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HEALTH AND SOCIAL CARE WORKERS' UNDERSTANDING OF THE MEANING AND MANAGEMENT OF CHALLENGING BEHAVIOUR IN LEARNING DISABILITY SERVICES

ABSTRACT

The present study sought to investigate the relationship between professional background, length of experience, understanding of the term "challenging behaviour" and opinions of factors important in managing challenging behaviour in people with a learning disability. Health Workers identified significantly more definition criteria than Social Care Workers, yet no significant difference was found between their overall scores for management criteria. Rather the emphasis of their knowledge of management principles appeared to be different. A significantly greater percentage of Health Workers identified management criteria relating to psychological principles, while a greater percentage of Social Care Workers identified that of reactive responses. Health Workers seemed more likely to identify challenging behaviour in terms of its impact on the service while Social Care Workers appeared to concentrate on the type of behaviour evident. Finally, the longer the experience of the Social Care Worker, the higher their overall scores for the definition and management criteria. However, no significant relationship was found between experience and overall scores amongst Health Workers. Implications of the findings are discussed.

INTRODUCTION

DEFINING CHALLENGING BEHAVIOUR

The phrase "Challenging Behaviour" has become part of the everyday language in the field of learning disability (Thurman, 1997). The term originally arose to emphasise that the challenge was for services to meet the needs of individuals with a learning disability, rather than the difficulties purely residing in the individual him/herself. This was articulated by Emerson et al, (1988) who defined severe challenging behaviour as "behaviour of such intensity, frequency, or duration, that the physical safety of the person or others is placed in serious jeopardy, or behaviour which is likely to seriously limit, or deny access to and use of ordinary community facilities" (Emerson et al., 1988, p. 423 in Hastings and Remington, 1994a).

However, Wing (1996) notes that the term "challenging behaviour" can often be misinterpreted or misapplied, being seen as referring to behaviour that is deliberately awkward and defiant. Similarly, Cheseldine and Stansfield (1993) note that the term is used interchangeably with "problem behaviour", resulting in labels which the individual finds difficult to shake off. This may also result in challenging behaviour being identified according to its behavioural topography (Hastings et al., 1997) e.g., self injury, aggression and stereotypy. These difficulties may reflect a lack of clarity on the subject, with an ongoing debate about the terminology taking place (Thurman, 1997). Despite these concerns the term challenging behaviour does implicitly acknowledge that the behaviour has a function for the individual in expressing an unmet need (Thurman, 1997). The need to recognise the role that services may have in both ameliorating and maintaining challenging behaviour has become more important with the changes in service provision for individuals with learning disabilities (McGill & Mansell, 1995). Over the past decade this has involved a transfer from hospital based settings to settings based within the community (Hastings & Remington, 1994a). As a consequence, the day to day support of people with a learning disability has changed from largely being the remit of health professionals to that of social care staff. As more individuals with complex needs and challenging behaviour are discharged from hospital settings the demand on care staff will increase, with Hill & Bruininks (1984) noting that over half of the community staff in their study were required to support individuals with challenging behaviour. Both health and social care staff share the goal of supporting people with a learning disability. However, they may differ in the type and amount of training they have received, and experience of working with this client group.

Thus, in tandem with this change in service provision has come an increasing recognition of the complexity of the influences on challenging behaviour. In particular increasing emphasis has been placed on the role of those who support people with a learning disability. Some of these influences are outlined below.

BEHAVIOUR IN CONTEXT: THE IMPACT OF OTHER PEOPLE ON CHALLENGING BEHAVIOUR

The attitudes, knowledge and behaviour of social care and health professionals can directly impinge on the expression of challenging behaviours in a number of ways. These include: affecting the selfconcept of the individual being supported (Paris, 1993); the way services are organised and delivered (Slevin & Sines, 1996) and the quality of the service delivered. As a result research has increasingly begun to focus on specific factors which may impact on staff and carers' understanding and management of challenging behaviour.

In general, a number of studies have found that increased experience of working with individuals with a learning disability leads to more positive attitudes (Slevin, 1995; Antonak, 1995). In relation to challenging behaviour, it has been found that experienced staff differ from inexperienced staff in relation to their attributions about the causes of challenging behaviour (Hastings et al, 1995) with experienced staff being more likely to identify environmental, emotional and biological factors as causes (Hastings et al, 1997). Such differences in attributions may lead to different staff responses to the same incident of challenging behaviour.

