Northumbria Research Link

Teaching staff knowledge, attributions and confidence in relation to working with children with an intellectual disability and challenging behaviour

Accessible summary:

We looked at how much teachers knew about helping children with a learning disability who had behaviour that was challenging in school. We found that:

- Some teachers knew very little about challenging behaviour and all the different ways to help children with this.

- Some teachers had beliefs about challenging behaviour that can be unhelpful

We need to find ways to help teachers find out more about challenging behaviour and to think about it in different ways. One way to do this could be to give them training about it.

Key words: teacher knowledge, attributions, confidence, challenging behaviour

Summary

The present study examined Scottish teaching staff knowledge about the definition and management of challenging behaviour displayed by children with an intellectual disability. Knowledge levels were relatively low and participants were most likely to define challenging behaviour by function or topography. Teaching staff were largely unaware of positive programming strategies, suggesting that they may not be properly equipped to manage challenging behaviour effectively in the longer term. The teaching staff were found to hold attributions which research suggests are associated with reduced helping behaviour and increased anger. This indicates a continuing need to identify effective ways of promoting more accurate knowledge and positive attributions in teaching staff.

Introduction

The implementation of recent legislation (Scottish Government, 2004), means that the majority of children with an intellectual disability in Scotland will be educated in mainstream classrooms. Some of these children may display behaviour that challenges, as research suggests that challenging behaviour is relatively common in people with an intellectual disability (Jones & Eayrs, 1993), with prevalence rates ranging between 2-43% depending on the populations studied (Kiernan & Kiernan, 1994, Ball *et al*., 2004). Severe challenging behaviour is broadly defined as being:

'……of such an intensity, frequency 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, British Psychological, Society and Royal College of Speech and Language Therapists, RCPsych, BPS & RCSLT, 2007, p10)

 Research suggests that challenging behaviour can be a major source of stress for teachers (Male & May, 1997, 1997a), can restrict the pupils' access to their curriculum and increase the chances of exclusion (Male, 1996). The most common forms faced by teachers are physical aggression (Male, 2003) non-compliance, disruption and hyperactivity (Harris *et al*., 1996). Recent legislation in Scotland has placed a legal duty on educational authorities to educate children in mainstream settings (Scottish Government, 2004). It is, therefore, important that teaching staff working with children

with an intellectual disability have the necessary competencies to successfully manage challenging behaviour in the classroom.

Staff knowledge has been shown to be a particularly important factor in the management of challenging behaviour (Hastings & Remington, 1994; 1994a; Hastings *et al*., 1995; Hastings, 1997). Appropriate responses to challenging behaviour are based on an understanding of the purpose it serves for the individual and the ability to apply appropriate behavioural principles in a structured and systematic way (Ball *et al*., 2004). Effective approaches also have a number of components including reactive strategies which are used at the time of the incident to keep the child and others safe, behavioural approaches which target the reward systems which maintain the challenging behaviour and positive programming approaches which teach the child alternative, adaptive ways of having his or her needs met. Proactive approaches focus on ways of preventing the occurrence of challenging behaviour in the first place (Ball *et al.,* 2004). All of these factors contribute to creating 'capable environments' for children with an intellectual disability (RCPsych, BPS & RCSLT, 2007).

Recent research has also highlighted the importance of staff attributions about challenging behaviour in shaping their responses to it (Hastings *et al*., 1997; Hastings, 1996; Hastings & Remington, 1994). Weiner (1980, 1993) has argued that the type of causal attribution made by someone will relate to future helping behaviour and research has shown that if staff make attributions that the cause of challenging behaviour is internal to and controllable by the person displaying it, then they are more likely to feel

anger and less likely to help or offer support (Dagnan *et al.,* 1998). Equally, if the staff

member makes attributions that the behaviour is out with the person's control and due to

external influences then they are more likely to feel sympathy and thus, more likely to

offer assistance to the person. More positive attributions, therefore, are those that are

considered to be external, uncontrollable, unstable and not personal to the child.

