Northumbria Research Link

The impact of training and staff attributions on staff practice in learning disability

services: *A pilot study*

Abstract The present study examines the impact of a training course which has previously

been found to significantly increase the knowledge of staff working in learning disability

services on staff attributions and practice. No significant changes were found in staff ($n = 39$)

attributional dimensions following training. However, a decrease in the use of the

attributional category 'communication deficit' was found 8 weeks after training. Staff rated

their knowledge levels as higher both immediately following training and 8 weeks later. The

subgroup ($n = 14$) of staff who were examined in relation to staff practice were found to

change their practice significantly from baseline to follow-ups 4 and 5 months later.

Methodological limitations and implications of the study are discussed.

Introduction

Factors impacting on service quality

Research suggests that there are a number of varied and complex factors which can potentially impact on the quality of service provided to clients with a learning disability. Reid et al. (1989) developed a model which emphasizes some basic processes. Firstly, the role and tasks of staff must be clear; secondly, systems must be developed to monitor performance and to determine if these tasks are being met. The system must have a means of rewarding good performance and addressing poor performance. If poor performance results from a lack of staff knowledge or skills, training can be provided. If it results from other factors, e.g. organizational, social, resource, managerial or attitudinal, these must be addressed accordingly.

A variant of this basic model is also implicit in work by La Vigna et al. (1994). They have developed the Periodic Service Review in order to improve service quality and staff performance. This model is based on the application of applied behavioural analysis to organizational settings and involves the following components:

- developing performance standards, i.e. operationally defined desired outcomes and processes, all of which contribute to the quality of the service
- performance monitoring, i.e. the methods by which the service can establish if it is achieving its goals
- supervisory and management feedback, i.e. used to maintain andimprove service quality

• staff training, i.e. to ensure the staff have the core skills and knowledge to achieve the service goals competently.

La Vigna et al. (1994) argue that training is necessary but not sufficient to increase service quality and that it cannot be used in isolation from the context of the organization and the conditions that staff work in. Hastings and Remington (1994) also acknowledge that there are a number of different factors which influence staff practice, in this case in relation to challenging behaviour:

• staff beliefs about the behaviour itself, why it occurs (attributions) and the way to intervene

• formal aspects of the service, e.g. policies and procedures, reward schemes

• informal aspects of the service, e.g. peer pressure, advice from colleagues, social acceptance

• contingencies associated with the behaviour itself, e.g. anger, distress, may result in avoidance behaviours.

The models outlined above acknowledge that staff knowledge and skills are only two in a range of factors that impinge on staff performance. A factor which has been increasingly identified as important in influencing practice is staff attributions.

Staff attributions

Attribution theory, applied to staff behaviour, has an underlying assumption that the attributions that staff make about the causes of behaviour influence how they respond to it. Munton et al. (1999) identified four attributional dimensions following a review of the literature: internal–external, controllable–uncontrollable, stable–unstable and global–specific.

These dimensions have allowed the model to suggest a role for staff emotional responses, predicting that behaviour which is seen as deliberate, i.e. controllable, is likely to result in a negative emotional response in staff and a reduced likelihood of offering support (Stanley and Standen, 2000).

Recent research in learning disability services attempts to identify the relationship between attributions and staff behaviour. In a series of studies in relation to challenging behaviour, Hastings and colleagues found that staff respond to such behaviour with a range of strong negative emotions, e.g. anger, disgust (Hastings and Remington, 1994); that nearly three quarters of participants viewed clients' challenging behaviour as intentional; and that attributions differed significantly between experienced and inexperienced staff (Hastings, 1995; Hastings et al., 1997). The authors link this with staff practice by suggesting that staff may respond differently to the same episode of challenging behaviour depending on their attribution about its cause, and argue that inappropriate beliefs about the causes of behaviour are likely to result in inappropriate interventions being used (Hastings and Remington, 1994).