Social Interaction and Client Contact

Allen (1994) argues that the availability and range of opportunities for individuals to engage in constructive activity and interaction impacts significantly on the image and competence of those labelled as having challenging behaviour. The move to community care has been found by some researchers to have resulted in an increase in the amount of contact and interaction between carers and clients and have highlighted differences between clients living in the community and in residential settings (Felce & Repp, 1992; Hemming et al. 1981; Mansell & Beasley, 1990) although increased contact is not found across all community-based services (Abraham et al, 1991). The changes in social contact have been noted by Hastings & Remington (1994a) to relate to challenging behaviour in two possible ways: Increased attention may reinforce challenging behaviour, while decreased contact may lead to clients engaging in self stimulatory activities (stereotypy or self injury). In addition, increased contact can be counter-habilitative if the quality of staff interactions are poor (Hastings & Remington, 1994a) or do not contribute to the individual learning more adaptive ways of

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expressing their needs (Hile & Walbran, 1991). Thus the relationship between social contact and challenging behaviour is complex.

STAFF RESPONSES TO THE MANAGEMENT OF CHALLENGING BEHAVIOUR

The capability of services in responding to challenging behaviour relies on staff ability to react safely and appropriately to the occurrence of episodes of challenging behaviour, devise interventions based upon clearly articulated beliefs about the function of the behaviour for the individual and implement long-term alternative strategies to meet the individuals needs (Department of Health, 1993).

Research has therefore focused on these three main areas:

- 1. Reactive Responses
- 2. Psychological Principles
- 3. Positive Programming

1. Reactive Responses

The manner in which care staff initially react to challenging behaviour may influence the behaviour itself and vice versa (Hastings & Remington, 1994a). Self injurious behaviour and aggression have been shown to elicit strong negative emotions in staff (Hastings & Remington, 1994b). Bromley and Emerson (1995) noted that care staff report emotions such as anger, despair, annoyance, sadness and disgust in response to episodes of challenging behaviour. These responses seemed to be related to the unpredictability of behaviour, difficulty in understanding the behaviour, the daily routine of caring and not being able to see a plan for moving forward.

Staff responses are of particular importance, given that the consequences of behaviour can decrease or increase the behaviour (Donnellan et al. 1988) and may contribute to the success or failure of behavioural interventions (Hastings and Remington, 1994a).

The effective use of protective reactive strategies is important, especially when dealing with clients whose behaviour is self injurious or aggressive towards others. Self protection strategies are important to ensure the safety of the carer, however staff also have a duty of care to clients in their care (McKay, 1991). In such situations professionals and carers are obliged to intervene for the benefit/protection of the client, even if this means going against the client's personal preferences. Research indicates that care staff do not always intervene effectively in situations where the client may be at risk (Hastings et al., 1995).

2. Psychological Principles

Hastings and Remington (1994b) note that challenging behaviour can have different and multiple causes and functions, for example environmental, programmatic, instructional or communicative (Donnellan, et al, 1988). Thus understanding the function of the behaviour and knowledge of basic behavioural principles forms a fundamental basis to understanding the challenging behaviour and formulating appropriate management strategies (Donnellan, et al, 1988).

3. Positive Programming

Positive Programming is the process whereby, following the function of the behaviour being determined, alternative, constructive behaviours are implemented enabling the client to achieve or communicate the same function. This may include:

- Teaching a new behaviour
- Substituting different ways of communication

- Teaching alternative behaviours
- Giving meaning to behaviours whose meaning at the time may seem unclear. In this way the behaviour is shaped into a communication which can then gradually be replaced by a new method of communication (Donnellan, et al, 1988).

The combination of the development of appropriate and safe reactive strategies, functional analysis of the behaviour using psychological principles and the implementation of a positive programming approach tailored to the individual's needs, offers an effective response to challenging behaviour.

SUMMARY

By definition challenging behaviour challenges the service to determine the unmet needs of the individual. The complexity of the factors which may influence the successful analysis and management of challenging behaviour have been outlined. One key factor is the knowledge, attitude and approaches of staff and carers towards challenging behaviour. With the exception of families, the health and social care professions are the two groups most likely to provide regular support and input to those individuals displaying challenging behaviour.

