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# A Preliminary Investigation into the Influence of Therapist Experience on the Outcome of Individual Anger Interventions for People with Intellectual Disabilities

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**Background:** There is a developing literature into Anger Management interventions for people with intellectual disability. While initial reports suggest that these interventions are effective there are few evaluations examining what aspects of the therapeutic process contribute to effectiveness. **Method:** Individuals with an intellectual disability and anger control difficulties who were referred to community psychology services were allocated to either experienced clinical psychologists or a less experienced assistant psychologist who followed the same intervention framework. **Results:** Significant reductions in self-reported anger intensity were reported; however, the group who were treated by more experienced therapists reported more change and more individuals reported clinically significant change. **Conclusions:** While effective change was reported by both groups, these results suggest that clinical experience and training may be an important variable in determining the magnitude of change. This has implications for the design of intellectual disability mental health services.

*Keywords:* Anger, cognitive therapy, intellectual disabilities, quasi experiment.

## Introduction

There is a developing literature on the evaluation of cognitive behavioural anger interventions for people with intellectual disabilities. These interventions are designed to reduce aggression in people with intellectual disabilities. The majority of interventions have evaluated the effectiveness of group interventions (e.g. Benson, Rice and Miranti, 1986; Burns, Bird, Leach and Higgins, 2003; King, Lancaster, Wynne, Nettleton and Davies, 1999; Lindsay et al., 2004; Rose, 2010; Rose, Loftus, Flint and Carey, 2005; Willner, Jones, Tams and Green, 2002; Willner and Tomlinson, 2007) and there is also a small literature on the impact of individual anger therapy with this client group (Rose, Dodd and Rose, 2008; Taylor, Novaco, Gillmer, Robertson and Thorne, 2005).

These studies all have significant methodological weaknesses, for example, small numbers and the lack of an effective control group. The studies consistently demonstrate reductions in aggression or expressed anger as a result of interventions. The conclusion of a recent systematic review (Hassiotis and Hall, 2008) is that, while definitive conclusions cannot be made about the efficacy of these treatments, they do show promise.

A randomized control trial is currently being conducted on the efficacy of anger management (Willner et al., 2011); this trial has an improved experimental design compared to previous research. For example, the sample size will be larger than previous studies and allocation to groups will be blind and random. The therapists in this trial do not have a specific professional training in psychology or in the delivery of cognitive behavioural therapy and are termed “lay therapists”. Previously, the majority of trials have been conducted by experienced and qualified therapists; however, one trial was run by inexperienced and unqualified therapists (Willner and Tomlinson, 2007) and another included those with a range of experience (Rose et al., 2008).

There are indications that therapists with more years of experience in conducting psychotherapy can achieve improved outcomes using CBT. For example, Huppert et al. (2001) found better outcomes for more experienced therapists in interventions for Panic Disorder and Shaw et al. (1999) found data to suggest that therapists who were “more competent”, as measured by a cognitive therapy rating scale, achieved more favourable results with people who were depressed. It is therefore suggested that one important element in the delivery of the therapeutic intervention is the therapist (Sandhu and Rose, in press) and there has been no systematic evaluation of the role of therapist experience in determining the outcome of therapy in interventions for anger in people with intellectual disabilities.

This paper compares the outcomes of individual anger management interventions for people with intellectual disability by comparing the effectiveness of experienced and qualified clinical psychologists as therapists compared with therapists who have an undergraduate degree in psychology but have no formal training in cognitive therapy.

### **Method**

Participants were individuals with intellectual disabilities who were referred for aggression-related difficulties to a psychology service for people with intellectual disabilities in a community clinical psychology service in the British National Health Service (NHS). These individuals were allocated to an individual treatment programme that had a focus on the reduction of aggressive behaviour. They were assessed on referral prior to treatment and on completion of treatment. The study was reviewed and approved by the appropriate governance and ethical committees and all individuals who participated completed a symbolized consent form with support from someone who was not directly involved with the project.