Researchers have also begun to examine the role of staff beliefs about their self-efficacy in relation to managing challenging behaviour. They argue that the strong emotional (and often negative) reactions to challenging behaviour, such as disgust and anger, lead to avoidance behaviour in staff which can maintain it, despite staff knowledge about managing challenging behaviour (Carr et al.,1991). This would have practical implications in terms of staff training, suggesting that gains in staff knowledge may be insufficient to change practice if their attributions and emotional responses lead them to use avoidance strategies in response to challenging behaviour. As a result it has been argued that attributional retraining offers

one means of altering staff practice (Stanley and Standen, 2000). The assumption is that increasing staff awareness of the impact that their attributions about client behaviour have on their responses to such behaviour will allow them to modify their practice. To date, however, there has only been a limited amount of work in this area. Berryman et al. (1994) examined staff attributions after two different types of training. The group attending a traditional behavioural management course was significantly more likely to identify reinforcement intrinsic to the behaviour as its cause. The group receiving training on non-aversive approaches was significantly more likely to identify the cause of behaviours in terms of reinforcement and escape/avoidance. However, this study did not directly measure staff practice and relate this to either the form of training received or the attributions about the behaviour. In addition, the type of training provided to both groups was very similar in its basic content and it is unclear which components related to attributional change.

While staff attributions are potentially important factors, Cullen (2001) argues that, in the absence of studies examining actual staff practice, it remains an assumption that staff responses to behaviour are closely related to the attributions that they make about it.

The role of staff knowledge

Another major factor which is assumed to be central to staff performance is staff knowledge. The knowledge and skill base of staff have been identified as central to good quality services for clients with a learning disability (Hastings,1995; Porterfield,1987; Rose,1995). Knowledge about key aspects relevant to the care of individuals with a learning disability has, however, been found to be limited in the two main groups involved in their care: health and social care staff (McKenzie et al., 1999a; 1999b; 1999c; 2001).

A number of studies have found high levels of staff anxiety, burnout and job turnover in community care staff working with individuals with learning disabilities (Allen et al., 1990; Bromley and Emerson, 1995; Sharrad, 1992). One of the main factors repeatedly cited by staff is a lack of knowledge regarding the client group. In addition, Emerson et al. (2000) found that, despite evidence of the effectiveness of behavioural interventions in the treatment of challenging behaviour (Lindsay, 2001), the most commonly used interventions were physical restraint, sedation, seclusion and mechanical restraint. The authors identify a lack of knowledge of staff as one of a number of factors which they feel has resulted in the failure to respond to challenging behaviour appropriately.

While many authors acknowledge that a deficit in staff knowledge or skills can result in inadequate staff practices, it is argued that it is unlikely that these factors alone can account for all poor practice (Hastings and Remington, 1994). The present study will, therefore, focus on the role of both staff knowledge and attributions in changing staff practice. The study had the following aim: to investigate the impact that a training course, which had previously been found to significantly increase staff knowledge (McKenzie et al., 2000), had on staff attributions and staff practice.

Method

Participants

All 36 staff from non-statutory residential services for individuals with a learning disability participated in the main study. A subgroup of one staff team ($n = 14$) participated in the study examining staff practice. All participants were informed that participation was voluntary. The mean age of participants was 42.6 years (SD = 11.63); 18 percent were male and 82

percent female. The mean number of years of experience of working inlearning disability services was 7.63 (SD = 7.24).

The impact of training on attributions

Staff who were due to attend a 1 day challenging behaviour course that was being run routinely were invited to participate. The training included components covering: definition of a learning disability; duty of care; challenging behaviour; defining, recording and assessing behaviour; reactive strategies; basic behavioural approaches; and positive programming approaches. It emphasized non-aversive, non-punitive approaches throughout. The training programme had previously been evaluated and shown to significantly increase participants' knowledge (McKenzie et al., 2000).

