the measures grew, discussions within the reflective group turned more to how rapport measurement and rapport-based intervention could form service level rapport initiatives.

Giving clinicians reassurance

One clinician had been worried about the service in which the individual she was working with lived:

> *"so there is a lot of worry and what do you do when you're really worried? It's not helpful to break our relationship with this team because they may* want to refer again and I want to make sure this client is safe and *everything else like that. So this was helpful to reassure me" (Karen).*

Audit

Data were collected using the RRS. Based on reassurance about service quality clinicians suggested using the measures for annual audits (Daisy) or internal inspections such as for the 'Driving up Quality Code (Lauretta).

Information gathering for people with ID moving between services

One clinician was responsible for assessing people for new services and wanted to bring information about rapport into the assessment:

> *"I am just about to assess 25 people for three new services all with the* potential to display quite significant challenging behaviour and I'd quite like to have something with *rapport in the assessment stages" (Barbara).*

Including rapport in induction

Likewise, consideration was given to how rapport might be considered in respect of the induction of new staff:

> *"I remember when I started as a support worker I did an induct*ion of two weeks which was quite thorough but they never touched on this and you can imagine if someone was sent to work with you, say you were poorly and bedridden, and they sent in a carer you can't assume you are going to *get on with somebody can you" (*Vidah).

> *"We've got the same old induction format that we've had for the last 20* years and it spends time looking at really important things, like do you know how to turn the oven on! We are talking about bringing rapport measurement into the induction o*r their probation review" (Barbara).*

Grouping staff to minimise challenges with good rapport staff

In the service where one clinician worked, they had developed a system of grouping staff and assigning them to the people supported on the basis of the relationship:

> *"We already have a thing in practice for Carl, because he never used to go* out and now he does go out. We have got green staff, orange staff and red staff. The green staff, where you make sure every staff in the morning he has to [be] green and he will be happy to go out. When you take from *the red group he is not going to get dressed to go out" (Tony).*

Staff rota based on relationship quality

There was a recognition that staff in the orange /amber group (neutral rapport) could work with those in the green group (good rapport) to move towards being in the green group. Staffing was planned on the basis of the relationships between staff and Carl.

This team was having great success in supporting Carl to go out, using the above approach, after a three year period when he had not left the building:

"It works so well that for this particular person because when he goes out it has to be three staff, and two green and one amber can go out with him. It has worked so well that he doesn't need three anymore now he goes out with two staff and before it needed to be two familiar staff, now he goes *out with one familiar staff and one amber"* (Tony).

Discussion

The findings suggest that clinicians supporting people with ID were able to use rapport measurement tools successfully. Clinicians were from a variety of backgrounds including psychologists, behaviour specialists, community nurses, and residential staff. All clinicians were responsible for writing PBS plans. For a number of clinicians the content of the PBS plan was altered or enhanced through the rapport information collected during assessment.

The use of a mixture of reflective groups and individual meetings proved to be a very effective way of working with clinicians. The smooth running of the study and active engagement of many clinicians may have been helped by the lead researcher having done pre-existing work (over a period of some years prior to the research) which had resulted in a good relationship with a number of the participating clinicians.

Participating clinicians were able to give feedback on all four rapport measures that they used within the study.
 Feedback ranged from ways the clinicians had found the measures useful, to difficulties and challenges. Many of the difficulties and challenges expressed by participating clinicians were coupled with potentially helpful suggestions about how measures could be improved or made stronger for future clinical work.

Through analysing the content of discussions in focus groups and individual meetings, there were indications that the confidence of participating clinicians in using rapport measurement tools had grown during the course of the study. As confidence grew some clinicians had started to transmit their new skills to others that they supported.

It was encouraging to observe the impact of the study on clinician perspectives and in their development of others. These included examples such as:
- A member of staff whose presence had elicited increased challenging behaviour from an individual he supported was, with coaching from the participating clinician, managing to build rapport with the individual and reduce behavioural challenges.
- A junior staff member who was seen as lacking in his role, due to not completing tasks, was identified as having the best rapport with the majority of people he supported.

This information and coaching could make the difference as to whether some potentially good staff would pursue a career in ID services.

A number of clinicians were managers, or were responsible for supporting staff within an organisation, or a section of an organisation. As confidence grew among participating clinicians, attention moved to considering rapport initiatives at organisation or service level such as staff induction, training, monitoring quality or inspection.

The study sought participating clinicians' views on keyworker relationships and rapport. Where examples of good rapport were identified, semi-structured interviews probed whether or not the keyworker relationship was stronger than the majority of other support staff. There were many more keyworkers that were considered to have a good rapport rather than poor rapport across staff teams. This study adds support to the notion that keyworkers may be more likely to have a better relationship with the individual than other support staff.

Limitations

This research was interested in clinicians' experience of using rapport measures. The suitability and recruitment of participants with ID was decided by the participating clinician. This meant that the researcher was blind to the names and demographic information of such participants and had very limited control over their selection.

Although many of the participants with ID were not known to the researcher, most of the participating clinicians were known prior to this study. Clinicians participating in the study already had a professional relationship with the lead researcher and this may have helped the smooth progress of the study. This means that these conditions were very possibly essential to the outcomes of this study and that a detached researcher who doesn't know the participants and just presents the study design to unfamiliar clinicians, might struggle to replicate this study. It was of course recognised at the beginning of the study that many of the clinicians would be known to the researcher, and that this on balance would be helpful. Particularly because of the researcher's knowledge about workloads, care areas, political climate and organisational priorities, it was easier to effectively support participating clinicians.

Asking clinicians about their prior knowledge of rapport was information collected at the first reflective group; unfortunately not all participating clinicians were available at the time to provide this information. The lack of clarity around existing knowledge about rapport that clinicians had at the beginning of the study is a limitation of the information collected. In retrospect it would have been better to have built in time to gather information on prior knowledge at the initial teaching session.

There were some participants with ID who appeared to have more verbal language than that referred to in the study's inclusion criteria, which stated that participants with an ID should have little or no verbal language. While a limitation given that the measures were designed primarily for use with people with limited language, the broad interpretation of inclusion criteria did provide some feedback on use of the RRS with individuals with fairly good verbal language and suggested that some of the rapport measures might be useful with more able people with ID.

A number of measurement issues arose during the study. In one service participating clinician Lauretta felt that staff may have rated their colleague as having a good rapport, using SROS, because he is helpful to them as a team and efficient. Because of his helpfulness and the support he gives to other staff, he may be seen as having a likeable personality and being particularly knowledgeable about the people being supported. It is possible that the positive thoughts other staff have about this team member, have biased the conclusions his colleagues have about his rapport with people he supports. Consequently, colleagues have rated him more favourably and judged him to have a good rapport with the people supported. This seems like an example of a 'halo effect' in which *"the observer is favourably or unfavourably disposed to the person he or she is observing"* (Lum, 2002, p108) and this has had an effect on the rating being made.

Participating clinician Karen was of the view that staff participating in the study increased their interaction with the ID participant because she was there as an observer. This is similar to the issues that occurred with SP, Beth in the IRM study. The increase in interaction with the ID participant suggests that SP were influenced by the presence of the observer. SP in this study had been given details of the study in the 'Information Sheet for Staff Working in Services' and would have understood that the study was about rapport and their relationship with the ID participant. It seems plausible that staff were responding to the awareness that an observer was interested in their work and how they related to the person they were supporting, so their rate of interacting altered and their interacting performance improved. It is possible that this situation was novel and staff may be very unfamiliar with someone showing this level of interest in their work. The change in staff behaviour could be described as a Hawthorne Effect (Coolican, 2007). The Hawthorne Effect is the: *"effect on participants of simply being the focus of investigation"* (Coolican, 2007, p94). SP altering interaction style in this way may impact upon getting a true reading on the RRS. Staff providing more intense interaction than usual would potentially (and artificially) increase the RRS score particularly on the code 'stays beside a stationary carer'.

The SSR was generally reported to be easy to complete by staff. In one service staff rated themselves highly at 5 and the manager felt that they were not being honest. Staff potentially believing that they were going to be 'told off' for

particular ratings suggests that, at least in this example, there was a 'demand characteristic' created by the SSR and the context in which they were asked to complete it. Staff responses to the demand could be described as the 'evaluation apprehension' described by Coolican (2007, p95), *" participants' anxiety that their* performance is u*nder scrutiny".*

Clinicians using the measure may be helped to get accurate readings and avoid some of the 'demand characteristics' if staff were reassured about how the results would be used. These difficulties are not unsurprising as they apply to all forms of measurement or assessment and there is no reason why rapport measurement should be any different. These issues do, however, carry implications for the use of rapport measures and the advice that should be given to clinicians and other users.

The study was run at a time when clinicians working within local Community Teams for People with Learning Disabilities were at their lowest level of staffing in the last decade. Therefore, some clinicians had very limited time to dedicate to rapport measurement and the recruitment of suitable participants with ID. Running the study for a longer time frame, perhaps 18 months, could have been beneficial in seeing more rapport assessment through to intervention.

Some participating clinicians expressed a reluctance to use PT and suggested that the PT diagram in the handbook looked daunting. The way preference testing was presented in the handbook may have contributed to clinicians' reluctance to try this rapport measurement approach. Training in the use of rapport measures was carried out in a classroom situation although with some use of video. It is possible that participating clinicians' confidence would have been further increased if they had been given the opportunity for live coaching in the workplace.