The present study therefore sought to investigate the relationship between professional background, length of experience, understanding of the term "challenging behaviour" and opinions on factors important in managing challenging behaviour in individuals with a learning disability.

METHOD

Questionnaires were given to two main groups with whom staff came into contact as part of their routine clinical work.

The study examined the view of two groups of staff: health care (N=23) and social care (N=72), giving a total sample size of 95. Health care workers were professionally qualified NHS staff who were employed to provide a specialist service to people with a learning disability within the following settings: (1) a community learning disability team; (2) a Health Service challenging behaviour unit; (3) a Health Service nursing home provision. The professional groups included nursing, clinical psychology, psychiatry, speech and language therapy, occupational therapy and physiotherapy. Social care staff were employed by the independent sector or social work department to provide direct day care to individuals with a learning disability in residential or day care settings.

Participants were assured that participation was voluntary and their responses were anonymous. All those approached agreed to participate, giving a response rate of 100%. Questionnaires were completed in the presence of the authors and contained the following questions:

a) what is your understanding of the term "challenging behaviour"?

b) what do you think the most important factors are in managing challenging behaviour?

In addition carers were asked to give the number of years experience they had in the field of learning disabilities and indicate their professional background.

Understanding of the term "challenging behaviour"

Two raters scored each response to the first question regarding understanding of the term "challenging behaviour" in terms of those factors consistently identified in the literature as relating to the definition of challenging behaviour, i.e.,

a) Topography – e.g., aggression, self injury, stereotypy.

- b) Safety of the client or other individuals
- c) Limited access to community resources
- d) Behaviour which the community or worker found it difficult to cope with

In addition each response was assigned an overall score from 0 - 4, depending on how many of the categories above were mentioned.

Table 1 below gives examples of responses and scores in relation to the question "What is your understanding of the term "challenging behaviour"?"

Table 1: Examples of responses and scoring criteria in relation to "understanding of challenging behaviour".

Example	Score	Reason
Behaviour which may be	1	One category is described, that of topography
unpredictable or aggressive		
Any behaviour which a service has	1	One category is described, that which the
difficulty in dealing with/responding		community finds it difficult to cope with.
to		

Behaviour which results in harm to	3	Three categories indicated - topography,
self or others, which causes stress or		safety and access to community resources
prevents use of community resources		

Managing Challenging Behaviour

Responses to the question "What are the most important aspects in relation to dealing with challenging behaviour?" were scored by two raters in terms of:

- a) Reactive Responses e.g. issues relating to safety and protection, a need to be calm etc.
- b) Psychological Approach and Principles e.g. function of behaviour, consistency, reinforcement, triggers etc.
- c) Positive Programming implementation of long term skills as an alternative to problem behaviour

Responses were also assigned an overall score from 0 - 3 depending on how many of the categories above were included in the response.

Table 2 below gives examples of responses and scoring criteria in relation to "managing challenging behaviour".

Table 2: Examples of responses and scoring criteria in relation to "managing challenging behaviour".

Example	Score	Reason
Be consistent with your behaviour	1	One category indicated, that of psychological principle
		principie

Proper assessment of it's function.	1	Psychological principle approach
Consistent staff approach to the		
agreed course of action		
Does the behaviour fulfil a function?	2	Two categories indicated, namely
If so can an alternative be introduced		psychological principle and positive
to replace the behaviour		programming

All responses were analysed by two independent raters to give a measure of inter-rater reliability.

RESULTS

Inter-rater Reliability

All responses were analysed by two raters to determine inter-rater reliability. Results were analysed using the Kappa statistical procedure. Inter-rater reliability for all four "definition" and all three "management" criteria were found to have K values of 0.91 or above (p<0.01). Thus there was a significant agreement between raters for all four "definition" criteria, and all three "management" criteria.

Understanding of the term "challenging behaviour"

Graph 1 below illustrates the percentage of Health professionals and Social care workers identifying each category in response to the question "what is your understanding of the term challenging behaviour?"

Graph 1: Category of responses identified by each professional group.

INSERT GRAPH 1 HERE

Graph 2 below illustrates the percentage of each professional group identifying none, one, two, three or four of the categories in response to the question "What is your understanding of the term challenging behaviour?"

Graph 2: Percentage of categories identified by each professional group.