Measures

Staff were asked to complete a questionnaire which covered the following:

- demographic information, i.e. age, gender, experience, previous training in challenging behaviour
- self-assessment of knowledge of challenging behaviour, as measured by a visual analogue scale
- attributions about challenging behaviour.

Attributions were measured in two ways: (1) attributional categories, i.e. open-ended questions about the three main causes of aggression, self-injury, destructiveness, disruptive behaviour, stereotypy and overly passive behaviour; (2) attributional dimensions, i.e. a bipolar visual analogue scale which measured the four attributional dimensions of internality,

controllability, stability and specificity in relation to each of the above topographies of challenging behaviour.

The reliability and validity of the measures used are outlined in detail in Sharp (2001). The questionnaire was administered and scored by the second author, who was not involved in providing the training. Questionnaires were completed pre-training, immediately after training and 6-8 weeks after training. The open-ended questions relating to attributions were scored according to the categories and examples outlined in Bromley and Emerson (1995), i.e. internal psychological state or mood; past environment; current environment; self-stimulation; communication; attention-seeking; medical problem; deficit associated with learning disability/syndrome; mental illness; communication difficulty/deficit; and escape/avoidance.

The impact of training on staff practice

In addition to the procedure outlined above, a subset of staff participated in the study examining staff practice ($n = 14$). Following explaining the nature of the study and obtaining permission from the employing organization and staff team, staff practice was measured prior to training, at 16 weeks following training and at 20 weeks following training. This group received the 1 day training course as outlined above. In addition, they were asked to choose a client they supported whose behaviour they found challenging. They were given a series of tasks to complete for a follow-up meeting in 16 weeks' time. This period was chosen to allow a realistic timescale within which the tasks could be properly completed, e.g. obtaining full behavioural records. The tasks all related to the measure of staff practice based on La Vigna et al.'s (1994) Periodic Service Review (PSR) model (see Appendix). In addition, two areas were chosen for analysis based on clinical experience: (1) staff who had knowledge of the

client came to appointments/meetings as agreed; and (2) all staff who were expected to support clients with challenging behaviour had received some training in the area.

After 16 weeks the trainers met with the full staff team for a 4 hour assessment and review session. The PSR was completed at this stage. To assist with inter-rater reliability the PSR was scored by both trainers. Following the recommendations that any model of staff practice has a feedback loop (La Vigna et al., 1994; Reid et al., 1989), the staff were given time-limited additional advice and support in relation to their practice at this stage. The trainers, in conjunction with the staff team, devised simple behavioural guidelines which incorporated the following: reactive strategies, behavioural approaches and positive programming approaches. These three components are recommended for successful behavioural change (Department of Health, 1993). The staff team were told to contact the first author if they had any concerns or queries about the guidelines, but no further support or guidance was given at this stage. The trainers met with the staff team on a further occasion, 4 weeks later. This time was chosen as it again gave a realistic period within which staff could complete the tasks and some change in the client's behaviour might be expected. It was also short enough to allow for quick revision of the guidelines if they were ineffective. At this stage a further PSR measure was taken and staff were given feedback about the changes in their scores. Clinical input in relation to the guidelines continued from the first author until the behavioural target was reached.

There were no significant differences between the group which also participated in the staff practice aspect of the study and the other participants in relation to age or experience. It was not possible to compare the groups in relation to gender because of the small number of males in the study as a whole.

Statistical analysis

To overcome the difficulty of utilizing multiple comparisons in the present study, i.e. that the possibility of making a type I error increases, the Bonferroni test which corrects for the per comparison error rate was utilized and the significance level was set at $p < 0.01$.