Due to research governance approval being obtained for Surrey only, there were some limitations on the recruitment of participants with an ID. One clinician worked across county borders and noted that recruitment would have been easier over a wider geographical area.

Implications

Implications have been separated into those that relate to clinical practice and those associated with research. Firstly, the practice implications are discussed measure by measure; secondly, the research implications are presented with suggestions for further research.

Implications for practice

Preference testing was adapted by some clinicians in ways other than those suggested in the Rapport Measurement Handbook. For example, it was carried out with pictures and written words for some people rather than just presenting the individual with two staff in order to make a choice. Undertaking PT in this way could make the process far quicker with individuals who can understand written words or pictures. The staff from whom the person is choosing would not need to be present for PT and this approach may be experienced by the person with a disability as less pressured.

Two participating clinicians highlighted that they asked the person with intellectual disability to undertake a number of preference tests on the one day. Consequently both of the ID participants appeared to lose interest in expressing a preference. Ensuring the process of preference testing is spaced out may be an important point in guiding clinicians and giving the person with an ID a break between preference tests. Training a member of staff to run preference tests was also suggested as a more efficient process if the clinician cannot be present for all the PT sessions.

Preference testing is a relatively straightforward process but clinicians reported that the way this was presented in the handbook was overly complicated. The handbook would benefit from revisions that simplified the description of how to conduct the procedure.

Staff using the SSR sometimes placed their rating in between two of the six scale points, making the data more difficult to calculate. This might be avoided by adding a note to the recording sheet or reformatting it to encourage use of the scale points only.

One participant successfully used the SSR with an individual with a mild ID who rated the staff supporting them. The SROS (in which staff are rank ordered in terms of the quality of their relationship with the person with an ID) was also used successfully with an individual with a mild ID. For more able people with ID, these may be very direct methods of gathering information on their likely rapport with staff.

The SROS was felt by clinicians to be most useful with teams that were functioning well. Where there were disputes within a team, an opportunity to rate colleagues' rapport with individuals being supported was viewed as being potentially problematic. The handbook for clinicians could be improved by giving guidance for clinicians about considering the suitability of teams before using the SROS. This measure might also be used as part of a service assessment process in which regular visitors to a service, or family members, rank order the quality of staff relationships with their relative or individual that they otherwise know well

The RRS was generally viewed as quick and easy to use. Some clinicians needed to be reminded to use the multi coloured pen or have a system of keeping track of the staff members to which rapport indicators were directed. To make codes quicker to find, the RRS would benefit from being revised and presented as a 'body scan'. Non-verbal indicators could be presented in descending order from head to toe to improve the speed of finding the appropriate code and recording. To revise the RRS further, clinicians felt that recording speed could be helped if small pictures of the non-verbal indicator were shown at the side of the recording sheet e.g., picture of an eye for eye gaze, a speech bubble for speech or vocalisation etc.

Within the space of eight months many participating clinicians were suggesting rapport measurement initiatives at service level to promote better staff practice either across a specific residential setting or the provider organisation as a whole. Future work on rapport measurement might usefully consider the role of rapport measurement in service quality inspection or improvement exercises. The RRS in particular, because of its more objective approach, may be of use during external service inspections, such as those by the Care Quality Commission.

Implications for research

The success of the action research approach used here might suggest its expansion to more direct involvement of direct care staff. This would help to identify their perspectives and reactions to rapport considerations and being coached in methods of building rapport. Participant feedback from such a group, about changes in the rapport behaviour of people with an ID and challenging behaviour, may provide insight about the more general usefulness of including rapport considerations in behaviour support plans and their implementation.

Future research might also focus on the direct care staff who are very effective in building rapport across a number of individuals with an ID. While, in the current as in previous studies, it was sometimes the case that certain staff had good relationships with certain individuals with a learning disability but not others. There were also staff identified in the current study who had good rapport with most/all of the people with ID whom they supported. Is there something about the interaction style of these staff that helped them build rapport? Such research might, for example, draw on the 3As assessment of staff responsiveness used by McLaughlin and Carr (2005) or how measures of job support staff performance (Hatton et al., 2009) related to rapport. There are, however, a range of other considerations, including the way staff generally present themselves (Manthorpe and Martineau, 2008), the amount of positive/critical language used, the extent to which they place demands etc. Adaptation of measures such as those described by Vanono et al. (2013) or Forehand and Long (1981) might allow investigation of the styles of interaction that lead to rapport being built more quickly.

Further study might also focus on the keyworker relationship. It is clear that keyworkers often have a good rapport with the person they support. Investigation of rapport during newly developing or changing relationships with a keyworker may be of value. Knowledge of the potential importance of keyworker relationships could influence services to exercise a greater degree of sensitivity when planning and altering such relationships.

The earlier literature search did not identify rapport measures that would be suitable for individuals with a mild to moderate ID. Clinicians in the action research study felt that rapport measures to support people with a mild to moderate ID would be helpful. There was some suggestion that either the SROS or the SSR have the potential be adapted to support people with a mild to moderate ID to assess their relationship with support staff. These measures could be adapted into as user friendly form as possible and then evaluated with people with a mild to moderate ID.

One individual with an ID in the current study told the participating clinician (Karen) why he did not get on with the manager in the day service he attended (cf. Guthrie and Beadle-Brown (2006). There is a need for more research of this kind which might also look at the extent to which the views of individuals could be conveyed to staff and used (in training and other service level initiatives) to promote better relationships.

Chapter summary

Chapter 6 has described an action research study in which the RRS and the MLC measures were used by a group of clinicians within their clinical practice. The chapter presents details of how participating clinicians were trained in the use of rapport measurement, and their reported views and experiences in using the rapport measures presented in the training. The study found that clinicians were able successfully use the rapport measurement tools that had been presented to them at the initial training session. Clinicians attended a series of focus groups or individual meetings and were able to reflect on the rapport measures they had used and discuss and share their findings with other participating clinicians. Focus groups were semi structured and successfully tracked the recruitment of ID participants, experience of using measures, and the views of clinicians. Details of focus groups were recorded for analysis. The study identified themes relating to either the strengths and usefulness or difficulties and challenges of each of the rapport measures, relationships with keyworkers and supporting better staff practice.

 As the study progressed there were notable changes in the clinician's confidence to measure rapport. Clinicians began to transmit their learning from the study to other staff in their teams or those they had responsibility for.

Awareness of the value of rapport increased and there were examples of staff the clinicians were managing or coaching being recognised for their ability to build and maintain rapport with the people with ID they supported. In later reflective groups, clinicians began to consider how rapport measurement could come into the process of wider service culture and development. Ideas for service level rapport assessment and intervention included bringing rapport into induction and staff training, considering rapport during when a person with ID moves between services and including rapport in audits of service quality.

The chapter concludes with suggestions for developing and improving rapport measures in the future and ideas for further research. Chapter 7 will provide a general discussion and reflection on rapport measurement tools used within this series of studies.

Chapter 7: General Discussion

Chapter outline

This chapter restates the aims of the research, why it was conducted and the situation facing people with intellectual disabilities (ID) who present behaviour described as challenging. A summary of the literature review, studies undertaken and results are provided. The findings of the whole thesis are summarised and the limitations of the research considered. The chapter then moves on to consider the implications of the research carried out. This is first considered with respect to ways of using the findings to improve service quality, as well as their broader implications for policy and practice in ID services. Looking towards the future, consideration is also given to how this work could be built upon and the kinds of research it would be useful to carry out.

Introduction

This thesis set out with the intention of defining and measuring indicators of rapport between people with ID and supporting staff. The limited ID literature suggested that rapport between people with an ID and their carers was at risk of being poor or becoming damaged (Kemp and Carr, 1995, McLaughlin and Carr, 2005, McClean and Grey, 2012) with potential implications for quality of support and personal outcomes.

My personal motivation for undertaking research work in this area arose from experience in the late 1980s, working as a nurse in an intervention service for children. In this service, despite children being randomly assigned to a nurse co-ordinator, they frequently presented less challenges in the presence of their assigned co-ordinator, or stopped presenting challenges as that person approached. These observations, however, were not supported by any data and it was difficult to understand what might be going on. In the early 1990s a colleague shared some draft chapters from Ted Carr's book on functional communication (Carr et al., 1994) prior to publication. Reading the chapter on rapport led to the sudden realisation that this might explain the anecdotal observations made years earlier.

In later years, as a clinician in a peripatetic support team, I regularly implemented rapport-building interventions as a prior step to Functional Communication interventions (Durand, 1990, Mirenda, 1997, Durand and Merges, 2001). Often behaviours described as challenging seemed to reduce after the rapport building intervention, even before the Functional Communication intervention was implemented. Subsequently, I sought to assess rapport with carers as a frequent part of clinical practice and increased the use of rapport-building interventions both in my practice and in that of the staff I supported. The research reported in this thesis, therefore, reflects a longstanding interest that has, in turn, been

fuelled and expanded by the opportunity to explore the academic literature and conduct the three studies reported above.

Improving assessment of behaviour that challenges is one of the key priorities for implementation within the recently published NICE guidelines (National Institute for Health and Care Excellence, 2015). However, in the UK at present, professionals in ID services, when assessing behaviours that challenge, are unlikely to incorporate the notion of rapport. Professionals, families and direct care staff all seem to lack awareness about the potential impact of a poor rapport on behaviours that pose a challenge. The NICE Guidance (National Institute for Health and Care Excellence, 2015) recommends that those supporting people with ID should try to identify emerging behavioural challenges by, paying attention to the social environment the person experiences and place emphasis on trying to recognise poor social relationships or those which may be disrespectful. Whilst rapport is not specifically mentioned in the NICE Guidance, the effect of disrespectful relationships would suggest poor rapport, or concerns about relationships within the service. Rapport not being explicitly stated in the NICE guidance, probably reflects the limited literature and research in the area.