This research indicates that staff responses to challenging behaviour are inextricably

linked to their attributions about it (Noone *et al.,* 2006), therefore teachers' beliefs about

why a child displays challenging behaviour would be predicted to be related to their

response to that child. There has, however, only been a limited amount of research into

teaching staff knowledge and attributions about challenging behaviour. Kiernan &

Kiernan (1994) examined the knowledge of teachers from 68 special schools about

challenging behaviour in children with a severe intellectual disability. The most common

explanations given by teachers for the challenging behaviour were that it was due to

seeking attention, demand or task avoidance, communication problems, stress,

interference with routine and provocation.

Morgan & Hastings (1998) used two case vignettes of a child displaying challenging

behaviour and asked 22 teachers who had received training to work with children with an

intellectual disability and 38 classroom assistants to identify a possible function. Few

participants were able to accurately identify the causes of the challenging behaviour

depicted in the case vignettes. Only 33% correctly identified the function of task

avoidance while only 10% correctly identified the attention seeking function. Qualified

staff made more accurate attributions about the function of the attention seeking behaviour.

Male (2003) undertook a questionnaire-based study investigating the perceptions of 70 teachers who worked with children with a severe intellectual disability about challenging behaviour. Participants were asked to describe a behaviour displayed by a pupil, indicate a possible cause for the behaviour and indicate the strategies used to manage it. The most commonly cited behaviour was aggression, described by 51% of participants and the most common causal attribution for it was 'communicating need'. Those teachers who identified self-injury as the challenging behaviour most commonly attributed it to the child's need for 'stimulation'. The strategies cited most often for the management of aggression and self-injury were 'diffusion' and 'intermittent restraint' respectively. This study suggests a relationship between the attributions which teachers hold about the function of challenging behaviour and the type of interventions they use. The study, however, did not use a standardised or validated questionnaire, therefore, the results need to be interpreted with some caution.

The needs of children with an intellectual disability and challenging behaviour are often complex and the drive for mainstream education places a responsibility on teachers to meet these needs. Research suggests that knowledge and attributions are important in shaping staff responses to challenging behaviour. There has, however, been very little research carried out with teaching staff, particularly those who support children with an intellectual disability in main stream settings. The aim of the current study is therefore,

to investigate the knowledge, attributions and confidence of teaching staff in Scotland in relation to working with children with an intellectual disability and challenging behaviour in main stream school settings.

Method

Design

The study was questionnaire based and had a within-subjects design. It was conducted in South-East Scotland in a predominantly rural area.

Participants

There were 40 participants (32 teachers and 8 teaching auxiliaries). All but one was female and the age range was 23-60. The mean years of experience working within the education sector was 15.38 years (sd=10.6). Twenty-seven (67.5%) participants reported that they currently had a child with an intellectual disability in their class. The number of years of experience that participants had of working with children with an intellectual disability ranged from 0-31 (mean = 9.03, sd = 7.72). As no significant relationship was found between participants' experience of teaching children with an intellectual disability and their self-rated levels of confidence or knowledge, this factor was not included in subsequent analyses

Ethical Approval

Ethical approval was obtained from the education department for the geographical area in which the research was conducted, as well as consent being obtained from the head teachers in the participating schools.

Procedure

Head teachers of all primary and secondary schools in the geographical area were contacted by letter which provided details about the study. They were asked to contact the first author if they were interested in participating. A total of 76 schools were approached (9 secondary schools and 67 primary schools) and 14 primary schools agreed to participate. Questionnaires were distributed and collected by the first author as part of a training event which was held at the end of the school day.