Results

Staff attributions

No significant changes were found in relation to the attributional dimensions or attribution categories at pre-training and immediately after training. However, significant changes were found in relation to overall knowledge scores ($t = \_5.66$, d.f. $= 35$, $p < 0.01$) with an increase from pre-training (mean $= 12.92$, SD $= 7.04$) to immediately after training (mean $= 18.14$, SD $= 7.29$). A comparison was also made between scores pre-training and 6–8 weeks after training. A significant change was again found in relation to knowledge ($t = \_4.25$, d.f. $= 23$, $p < 0.01$) with an increase from pre-training to follow-up 6–8 weeks later (mean $= 18.71$, SD $= 4.41$). No significant changes were found in relation to attributional dimensions.However, one attributional category changed between baseline and follow-up: the category 'communication deficit' was mentioned significantly less often following training than before (McNemar test, $N = 22$, $p < 0.01$).

Staff practice

Table 1 illustrates the areas of the PSR on which staff scored, and total scores and percentages, pre-training and 16 and 20 weeks following training. An A indicates that the standard has been achieved; an O indicates that the standard has not yet been achieved and staff have an opportunity to do so in the future. As can be seen from Table 1, the PSR score

increased from 26 percent pre-training to 74 percent at 16 weeks after training and 95 percent 20 weeks after training.

Discussion

The present study found only one significant change in relation to staff attributions, but significant changes in staff rated knowledge levels and observed staff practices, following a 1 day training course which had been found previously to significantly increase staff knowledge (McKenzie et al., 2000). This suggests that increasing knowledge is an important contributing factor in changing practice, at least for the staff team in question. Previous authors have highlighted the central role that knowledge change can have on practice, although few studies have examined this in relation to actual staff practice. An exception is a study by Allen et al. (1997) who found that training in preventive and reactive approaches to challenging behaviour resulted in clinically significant changes, e.g. reduction in the use of restraint, medication and staff injury rates. Similarly, Taylor et al. (1996) conducted research involving a psychologist giving ongoing consultation regarding functional assessment and adhering to behavioural principles to staff working with a client who exhibited high rates of self-injury. They found that this intervention resulted in a significant decrease in the client's behaviour.

It may be that the provision of the additional, although limited, support and guidance in the present study also influenced staff practice by serving two functions: to provide a feedback loop to staff in terms of good practice and areas that still required change; and to provide additional input which increased knowledge and skills. La Vigna et al. (1994) and Reid et al. (1989) both identify these factors in their models of good practice. A study by Berryman et al. (1994) which examined the impact of two types of training on attributions also

incorporated an element of ongoing support which consisted of an hour of supervision biweekly for 9 months.

This contrasts to the present study, where the session lasted a total of 4 hours. Berryman et al. (1994) found that ongoing support and supervision appeared to maintain the attributional changes in staff rather than increase them. The study would also suggest that staff attributions, as measured, did not play a key role in changing staff practice. The one attribution which did change at 8 weeks after training was in relation to communication deficits as a cause of challenging behaviour. Six participants who had cited this as a causal factor prior to training did not do so at follow-up. It is unclear why this factor alone changed after training. One reason may be because the training included a scenario of a client depicted as having no verbal communication and self-injurious behaviour. The staff were asked to develop alternative, appropriate means for the client to communicate his needs, rather than self-injury. This exercise may have altered attributions, so that the staff no longer felt that verbal communication was an inevitable cause of challenging behaviour. However, the exact reason for this change remains uncertain.

Previous authors have also suggested that factors other than attributions may be more influential in shaping staff practice. Cullen (2001) cites the work of Stancliffe et al. (1999) who looked at predictors for staff interventions for challenging behaviour. The study found that behaviour that was externalized and had observable consequences for others, e.g. aggression, destructive behaviour, was much more likely to be associated with a full range of interventions than internalized behaviour. Cullen (2001) argues that this suggests that it is the consequences of the behaviour for staff that influences their responses rather than necessarily their attributions *per se*. Similarly, a study by Baker (1998) found that training aimed at

changing staff behaviour by providing information resulted in significant increases in the target behaviours, e.g. frequency of positive interactions, while training aimed at changing staff values did not lead to behavioural change. Baker (1998) argues that different types of training may be required depending on the type of behavioural change required.