As rapport with staff is typically not included in assessments, interventions to build rapport are unlikely to be part of positive behaviour support planning. Interventions are another key area of the NICE guidelines (National Institute for Health and Care Excellence, 2015). Rapport-building interventions, in comparison with other strategies used with people whose behaviour presents a challenge, are likely to be relatively low cost.

On the other hand poor rapport (albeit not called this), particularly in the context of abusive relationships, has proved newsworthy. People with ID who present behaviour described as challenging have been at the centre of a number of service scandals, in which they have been severely abused by paid staff. The UK and beyond was shocked when the BBC Panorama programme exposed the extreme abuse at Winterbourne View (http://www.bbc.co.uk/news/uk-england-bristol-19162516) in 2011. A further abusive care home, Veilstone in North Devon, was identified in October 2013.   Mencap & The Challenging Behaviour Foundation (2012) published the Out of Sight report outlining the abusive and poor care practices experienced by four individuals with ID. Since Winterbourne View there has been growing Government emphasis on reducing the number of people that are placed in highly expensive, out-of-county assessment and treatment services (Department of Health, 2012a), but progress has been slow. As plans were being made for the current chapter NHS England announced £45 million funding to reduce the number of people with IDs in inpatient beds by 50%, with a target date of 2018.

The above observations and events, occurring before and during the research reported in this thesis, provided its context and motivation. If it was possible to develop an objective measure of rapport, this could have considerable use in clinical practice. It seemed at least possible that the use of such a measure

could increase the attention given to rapport in routine functional assessment and intervention. Further, it might even provide a means of documenting or detecting the breakdown of relationships in settings where abuse and neglect were prevalent. Proper measurement might also lead to its being taken more seriously as a cheap but effective way to reduce challenging behaviour and improve quality of life.

Existing measures were largely based on anecdotal information from staff and none were suitable to be used in more than one setting. Measures based on observation of people with ID were thought less likely to be biased or open to manipulation than a measure of staff behaviour. The series of studies described in this thesis show the successful development, refining and piloting of objective measures of rapport and work with clinicians to encourage the use of rapport measurement more widely.

Summary of Research

This thesis began by introducing the notion of rapport, both generally and with specific reference to people with ID and those that supported them. The background and research aims were explained to help the reader to see what had driven the research. Chapter one also includes an introduction to behaviours that could be described as challenging to ensure clarity about the group of people to which the research related, the issues they may face, and why behaviour described as challenging might occur.

Systematic review

In chapter two a systematic review was reported of the literature on rapport and its relevance to people with an ID who presented a challenge to others. It proved useful to draw upon the general rapport literature as well as that relating directly to people with ID.

Despite wide literature searches it was of little surprise that the systematic review only identified seven studies that directly addressed rapport between people with an ID and supporting staff. Of the six studies, three were qualitative (Guthrie and Beadle-Brown, 2006, Reuzel et al., 2013, Reuzel et al., 2014). Five of the studies suggested links between poor rapport (between a person with an ID and staff or family carers) and an increased likelihood of challenging behaviour. Perhaps of note, all the 11 participants in the four quantitative studies (McLaughlin and Carr, 2005, McClean and Grey, 2012, Jensen et al., 2012, Kemp and Carr, 1995) had, as well as ID, a diagnosis on the autistic spectrum.

Links to the general rapport literature, and potential implications for people with an ID, were discussed. The chapter concluded with comparisons and limitations of the studies relating to people with ID, and gave consideration to potential future research. Whilst reviewing literature on rapport, and people with ID, many similar concepts not specifically named rapport, came to light. These approaches often had a body of research attached to them, and were seen as having usefulness as methods to measure and build rapport.

Chapter three explored these related concepts, using the model outlined by Tickle-Degnen and Rosenthal (1990). Tickle-Degnen and Rosenthal (1990) identified three components of rapport: positivity, mutual attentiveness and co-ordination. The approaches included in chapter three all had distinct links to these three components.

A systematic review of such a diverse range of literature would have been problematic. Therefore, the review in chapter three was selective.   Nonetheless, this enabled the identification of an extensive range of concepts, methods and measures, all linked in some way to the Tickle-Degnen and Rosenthal (1990) model of rapport. Many of these concepts, measures or methods of intervention, were specific to the field of ID. Each was discussed in turn, with specific consideration of how it related (or might relate) to understanding or building rapport.

Chapter three demonstrated similarities across a theoretically diverse range of approaches. In particular, the nature/quality of relationship between the carer and the person with ID was identified as a possibly important influence on other outcomes e.g, reductions in challenging behaviour or the use of physical interventions, reduced likelihood of relapse, and increases in happiness. That such a range of approaches had this in common suggested the potential importance of further studying the nature/quality of relationships and, in particular, developing more effective ways of measuring the elements of such relationships.

Developing a measure of rapport

Following the systematic review and examination of concepts related to rapport, the next three chapters presented the rationale, design and findings of three empirical studies. The three studies built upon each other in order to increase understanding of how rapport between people with an ID and supporting staff, may be more effectively assessed.

The first study (described in chapter four) focussed on the measurement of rapport through observing the behaviour of people with ID. A new measure, the IRM, was developed and piloted. Within the IRM study, observational data were gathered on elements of the nonverbal behaviour of people with ID. The validity

of findings was investigated through the concurrent use and comparison of measures developed by McLaughlin and Carr (2005). Data from the IRM including individual codes, category codes and overall IRM total scores were presented.

Some SP showed a total IRM score that was high for one ID participant and low for another. This difference supported the notion that the IRM was picking up information about specific relationships rather than more general staff characteristics or skills. In comparison all ID participants had a low IRM score for the observer (who had no history of relationship with them). Keyworker relationships were evident in IRM scores and raised the question of whether keyworkers were assigned on the basis of a pre-existing good relationship, or that the assignment led to the development of better relationships.

The IRM study was the first study to focus specifically on the non-verbal behaviour, indicative of a good rapport, presented by people with ID. Behaviours indicative of a good rapport were successfully measured during the IRM study. As a result of the IRM study, measurement of behaviours indicative of rapport, shown by people with ID, could be effectively made even for people with very limited ability or lack of verbal language. It was now possible, therefore, to reliably collect objective, observational data indicative of the quality of relationship, the individual with a disability had with supporting staff. Prior to the IRM study there was no observational measure available to collect this information.

The IRM proved time consuming to use and it was concluded that it should be simplified and rarely used codes removed. Following consideration of the feasibility of using the IRM in everyday practice, a second empirical study developed and validated the easier to use Rapport Rating Scale (RRS). Chapter five explained the process of reviewing and simplifying the IRM to enable the development of an easier to use scale.

The RRS was tested using volunteer observers who rated specially made films depicting good, poor and neutral rapport. This study established that both professionals and trainee professionals in the field of ID could use the RRS reliably to produce ratings of rapport, which were consistent with those from the IRM. The RRS lends itself to being used in fairly brief 20/30 minute observations by people who have been given a short training on the use of the measure. This meant that reliable information that would act as a barometer of relationship quality between the person with an ID and those that were supporting them was now easily and quickly collectable.
The characteristics of participants in the RRS study and their level of experience were considered and included as part of the analysis. The final part of chapter five outlined possible directions to expand this work on rapport in further research studies.

Piloting rapport measures

The utilisation of the RRS in clinical practice was investigated in a third empirical study (presented in chapter six), together with exploration of the value of using other measures of rapport in specific circumstances. As identified in the systematic review, rapport measurement tools, even those already described in the literature, did not seem to have made their way into routine clinical practice. Accordingly, clinicians were trained and supported in the use of a number of assessment tools including the RRS and measures already published in the literature. Using an "action research" framework, the principal research question was whether rapport measurement tools would provide useful data as part of the functional assessment of behaviour presenting a challenge. A secondary question was whether, after rapport measurement had been undertaken, the results of assessing rapport had any impact on the contents of the Positive Behaviour Support Plan that was developed by the clinician.

Analysis of focus groups, and individual meetings with clinicians, formed the material for the rapport action research study. The opinions and experiences of the clinicians were presented, along with clinicians' views for developing and improving the measures in the future. Clinicians appeared to gain confidence in rapport measure usage and move towards using the measures at service level. The feedback and views of clinicians were combined with suggestions for developing and improving the rapport measures in the future. This study provided a unique opportunity for clinicians to successfully test measures of rapport in clinical practice and provide valuable feedback.

Cross-cutting findings

It was of interest that some findings were supported by more than one of the studies described in this thesis. The variation in indicators of rapport that people with ID showed between staff was noted both in the IRM study and reported by clinicians in the action research. The studies both showed that people with ID respond very differently to different members of staff and were relatively consistent (across time and situations) in the different levels of rapport behaviour presented in the presence of different staff. Examples of these patterns were successfully picked up by ID trainees and professionals in the field of ID in their use of the RRS. It is clearly very important that professionals and researchers, interested in fully understanding the behaviour of people with ID, are aware of these kinds of variations, so that they do not make false attributions concerning the reasons for the behaviour they are seeing.

Both the IRM study and the Rapport Action Research noted differences in behaviour towards or in the presence of keyworkers. Behaviours indicative of a good rapport were typically presented at a greater level with keyworkers than with non-keyworkers in the IRM and Rapport Action Research studies.