#### *Sample*

Participants were all users of an intellectual disability service provided to an urban borough with a general population of about 300,000 people; services were provided free of charge to the population through statutory public health services in the United Kingdom. Eligibility for services is determined by clinical assessment by a multidisciplinary team and follows the guidelines set by the British Psychological Society (2000). They were eligible for inclusion in the treatment programmes if they met the following criteria: (1) they were referred to a specialist clinical psychology service and were experiencing problems with aggression that included physical assault on other people and/or repeated damage to property and/or severe and repeated verbal aggression; (2) they had a degree of receptive language such that they could understand simple directions and would respond to single requests; (3) they were able

**Table 1.** Characteristics of the participants

	Mean age (range)	Male %	Mean BPVS (range)
Total group	33.29 (19–64)	67.6	88.62 (26–143)
Group seen by experienced therapist	31.00 (19–45)	57.9	95.47 (26–122)
Group seen by inexperienced therapist	35.72 (21–65)	77.8	82.17 (37–143)

to sit with one of the therapists on an individual basis for 20 minutes or more during an initial interview; (4) they were able to answer a number of questions about the symbolized consent procedure correctly, ensuring they understood the process of intervention and their rights.

Thirty-seven people were provided with treatment; 19 (11 men and 8 women) were seen by experienced therapists with postgraduate training in clinical psychology and at least 5 years postgraduate experience and 18 (14 men and 4 women) were seen by inexperienced therapists, graduate assistant psychologists who had worked within group anger management programmes previously. Participants were assigned to either experienced or inexperienced therapists in clinical meetings. Allocation was completed on the basis of the capacity of clinicians to take new clients, and it was deemed that both qualified and unqualified staff were able to take referrals of this type. Three participants dropped out, one of whom was assigned to the inexperienced therapists and two of whom to the experienced therapists; no data are reported on these individuals. In total there were nine therapists involved in providing therapy, two experienced and seven inexperienced therapists.

The participants in therapy were mainly of white European origin except for two individuals, seen by the experienced therapists, who were of mixed race and two seen by the inexperienced therapists who were of South Asian origin. Five of the participants had a history of involvement in the criminal justice system, three of whom were seen by the experienced therapists. The majority of participants lived in either group homes or supported living situations (17 who were seen by the experienced therapists and 13 by the inexperienced therapists), with the remainder living at home. The majority had a place at a day centre, college or work experience (17 who were seen by the experienced therapists and 15 who were seen by the inexperienced therapists). The remainder were unemployed and had no structured day activities. Participant characteristics are reported in Table 1.

### *Instruments*

On referral, a number of assessments were carried out that involved one or more therapist(s) going to see each person referred on at least one occasion prior to intervention. The support workers or families who supported the individuals would also receive one or more visits to explain the intervention. Assessments were designed to facilitate a closer understanding of the ability, circumstances and particular difficulties that were being experienced. Assessments included: (1) a structured interview with the potential participant, adapted from Benson (1992 and 1994); (2) an interview with a carer who knew the participant well; (3) the British Picture Vocabulary Scale (BPVS) second edition, which is a test of Receptive Hearing Vocabulary (Dunn, Dunn, Whetton and Burley, 1997); (4) an adapted Anger Inventory (Benson and Ivins, 1992). Potential participants were also asked if they wanted to reduce their aggressive

behaviour. All the individuals in the study recognized that their aggressive behaviour could cause them and others difficulties. All participants indicated that they would like to try and decrease their aggressive behaviour. They also agreed to attend individual therapeutic sessions.

### *Anger inventory*

The anger inventory was a modified version of a measure used by Benson and Ivins (1992) to make it suitable for a British sample. The questionnaire is a self-report measure of Anger Intensity in response to 35 scenarios that may provoke anger. Participants point to one of four pictures of an individual that demonstrate the emotional reaction most similar to their most likely response. They represent “doesn’t care”, “bothered a little”, “angry” and “furious”. The maximum score possible is 140 and the minimum 35. Mean scores for an American sample are reported by Benson and Ivins (1992),  $n = 118$  mean 97.09,  $SD = 17.21$ . Mean scores have also been reported for a UK sample of 97.48 (Rose and Gerson, 2009). Rose and West (1999) have reported a significant statistical association between individual “high” and “low” scores on this inventory and recordings of high and low rates of challenging. Internal consistency of the scale has been reported as 0.83 (Rose et al., 2005).