Measures

Knowledge of challenging behaviour questionnaire

The study employed a questionnaire adapted from previous research where its psychometric properties had been established (McKenzie *et al*., 2000). The measures used had significant agreement between raters as shown by inter rater reliability Kappa values of 0.87 or above (p < 0.01). Minor additions to the questionnaire included items relating to demographic information and the introduction of a rating scale in relation to participants' confidence about supporting a child with an intellectual disability and challenging behaviour in their classroom. Due to these minor changes, the questionnaire was piloted with 5 teachers and was found to have face validity, be easy to read, understand and complete. The questionnaire asked the following:

1. What do you think the term 'challenging behaviour' means in relation to children with an intellectual disability?

2. What do you think some of the main reasons are for a child with an intellectual disability displaying challenging behaviour?

3. What are some of the ways of managing challenging behaviour displayed by a child with an intellectual disability?

Scoring

Responses to question 1 (definition of challenging behaviour) were scored according to whether the participant mentioned the following criteria (McKenzie *et al*., 1999):

• Topography i.e. the type of challenging behavior shown such as aggression, self-injury or stereotyped behavior

• Safety (in relation to a risk of harm to the child or others as a consequence of the behaviour)

• Limited access to services (educational or community services)

• Behaviour which the teaching staff find difficult to manage.

An additional category was added relating to the function of challenging behaviour. A score of 1 was given for each category correctly identified, given a maximum of 5.

Responses to question 2 (attributions about challenging behaviour) were scored in two ways. The first used the following attribution themes which have been used extensively in previous research (e.g., Stratton *et al.,* 1986; Noone *et al*., 2006):

- Internal and external, i.e., whether the origin of the cause of the challenging behaviour was seen as lying with the child or not

- Stable and unstable, i.e., whether the cause was seen as permanent or not.

- Controllable and uncontrollable, i.e., whether the child was seen as being in control of his/her behaviour and intended to do it or not.

- Personal and universal, i.e., whether the cause was unique to the child or not.

Participants' answers were scored as 'yes' or 'no' depending on whether they made reference to each of the above themes. Please note that participants could make reference to both types of attribution (e.g. both internal and external) or neither in their responses, therefore the total number for each pair is not equal to the total number of participants.

The second method utilised the causal models outlined in the Challenging Behaviour Attribution Scale (CHABA) (Hastings, 1997). These were: learned behaviour (positive and negative); biomedical; emotional; physical environment and stimulation. Participants' answers were rated as 'yes' or 'no' depending on whether they made reference to each of the causal models.

Responses to question 3 (the management of challenging behaviour) were also coded according to the criteria used by McKenzie *et al.* (2000). The criteria reflect the research into the management of challenging behaviour which has identified four main areas;
- reactive responses
- psychological principles

- positive programming i.e. the process of teaching the individual alternative, adaptive behaviours which achieve the same function as the challenging behaviour

- environmental management strategies

One point was scored for each category identified, giving a maximum of 4.

Confidence

Teaching staff were asked to indicate their level of confidence about working with a child with an intellectual disability and challenging behaviour in their classroom on a 5 point Likert scale (1=very confident, 5 = not confident at all).

Results
.
Teaching staffs' understanding of the term challenging behaviour

Table 1 shows the number and percentage of teaching staff identifying each of the components for the definition and management of challenging behaviour and mean scores and standard deviations for questions 1 and 3.

INSERT TABLE 1 ABOUT HERE

An examination of the defining criteria of challenging behaviour identified by the teaching staff found a significant difference (n = 37, Cochran's Q = 30.68, df = 4, p < 0.001), with the participants being significantly more likely to identify the function of challenging behaviour than 'safety issues' (p<0.001), 'limited access to services' (p<0.001) or 'a challenge for services to cope' (p<0.001).

Participants' knowledge about the management of challenging behaviour

A Cochran's Q test indicated that there were significant differences across the criteria identified by teaching staff in relation to managing challenging behaviour (Cochran's Q = 34.94, df = 3, p = <0.001). A series of McNemar tests, with significance level adjusted for multiple comparisons, illustrated that teaching staff were significantly more likely to describe environmental, reactive and psychological principles in the management of challenging behaviour than positive programming strategies (p<0.001 in all cases).