In summary the three studies carried out have:

- Successfully developed a measure of non-verbal indicators that suggest rapport with care staff.
- Simplified and tested the measure with professionals and trainee professionals in the field of ID.
- Piloted the simplified measure and measures identified in the literature in clinical practice and reviewed the experiences of clinicians in using rapport measures.
- Suggested possible future directions for use of the measure, in research and clinical environments.
- Added material to the somewhat small body of literature that describes rapport, relative to people with ID.

Relationship to previous literature

Generally the findings reported in this thesis were consistent with those reported in other studies. Within the rapport action research some clinicians reported improvements in behaviour after they had worked with staff on building rapport. Similar improvements in behaviour are noted in other studies (McLaughlin and Carr, 2005, McClean and Grey, 2012).

Staff presenting in an overly controlling manner or interacting with people with ID in a 'bossy' way, was highlighted as being unhelpful for building a good rapport by Guthrie and Beadle-Brown (2006). Similarly clinicians in the rapport action research found that some individuals, those who had slightly more skills at expressing themselves, talked about difficulties with staff who were "bossy, cross or told them off".

The measures developed by McLaughlin and Carr (2005) were not always quite as easy to use as originally reported. For example McLaughlin and Carr (2005) also reported much more consistent and substantial variation in scores from the Staff Rating of Other Staff measure. In the IRM study the ratings used were much more often in the middle of the scale rather than at the extremes.

In the IRM study for one of the three IDP, Preference Testing (McLaughlin and Carr, 2005) proved to be difficult, as this individual struggled to make choices. The two other ID participants managed preference testing without difficulty. Clinicians in the rapport action research study attempted Preference Testing, both choosing between two staff who were present and with photographs (Jensen et al., 2012). There were some reports of individuals with an ID becoming disinterested during the process, and consequently clinicians lacking confidence that the results were an accurate reflection of relationship quality. From discussion with clinicians this is possibly due to clinicians carrying out overly lengthy preference testing sessions, particularly when using photographs.

Shorter Preference Testing sessions may be more effective and less demanding of the person with an ID.

Limitations of the research as a whole

Outside perspective

A limitation of the three studies described in this thesis is that all have taken the perspective of an outsider, i.e. rapport is viewed mainly by outside observers rather than this being the direct opinion of the person with ID. The views or opinions of those involved in an interaction are definitional of rapport (DePaulo and Bell, 1990) and other than asking staff about the rapport they have with a person, the views of the individuals with an ID have not been sought. Of course there were good reasons for this, as most ID participants had very limited language and these studies were primarily interested in the nonverbal behaviour of people with ID. Nonverbal behaviour was considered a much more powerful way to really listen to people with limited language, rather than engaging in what might have been a tokenistic consultation (Jingree et al., 2006). Preference testing went some way towards asking the individuals with ID who they would like to support them, albeit indirectly since participants are being asked to make a choice (Jensen et al., 2012) rather than explicitly describe the rapport they have with particular members of staff. There may be other ways of obtaining information directly form people with severe ID, approaches such as talking mats (Germain, 2004, Murphy and Cameron, 2008) might represent an alternative way forward.

The IRM and the RRS described in this thesis focus predominantly on the behaviour of the person with an ID. The use of the MLC measures in the IRM study was to assess who the person with ID had the best relationship with, across the staff available. Apart from the MLC measure Staff Self Rating of Rapport, which measures staff members' views about the relationship, the measures used reflect the perspective of the person with ID. The material collected could be considered one-sided as it has been so focussed on the behaviour of the person with ID. This approach was deliberate, reflecting that previous research had focussed much more on staff or family carer behaviour (Forehand and Long, 1981, Jaycock et al., 2006, Vanono et al., 2013).

Focus on less able people with ID

The focus of all studies in this thesis has been on people with ID who have limited verbal language. This means that the tools and methods used have not been tested with people with ID who are more verbal. People with limited language were selected as having a greater need to be able to 'tell' others about

the quality of their relationships with those that support them. One might expect people with ID who have more verbal language to express more directly how they feel about their relationships with others. It may be that more verbally able people will use verbal language frequently, with less reliance on non-verbal indicators and this has not been tested in the current studies. Whilst it may be that people who are verbally able can express something about the relationships they have with others, if this is emotionally difficult they may not express this information. Therefore observation may still be a useful way of gathering information from more able people with ID.

Small numbers

The numbers in these studies, particularly the IRM study, have been small. The results of the IRM study may have benefitted from having a larger sample size. This was designed with the same number of participants as the most frequently cited empirical study of rapport (McLaughlin and Carr, 2005). Numbers of clinicians taking part in the Rapport Action Research could have been increased which would have meant that the group size in the reflective groups was larger and might have captured a greater diversity of clinician experience. That said, the relatively small group size had the advantage of encouraging less confident clinicians or those training in PBS approaches to contribute fully.

Participant reactivity

In both the IRM and rapport action research studies, a minority of SP appeared to alter their typical manner of interaction with participants with an ID, perhaps reflecting their perceptions of what was expected. In all of these cases the staff member appeared to significantly increase their amount of interaction with the person they were supporting. The requirement not to alter their interaction style was discussed with the staff member concerned on two occasions in the IRM study, but made little difference. While it is primarily the behaviour of ID participants that is being recorded, staff behaviour of this kind may have an impact since, for example, close proximity of the person to particular staff will be coded more frequently. To use this measure accurately, staff working with the person with an ID need to be briefed on the importance of interacting in their usual way, rather than increasing interaction for the observation period. Longer periods of acclimatisation to being observed may reduce this problem.

Bias towards health settings

The range of settings and the participants in all studies were somewhat biased towards NHS staff and services. The IRM and the RRS studies were both filmed in NHS services and all staff in the IRM study were NHS employees as were the highest proportion of participants in both the RRS and the rapport action

research. Although staff in other organisations were approached, the majority of contacts and those that expressed an interest in being participants were NHS employees. Therefore the research does not fully reflect the range of experiences to be found in ID services, only a minority of which are now provided by the NHS. The roles played by staff in health care settings may have implications for how relationships with people supported are viewed and developed. The transient nature of people admitted to A&T units or being on the caseload of community based professionals, may impact on staff spending time to build relationships if their contact is only going to be brief. The process of building relationships with people supported may differ in education or social care services as staff will be building longer term relationships.

Focus on good not poor rapport

The IRM and RRS measured indicators of good not poor rapport. In reality it is probable that poor rapport is not just indicated by the absence of indicators of good rapport, but also by more specific indicators suggestive of poor rapport. For example the person may look away, or shift their gaze downwards, frown, scowl, walk away or begin making unhappy vocal sounds. As they stand, there is no scope on the measures developed to objectively record such overt expression of a poor rapport. Without further research it is not clear if the score on the RRS/IRM for a member of staff that the individual with ID is actively avoiding would be any different to that of a member of staff who had no rapport behaviour directed at them. Indicators that suggest a poor rapport were considered prior to developing rapport measures; these were not included to keep the IRM and the RRS as simple for others to use as possible. Adding indicators of a poor rapport would have, potentially, doubled the number of codes used, making the task of recording much more complicated.

Adult focus

All the studies reported here have used adults with ID as participants. This makes it difficult to have full confidence that the rapport measures used and developed would be equally as effective if applied with children. For example issues around attachment are likely to be different between children with ID (Howe, 2006) and adults with ID.

Previous research on rapport (McLaughlin and Carr, 2005, Guthrie and Beadle-Brown, 2006) has also focussed on adults. In the current research, adult participants with ID were easier to recruit as the researcher worked in adult ID services. Clearly, however, it will be important for future research to also involve younger participants. Likewise, the researcher and all the SP were all service staff rather than family members. Given that most children and many adults with

ID are supported by family carers, it will be important to robustly test the measures developed in family contexts.

A further limitation between working with paid staff rather than family carers is that family relationships will almost always have far longer histories, which could impact on the results of data collected. In residential or supported living services the sheer number of people in the environment, with whom the person with ID could form close relationships, is generally be much greater than when living in their family home and this could impact on the quality of relationships that are developed.

Improving quality: implications for practice and policy

This section on improving quality discusses a range of individual, service level and policy level implications for practice. At an individual level the potential implications of rapport, or relationship quality, for people with ID as individuals are considered. The section on service level implications looks at how services equip themselves to recognise, understand and address issues of rapport for the people with ID they support. At a policy level a brief review explores the extent to which issues of rapport for people with ID is presented in documents that guide practice in the UK.

Individual issues

The individual issues of rapport viewed as more likely to affect people with ID include placement breakdowns causing a geographical distance from others, relationships with paid supporters and rapport within functional assessment or support planning.

Relationships damaged by unplanned moves

Of course, presenting behaviour described as challenging may well have adverse results for people with ID. For example, such behaviour can put people at particular risk of placement breakdowns, and out-of-area placements (Mansell et al., 2006, McGill et al., 2006). When challenging behaviour results in the person with ID being moved to a new placement, often many miles away from their family, the co-ordination, balance, harmony and synchronicity of relationships (Tickle-Degnen and Rosenthal, 1990) are likely to become fragmented and damaged. People with ID are known to have smaller social networks than people without ID (Forrester-Jones et al., 2006). Mansell, in his Department of Health (2007b) report stated:

> *"a history of challenging behaviour is also often a history of discontinuity in* relationships and of bad experiences in relating to other people. Good services all make particular efforts to involve individuals in their care, to use advocates and to involve family members in person-*centred planning"*.