An alternative explanation for the findings of the study is that the training did change attributions, but in a way that was not measurable by the tool used, and that these changes led to an improvement in staff practice. Previous researchers have highlighted the difficulties of tapping attributions in a consistent and valid way (Munton et al., 1999). The tool used in the present study asked staff to consider a range of different behaviours. It may be that staff simply think of the clients that they currently work with and modify their attributions about them, yet respond to the generalized questions of the measure in the same way as before. Baker (1998) argued that the values training used in his study may have been unsuccessful in changing behaviour because it relied on discussion of vignettes and the application of abstract values to these. By contrast the training which did result in behavioural change was noted to be individualized to relate to the clients the staff were supporting. A similar process may have occurred in the present study.

The study also has a number of additional methodological limitations. The present study was a pilot and focused on staff management of one particular behaviour. The study did not have a control group of staff who had not undergone training. We can therefore not be conclusive about whether the changes found in staff practice were due to the training or some other factor. Similarly, it is unclear if the results would generalize to other clients, the staff approaches in general and other staff groups. Further research would be required to answer these questions. It is acknowledged that different areas of staff practice may require different

interventions and that staff training offers just one approach. The present study would, however, suggest that training which targeted staff knowledge rather than staff attributions can be successful in improving staff practice.

Appendix: Periodic Service Review criteria Evaluation of the impact of training on staff practice in relation to managing challenging behaviour

1. Staff attendance: an A is scored if the agreed staff member(s) attend the appointment as arranged/are available for the PSR, or if at least 1 week's notice is given of the need to change the appointment.
2. Staff training: an A is scored if all of the staff in the service have attended a basic challenging behaviour course, or are scheduled to do so in the next month.
3. Identifying the behaviour: an A is scored if all of the staff present agree on and can clearly define the behaviour in question.
4. Recording the behaviour: an A is scored if the staff have kept written records relating to the identified behaviour over at least a 2 week period.
5. Use of guidelines: an A is scored if records and interview show that all staff on duty at the time of the review have read the guidelines.
6. Describing the behaviour: an A is scored when a randomly chosen staff member can define the target behaviour in terms of its topography and cycle.
7. Describing the recording method: an A is scored when a randomly chosen staff member can correctly describe how the behaviour is recorded, e.g. frequency, duration, ABC charts.
8. Locating the recording sheet: an A is scored if a randomly chosen staff member can locate the correct recording sheet for the target behaviour within 2 minutes of a request.
9. Describing how the data are entered: an A is scored if the staff member can correctly describe how the behaviour is recorded on the recording sheet.
10. Describing reactive strategies: an A is scored if a randomly chosen staff member can correctly describe the agreed reactive strategies in relation to the target behaviour.
11. Describing direct treatment approaches: an A is scored if a randomly chosen staff member can correctly describe the agreed direct treatment approaches in relation to the target behaviour.
12. Describing positive programming approaches: an A is scored if a randomly chosen staff member can correctly describe the agreed positive programming approaches in relation to the target behaviour.
13. Identifying reinforcers: an A is scored if a randomly chosen staff member can correctly describe at least two reinforcers for the client in question.
14. Use of reinforcement: an A is scored if the identified reinforcers are being used in a structured way, in accordance with the guidelines, to reward appropriate client behaviour.
15. Programme implementation: an A is scored if, based on a review of the guidelines, charts, staff knowledge and observation, all guidelines are currently being carried out by staff.
16. Unauthorized approaches: an A is scored if, based on a review of guidelines, logs, records etc., staff interview and observation, there is no evidence of unauthorized approaches being used by staff which might interfere with the agreed guidelines.
17. Data recording: an A is scored if the data in relation to the target behaviour have been entered correctly by all staff and are current to within one day.
18. Locating guidelines: an A is scored if the staff can produce written guidelines in relation to the behaviour in question, within a 2 minute period following a request.
19. Achieving objectives: an A is scored if the staff have done one of the following: (a) achieved their specified objective in relation to the target behaviour; (b) identified any

barriers to the objectives being achieved and communicated these to the appropriate people.