INSERT GRAPH 2 HERE

Comparison of Responses between Social Care and Health professionals

Category Identified

A chi-square test demonstrated that the identification of category 4 (behaviour which the community or worker found difficult to cope with) was significantly associated with the professional group ($x^2 = 10.5$, df = 1, p < 0.01), with the Health group more likely to identify this criteria.

Number of Categories Identified

An independent samples t-test found a significant difference between the mean scores for the two groups (t = 2.26, df = 93, p<0.05), with the Health group identifying more criteria than the Social Care group.

Categories identified within the Social Care group

A Cochran's Q test was conducted which demonstrated that the frequency of identified responses differed significantly across the four definition criteria (Q = 21.25, df = 3, p < 0.01), with individuals being more likely to refer to topography than safety (x^2 =6.62, p<0.05) or limiting access to resources (x^2 =17.63, p<0.01).

Categories identified within the Health Care group

A Cochran's Q test was conducted which demonstrated that the frequency of correct responses differed significantly across the four definition criteria (Q = 10.69, df = 3, p < 0.05), with individuals being

more likely to refer to challenging behaviour as something the service/carer found difficult to deal with than topography (binomial; 2-tailed p<0.05) or safety (binomial; 2-tailed p<0.05).

Factors identified as important in dealing with challenging behaviour

Graph 3 below illustrates the percentage of each professional group identifying each of the three management factors as important in dealing with challenging behaviour.

Graph 3: Factors identified as important in dealing with challenging behaviour by each professional group.

INSERT GRAPH 3 HERE

Graph 4 below illustrates the percentage of each professional group identifying none, one, two or three of the "management" factors as important in dealing with challenging behaviour.

Graph 4: Percentage of categories identified by each professional group.

INSERT GRAPH 4 HERE

Comparison of Responses between Social Care and Health Professionals

Factors identified as important in dealing with challenging behaviour

A chi square test demonstrated that the identification of the factor, psychological principle, was significantly associated with the professional group ($x^2 = 5.51$, df = 1, p < 0.05), with a higher percentage of Health professionals identifying this criteria, than social care staff.

Number of factors identified

An independent samples t-test demonstrated that there were no significant differences between the mean scores for the two professional groups (unequal t = 0.61, df = 30.12, p = 0.547).

Factors identified as important in managing challenging behaviour within the Social Care group

A Cochran's Q test was conducted which demonstrated that the frequency of identified responses differed significantly across the three categories (Q = 49.80, df = 2, p < 0.01) with social care workers being significantly more likely to identify reactive responses than psychological principles ($x^2 = 8.48$; p < 0.01) or positive programming ($x^2 = 41.19$, p < 0.01).

Factors identified by Health Professionals

A Cochran's Q test demonstrated that the frequency of responses differed significantly across the three factors (Q = 14.78, df = 2, p < 0.01) with health professionals being significantly more likely to identify reactive responses than positive programming approaches (binomial, 2-tailed, p<0.05). The majority (60.9%), however, identified psychological principles as important in dealing with challenging behaviour.

Experience and Professional Group

T - tests for independent samples demonstrated a significant difference in the mean number of years of experience between the two groups (t = -3.70, df = 93, p < 0.01), with Health Workers having worked longer on average (mean = 10.35) than Social Care Workers (mean = 5.28).

Experience and identification of "definition" and "management" factors in relation to challenging behaviour.

A Pearson Correlation revealed significant relationships between the experience of Social Care Workers and their "definition" score (r = 0.33, p < 0.01), and their "management" score (r = 0.31, p < 0.01). The more experience the workers had the more categories were identified both for understanding of challenging behaviour, and factors important in dealing with challenging behaviour.

A Pearson Correlation revealed no significant relationships between the experience of Health Care Workers and their "definition" score, or their "management" score.

DISCUSSION

Health workers were found to identify significantly more aspects of the concept "challenging behaviour" than Social Care Workers. This might be expected as the work of Health staff is largely more specialist in nature, involving more emphasis on detailed assessment and treatment of clients referred for challenging behaviour (Greig & Peck, 1998).