### *Procedure*

Individual sessions lasted between 30 to 60 minutes and care was always taken to ensure an appropriate degree of privacy. The number of sessions provided varied between 13 to 18; sessions were generally weekly, which resulted in the overall length of treatment being 3 to 4 months. Some individuals’ sessions, however, were scheduled every 2 weeks, which meant they could have had contact with the therapist for as long as 6 months. Graduate assistant psychologists received weekly supervision that reviewed issues of adherence and fidelity to the treatment plan; qualified psychologists also received regular supervision of their clinical work that included a review of progress and treatment content for these specific cases. Only a single therapist was present for the majority of sessions. However, when the therapy was being conducted by a graduate assistant, the supervising psychologist directly observed some therapeutic sessions to ensure the appropriate application of the intervention. Additionally, participants were given the option of having a staff member, if available, to sit in or attend a part of the session to support them. If the latter option was chosen then negotiation took place between the person with an intellectual disability and the therapist as to what information was shared with the staff member. Treatment was considered to have been completed after the elements of treatment had been delivered within the sessions in a way that met the participant’s needs as fully as possible while not significantly extending treatment duration.

### *Therapeutic procedures*

The content of the sessions was based upon a group intervention described by Rose, West and Clifford (2000). A set of session plans were developed to provide a framework to guide the individual sessions; these included work on emotional recognition, the causes and manifestation of anger, coping and preventative strategies, and problem solving. Additional

material that consisted of worksheets and pictures (Gardner and Welford, 2003) were used. The sessions were delivered within a problem-solving framework. Self-report using a diary of emotions that simply asked participants to check which emotions they experienced in any given day was used. Information provided by staff who accompanied participants was also used to construct a psychological formulation for the aggressive behaviour demonstrated by each participant. The formulation was shared with the individual in a way that had meaning to that individual to help develop an intervention tailored to the participant. For example, some individuals were identified as having specific skill deficits such as the ability to recognize key emotions, which resulted in more time being required on skill teaching in this area.

## Results

### *Comparison between groups*

Chi squared analysis did not reveal any significant differences between the groups in terms of the gender of the individuals seen by the different therapists or the number of people who were accompanied by staff to sessions. T-tests suggested no significant differences in age, number of sessions attended, BPVS scores or initial scores on the Anger Inventory between the groups.

### *Comparisons between pre and post intervention scores on the Anger Inventory*

Differences in anger inventory score were compared over time between the two groups. Before joining a group, mean Anger Inventory scores for the individuals seen by the experienced therapists was 100.36 (*SD* 14.01), which was reduced (i.e. lower expressed anger) to 81.94 (*SD* 11.06) after intervention. For the inexperienced therapists, scores were initially 95.94 (*SD* 8.30) and these reduced to 88.11 (*SD* 16.10). When these results were compared using a 2 by 2 split plot analysis of variance, there was a significant main effect ( $F = 26.72$  :  $p < .000$ ; Partial  $\eta^2 = 0.433$ ) and a significant interaction effect was observed ( $F = 4.36$ ;  $p < .044$ ; Partial  $\eta^2 = 0.110$ ).

These results suggest that the combined group showed a significant reduction in Anger Inventory scores and that there was a significant interaction between change in anger scores and group membership. Overall, the experienced therapists reduced anger inventory scores more than the inexperienced therapists.

### *Reliable change*

Reliable change is an index of therapeutic effectiveness (Jacobson and Truax, 1991), that is how much change has occurred as a result of therapy over and above the fluctuations of an imprecise measuring instrument. This can be calculated by using the test-retest reliability of the measure. Rose et al. (2005) report a Pearson's  $r$  of .72 on this statistic for the Anger Inventory. If this is entered into the formulae provided by Jacobson and Truax (1991) then a reliable change threshold of 20 points results.

Using this criterion, for the experienced therapists 9 out of 19 individuals showed reliable change; however, for the inexperienced therapists only 4 out of 18 participants showed reliable

change, that is a reduction in the score on the scale of 20 points or more over the course of the treatment program. When the proportions of participants showing reliable change were compared using a Chi squared test, the difference between the proportions in each group were not found to be significant.