References

Allen, D. , Mcdonald, L . , Dunn, C. & Doyle, T. (1997) 'Changing Care Staff

Approaches to the Prevention and Management of Aggressive Behaviour in a Residential

      Treatment Unit for Persons with Mental Retardation and Challenging Behaviour',

      Research in Developmental Disabilities 18 (2): 101–12.

Allen, P. , Pahl, J. & Quine, L. (1990) *Care Staff in Transition: The Impact on Staff of*

      Changing Services for People with Mental Handicap. London: HMSO.

Baker, D. J. (1998) 'Effects of Video-Based Staff Training with Manager Led Exercises in

      Residential Support', *Mental Retardation* 36 (3): 198–204.

Berryman, J. , Evans, I . M. & Kalbag, A. (1994) 'The Effects of Training in Non- Aversive

      Behaviour Management on the Attitudes and Understanding of Direct Care Staff',

      Journal of Behaviour Therapy and Experimental Psychiatry 25 (3): 241–50.

Bromley, J. & Emerson, E. (1995) 'Beliefs and Emotional Reactions of Care Staff

Working with People with Challenging Behaviour', *Journal of Intellectual Disability*

      Research 39: 341–52.

Carr, E . G. , Taylor, J. C. & Robinson, S. (1991) 'The Effects of Severe Behaviour Problems

      in Children on the Teaching Behaviour of Adults', *Journal of Applied Behaviour*

      Analysis 24: 523–35.

Cullen, C. (2001) *A Review of Some Important Issues in Research and Services for People*

      withLearning Disabilities and Challenging Behaviour. Edinburgh: Scottish Executive

      Review of Services for People with a Learning Disability.

Department Of Health (1993) *Services for People with Learning Disabilities and Challenging*

Behaviours or Mental Health Needs. Report of the Project Group. London: HMSO.

Emerson, E ., Robertson, J. , Gregory, N. , Hatton, C. , Kessissoglou, S ., Hallam, A. & Hillery, J. (2000) 'Treatment and Management of Challenging Behaviours in Residential Settings', *Journal of Applied Research in Intellectual Disabilities* 13:197–215.

Hastings, R. P. (1995) 'Understanding Factors that Influence Staff Responses to Challenging Behaviours: An Exploratory Interview Study', *Mental Handicap Research* 8: 296–320.

Hastings, R. P. & Remington, B. (1994a) 'Staff Behaviour and its Implications for People with Learning Disabilities and Challenging Behaviours', *British Journal of Clinical Psychology* 33: 423–38.

Hastings, R. P. & Remington, B. (1994b) 'Rules of Engagement: Towards an Analysis of Staff Responses to Challenging Behaviour', *Research in Developmental Disabilities* 15: 279–98.

Hastings, R. P. , Reed, T. S. & Watts, M. J. (1997) 'Community Staff Causal Attributions about Challenging Behaviour in People with Intellectual Disabilities', *Journal of Applied Research in Intellectual Disabilities* 10 (3): 238–49.

La Vigna, G. W. , Willis, T. J. , Shaull, J. F. , Abedi, M. & Sweitzer, M. (1994) *The Periodic Service Review: A Total Quality Assurance System for Human Services and Education*. Baltimore, MD: Brookes.

Lindsay, W. R. (2001) 'Behavioural Disturbance', in M. HAMILTON-KIRKWOOD (ed.) *Health Evidence Bulletins Wales: Learning Disabilities (Intellectual Disability)*, pp. 18 36. Cardiff: National Assembly for Wales.

Mckenzie, K. , Murray, G. C. & Matheson, E. (1999a) 'Learning Disability Services: A Survey of General Practitioners' Opinion', *Scottish Medicine* 17 (5): 4–6.