Attributions about the causes of challenging behaviour in children with a learning disability

Table 2 provides a summary of the number and percentage of teaching staff identifying each type of causal attribution and casual model in relation to challenging behaviour in children with an intellectual disability.

INSERT TABLE 2 ABOUT HERE

McNemar tests illustrated that teaching staff were significantly more likely to attribute internal causes for challenging behaviour over external, unstable causes over stable and personal causes over universal causes. Significance values were p<0.001 for all comparisons. No significant differences were found between the controllable and uncontrollable attributions.

Causal Models

Table 2 provides a summary of the types of causal models for challenging behaviour in children with an intellectual disability which were identified by the teaching staff. A Cochrane's Q test indicated significant differences (Q= 42.63, df=3, p<0.0005) across the models. A series of McNemar tests, with significance levels corrected for multiple comparisons, illustrated that the teaching staff were significantly more likely to identify 'emotional' as a casual model compared with all the other models (p<0.0005 in all cases).

Teaching staff confidence about working with children with an intellectual disability and challenging behaviour

.The mean score for self-rated confidence about working with children with an intellectual disability who also display challenging behaviour was 2.14 (sd=1.03).

Discussion

The aim of the present study was to examine teaching staff knowledge, attributions and confidence in relation to children with an intellectual disability who displayed challenging behaviour. The study found that participants' knowledge about the term challenging behaviour was relatively limited, with the mean score in relation to definition being 1.2 out of a possible maximum of 5. This low score may be because the term 'challenging behaviour' is used less frequently within the education sector, where the tendency is to use the more generic term of 'emotional and behaviour difficulties' (EBD). Participants were significantly more likely to identify the function of challenging

behaviour in their definition compared with all other criteria except topography. Research with other staff groups has also found a tendency for challenging behaviour to be defined in terms of topography (Hastings *et al*., 1997) probably due to the fact that it is the most apparent of all the variables to identify.

Teaching staff were also significantly likely to define challenging behaviour in terms of its function. Understanding the function of a behaviour for an individual is central to developing an appropriate intervention, however, identifying the function without undertaking a formal functional analysis can be problematic, as it may result in an inaccurate function being identified (Sturmey, 1996; Xeniditis *et al*., 2001). Research suggests that staff are not always able to appropriately identify the function of challenging behaviour (Oliver *et al*., 1996) even when they are provided with comprehensive information outlining the target behaviour (Morgan & Hastings, 1998).

The knowledge of teaching staff about the management of challenging behaviour in children with an intellectual disability was also found to be relatively low, with a mean score of 1.7 out of a possible 4. The effective management of challenging behaviour requires a combination of proactive strategies, safe and effective reactive strategies, the consistent application of psychological principles and positive programming components (Ball *et al.,* 2004). In particular there is a need for positive programming approaches in order to change behaviour in the longer term. Participants in the present study were, however, significantly more likely to identify environmental, reactive and psychological principles than positive programming approaches. A number of participants did identify

psychological principles as important in managing challenging behaviour, which may reflect the relatively frequent use of psychological principles in the education system to manage childrens' behaviour (Cameron, 1998). Overall, however, environmental and reactive strategies were identified more than other components. This pattern is consistent with previous research with other staff groups that found that the participants were significantly more likely to identify reactive strategies than the other components required for the successful management of challenging behaviour (Male, 2003; McKenzie *et al.,* 1999).

The results suggests that, while a number of teaching staff are able to identify some of the important components for successful management of challenging behaviour in children with an intellectual disability, none were able to identify positive programming approaches. This suggests a knowledge and skills gap for teachers which needs to be addressed. While there has only been limited research carried out in the education sector in relation to children with an intellectual disability and challenging behaviour, research with health and social care staff suggests staff training can significantly increase knowledge, with the effects being found to be maintained a year after training (McKenzie *et al.,* 2000). A recent review of staff training suggested that a combination of in-service training and coaching on the job is the most effective format (van Oorsouw *et al.,* 2009) and it may be that such an approach may also be the most effective in teaching positive programming approaches for challenging behaviour to teaching staff.