### **Discussion**

This paper confirms the results of previous research and suggests that cognitive behavioural interventions for anger reduce expressed anger in people with intellectual disabilities. The more experienced therapists seemed to have an advantage over less experienced, both in terms of the average change in anger management inventory scores over the course of the intervention and the numbers who achieved reliable change. It should be noted that even the experienced therapists only achieved reliable change in 47% of the individuals they treated. However, this degree of success is relatively good when compared to the 22% of individuals who reliably change working with the inexperienced therapists in this intervention and the comparable 22% who improve in group interventions based on this model (e.g. Rose et al., 2005).

This research suggests that while interventions can still be effective with less experienced therapists, the experience of therapists may play a role in determining the amount of change that is observed. This may be an important consideration when evaluating future research that uses this model with inexperienced and untrained therapists. It also suggests that a stepped care model similar to that being applied within mental health services in the UK may be applicable to people with intellectual disabilities such that briefer, minimal interventions could be provided to individuals in the first instance, and only if the initial intervention is unsuccessful then other more complex interventions with better trained staff are employed in the care of that individual (e.g. Bower and Gilbody, 2005).

Unfortunately, as this trial was conducted as part of routine clinical practice the design of this research has a number of limitations. The sample size in this research is relatively small and there are a range of potential biases that may have influenced the result. Even though the groups of participants seen by the different therapists were not significantly different on any variables, there may have been some systematic biases in the different samples; for example, the group seen by the experienced therapists tended to score more highly on the anger inventory prior to intervention and this may have been indicative of those with more severe anger problems being allocated to more experienced individuals, but this was not systematically monitored. This may have resulted in greater scope for improvement in the individuals seen by the experienced therapists, but this group also reported lower scores on completion of therapy, suggesting a much greater change for this group over the course of therapy.

Another significant issue is compliance with the therapeutic program and the fidelity of application of the treatment. A structure was provided with sample session plans and accessible materials to supplement these and guide the therapist. This ensured that the same basic approach was adopted with each participant in therapy; however, there was some heterogeneity in the sample in terms of ability and the difficulties they presented with. The broad range of participants demanded adaptability from therapists in terms of gauging appropriate session length and support in accessing materials to assist understanding of the process. This was an approach based on psychological formulation of individual difficulties

and as a result there were inevitably differences in emphasis with different participants as to which aspects of the approach were most appropriate to focus on. This was one of the strengths of an individually-based approach rather than group therapy but it clearly poses challenges with the comparison made here. Both sets of therapists' performance and application to the model were monitored through supervision but only inexperienced therapists had supervisors observe their therapeutic sessions to directly monitor fidelity to the program. There was also variation in the support provided by care staff, with some support staff becoming more involved in the process than others. Some participants were keen to involve support staff in activities such as monitoring their behaviours and others were more reluctant. Participants in the therapy were given an option as to whether staff became involved through the process of consent and these requests were respected.

While these limitations affect the generalizability of findings, they do mirror difficulties found in clinical settings and suggest that the changes may be robust. Measuring change across the two time points, between the groups and for each participant using the reliable change index, suggests that effective change was achieved. Overall, 13 of the 37 participants (37%) recorded reliable change. While this number may seem relatively low, this must be viewed in the context of difficulties that can be experienced in treating this client group and the likelihood that an intervention of this type will only be one of a number of interventions that may be offered by a multi-disciplinary team. In this context it is difficult to determine whether the additional expenditure on experienced therapists leads to significantly better clinical outcomes. A qualitative approach that encouraged participants to describe their experiences combined with an extended follow-up may be needed to answer this question. It is difficult to envisage a service without experienced therapists as the less experienced therapists did require significant support with their work, which suggests it is important to maintain therapists with a range of experience in therapeutic teams.

A number of factors may account for these differences; the larger number of inexperienced therapists who were involved with the treatment suggests a possible lack of experience with the materials and process that may lead to poorer outcomes. It is also possible that inexperienced therapists may have been less flexible in their approach, following the guidelines more closely and were consequently less able to respond to the needs of clients. Without further research that examines process variables in some detail the reason for these differences will remain as speculation.

These results add to the growing evidence that Anger Management is effective in this client group; however, they do suggest that there may be a range of variables that are important in terms of determining its effectiveness, such as the experience or training received by the people conducting the therapeutic procedures.

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