This knowledge and experience, however, did not always seem to translate into greater knowledge in terms of management skills. This was suggested as no significant difference was found between the two groups for their overall score on management criteria. Rather, the emphasis of where that knowledge lies appears to be different. A significantly greater percentage of Health Workers identified psychological principles as being of greatest importance in managing challenging behaviour, while a greater percentage of Social Care Workers identified initial reactive responses. This may largely be the result of the involvement each professional group has in dealing with challenging behaviour. Social care staff are likely to be with their clients for long periods and are likely to be most concerned with "here and now" strategies which can be implemented at the time challenging behaviour is displayed to avoid harm to the staff and clients. In addition they may have a lower level of knowledge of behavioural principles (Aitken et al, 1993).

Health professionals on the other hand are likely to be involved in the longer term strategies of managing challenging behaviour (Greig et al, 1996; Taylor et al, 1996). The application of psychological and behavioural principles is likely to have been part of the formal training received by most health professionals dealing with challenging behaviour in learning disability services. It would therefore appear that Health Workers knowledge may be based on the understanding of psychological principles as a result of training. However, the Social Care Workers response seems to be one which

has been learned through experience, and to maintain personal and client safety. Interestingly, very few Health and Social Care Workers mentioned positive programming approaches to challenging behaviour. It appears that workers tend to focus on controlling the challenging behaviour without helping the individual to replace it with a more appropriate, alternative behaviour.

Health Workers seemed more likely to identify challenging behaviour in terms of its impact on the service. On the other hand Social Care Workers appeared to concentrate on the type of behaviour evident - topography. This echoes observations by Hastings et al (1997) who note that challenging behaviour is often recognised by it's topography. Hastings and Remington (1994c) argue that staff can make attributions about challenging behaviour based on information most readily available to them. They note that this may often be the topography as it is often the most unambiguous dimension. Cheseldine and Stansfield (1993) and Wing (1996) have also observed this tendency to use the terms "challenging behaviour" and "problematic behaviour" interchangeably, voicing concern that it may result in labels for individuals which are difficult to shake off. It appears that Health Workers are more focused on how the service can help. Hence they seem to interpret the term "challenging behaviour" in terms of it's challenge to the service, rather than focusing on the problematic nature of the behaviour.

Health Workers had significantly longer experience than Social Care Workers. Interestingly, the longer the experience of the Social Care Worker, the higher their overall scores for the definition and management criteria. McKenzie et al (1998b) also found that the more experience that individuals had the greater their knowledge of the criteria for a learning disability. Increased contact with people with learning disabilities has also been found in previous studies to lead to increased knowledge of types of intervention (Bromley & Emerson, 1995) and improved quality of day-care provision (Munton et al., 1995). However, no significant relationship was found between experience and overall scores amongst Health Workers. This could be understandable in that Social Care Workers do not have as much formal training as Health Workers, hence they may learn more by experience. Health Workers on the other hand usually enter the profession following formal training, hence experience is not the main or only avenue of learning about or understanding challenging behaviour. Previous research has found training to be a valuable avenue for increasing knowledge amongst those working in the field of learning disabilities (Kobe & Mulick, 1995; Nagarajaiah et al, 1994; Morch & Eikeseth, 1992; Wilson et al 1991; Allen et al, 1997)

In examining services deemed as excellent Mansell (Department of Health, 1993) found that they invested heavily in training direct care staff with an emphasis on training all staff and training them all together (Johnstone, 1988). Taylor et al (1996) conducted research where a psychologist gave ongoing consultation regarding functional assessment and adhering to behavioural techniques to staff working with a client who exhibited high level of self injury. They found that this intervention resulted in a significant decrease in the client's challenging behaviour.

Implications for Training

A number of health professionals have a valuable mix of formal training and practical experience and may be in a position to assist in the training of social care staff and in applying and monitoring the practical application of principles when working with clients. However it has been noted that such input must take into account the context in which social care staff work, and an understanding of existing staff knowledge and beliefs (Fitzsimmons & Barr, 1997). Staff supporting an aggressive client may require input on initial reactive strategies to maintain personal and client safety, before they can consider longer-term strategies.

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Similarly misplaced or superficial training that does not meet the needs of staff can reinforce negative attitudes and stereotypes (May et al, 1994). It would however appear that both social care and health professionals need reminding about the value of longer-term positive programming approaches to ensure that client needs are met in alternative, appropriate ways.

The above study does, however, have a number of limitations. The most obvious is that the results were based on respondents' written responses to a questionnaire. It is likely that this accurately reflected respondents understanding of "challenging behaviour". However, the approaches identified as important in dealing with challenging behaviour, may not be those which staff use in practice. Hastings and Remington (1994) have found discrepancies between staff reports about responses to challenging behaviour and observational studies which reflect actual responses.