Attributions about challenging behaviour

The study also found that participants were significantly more likely to identify internal, stable and personal causal models for challenging behaviour over external, stable and universal causal models respectively. These attribution styles are thought to be linked to greater feelings of anger and the likelihood of less helping behaviour or support (Weiner, 1980, 1993). This may exacerbate the occurrence or intensity of the behaviour being displayed (Oliver, 1993; Hastings & Remington, 1994a) which in turn may impact on the risk of injury to the child (Borthwick-Duffy, 1994) and others (Spreat *et al.,* 1986) as well as teacher stress (Male & May, 1997, 1997a).

In relation to the causal models outlined in the CHABA (Hastings, 1997), participants were most likely to attribute emotional causes to challenging behaviour, which also reflects a controllable and internal attribution. Some research conducted within health and social care settings has found that training can change attributions (Dowey *et al.,* 2007), particularly those about emotional causes of challenging behaviour (McGill *et al.,* 2007), suggesting that this may be a useful way of tackling potentially unhelpful attributions. Others authors, have, however, found no change or no sustained change in attributions following training (Lowe *et al.,* 2007).

Teaching staff confidence

Teaching staff confidence about working with children with an intellectual disability and challenging behaviour was relatively low and may reflect the fact that the teaching staff recognize the limitations of their knowledge about challenging behaviour. Staff training has also been found to increase the confidence of staff in managing challenging behaviour, including student nurses (McKenzie *et al*., 2004) and care staff (Murray *et al*.,

2000) although the latter found a gender effect with males being significantly more likely to feel confident after training compared with females. Both studies, however, related to adults with an intellectual disability and both had relatively small sample sizes.

The present study also had some methodological limitations. The scoring system used did not take into account the number of correct examples of a theme which was identified by the teaching staff. As participants were awarded a score of 1 point irrespective of whether they provided one or ten examples of the same theme, the scoring system may not have picked up the range and depth of their knowledge. Secondly, as the questionnaire was originally developed for use with health and social care staff it may not have been as appropriate for teaching staff, although the pilot study did indicate that it had face validity for teachers. Finally, the study had a relatively small sample size from a defined geographical area in Scotland and so the results may not generalize to other areas and teaching staff.

Conclusion
In conclusion, the present study found that teaching staff knowledge about the definition and management of challenging behaviour displayed by children with an intellectual disability was relatively low. The participants were most likely to define challenging behaviour by function or topography. They were largely unaware of positive programming strategies for helping change challenging behaviour in the longer term and they tended to refer to the use of environmental or reactive strategies as the main ways of dealing with challenging behaviour. This suggests that teaching staff may not be properly equipped to manage challenging behaviour effectively. The participants were found to

hold attributions which research suggests are associated with reduced helping behaviour and increased anger. This indicates a continuing need to identify effective ways of promoting more accurate knowledge and positive attributions in teaching staff. Staff training may offer one solution.

References

Ball, T., Bush, A. & Emerson, E. (2004) *Psychological interventions for severely challenging behaviours shown by people with learning disabilities: Clinical Practice Guidelines.* British Psychological Society: Leicester

Borthwick-Duffy, S.A. (1994). Prevalence of destructive behaviours. In T. Thompson & D.B. Gray (Eds.) *Destructive behaviour in development disabilities: Diagnosis and treatment.* Thousand Oaks: Sage.

Cameron, R.J. (1998) School discipline in the United Kingdom: promoting classroom behaviour which encourages effective teaching and learning. *Educational and Child Psychology,* 15 (1): 40-55

Dagnan, D., Trower, P. & Smith, R. (1998). Care staff responses to people with learning disabilities and challenging behaviour: A cognitive emotional analysis. *British Journal of Clinical Psychology,* 37:59-68.

