

Training Staff to Manage Challenging Behaviour

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Background A training package for staff working with clients presenting challenging behaviour was developed to (1) increase their knowledge regarding challenging behaviour, and (2) to improve the quality of physical intervention techniques. The latter aim was intended to reduce staff anxiety about dealing with incidents and limit physical risk of injury to both clients and themselves.

Materials and Methods Sessions concerning theories of challenging behaviour were combined with physical intervention training. Effectiveness was assessed using knowledge questionnaires and observation of staff skills.

Training effectiveness was tested in a pre–post-test control group design.

Results and Conclusions The training program proved to be effective. Staff knowledge of challenging behaviour and the quality of physical intervention techniques increased significantly. Scores remained above pre-test levels at follow-up. Staff members evaluated the training positively.

Keywords: challenging behaviour, evidence based, intellectual disabilities, staff, training

Introduction

Prevalence rates of severe challenging behaviour in populations of individuals with intellectual disabilities range from 7.8–12.1% (Emerson & Bromley 1995). Staff have consistently stated that clients' challenging behaviour is one of the most stressful aspects of their job (e.g. Hatton *et al.* 1995). Those working with individuals presenting frequently challenging behaviour have also been more likely to report feelings of emotional exhaustion, depersonalization, and irritation (Mitchell & Hastings 2001), and are at greater risk of burnout and physical health problems (Jenkins *et al.* 1997).

Staff who lack knowledge about the possible causes of people's challenging behaviour and lack confidence to deal with incidents are more likely to be negatively affected when working with challenging clients (Allen & Tynan 2000). Therefore, effective staff training requires both preventive and re-active strategies (Grey *et al.* 2007). Increasing staff's level of knowledge and understanding of challenging behaviour may help them to reduce the likelihood of incidents occurring in the first

place. Moreover, if staff are more sensitive to clients' needs, this might lead to better relationships (Carr *et al.* 1994). However, implementing positive strategies is difficult when staff feel threatened, insecure, or scared (Allen & Tynan 2000). Consequently, it is generally recognized that staff also need skills in reactive strategies when, despite their best efforts, more proactive strategies have failed to prevent challenging behaviour (Murphy *et al.* 2003).

In the present study, we developed an in service training for staff working with clients who present severe challenging behaviour. Lessons concerning theories of challenging behaviour were combined with training in the use of physical interventions. The aim was to increase staff's knowledge of challenging behaviour and to improve the quality of their physical intervention techniques. Because of the fact that staff appraisals of the training would be likely to affect their willingness to put into practice what they have learned (Lazarus & Folkman 1984), an additional aim was to assess whether or not the staff approved of the course.

Method

Participants

Participants were 70 direct care staff (19 men and 51 women) working in residential homes ($n = 60$) or day-care centres ($n = 10$) for clients with intellectual disabilities in the South–West of the Netherlands. Their ages ranged from 20 to 55 years ($M = 31.46$, $SD = 8.89$), and their experience of working in services for people with intellectual disabilities ranged from 0 to 38 years ($M = 8.36$, $SD = 6.69$). None of them had participated in a comparable training program regarding the management of challenging behaviour for at least 2 years. Participants in the experimental ($n = 35$) and control groups ($n = 35$) were matched in terms of (i) their particular role (e.g. regular staff versus personal tutor), and (ii) the severity of the intellectual disability of the individuals they were supporting. There was also an attempt to have a similar gender balance across groups (Experimental: 10 men, 25 woman; Control: nine men, 26 woman), and ensure that they worked in similar settings (Experimental: 32 home, three daycare; Control: 28 home, seven daycare), and were of a similar age (Experimental: $M = 31.0$, $SD = 8.6$; Control: $M = 31.9$, $SD = 9.5$).

It was the policy of the Institute where the participants worked that all untrained staff members and all new staff members were required to enroll in the training program. Managers were asked to assign their staff members to the training course. Staff members were enrolled on a first-come and first-served basis. Staff members 1–17 constituted the first training group, and staff members 18–35 constituted the second training group. From the remaining group of untrained staff members, we selected 35 staff members, who made up the two non-intervention groups (17 and 18 participants respectively). All members of the control group were trained after this study was finished.

Participants all worked with clients with intellectual disabilities and severe forms of challenging behaviour. The severity of clients' intellectual disabilities was assessed by means of the WISC-RN, the Kaufman Intelligence Test, or the Vineland Adaptive Behaviour Scale. Severity of intellectual disabilities ranged from mild (25%), to moderate (40%), to severe (36%). Clients' chronological ages ranged from 12 to 71 years ($M = 36.6$; $SD = 15.1$). Psychiatric diagnoses most prevalent were autism (53%), mood disorders (22%), and impulse control disorders (17%).