To damage the person's already limited social network by placing people far away from the people who love and care about them, particularly if the individual has a good rapport with family members, is likely to be a huge loss of important relationships and family involvement and may well be positively unhelpful in reducing behavioural challenges. Consideration of important relationships, before placing people miles out-of-area, needs to be of paramount importance.

Relationships between people with ID, professionals and care staff

Whilst relationships with family members are of course important, so are the relationships that people build as they go through their lives. Many others that people with ID build relationships with are likely to be paid staff or professionals, and rapport warrants consideration. For effective ways of giving support, rapport with professionals in ID services is just as important as it is with direct care staff. If relationship quality is important when working with people with ID, direct care staff, and those going into professions to work with people with ID, need to understand the implications of a good or poor rapport. One specific example where this may be relevant is in the use, by professionals, of tests or other assessment/intervention approaches which involve placing 'demands' upon the person. For example, the tests associated with communication assessment used by Speech and Language Therapists (Bishop, 2003), the psychometric tests used by Clinical Psychologists (Wechsler, 2008) or the challenges made in therapy such as counselling, all result in demands being placed on people with ID.

These approaches are clearly carried out with good reason and aim to improve provision for the individual. However there may be a danger of professionals not being sufficiently aware of the care needed to present demands in the careful ways that may be necessary to avoid damaging the relationship they have with the individual. Professionals are also likely to be under pressure to collect information in a timely manner or set number of sessions, which may influence the pace of the testing or counselling process.

The majority of the literature on rapport has pointed to demand avoidance as being associated with the behavioural challenges these individuals present. Approaches that place demands on people with ID may not be feasible or helpful unless action is taken to ensure prior or parallel rapport-building. Rapport building in advance of assessment or testing and breaks between demands for less directive interaction, may help ID professionals maintain rapport with the person and, thereby, conduct more valid assessment or helpful therapy.

People with ID are of course referred to different therapies for entirely different reasons. It is possible however that more non-directive approaches such as the creative therapies, intensive interaction (Nind and Hewitt, 2001) or engaging in activities alongside the individual, such as may be carried out by occupational therapists, are better ways to maintain rapport in the context of effective assessment or intervention. Such approaches, for example are more likely to embed demands (Carr et al., 1994, Carr et al., 2003) in preferred activities, making the demands more acceptable and less likely to evoke behaviour described as challenging. Such approaches might, in fact, be seen as 'reasonable adjustments' that allow greater access to a range of normative activities for individuals whose disabilities might otherwise preclude this.

The measures developed and tested in the studies in this thesis are observational. Such approaches make it likely that information can be collected in a way that places minimal demands on the person with an ID. Being able to collect accurate information without placing unnecessary demands on the person with a disability to perform any tests or procedures, has the potential to be extremely helpful with people who may often be resistant to demands.

Rapport assessment considered within functional assessment

The majority of studies identified in the systematic review highlighted that work on rapport was particularly helpful with people with ID, who presented behavioural challenges to avoid demands (Kemp and Carr, 1995, McLaughlin and Carr, 2005, Guthrie and Beadle-Brown, 2006, McClean and Grey, 2012). Therefore, it is likely to be helpful to routinely carry out assessments of relationships the individual with an ID has with others when assessing behaviour viewed as challenging. Broader assessment tools, such as the Contextual Assessment Inventory (McAtee et al., 2004), do have questions about relationships and may give pointers that relationships with others are an issue, more objective details of which could be successfully picked up with an observation using the RRS.

Without collecting information about the relationships the person with ID has with others, it is possible that factors associated with the reason for the behavioural challenges or function of behaviour will be missed. If the function of the behavioural challenge is poorly understood, or inaccurately assessed, it is highly unlikely that suitable strategies will be identified for the PBS plan. For the individual with an ID this will mean no accurate adjustment to the challenging environment (McGill and Toogood, 1994) they find themselves in and a continuing need to present a challenge. Challenging environments could be adjusted by a 'bespoke' intervention for the person or by utilising one of the many approaches associated with building rapport.

Rapport building within support plans

The literature review reported in Chapter 3 outlined a range of concepts or approaches that may be helpful in guiding those working with people with ID to build rapport. For many of the concepts discussed rapport is built as a by-product of the approach rather than a specific intention. Nonetheless, depending upon the individual and the situation they find themselves in, one approach may be more suitable than another. As rapport building interventions become more routinely delivered in practice, it will be helpful to summarise useful approaches in order to signpost clinicians, families and services.

Good relationships with staff/family carers are regarded as essential to the success of functional communication intervention(Kemp and Carr, 1995, Carr et al., 1994) and should perhaps be seen as similarly important to other approaches such as Person Centred Planning (O'Brien and Lovett, 1992, Mansell and Beadle‑Brown, 2004, Robertson et al., 2007), total communication (Jones, 2000, Bradshaw, 2000) or Active support (Jones et al., 1999, Mansell and Beadle-Brown, 2012). The awareness that rapport is helpful in the implementation of active support is recognised in the available literature:

> *"good rapport will increase the likelihood that people are able to participate in activities and less likely that they present challenging behaviour"*
> (Mansell and Beadle-Brown, 2012, p55).

Would a person want to connect with someone, they do not actually feel at ease with or perhaps dislike, and feel comfortable enough to say or indicate what they want in their life/Person Centred Plan? For most of us it is unlikely that we would make life changing plans in the presence of someone we do not know fairly well, or do not get on with. Increasing opportunities for people with ID to make choices (Dyer and Dunlap, 1990, Finlay et al., 2008, Brown and Brown, 2009, Antaki et al., 2006) is recognised as an important goal of service provision, including the selection of staff at interview (Stancliffe and Parmenter, 1999). Once staff are appointed, whether or not individuals with ID get a choice about which member of staff supports them to undertake planning in their lives appears to be less clearly reported in the literature.

Perhaps a standard for monitoring or checking plans, for those inspecting services, should be to consider rapport between the person with ID and supporting staff, from the perspective of the person with an ID. Pertinent questions during an inspection might include asking how the individual gets on with the person who supported them in the development of their plan and whether or not the person with an ID could choose which staff member would help them write the plan.

Service level issues

If rapport with staff is associated with reductions in behaviour that presents a challenge for people with ID, this carries great implications for the way social care services are provided. Perhaps many services would run far more smoothly, provide a better life for people supported, and have far fewer occasions in which others were injured, if staff were skilled in building and maintaining relationships, including recognising changes in relationship dynamics with the people supported. It seems probable that, whilst there will be other reasons for people to present a challenge, having a good rapport with staff is likely to bring about a notable reduction in challenging behaviour. Recognition of the discontinuity of relationships people with ID must experience, may go some way to understanding the position of people with LD and the provision of better support. Clarity about the type of relationship staff are expected to build is a minefield that needs to become less ambiguous. It is likely to be easier to improve relationships if staff feel confident to be open about the quality of relationships they have with the people supported. Managers and staff may need training specifically focussing on rapport and relationship building in services. Improved relationships, reductions in challenging behaviour, and a better working environment may mean that staff stay in post for longer than they otherwise would.

Problems of discontinuous relationships

In most residential services (whether residential care or supported living) there is continual churn and staff turnover (Hatton and Emerson, 1998, Hatton et al., 2001), almost ensuring substantial discontinuity in the relationships of people with ID. Frequent staff changes are likely to interrupt the element of rapport that relates to synchronicity, harmony and balance described by Tickle-Degnen and Rosenthal (1990). Clearly, this implies that we should seek to reduce turnover in residential services. It may, however, also suggest that we should value continuity more highly and seek to provide service models that are more likely to support continuity of relationships. These might include 'fostering', lodging schemes or living with 'shared lives' carers (Brookes and Callaghan, 2013, Dagnan, 1997, McConkey et al., 2004) . Perhaps well organised and sufficiently resourced support in the family home, through direct payments or personal budgets, would also be a better option. Clearly, these service models all carry their own specific pattern of costs and benefits, but they all would seem likely to enhance continuity of relationships. The research even raises the question of whether models of care that we have tended to dismiss as old-fashioned should also be re-evaluated through the prism of relationships - bigger services, for example, have more staff, meaning that even with the same levels of turnover as smaller services, there will be more staff around for longer. Following observation in services Landesman-Dwyer (1981) suggested that services with more residents provided greater opportunities for reciprocal relationships. The

more staff available may mean that the person has a better chance of finding a staff member they can connect with effectively (The Institute for Research and Innovation in Social Services, 2011). Whilst not arguing that we should be encouraging people with ID to move into larger services, the discussion about larger sized services, is merely pointing out that larger services may mean that an individual has the opportunity to connect with more people.

Parsons et al. (2016) have indicated that people with ID are less likely to comply with routine tasks when they are supported by unfamiliar staff and call for new staff to undertake familiarisation activities prior to working with people with ID. The familiarisation activities would be similar to rapport building and consist of providing the preferred activity for the person with ID, followed by gradually phasing in the new staff to activities where they had to place any demands on the person they are supporting.