The present study does however differ from the above in that it aimed to examine staff beliefs about what factors were important in managing challenging behaviour, rather than how staff actually responded. This gives some indication of where the need for staff training lies.

CONCLUSION

In summary the present study examined the level of knowledge of Social Care and Health Professionals in terms of their understanding of the term "challenging behaviour" and it's management. Health Workers identified significantly more definition criteria than Social Care Workers, yet no significant difference was found between their overall scores for management criteria. Rather the emphasis of their knowledge of management principles appeared to be different. A significantly greater percentage of Health Workers identified psychological principles as important in managing challenging behaviour, while a greater percentage of Social Care Workers emphasised reactive responses. Very few Health and Social Care Workers mentioned positive programming in the management of challenging

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behaviour. Health Workers seemed more likely to identify challenging behaviour in terms of its impact on the service while Social Care Workers appeared to concentrate on the type of behaviour evident. Lastly, the longer the experience of the Social Care Worker, the higher their overall scores for the definition and management criteria. However, no significant relationship was found between experience and overall scores amongst Health Workers. Implications of the findings are discussed.

REFERENCES

Abraham, C., Lindsay, W. & Lawrenson, H. (1991). *The role of 'carers' of people with mental handicaps: An observational study across contexts.* Mental Handicap Research, 4, 20 - 40.

Aitken, C.J., Tone, E.J., Smith, J.A., & Wood, E.R. et al (1993). Behavioural knowledge amongst staffing groups for the care of the intellectually disabled. Behavioural Residential Treatment, 8(1), 1-8.

Allen, D. (1994). Towards meaningful daytime activity. In Emerson, E., McGill, P. & Mansell, J.
(Eds) Severe Learning Disabilities and Challenging Behaviours: Designing High Quality Services.
Chapman Hall, London.

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 - 112.

Antonak, R., Feilder, C., & Mulick, J. (1995). Influence of mental retardation severity and respondents characteristics on self-reported attitudes towards mental retardation and eugenics. Journal of Intellectual Disability Research, 37(1), 75-83.

Bromley, J. & Emerson, E. (1995). *Beliefs and emotional reactions of care staff working with people with challenging behaviour.* Journal of Intellectual Disability Research, 39(4), 341 - 352.

Cheseldine, S. & Stansfield, J. (1993). *Gentle teaching: A guide for carers*. University of Strathclyde. Scotland.

Department of Health (1993). Services for People with Learning Disabilities and Challenging Behaviours or Mental Health Needs. Report of the Project Group. London. HMSO.

Donnellan, La Vigna, G, Shoultz, N & Fassbender, L (1988). *Progress Without Punishment.* Teachers College Press. London.

Emerson, E., Cummings, R., Barret, S., Hughes, H., McCool, C. & Toogood, A. (1988). *Challenging behaviour and community services 2: Who are the people who challenge services?* Mental Handicap, 16, 16-19.

Felce, D. & Repp, A. (1992). *The behavioural and social ecology of community houses*. Research in Developmental Disabilities, 13, 27 - 42.

Fitzsimmons, J & Barr, O. (1997). *A review of the reported attitudes of health and social care professionals towards people with learning disabilities: implications for education and further research.* Journal of Learning Disabilities for Nursing, Health and Social Care, 1(2), 57 - 64.

Greig, R., Cambridge, P., & Rucker, L. (1996). *Care management and joint commissioning*. In: J. Harries (Ed.) Purchasing Services for people with learning disabilities and Challenging Behaviour and Mental Health Problems. Kidderminster: British Institute of Learning Disabilities.

Greig, R. & Peck, E. (1998). *Is there a future for the community learning disability team*? Tizard Learning Disability Review, 3(1), 35-41.

Hastings, R. & Remington, B. (1994a). *Staff behaviour and its implications for people with learning disabilities and challenging behaviours.* British Journal of Clinical Psychology, 33, 423-428.

Hastings, R. & Remington., B. (1994b). *Staff behaviour and challenging behaviour: A reply to Clegg's commentary.* British Journal of Clinical Psychology, 33, 445 - 450.

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

Hastings, R., Remington, B. & Hooper, G. (1995). *Experienced and Inexperienced Health Care Workers Beliefs about Challenging Behaviours*. Journal of Intellectual Disability Research, 39(6), 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, 238 - 249.