Mckenzie, K. , Mcintyre, S . , Matheson, E. & Murray, G. C. (1999b) 'Health and Social Care Workers' Understanding of the Meaning and Management of Challenging Behaviour in Learning Disability Services', *Journal of Learning Disabilities for Nursing, Health and Social Care* 3 (2): 98–105.

Mckenzie, K. , Murray, G. C. , Higgon, J. & Matheson, E. (1999c) 'What Is a Learning Disability? Do People Need To Be Reminded?', *Learning Disability Practice* 2 (1): 8–11.

Mckenzie, K. , Paxton, D. , Patrick, S . , Matheson, E. & Murray, G. C. (2000) 'An Evaluation of the Impact of a One-Day Challenging Behaviour Course on the Knowledge of Health and Social Care Staff Working in Learning Disability Services', *Journal of Learning Disabilities* 4 (12): 133–65.

Mckenzie, K. , Murray, G. C. & Matheson, E. (2001) 'An Examination of Health and Social Care Workers' Knowledge and Application of the Concept of Duty of Care', *Journal of Adult Protection*.

Munton, A. G. , S I Lvester, J. , Stratton, P. & Hanks, H. (1999) *Attributions in Action: A Practical Approach to Coding Qualitative Data*. Chichester:Wiley.

Porterfield, J. (1987) *Positive Monitoring*. Kidderminster: BIMH.

Reid, D. H. , Parsons, M. B. & Green, C. W. (1989) *Staff Management in Human Services: Behavioural Research and Application*. Springfield, IL: Thomas.

Rose, J. (1995) 'Stress and Residential Staff: Towards an Integration of Existing Research', *Mental Handicap Research* 8: 220–36.

Sharp, K. (2001) 'Challenging Behaviour: An Investigation of Attributions and Stress in Staff Working in Learning Disability Services', doctoral thesis, University of Edinburgh.

Sharrad, H. E. (1992) 'Feeling the Strain: Job Stress and Satisfaction of Direct-Care Staff in the Mental Handicap Service', *The British Journal of Mental Subnormality* 7: 32–8.

Stancliffe, R. J. , Hayden, M. F. & Lakin, K. C. (1999) 'Interventions for Challenging Behaviour in Residential Settings', *The American Journal on Mental Retardation* 104: 364–75.

Stanley, B. & Standen, P. J. (2000) 'Carers' Attributions for Challenging Behaviour', *British Journal of Clinical Psychology* 39: 157–68.

Taylor, I . , O'reilly, M. & Lancioni, G. (1996) 'An Evaluation of an Ongoing Consultation Model to Train Teachers to Treat Challenging Behaviour', *International Journal of Disability Development and Education* 43 (3): 203–18.

Table 1 **Areas of the PSR on which staff scored, and total scores and percentages,**

pretraining and 16 and 20 weeks following training (see Appendix)

Area	Baseline Score	After 16 weeks score	After 20 weeks score
1 Staff attendance	A	A	A
2 Staff training	A	A	A
3 Identifying the behaviour	A	A	A
4 Recording the behaviour	A	A	A
5 Use of guidelines	O	A	A
6 Describing the behaviour	O	A	A
7 Describing the recording method	O	A	A
8 Locating the recording sheet	O	A	A
9 Describing how the data are entered	O	A	A
10 Describing reactive strategies	O	A	A
11 Describing direct treatment approaches	O	O	A
12 Describing positive programming approaches	O	O	A
13 Identifying reinforcers	O	A	A
14 Use of reinforcement	O	O	A
15 Programme implementation	O	O	A
16 Unauthorized approaches	O	A	A
17 Data recording	O	O	A
18 Locating guidelines	O	O	A
19 Achieving objectives	O	A	O
Percentage score	26%	74%	95%
Total score	*05/19*	*14/19*	*18/19*