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The Applicability of Webster-Stratton Parenting Programmes to Deaf Children with Emotional and Behavioural Problems, and Autism, and Their Families: Annotation and Case Report of a Child with Autistic Spectrum Disorder

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ABSTRACT

This article describes a pilot project whose objective was to explore whether the Webster-Stratton Parenting Programme may be effective for hearing parents and their deaf children who present with conduct disorders and other emotional, behavioural and developmental problems. Outcome measures aimed at overall impact in decreasing behavioural problems and improving overall family function were used. Participants were hearing parents of deaf children referred to our specialist service whose assessment had recommended a parenting skills group as treatment of choice. The children had been diagnosed with behavioural problems with or without additional comorbidity. This pilot phase focused deliberately on one participant, in order to explore whether the approach justified further, more comprehensive evaluative research. Outcome was positive, suggesting that modified Webster-Stratton approaches may well be of use in deaf children of hearing parents.

KEYWORDS

deaf children, outcome, parenting groups, Webster-Stratton

ONE OF THE commonest types of childhood emotional and behavioural disorder is conduct disorder and this accounts for many referrals to CAMHS (Child and Adolescent Mental Health Services) (Meltzer, Gatward, Goodman, & Ford, 2003). Meltzer et al. (2000) found in their national survey of the mental health of children and adolescents in

Great Britain, that the prevalence of mental disorder in 5–15-year olds was 10%. Of these, 50% had clinically significant conduct disorders and 10% were rated as hyperactive.

According to Hindley and Kitson (2000) deaf children in the UK are one and half to two times more vulnerable to mental health problems than hearing children. A prevalence study by Hindley, Hill, McGuigan, & Kitson (1994) found 50% of deaf and hearing-impaired children to be suffering from a psychiatric disorder. However, ascertaining mental health problems in deaf children is complicated, depending on interviewing signing abilities and cultural status which frequently mask the child emotional difficulties (Hindley, Hill, & Bond, 1993). In addition, deaf children have been found to be more prone to additional comorbidities, such as hyperactivity, epilepsy and learning disabilities (Roberts & Hindley, 1999). This increased vulnerability can be attributed to the impacts of early language and experiential deprivation on children's social and emotional development as well as the consequences of parental reactions to the realization that their child is deaf.

Over 90% of deaf children of hearing parents frequently do not have an effective means of communicating with them (Vaccari & Marschark, 1997). This creates many challenges for parents in communicating with their children and contributes to mutual frustrations with potential for emergence of emotional and behavioural disorders.

All the above factors create challenges for clinical services in helping hearing parents of deaf children to strengthen and support their parenting skills. Parenting packages have been shown to be cost-effective tools for children with behavioural problems, having been applied in a variety of settings including primary care (Patterson et al., 2002).

Carolyn Webster-Stratton devised a parenting programme, which now has much published research evidence for its effectiveness (Webster-Stratton, 1984;

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Webster-Stratton & Hammond, 1997; Webster-Stratton, Hollingsworth, & Kopacoff, 1989). The programme is based on well-established principles that describe how behaviours are learnt and how they may be changed. It consists of 12 sessions, each of 2 hours duration, and is designed to strengthen parenting skills and to give parents peer support. The aim is to enable parents to enjoy their children and to develop a more positive and confident parenting style. The programme uses the analogy of a pyramid, in which the foundations (play, reward, praise) require establishing and consolidating before the higher task levels and approaches can be worked on (for example time out from positive reinforcement). The programme uses videotapes including clips of parents and their children interacting, psychoeducational handouts and role-plays. The groups have two facilitators per session and rules of confidentiality apply.

A previous multicentre study in the United Kingdom has been reported with similarly positive results (Scott, Spender, Doolan, Jacobs, & Aspland, 2001) confirming the utility of this parenting programme in British populations. However, there has been no research to date on the use of parenting groups with parents of deaf children who have conduct disorder or other externalizing behavioural problems.

Some voluntary organizations such as the National Deaf Children Society (NDCS) are starting to address parenting concerns about the differences in raising a deaf child and are giving some primary advice. Nonetheless there have to date been no formal assessments of methods to empower parents of deaf children with specific skills related to communication with deaf children, in particular helping them to address emotional vocabulary, which in turn will prevent the development of behavioural problems.