Behaviours experienced as challenging by others are likely to damage relationships with people who regularly spend time with the individual who displays the behaviour. Behaviours described as challenging are, by their very nature, aversive to others. For staff experiencing such behaviour there is a risk of this becoming a barrier to rapport (Carr et al., 1994). For example, staff, who have been physically hurt, may distance themselves from the person who has injured them (Hastings et al., 2004, Mills and Rose, 2011, Shead et al.). It would be very natural for someone to want to distance themselves from a painful or aversive experience, particularly if they are fearful or experiencing anxiety (Mills and Rose, 2011). However, such distancing could then cause significant damage to the relationship with the person with an ID. Whilst debriefing following experiences of behaviours described as challenging, particularly if staff have been injured, would be considered good practice (Hawkins et al., 2005, Mills and Rose, 2011), it is less clear whether debriefing extends to consider the relationship with the person that caused the injury. Many staff may be unaware of the subtle changes in a relationship that have happened since an incident where the individual's behaviour has caused concern.

Matching staff to people supported

The studies presented have demonstrated that rapport between people with ID and their carers differs enormously across members of the supporting staff team. Matching staff to the people supported (Pitonyak and O'Brien, 2008), monitoring the quality of relationships with staff, and supporting changes if relationships have become damaged, need to be ongoing service-level goals.

It seems likely that the training of staff to establish and maintain rapport with people with ID will need to be carried out differently, depending upon the needs of the person with ID. Genetic syndrome or the diagnosis of the person, may impact on the way rapport is best approached. For example adult attention may

be particularly reinforcing for a child with Smith-Magenis syndrome (Wilde et al., 2013), therefore adult attention may be an appropriate way to build rapport for the child. For a person who has a diagnosis of ID and autistic spectrum disorder, particularly if they are aloof, an approach such as intensive interaction (Nind and Hewitt, 2001), or an 'autism friendly' environment (Milton, 2014) may be more appropriate for the individual. Similarly food reinforcers may be best avoided in building rapport for people with Prader-Willi Syndrome (Alexander, 2016) particularly if obesity is a concern. In summary if rapport building interventions are going to form part of positive behaviour support planning it is essential that individual variations are considered, by those designing and implementing interventions.

Differing degrees of rapport with people in our lives are probably inevitable. However, disharmonious relationships present a particular issue for people with ID. They have less power in relationships, less opportunity to choose the people around them and less ability to tell others that relationships are of a poor quality. In fact people with ID may have learnt that, when they dislike the way they are being treated or related to by others, presenting behaviour that we might call challenging is their only option (Guthrie and Beadle-Brown, 2006).

Changes in relationship dynamics

On a similar note, within the day-to-day delivery of the service, the person with an ID may have had an experience with staff that they find highly aversive. For example, if staff have used restrictive practice,(Hawkins et al., 2005, MacDonald et al., 2011) such as a physical intervention, or supported the person to go to a health appointment in which treatment was stressful, or needed to cut a preferred activity short due to behavioural challenges (Day and Day, 1997).

Without an increased awareness that enables staff to notice subtle changes in relationship dynamics between themselves and the person supported, changes in rapport are likely to go unnoticed. It is important for direct care staff and those that manage the service to recognise subtle changes in the way a person with an ID is relating to particular staff. If staff are going to continue working effectively with the person with an ID, strategies to quickly repair damaged relationships are likely to be needed. Mindfulness (Singh et al., 2006) may have a role here to coach staff to, increase their focus on the person supported and notice subtle differences.

Those managing services need to have enough understanding of rapport to consider this within any debriefing situation, and enable staff and the person with an ID to repair their relationship. Services are often busy and for managers to keep the issue of rapport on the agenda is likely to be a challenge, alongside the weight of other tasks that they face on a daily basis. Managers may need

training themselves to recognise changes in rapport between the people with ID and staff they support.

Coaching home managers to measure rapport

Learning how to measure rapport using the IRM, RRS or other measures is likely to be an effective way of developing sensitivity to these issues. There is no reason why service managers could not be coached to use such measures to learn about non-verbal language indicative of a good rapport. The RRS study has already demonstrated the ability of professionals and trainees in the field of ID to identify the quality of a relationship through observation. With managers skilled in understanding rapport in ID services, the next step would be to consider how we train the support staff they manage.

Rapport training

It might be argued that the research reported here implies the need to review what is currently included in staff induction training. The emphasis in many services appears to be Statutory and Mandatory training, including areas such as food hygiene, health and safety, safeguarding, information governance and manual handling (Royal College of Nursing, 2016). Important as these things are, training for work in human services should, arguably, start from the perspective of the person with an ID. People with ID who have verbal language are, when asked about staff, able to share what they see as positive support staff characteristics, and characteristics that should be avoided (Guthrie and Beadle-Brown, 2006). Even they, however, may not always get the chance to convey this perspective and it is clear that less or no attention may be given to the perspective of people with little or no verbal language. This raises questions about what the important target areas should be in training and supporting staff. What messages are services giving direct care staff about what is important?

Participating clinicians in the rapport action research spoke about staff who connected particularly well with the people supported but were being criticised in appraisal for not being on top of paperwork. Others noted how the key 'message' of induction training in their organisation was that you had to run the house efficiently! Greater consideration needs to be given to what is most important to people with ID and how we train and induct staff to deliver that. The more involved people with ID and their families are in direct care staff training, the more issues of significance to people with ID themselves are likely to be included in the training syllabus.

Some PBS practitioners have an understanding of rapport and the part it plays in reductions in challenging behaviour. For others, particularly those that trained prior to the published studies about rapport, this may be new information. The

importance of rapport is not yet in the syllabus of all PBS practitioners, for example the Tizard Centre, Diploma in Positive Behaviour Support (Tizard Centre, 2015/2016) includes rapport whilst the Professional Diploma in PBS (Abertawe Bro Morgannwg University Health Board) does not. Without being trained in understanding rapport, practitioners are unlikely to include rapport in assessments and interventions. Understanding the importance of rapport including how to assess and deliver interventions should be part of standard training for PBS practitioners.

The IRM study was the first study to replicate the use of the McLaughlin and Carr (2005) rapport measurement tools. There are no published studies to date that evaluate the use of the Staff Self Rating of Rapport, Staff Rating of Other Staff Rapport or Preference Testing. Piloting and learning about the McLaughlin and Carr measures has led to an increased insight about when and where these tools are useful, pitfalls to avoid and improved analysis of the results. This knowledge is potentially helpful for clinical situations and, once disseminated, may enable clinicians to have a deeper knowledge of rapport assessment, so that it can be assessed in more sophisticated ways and lead to more and better rapport-building intervention in clinical practice.

Clarifying the type of relationships we want staff to build

A deeper understanding of rapport might begin by openly examining what type of relationships we want staff to build with the people with ID that they support. Should staff build genuine or pseudo-rapport (Tickle-Degnen and Rosenthal, 1990)? It may be that services advise staff to develop a pseudo-rapport where they do not get "too close" to the person, with a view to being professional. Many direct care staff have long histories and shared experiences with the people with ID they support. Over the years of working together a person with ID and support staff will potentially build a very strong bond which would be hard to call pseudo-rapport. Pseudo-rapport seems to be at odds with the Mindfulness approach of deep internal changes and "transforming the hearts and minds" (Singh et al., 2006, p86) of staff supporting people with an ID.

Another Eastern approach is recommended by acclaimed author, social worker, professor and Zen Buddhist, David Brandon. He suggests that we should use Zen practices within helping professions. These include being your ordinary self, authenticity and staying fully present with the person that needs your support, all of which suggest a genuine rather than pseudo-rapport. In the book Zen in the Art of Helping, Brandon tells his readers:

> *"Zen in helping is nothing magical. It is that harmony which is common in* social work, teaching and the informal contact between human beings. That contact melts away the gaps between the self and the other by being more fully human rather than striving for the stars. It means taking down

those barriers of knowledge, social position and education. It involves communicating and reaching out from our hearts aside from social conventions and expectationsit ploughs directly towards love through the minefiel*ds of 'oughts' and 'should bes'. …..Zen and helping are not* separate processes. They come from the same human drive to reach out *to others, to make meanings and patterns out of our experiences"* (Brandon, 1987 p14).

Pseudo-rapport (Tickle-Degnen and Rosenthal, 1990) suggests a power imbalance in the relationship, particularly if one party in the interaction views the rapport as genuine and the other as pseudo-rapport. Issues of power imbalances are known to be present for many people with ID and, although there are growing initiatives to address this, they are not yet as widespread as they need to be (Dearden-Phillips and Fountain, 2005). This raises the question about whether the power imbalance would be so great if care was delivered using a different system, such as personal budgets and personal assistants. It may be that the person with ID would have more power in the relationship if they were directly employing support staff. On the other hand this may not necessarily help and just turn the power imbalance around so that the support staff feel they lack any power. An increase in positive relationships with support staff was not indicated in a review of personal budgets (Hatton and Waters, 2011), as more people and their family carers, made a greater number of negative comments about their support staff than positive. Perhaps a more collegial relationship would be better to aim for, so that the person with ID and supporting staff felt they were engaged as equal partners with a common aim. In supporting people with ID to plan their future O'Brien and Lovett (1992 P9) suggest a genuine rapport when they point out that we should be:

> *"dissolving boundaries between professional and client in the search for* equal, non-*coercive relationships".*

Therefore a potential issue for staff is a fundamental one of understanding their role and whether they are expected to develop a genuine rapport or a pseudo 'therapeutic relationship' with the person they support. Guidance in services or local policies on the type of relationship staff are expected to develop is a potential minefield, and does need to be clearer for direct care staff.
One organisation that has been explicit about the type of relationships that they want staff to develop with people with ID is L'Arche. The view of L'Arche is that relationships are central to supporting people with ID. Jean Vanier started L'Arche in 1964 when he offered two men with an ID, who were living in an institution, the opportunity to come and live with him. Other similar houses were set up and the L'Arche community grew to 149 communities across 39 countries. Many staff at L'Arche services live in the service, in either a voluntary or paid capacity. It seems that L'Arche make very clear to the assistants supporting people with ID, that they are expected to build a genuine rather than pseudo-

rapport with the people they support. A key point in the L'Arche mission statement is:

> *"To make known the gifts of people with developmental disabilities revealed through mutually transforming relationships"* (Spink, 2006, p260).