Measures

Challenging behaviour knowledge

Existing questionnaires regarding knowledge of behavioural principles did not address the specific topics covered in this training programme. The questionnaire used in this study was developed with the help of a group of experts including clinicians, managers, teachers and researchers. In-depth interviews and discussions about the aim of each topic covered in the training resulted in a list of seven questions (e.g. 'Why is it difficult for clients with intellectual disabilities to control their impulsive behaviour?') and a manual for scoring. Raw scores for each of the seven topics were transformed into standardized scores for each question from 0–1, with a possible overall score from 0–7. Inter-rater reliability was calculated for the scores given to a quarter of the sample's responses, and a kappa coefficient of 0.80 was obtained.

Quality of physical intervention techniques

To our knowledge, there is no existing standardized observation manual for the assessment of the staff physical intervention skills. Consequently we developed one, ourselves. Each participant was asked to demonstrate six physical intervention techniques in front of a video camera. Prior to the demonstration of each technique, the experimenter gave a standard instruction. For example, 'In a minute, I will play the role of an aggressive client and I will try to hit you with my right arm. Please respond to me in a way that seems appropriate to you'. Video analysis required the development of an event recording registration form. Each technique consisted of a number of elements that were evaluated separately. The total score for each of the six techniques was the number of correctly executed elements.

Raw scores for the quality of each of the six techniques were also transformed into standardized scores ranging from 0 to 1, with a possible overall score ranging from 0 to 6. Inter-rater reliability was obtained between two of the authors on 12 observations, with a kappa coefficient of 0.93. To assess the clinical validity of the observation manual a quarter of the videotaped observations of the experimental group (nine video tapes) were reviewed by three licensed and clinically experienced trainers. The scores given by each trainer for the observations were significantly correlated with the scores given by the researcher, with a mean Pearson's r of 0.59 (min. = 0.52 and max. = 0.62). The

significance level of $P < 0.01$ indicated a reasonable overlap between the evaluations of the researcher and those of the clinical experts.

Acceptability of training

Participants' satisfaction with each of the training topics was assessed by asking them to rate their level of agreement with the following statements: (1) I have learned a lot about this topic, (2) The theory was clearly explained, (3) This topic is relevant to the management of challenging behaviour, (4) Sufficient time was given to this topic. Agreement was expressed on a 5 point Likert scale (1 = absolutely disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = absolutely agree).

Training

The training program consisted of seven sessions of 3½ h concerning the theory of challenging behaviour and five sessions of 1½ h concerning physical intervention training. Clinical experts carried out the training, which included small group exercises, guided discussions and role play. The theoretical issues concerned (i) the causes of challenging behaviour, (ii) the topography of challenging behaviour and signs of escalating problems, and (iii) recognizing the symptoms of trauma and how to care for colleagues after incidents have occurred.

The physical intervention skills were taught by two clinically experienced trainers, with the aim of improving the following six areas: (1) basic posture, (2) transfer, (3) sidestep, (4) how to respond to a client who attempts to hit a staff member, (5) how to respond to a client who attempts to grasp a staff member by the throat (6) how to respond to a client who attempts to grasp the wrist of a staff member. The trainer explained the techniques verbally and demonstrated them. Participants then practiced the techniques while the trainer observed. By means of modelling and the provision of verbal feedback the participants were helped to acquire the desired techniques.

Design

A quasi-experimental pre-test-post-test control group design was used. The experimental group consisted of the two training groups and the control group consisted of the two non-intervention groups. The pre-tests in the experimental group were conducted prior to the training starting and on the first day of training. In the same week,

the pre-tests were administered to each of the participants in the control group. The experimental group then received an in service training, 1 day a week for five consecutive weeks. Each training day lasted 6.5 h. Both training groups received identical training programs, presented by the same trainers. The control group did not receive any intervention. At the end of the last training day participants from the experimental group completed the post-tests. Control group participants completed the post-test at approximately the same time as the experimental group. A 3–5 month follow-up assessment was only carried out with the experimental group. Training acceptability forms were completed at the end of the training days by participating staff members.

Fidelity to the training manual

The researcher attended all the training sessions and recorded which theoretical topics and physical intervention techniques were actually taught. This allowed the content of the training sessions to be compared with the scheduled training program characteristics. Results showed that all of the theoretical topics and physical intervention techniques were introduced and discussed as planned, indicating a high level of training fidelity.

Results

Data were collapsed across the two training groups, to increase the power of the analysis. A 2 (group: experimental versus control) \times 2 (assessment scores: pre-test versus post-test) ANOVA on the mean standardized scores was used to examine the impact of training. Group was treated as a between-subjects variable and assessment scores as a within-subjects variable (repeated measure). Follow-up data was only collected for the experimental group. Therefore, a repeated measures (pre-test versus post-test versus follow-up) one-way ANOVA was conducted with the follow-up data.

Knowledge regarding challenging behaviour

The effect of training

Table 1 shows the groups' mean scores on the knowledge questionnaire. Significant main effects were found for group ($F(1,68) = 27.35, P < 0.001$) and knowledge scores ($F(1,68) = 85.69, P < 0.001$). There was also a significant interaction ($F(1,68) = 82.58, P < 0.001$) between group and knowledge scores. *Post hoc t*-tests were conducted on the experimental and control groups' assessment scores.