Dowey, A., Toogood, S., Hastings, R. & Nash, S. (2007). Can brief workshop interventions change care staff understanding of challenging behaviours? *Journal of Applied Research in Intellectual Disabilities,* 20(1):52-57.

Harris, J., Cook, M. & Upton, G. (1996). *Pupils with severe learning disability who present challenging behaviou*r. Kidderminster; British Institute of Learning Disabilities.

Hastings, R. (1996). Staff strategies and explanations for intervening with challenging behaviours. *Journal of Intellectual Disability Research*, 40:166-175.

Hastings, R. (1997). Measuring staff perceptions of challenging behaviour: the Challenging Behaviour Attributions Scale (CHABA). *Journal of Intellectual Disability Research*, 41(6): 495-501.

Hastings, R., Reed, T. & Watts, M. (1997). Community staff causal attributions about challenging behaviour in people with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities.* 10(3): 238-249.

Hastings, R. & Remington, B. (1994). Staff behaviour and its implications for people with learning disabilities and challenging behaviour. *British Journal of Clinical Psychology,* 33: 423- 438.

Hastings, R. & Remington, B. (1994a). Rules of engagement: Towards an analysis of staff responses to challenging behaviour. *Research in Developmental Disabilities*, 15: 279-298.

Hastings, R., Remington, B. & Hopper, G. (1995). Experienced and inexperienced health care workers' beliefs about challenging behaviours. *Journal of Intellectual Disability Research*, 39:474- 483.

Jones, R. & Eayrs C. (1993). *Challenging behaviour and intellectual disabilities: A psychological perspective.* BILD Publications: Clevedon

Kiernan, C. & Kiernan, D. (1994). Challenging behaviour in schools for pupils with severe learning difficulties. *Mental Handicap Research*, 7:117-201.

Lowe, K., Jones, E., Allen, D., Davies, D., James, W., Doyle, T., Andrew, J., Kaye, N., Jones, S., Brophy, S. & Moore, K. (2007). Staff training in positive behaviour support: Impact on attitudes and knowledge. *Journal of Applied Research in Intellectual Disabilities*, 20(1): 30-40.

Male, D. (1996). Who goes to SLD schools? *Journal of Applied Research in Intellectual Disabilties,* 4(4); 307-235.

Male, D. (2003). Challenging behaviour: The perceptions of teachers of children and young people with severe learning disabilities. *Journal of Research in Special Educational Needs*, 3(3): 162-171.

Male, D. & May, D. (1997). Stress, burnout and workload in teachers of children with severe learning difficulties. *British Journal of Learning Disabilities*, 25;117-121.

Male, D. & May, D. (1997a). Stress, burnout and workload in teachers of children with special educational needs. *British Journal of Special Education*, 24(3); 133-140.

McGill, P., Bradshaw, J. & Hughes, A. (2007). Impact of extended education/training in positive behaviour support on staff knowledge, causal attributions and emotional responses. *Journal of Applied Research in Intellectual Disabilities*, 20(1): 41-51.

McKenzie, K., McIntyre, S., Matheson, E. & Murray, G. (1999). 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., Matheson, E., Patrick, S., Paxton, D. & Murray, G.C. (2000) An evaluation of the impact of a one day training course on the knowledge of health, day care and social care staff working in learning disability services. *Journal of Learning Disabilities,* 4(2): 153-156.

McKenzie, K., Powell, H. & McGregor, L. (2004). The impact of control and restraint training on nursing students. *Learning Disability Practice*, 7(9): 34-37.

Morgan, G. & Hastings, R. (1998). Special educators' understanding of challenging behaviours in children with learning disabilities: Sensitivity to information about behavioural function. *Behavioural and Cognitive Psychotherapy*, 26: 43–52.