As an organisation L'Arche in the UK has recently come under criticism (L'Arche UK, 2016), with views from outside the organisation that it is 'unprofessional' and not possible to have friendships between those that the service is provided for and employees. L'Arche describes this as a clash between the safeguarding and the personalisation agendas. With the latter, people with ID are encouraged to take control their own lives. L'Arche argues that people with ID want (and often do not get) genuine and fulfilling friendships with other people, and that sometimes this includes those that support them.

It is possible that the way staff support a person with an ID could differ enormously in terms of how they connect with the person, depending upon the setting in which they work. For example, hospital staff or those working in Assessment & Treatment units might view their relationship with the person as more therapeutic. After all Assessment and Treatment services are predominantly staffed by nurses for who section 20.6 of their Code of Conduct states they must:

> *"Stay objective and have clear professional boundaries at all times with people in your care"* (Nursing and Midwifery Council, 2015, P15)

The views of nurses about the type of relationship might therefore be different to a house parent in a residential school, or a shared lives carer. People with IDs may be particularly skilled at recognising the way staff relate, by reading non-verbal language directed to those they support. Reuzel et al. (2013) found that observers with ID rated films of staff working with people with ID more positively, if staff and the person with ID looked at each other more frequently and when this eye gaze was synchronised. By picking up on eye gaze between staff and the person supported, people with ID, in this study, appear to read non-verbal language more easily than spoken language. Therefore, rapport without depth may become obvious to people with ID when they are being supported by staff. In practice, sharing with staff the notion of pseudo versus genuine rapport, and agreeing at a service level the stance taken, may be helpful in aiding a staff team's understanding.

There may be styles of support that are more helpful to developing rapport than others that could be routinely incorporated into services expectations for people with ID. Combining elements of some of the approaches described in chapter three, may be helpful in services, to give staff strategies to routinely build rapport and avoid damaging the rapport once built. Incorporating suggestions from parent child interaction therapy (Hanf, 1969, Forehand and Long, 1981, Jenner, 1999) into work with ID adults may may be one approach that could prove

useful. Parent child interaction therapy focusses on building rapport before any demand based activity and incorporates the idea of attending to or noticing the child with far greater frequency than interaction which places demands or asks questions. Mindfulness techniques (Singh et al., 2004) may be beneficial in encouraging staff to remain in the present moment with the person they are supporting, and minimise interruptions when supporting people with ID. Widespread use of intensive interaction in services for people with ID, who are at a developmental level to benefit from this, may be able to form better connections with those supported. Familiarisation activities for new staff and people with ID (Parsons et al., 2016) may promote relationships starting off well with new staff. Low expressed emotion is likely to help maintain a good rapport with the person supported and is associated with reductions in challenging behaviour (Hastings et al., 2006). Having an awareness of the features of high expressed emotion (Magana et al., 1996, Cottle et al., 1995) and that expressed emotion may increase if staff have been hurt by the person with ID, may be a useful first step for services to try and maintain low levels of expressed emotion across a staff team.

Encouraging honesty about rapport

A practice of honest discussion and openness about issues of rapport appears to be much needed in services. The relationship an individual with an ID has with different members of staff is potentially a factor in whether or not they will present behaviour described as challenging, yet these phenomena appear to be rarely spoken about. There is likely to be some caution when highlighting which staff have a good or poor relationship with an individual, for fear of upsetting or scapegoating individual staff. In the Rapport Action Research some clinicians were surprised by the high self-ratings of some staff, who clinicians viewed as not having a particularly good rapport with an individual. Whether staff were reporting what they thought the clinician wanted to hear, not being honest, or had a completely different view point is unclear. If rapport is such a significant variable associated with the occurrence or non-occurrence of behaviours viewed as challenging, we need to encourage more honest and transparent dialogue about this concept between managers and support staff.

Professionals and trainees in the field of ID could clearly pick out examples of good and poor rapport in the RRS study, indicating rapport is fairly easily recognised. A challenge therefore for those working in the field of ID is to foster a culture of far more openness about relationship quality, to better support accurate assessment and intervention planning. A culture of openness is more likely to be achieved if staff can express what they are feeling or viewing in colleagues (The Institute for Research and Innovation in Social Services, 2011) without believing they will be viewed as wrong or blamed for a lack of rapport. Within a culture of honesty it seems more likely that staff would willingly take on board feedback about helpful styles of relating to people with ID, implement strategies to improve rapport and reduce behavioural challenges.

There is of course a downside to having a good rapport with staff, particularly the close relationships built with keyworkers. The feelings of hurt and loss are described as very traumatic by people with ID when staff leave the service (Mattison and Pistrang, 2004). Direct care staff may also feel this loss acutely and may lack the skills to end the relationship carefully.

Rapport building interventions may be relatively inexpensive

Once an individual is displaying behaviours that pose a challenge, the cost of service provision and professional time is enormous. A high percentage of professional time within Community Teams for People with ID is spent supporting people who present a challenge (Royal College of Psychiatrists et al., 2007). Rapport building interventions are relatively straightforward to implement and likely to be low cost. If rapport is an important consideration when people with ID present a challenge, rapport building interventions could potentially provide cost savings for local and national budgets.

Policy level issues

The message in documents providing guidance on quality of relationships for staff working with people with ID needs to be clearer, stronger and more specific. Rapport is implicit in many of the documents and may be more likely to be addressed by organisations and services if this was made explicit. Whilst the word 'rapport' is often not specifically stated, quotes about relationship quality from some of the more recent or far-reaching documents are noted below. Looking at where we are now, it may be helpful to consider where there is room to improve guidance documents in the future. Mansell was of the view that respite might be improved by:

> *"staying with staff identified as having a particularly good relationship and skills with the individual"* (Department of Health, 2007b p19).

The NICE Guidance notes the contribution of the social environment to behavioural challenges with these increasing in:

> *"environments where disrespectful social relationships and poor* communication are typical or where staff do not have the capacity or *resources to respond to people's needs"* (National Institute for Health and Care Excellence, 2015, p10).

Transforming Care (Department of Health, 2012a) noted the damage to family relationships without, perhaps, placing enough emphasis on relationship quality with supporting staff:

> *"sending people o*ut of area into hospital or large residential settings can cause real harm to individuals by weakening relationships with family and *friends and taking them away from familiar places and community"* (Department of Health, 2012a, p20).

The clearest statement about relationship quality and staff working in ID services is that given by Skills for Care & Skills for Health (2014) who stressed that:

> *"Positive relationships between the people who deliver services and the* people *they support must be protected and preserved"* (Skills for Care & Skills for Health, 2014, p1).

The above quotes suggest we may have some way to go if we are to spell out to organisations and services the importance of staff building /maintaining rapport with the people they support. As research about building rapport with people with ID increases the documents that provide guidance for this group of people may need to undergo some adjustment, and place greater emphasis on the part that rapport may play in reducing behavioural challenges. Such future documents could also include suggestions about how to teach skills to staff and families, so that they can recognise good or poor rapport.

Those who inspect and review services, such as Social Services Care Managers or Care Quality Commission (CQC) inspectors, should be highly attuned to situations of good or poor rapport. The RRS study provided evidence of health professionals and trainees in the field of ID being able to discriminate the signs of good rapport, or the notable absence of rapport behaviours, when shown role play film of people with ID. Dissemination of the RRS has the potential to allow its use as a training aid to assist those that regularly inspect services.

Widespread dissemination of research findings on rapport is likely to benefit people with ID and give them the chance of better relationships with the staff that support them. Better relationships with staff potentially lead to significant life improvements for people with ID. An understanding of rapport would ideally form part of in-service training and induction training for all staff working with people with ID. The RRS and other tools used in the Action Research are easy to use by direct care staff, with a small amount of coaching, and would be excellent tools for guidance documents to recommend in training staff about rapport.

Suggestions for further research

The published literature on rapport and working with people with ID is limited to the seven studies identified in the systematic review. The small number of studies alone signals that there is room for research to explore this topic more thoroughly.

Measurement

Rapport measurement in studies described in this thesis has been limited to residential services for people with ID. Using the rapport measurement tools in a range of settings, with different groups of people would build upon the work carried out to date.

Use of the RRS could extend to being trialled in family situations to measure differences in rapport across family members, in domiciliary care services or even in schools. Studies in this thesis have only measured rapport with adults. Extending this work to include children would assess the usefulness of measures with a wider age range of people. Use of rapport measures could be explored with other groups of people in the future, such as people with mental health problems, dementia or in elderly care services.

Rapport assessment and rapport building as part of intervention

Measuring rapport alongside other intervention approaches may add weight to such approaches being helpful within services for people with ID. It seems likely that rapport would improve if contact with those that supported a person with an ID used approaches designed to increase positive connections with others. A study to address this might look at whether indicators of rapport, as measured by the RRS, increase if, for example, a Total Communication environment is introduced (Jones, 2000), Intensive Interaction (Nind and Hewitt, 2001) is implemented, Mindfulness training (Singh et al., 2006) is undertaken or a service introduces Active Support (Jones et al., 1999, Mansell and Beadle-Brown, 2012, Rhodes and Toogood, 2016). The implementation of some of the approaches listed can be an expensive staff training purchase for organisations and more value may be added to investing in training if the result was likely to also improve relationships with people being supported.