Hemming, H., Lavender, T. & Pill, R. (1981). *Quality of life of mentally retarded adults transferred from large institutions to new small units.* American Journal of Mental Deficiency, 86, 157 - 169.

Hile, M.G. & Walbran, B.B. (1991). Observing staff-resident interactions: What staff do, what residents receive. Mental Retardation, 29, 35-41.

Hill, B.K. & Bruininks, R.H. (1984). *Maladaptive Behaviour of Mentally Retarded Individuals in Residential Facilities*. American Journal of Mental Deficiency, 88, 380 - 387.

Johnstone, S. (1988). *Guidelines for social workers on coping with violent clients*. British Journal of Social Work, 18, 377 – 390.

Kobe, F & Mulick, J. (1995). *Attitudes toward mental retardation and eugenics: The role of formal education and experience.* Journal of Developmental and Physical Disabilities, 7(1), 1-9.

Lyall, I., Holland, A & Collins, S. (1995). *Offending by Adults with Learning Disabilities and the Attitudes of Staff to Offending Behaviour.* Journal of Intellectual Disability Research, 39(6), 22 - 31.

McGill, P. & Mansell, J. (1995). Community placements for people with severe and profound learning disabilities and serious challenging behaviour. Journal of Mental Health – U.K., 4(2), 183 - 198.

McKay, C. (1991). Sex, Laws and Red Tape: Scots Law, Personal Relationships and People with Learning Disabilities. Scottish Society for the Mentally Handicapped. Glasgow. Scotland.

McKenzie, K., Higgon, J., Murray, G.C., & Matheson, E. (1998a, in press). *Knowledge of learning disability: The relationship with choice, duty of care and non-aversive approaches*. Journal of Learning Disabilities for Nursing, Health and Social Care.

McKenzie, K., Murray, G., Matheson, E., & Higgon, J. (1998b, in preparation). *What is a learning disability? Do people need to be reminded?* Department of Psychology, East and Midlothian Trust, Scotland.

Mansell, J & Beasley, F. (1990). Severe mental handicap and problem behaviour: Evaluating transfer from institutions to community care. In W.I. Fraser (Ed.), Key Issues in Mental Retardation Research. London: Routledge.

Mansell, J. & Beasley, F. (1993). Small staffed houses for people with a severe learning disability and challenging behaviour. Special Issue: Community Care. British Journal of Social Work, 23(4), 329–344.

May, D., Miller, J., Linton, P., et al (1994). *Changing attitudes: A teaching initiative in the medical school.* British Journal of Learning Disabilities, 22 (2): 104 – 108.

Morch, W. & Eikeseth, S. (1992). Some issues in staff training and improvement. Special Issue: Community based treatment programs: Some problems and promises. Research in Developmental Disabilities, 13(1), 43 - 55.

Munton, A., Mooney, A. & Rowland, L. (1995). *Helping providers to improve quality of day-care provision: Theories of education and learning.* Early Child Development and Care, 118, 15 - 25.

Nagarajaiah, R., Chandrashekar, D. & Parthasarathy, R. (1994). Perceived skills of multipurpose health workers in the management of mental disorders. NIMHANS Journal, 12(1), 15 - 20.

Paris, M. (1993). Attitudes of medical students and health care professionals toward people with *learning disabilities.* Archives of Physical Medicine and Rehabilitation, 74, 818 – 825.

Slevin, E. (1995). *Student nurses' attitudes towards people with learning disabilities*. British Journal of Nursing, 4 (13), 761 – 766.

Slevin, E. & Sines, D. (1996). Attitudes of nurses in a general hospital towards people with learning disabilities: Influences of contact and graduate – non-graduate status, a comparative study. Journal of Advanced Nursing, 24 (12), 1116 – 1128.

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 - 218.

Thurman, S (**1997**). *Challenging behaviour through communication*. British Journal of Learning Disabilities, 25, 111-116.

Wilson, P., Reid, D. & Korabek-Pinowski, C. (1991). *Analysis of public verbal feedback as a staff management procedure*. Behavioural Residential Treatment, 6(4), 263 - 277.

Wing, L. (1996). *The Autistic Spectrum: A Guide for Parents and Professionals*. Constable & Co. Ltd. London.

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