Murray, G., McKenzie, K., Quigley, A. & Sinclair, B. (2000). The relationship between training and the experience of aggression in the work-place in social care staff working in learning disability services. *Journal of Learning Disabilities for Nursing, Health and Social Care,* 3(4): 214- 218.

Noone, S., Jones, R. & Hastings, R. (2006). Care staff attributions about challenging behaviour in adults with intellectual disabilities. *Research in Developmental Disabilities,* 27:109-120.

Oliver, C., Hall, S., Hales, J. & Head, D. (1996). Self-injurious behaviour and people with intellectual disabilities: Assessing the behavioural knowledge and causal explanations of care staff. *Journal of Applied Research in Intellectual Disabilities*, 9:229-239.

Oliver, C. (1993). Self-injurious behaviour: From response to strategy. In, C. Kiernan (Ed.) *Research into practice? Implications of research on the challenging behaviour of people with a learning disability.* BILD Publications: Clevedon

Royal College of Psychiatrists, British Psychological Society and Royal College of Speech and Language Therapists (2007) *Challenging Behaviour a Unified Approach - Clinical and service guidelines for supporting people with learning disabilities who are at risk of receiving abusive or restrictive practices:* RCPsy, BPS, RCSLT: London

Scottish Government. (2004). *Education (Additional Support for Learning) (Scotland) Act.* Scottish Government: Edinburgh

Spreat, S., Lipinski, D., Hill, J. & Halpin, M. (1986). Safety indices associated with the use of contingent restraint procedures. *Applied Research in Mental Retardation*, 7: 475–481.

Stratton, P., Heard, D., Hanks, H., Munton, A., Brewin. & Davidson, C. (1986). Coding causal beliefs in natural discourse. *British Journal of Clinical Psychology*, 25: 299-313.

Sturmey, P. (1996). Functional Analysis in Clinical Psychology. John Wiley: Chichester

van Oorsouw, W.M., Embregts, P.J., Bosman, A.M. & Jahoda A. (2009) Training staff serving clients with intellectual disabilities: A meta-analysis of aspects determining effectiveness. *Research in Developmental Disabilities* 30, 503–511

Weiner, B. (1980). A Cognitive (Attribution)-Emotion-Action model of helping behavior: An analysis of judgements of help giving. *Journal of Personality and Social Psychology*, 39: 1142– 1162.

Weiner, B. (1993). On sin versus sickness: A theory of perceived responsibility and social motivation. *American Psychologist,* 48: 957–965.

Xeniditis, K., Russel, A. & Murphy, D. (2001). Management of people with challenging behaviour. *Advances in Psychiatric Treatment*, 7: 109-116.

Table 1: the number and percentage of teaching staff identifying each of the components for the definition and management of challenging behaviour and mean scores and standard deviations for questions 1 and 3.

Defining challenging behaviour	Number	percentage	Managing Challenging Behaviour	Number	Percentage
Function	21	38.9	Environmental	25	46.3
Topography	11	20.4	Reactive	21	38.9
Safety	4	7.4	Psychological principles	16	29.6
Limited access to services	4	7.4	Positive programming	0	0
Behaviour the services has difficulty coping with	3	5.6			
Area	Number responding	Range	Mean	SD	
Defining challenging behaviour	37	0-2	1.2	0.6	
Managing challenging behaviour	37	0-3	1.7	0.7	
Total score	37	0-5	2.8	1.0	

Table 2: the number and percentage of teaching staff identifying each type of causal attribution and casual model in relation to challenging behaviour in children with an intellectual disability

Attribution Types	Number	Percentage
Internal	35	87.5
External	9	22.5
Personal	20	50
Universal	2	5
Stable	8	20
Unstable	31	77.5
Controllable	9	22.5
Uncontrollable	7	17.5
Casual Models		
Learned Behaviour	11	27.5
Biomedical	13	32.5
Emotional	32	80
Physical Environment	12	30
Stimulation	4	10