Table 1 Pre-test, post-test, and follow-up scores on the Knowledge Questionnaire and the Physical intervention Test

	<i>n</i>	<i>Knowledge</i>		<i>PI</i>	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Control group					
Pre-test	35	2.20	1.01	1.96	0.56
Post-test	35	2.22	1.04	1.98	0.61
Experimental group					
Pre-test	35	2.20	0.71	2.17	0.62
Post-test	35	4.52	1.37	4.27	0.85
Follow-up	32	3.26	0.97	3.31	0.45

PI, physical intervention; M, mean.

For the experimental group, post-test scores were significantly larger ($t(34) = 11.35, P < 0.001$) than pre-test scores. For the control group, no significant differences ($t(34) = 0.14, P = 0.89$) were found between pre-test and post-test scores. Mean pre-test scores of both groups were comparable ($t(68) = 0.00, P = 1.00$), post-test scores of the experimental group were significantly larger ($t(68) = 7.90, P < 0.001$) than post-test scores of the control group. Thus, participants who were trained demonstrated an increase in their knowledge of challenging behaviour.

The experimental groups' knowledge at follow-up

A significant main effect was obtained ($F(1,31) = 54.15, P < 0.001$). *Post hoc t*-tests indicated that follow-up scores were significantly larger ($t(31) = 5.68, P < 0.001$) than pre-test scores and significantly smaller ($t(31) = 5.36, P < 0.001$) than post-test scores. This suggests that the participants' level of knowledge remained significantly higher than it had been before starting training, but that there had been deterioration since the end of training.

Quality of physical intervention techniques

The effect of training

Table 1 shows the mean skill scores for the groups' physical intervention techniques. Significant main effects were found for group ($F(1,68) = 54.99, P < 0.001$) and skill scores ($F(1,68) = 176.67, P < 0.001$). A significant interaction ($F(1,68) = 171.78, P < 0.001$) was obtained between group and skill scores. *Post hoc t*-tests were conducted on the scores of the experimental and control groups. For the experimental group, post-test scores were significantly larger ($t(34) = 15.61, P < 0.001$) than

pre-test scores. For the control group, no significant differences ($t(34) = 0.17, P = 0.86$) were found. Mean pre-test scores of both groups were comparable ($t(68) = 1.52, P = 0.13$), yet post-test scores of the experimental group were significantly larger ($t(68) = 12.96, P < 0.001$) than those of the control group. Thus training appeared to increase participants' skills.

The experimental group's intervention skills at follow-up

A significant main effect was found for participants' skills scores ($F(1,31) = 115.54, P < 0.001$). *Post hoc t*-tests indicated that follow-up scores were significantly larger ($t(31) = 9.16, P < 0.001$) than pre-test scores and significantly smaller ($t(31) = 6.50, P < 0.001$) than post-test scores. Thus, in a similar vein to the knowledge scores, the participants had retained some benefit from their training but their skills had eroded with the passage of time.

Acceptability of training

The 5-point Likert scales were completed anonymously, and only group-level data can be reported. The mean score for the item 'I have learned a lot about this topic' was 3.87 (SD = 0.39); for 'The theory was clearly explained' it was 4.07 (SD = 0.34); for 'This topic is relevant to the management of challenging behaviour' it was 4.14 (SD = 0.32), and for 'Sufficient time was given to this topic' it was 3.32 (SD = 0.25). Thus, staff members' evaluation of the training program ranged from acceptable to good.

Discussion

The findings showed that the present training resulted in increased knowledge about challenging behaviour and led to improvement in the participants' observed skills in using physical intervention techniques. However, the knowledge and skills that were obtained had deteriorated somewhat by the 3–5 month follow-up assessments. This suggests that further short courses may help staff members to maintain the gains they make in training. Maintaining engagement with staff should not be a challenge as the participants were satisfied with the course, and said that they would recommend the training to their colleagues.

This study has a number of implications for future research. Firstly, if possible, a replication of this study should use an improved design in which participants are randomly allocated to experimental and control groups. Secondly, it would be helpful to examine whether

participating in a training programme of this nature actually helps to improve staff members' self-confidence and well-being, as suggested by Allen & Tynan (2000). The other key question concerns the transfer of the knowledge and skills from in service training to everyday practice. In particular, it would be interesting to investigate whether additional coaching in the workplace helps to achieve this transfer (Van Oorsouw *et al.* 2009). Finally, knowing what one should do is quite different from putting knowledge or skills into practice in highly charged and emotional situations, when challenging behaviour is occurring. As mentioned earlier, severe challenging behaviour causes an increase in emotional exhaustion and burnout of staff members (Jenkins *et al.* 1997; Mitchell & Hastings 2001). This emotional context is another consideration for future research into training about the management of challenging behaviour. The challenge is to help staff learn how to maintain control over their emotions in challenging situations, without reducing their sensitivity to and respect for the individuals that they are working with.

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