Thus our exploratory, preliminary, pilot parenting project had as its main objectives:

1. To explore what evidence-based, cost-effective therapeutic components may provide a therapeutic service for the needs of hearing parents and their deaf children who have conduct and other behavioural problems;
2. To use a well established, evidence-based, cost-effective research intervention proven effective for hearing children;
3. To adapt this model of intervention to the needs of deaf children and their parents;
4. To use outcome measures to test its efficacy.

Method

Participants

A Webster-Stratton group was established, open to all parents and their children attending the National Deaf Services Children and Young Persons Clinic, for whom behavioural problems were present and a parenting skills programme was considered a potential treatment of choice. Key workers considered all preexisting cases, and new potential cases were assessed and discussed with families to decide suitability.

Main inclusion criteria comprised:

- Hearing parents of deaf children referred to National Deaf Services;
- Children and their families previously assessed for whom a parenting skill group was considered to be a possible treatment of choice;
- The child having an ICD-10 diagnosis of a conduct, oppositional defiant or hyperkinetic disorder or autistic spectrum disorder with or without additional comorbidity;
- English speaking (to avoid the use of language interpreters, given the pilot nature of this project);
- Children aged between 4 and 15 years.

The main exclusion criterion was parental inability to speak English. Geographical distance also became an exclusion criterion because of the need for families to attend on a regular and frequent basis for group sessions.

A battery of assessment instruments was used to evaluate change over time:

1. Outcome questionnaires (during first and last groups, all previously used in similar studies in hearing populations):
 - (a) *The Eyberg Child Behaviour Inventory* (Eyberg & Pincus, 1999) designed to assess parental reports of conduct behavioural problems in children and adolescents aged 2–16 years. Studies have indicated that it has good reliability and validity. It measures the number of difficult behaviour problems and the frequency with which they occur. It has a threshold of 11 for the problem score and a threshold of 127 for the intensity score. It is an instrument widely used when looking at improvements in behaviour after interventions. It has been used by Webster-Stratton in her outcome research studies.
 - (b) *The Parenting Stress Index Short Form* (Reitman, Currier, & Stickle, 2002). It is a 36-item derivation of the Parenting Stress Index (Abidin, 1997) which measures parental stress. It is being used jointly with social support measures (Farel & Hooper, 1998) and to indicate higher rates of stress as those shown by mothers of preterm infants following hospital discharge (Thomas, Renaud, & Depaul, 2004). It is widely used in general populations representing parents of a wide range of normal children, and it is a good instrument for both preliminary screening and for pre-test/post-test measurements of the effectiveness of counselling programmes and intervention techniques (Lloyd & Abidin, 1985). It has three constituent scales: Parental Distress, Difficult Child Characteristics, and Dysfunctional Parent–Child Interaction.
 - (c) *The Home Situations Questionnaire* (Barkley & Edelbrock, 1987) is a 16-item questionnaire rating behaviour, developed to assess the severity and cross-situational pervasiveness of attention problems and behaviours (DuPaul & Barkley, 1992). It has been shown to possess adequate levels of internal consistency, test–retest reliability and construct validity. It also useful in helping clinicians to focus discussions around these situations during assessment and parenting programmes in the treatment phase (Barkley, DuPaul, & McMurray, 1990).
2. Parents views and feedback evaluation form.
3. Clinician's informal documentation of their views collected in a notebook after each session.

Description of the group

Thirteen families were originally identified and invited. Both parents were invited in each case. Few families agreed to participate. This was mainly due to geographical difficulties (our unit provides a national service so it was geographically impossible for parents to attend sessions spanning 14 weeks in London when living in other regions. The average travel distance for parents was of at least 2–3 hours each way). The difficulties to find available babysitters to stay with children that by definition have very difficult behaviours were also financial and practical barriers, as we were not able to provide childminding facilities. We originally had 4 parents attending, but 1 had to drop out due to a traffic accident. The sample reduced to 3 subjects. Of these, 2 subjects were foster carers of one child (Child A) and 1 subject the mother of Child B.

Child A had a diagnosis of Attention Deficit Hyperactivity Disorder and Oppositional Defiant Disorder. Child B had a diagnosis of Asperger's Disorder and Dyspraxia.

Appropriate consent was obtained from parents to participate in the group. Unfortunately, the biological father of Child A subsequently refused permission for data on his offspring being used in this write-up.

We didn't omit any particular elements of the Webster-Stratton programme as we strongly felt that the value of the programme resides in its design and suitability for replication, which has been aided by offering a step-to-step manual for leaders and additional training available for the leaders. It is this design that has made possible the extensive research evidence base done in this programme. However, due to the special needs of our population we decided to add and adapt some of the techniques to make them more deaf-friendly.