It is feasible that some forms of assessment and /or intervention are more effective in building a connection with people with ID than others. The therapy approach used may be even more important if the person struggles with demands being placed upon them. As mentioned earlier there may be differences in professional approaches, which have an impact on rapport and relate to the ways different professionals work. Research about how effectively rapport is built across different forms of therapy, assessment or professional approach may lead to adaptations in service delivery to better suit people with ID. Examples of approaches that might be examined in respect of their impact on rapport could include therapy where the person is challenged, or the use of test-based assessment.

Staff interaction style and the quality of rapport

The apparent development of better relationships between people with ID and keyworkers, rather than other members of the staff team, has been a finding that has cut across the studies in this thesis. Therefore, it would be interesting to examine whether this finding bears up to controlled investigation and, if so, the processes underpinning it. For example, if keyworkers are randomly appointed to their key working responsibilities and do not already have a relationship with the person, it would be helpful to understand at what point rapport improved.

Learning more about the developing key worker relationship may provide valuable guidance to all staff, whether or not they have key working responsibilities. The views of keyworkers, and possibly people with ID, could be elicited at different time points, and reasons for changes in relationship explored in a qualitative study. Direct observation to measure the evolving relationships at intervals may be another way of exploring changes in rapport with keyworkers who were initially randomly assigned. It may be possible to pick up on specific events associated with any changes in the relationship and if this is improving or becoming damaged. Staff and people with IDs could perhaps complete self-ratings of the relationship quality at the same time points.

In the IRM study some staff had a high number of rapport indicators directed towards them from one person with ID, and far less indicators of rapport from another person. This suggested that rapport was not just a matter of some staff being better at interacting generally.

At this point there does not seem to be enough known about staff interaction style and its impact on relationships. Exploring staff interaction style (Vanono et al., 2013) alongside indicators of rapport may produce information about how staff need to be trained, or the approach needed. If, for example, staff are using a particularly positive or attentive style, does this lead to more indicators of rapport from the person with ID? Previous research already points to staff stress levels being associated with an overly controlling interaction style (Oakes, 2000) or less positive interaction and assistance (Rose et al., 1998). Staff stress levels and the impact they may have on relationships with people supported would be interesting to study, and may result in suggestions about how staff are supported.

As discussed above, the constant churn and turnover of staff is likely to be unhelpful for the promotion of longstanding relationships for people with ID. It might be hoped that staff who have worked with the same people with ID for a longer time would have a better rapport with the people supported - but in reality this is an area we do not know enough about. It may be valuable to examine staff turnover and the impact of reducing turnover in ID services. Weight could be added to the impact of changing relationships and staff leaving, by exploring the experiences of people with ID and staff during and following times of staff change.

There appears to be a lack of clarity about whether support staff should be developing pseudo or genuine rapport with the people with ID that they support. Therefore the views about pseudo versus genuine rapport would be interesting to study to gain more understanding. It is quite possible that views differ between direct care staff, people with ID, families and professionals. The type of rapport developed could also differ according to the type of care received, or the nature of service provision. For example, do NHS inpatient settings, establishments in the private or voluntary sector or fostering / shared lives care services differ in their views about the type of rapport we should or should not have with people supported? If there are different views it is not hard to see how this could lead to confusion for those inspecting services, care providers, direct care staff and, very possibly, people with IDs and their families.

Rapport as an evaluation measure

The Rapport Action Research study highlighted the potential uses of rapport measurement in service evaluation. It would be very interesting to investigate the systematic use of rapport observation by those responsible for inspecting and monitoring services. Service or senior managers, Social Services Care Managers or CQC Inspectors could trial the collection of rapport data as part of routine inspections. Experiences and information gleaned through this trial would determine whether it would be valuable for this information to form part of the routine service evaluation process.

Rapport in more able people

It may be feasible to expand the rapport measurement tools to include measures that are useful for people with mild or moderate ID. Rapport measurement tools used to date are best suited to people with severe ID, where the focus is on observed indicators of rapport, collecting information from secondary sources such as staff, or asking people with ID to make simple choices. People with a mild or moderate ID may be able to provide details about rapport with others, using measures more suited to their level of ability. This group of people have certainly been able to describe rapport experiences in focus groups (Guthrie and Beadle-Brown, 2006). In the rapport action research one participating clinician asked a participant with an ID to provide information on rapport using a self-rating scale and rank ordering staff in order of preference, using both McLaughlin and Carr (2005) measures designed for staff to use. Participating clinicians were also of the view that rapport measures suitable for people with a mild to moderate ID would have usefulness in clinical practice. A potentially useful study to build upon the current knowledge would be the development and testing of rapport measures suitable for people with mild to moderate ID.

Rapport and abuse

The question of whether indicators of little or no rapport with others might act as a signal of poor or abusive practice needs to be asked. It might be possible to glean information about observed relationship quality between staff and people with ID prior to service scandals. Following abuse scandals when others visiting a service claimed a prior sense that all was not well (Marsland et al., 2015), perhaps the quality of relationships is part of what others are unconsciously observing. After all, participants of differing levels of experience, in the RRS study, could accurately measure relationship quality from brief film clips. People with ID who have verbal language may be able to tell others something about abusive situations (Looking into Abuse Research Team, 2013) whereas those who have little or no verbal language may be struggling to get the same message across. In the exposure of abuse, where undercover footage has been filmed it might be possible to assess something of the relationship quality between people with ID and reported abusers by examining the day-to-day, non-sensational footage taken during the undercover filming. From this footage it might be possible to study and report findings, on not only the lack of rapport behaviours indicative of a good rapport, but also those behaviours that may indicate a poor rapport.

Staff training and development

Further research might improve understanding about the most successful ways of helping staff to build rapport with the people they support. The RRS might provide a useful evaluation measure in such research. Many potential approaches can be identified from the literature and it seems likely that some will be more effective than others. For instance would training staff in mindfulness approaches (Singh et al., 2006) result in more quickly acquired or durable improvements in rapport than training staff in Intensive Interaction (Nind and Hewitt, 2001)?

Of course, training is not the only conceivable approach. More attention could be paid to organising support arrangements, so that staff are paired with people with ID, based on a shared liking for particular activities. Additionally, support arrangements could facilitate on-the-job coaching through modelling and feedback. Such approaches may be more powerful than or at least useful additions to, technique-based training.

Chapter summary

Chapter seven considers the implications of the literature review, and the three empirical studies relating to rapport that have been reported. The studies and literature review were summarised, and their key findings and original

contribution to the literature explained. The studies resulted in an entirely new measure of rapport able to examine the non-verbal indicators of rapport presented by people with ID. The findings in the studies reported throughout this research were generally consistent with the results reported in other studies.

The issue of rapport has major implications for people with ID; they are for example at increased risk of unplanned moves due to behavioural challenges and service changes. A major problem in services for people with ID is staff turnover. Staff turnover and unplanned moves between services almost guarantees discontinuous relationships for many people with ID living in services.

Some consideration about building rapport with people with ID is important for supporting staff of all professional disciplines in order to provide effective services. At present an understanding of rapport issues is not routinely included in assessments of behaviour described as challenging. This in turn will affect whether rapport is included in interventions implemented to overcome the behavioural challenges. If rapport issues could be identified during assessments of behavioural challenges these issues could then be firmly addressed in positive behaviour support planning.

Rapport was considered at a service level in chapter seven and attention drawn to, matching staff to people supported, changes in relationship dynamics and coaching or training staff or home managers. The individual differences due to specific diagnosis or syndromes, and the need to consider diagnosis and how this might impact on the choice of rapport building activities has been explored.

Professional groups working in ID services are not routinely trained in understanding rapport, even those undertaking specific training in supporting people who present behaviour described as challenging. Direct care staff are unlikely to be trained in understanding rapport and the major focus of their training will be on statutory and mandatory training. Training of staff needs to begin from the perspective of the person with ID which would surely include the type of relationships the person would like to establish. Without training staff in rapport, subtle changes in relationship dynamics, perhaps after staff have been hurt during incidents of behaviour described as challenging, could be missed. Addressing damaged relationships at an early stage may avoid a longer term breakdown relationships between people supported and staff.

The chapter draws attention to the relatively low cost of rapport building interventions and that within services there is a need to encourage honesty about relationship quality. The important issue of clarifying to support staff, the type of relationships they should be forming with people supported was presented and that the expectations were likely to differ depending on the organisation providing a service. Issues relating to rapport and expectations of staff need clarification at an organisational level, so that staff are guided effectively to build the type of rapport the organisation requires.

The literature relating to rapport is extremely limited and there is considerable room for further research. The chapter concluded with some possible directions future research might take. Relationships with keyworkers were highlighted in more than one of the studies presented and the developing keyworker relationship would be worthy of more in-depth research.

Measurement of rapport lends itself to being used as a service evaluation tool, both internally by organisations and externally by those checking service quality. This measurement may go some way to capturing observed events in the environment that left visiting professionals or those inspecting services with the feeling that all was not well. The result of measuring rapport has the potential to be used as a barometer and possibly an early warning signal of issues in a service and the relational aspect of service quality. Relationship quality between people with ID and supporting staff, as measured by the behavioural indicators of rapport or lack of indicators, shown by people with ID, could provide information about the poor quality of relationships and possibly abuse.

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