The group ran for 13 weeks with sessions taped. The original package runs for 12 weeks. However, it was felt necessary to adapt it to include an initial session dedicated to specific issues relating to communication with deaf children. It has been our clinical experience (and it is documented in the literature) that many behavioural problems encountered by deaf children are related to communication difficulties. Hence it is important to spend a preliminary session discussing the cultural linguistic concepts of deafness, exploring different ways of communicating with deaf children and giving group members the opportunity to talk about their feelings of grief and how they dealt with the diagnosis of deafness. Additionally, it was recognized as clinically essential that work be done on the importance of good communication, the need to show deaf children emotional vocabulary (as they lose out on incidental learning) and how maladaptive behaviours can result from communication problems. Some practical communication tips were included as shown in Table 1.

All tapes were reviewed by research team members in order to make adjustments relevant to parenting of deaf children and to adapt materials as necessary. For example, the use of visual aids and the need to emphasize the importance of clear facial expression were highlighted.

In brief, the main important adaptations to the traditional Webster-Stratton approach that were undertaken in order to make the programme deaf-friendly comprised:

- extending the programme by one session so that important issues relevant to deafness were aired;
- the checking of tapes to identify how relevant components of the programme were to deaf people;
- a strong emphasis on communication, in particular nonverbal aspects;

Table 1. Communication tips when interacting with a deaf person

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- If you are trying to get the attention of a deaf person, then touch them on the shoulder or try to get in their view.
 - Write things down or draw what you mean.
 - Show things by pointing.
 - Make sure that you maintain eye contact.
 - Have friendly and clear facial expressions.
 - Maintain good body language.
 - Have patience and concentration and show you are interested.
 - Keep background noise to a minimum.
 - Face the light.
 - Avoid shouting and raising your voice.
 - Check frequently that the individual has understood you.
 - Be responsive.
 - Don't look away when talking.
-

- a focus on grief issues relating to acceptance of deafness and its implications;
- adaptation of materials to make them more visually orientated;
- compensating for absence of auditory stimulation with a focus on the teaching of emotional vocabulary.

Results

The therapeutic process, as it affected one child and his carers, is reported.

Tom, at the time of referral, was a 10-year-old boy, referred with concerns regarding anger control and anxiety. There was a history of recurrent loss of emotional control with physical violence towards family members, in particular mother. Behaviour had worsened over the preceding academic year. Tom had difficulties getting on with his teacher, and repetitive patterns to his behaviour had been noted. Family members were focusing mainly on the use of behavioural reward techniques as a strategy to deal with his challenges. They had identified that aggression seemed to be related mainly to anticipatory anxiety.

Tom required constant reassurance at home and at school about what was going to happen next. For instance, when out travelling he needed to know the exact route his family was going to take. At home he often demanded a list of events in sequence and became very distressed if these were subsequently changed.

Tom worried a great deal about his future and matters of safety. He had recently developed a strong fear of flying. He wouldn't go into a lift and did not want any member of his family to go into one either.

He became anxious, upset and worried over his communication difficulties and his problems in making friendships. Often he experienced problems when playing with other children. Sometimes he had bad dreams associated with preceding difficulties in going to sleep. For the 6 months leading up to referral he had been requiring cuddles from his parents before every bedtime. He was described by those who knew him well as 'very much a worrier'.

Tom still enjoyed going to Italy to see his relatives and while there he behaved better, felt less stressed and hence was allowed more freedom. His parents commented that this was the one occasion when Tom was in exactly the same situation as all other children because they all had a language barrier to overcome when playing together.

Tom communicates using signing and speech. He has oral and signing dyspraxia. His sister, Mary, has dyslexia and dyspraxia. He was diagnosed as profoundly deaf at 15 months. He had a delay in his cochlear implantation because the family were told that the procedure could not be undertaken if he were to be diagnosed as autistic. However, cochlear implantation was undertaken when Tom was aged 5. He has always been happy to wear his cochlea, which makes a huge change to his behaviour because he can hear quite well with it. His hearing levels after the implantation are in the moderate-severe deafness range. Tom is beginning to understand more. However, he reported feeling frustrated with his communication challenges, including the effects of his oral dyspraxia. His parents acknowledged that his cochlear implant had made a huge improvement in his behaviour and communication.

Tom commenced school at the age of 5, initially an 'observation period' only because of concerns about his behaviour. For the first 2 years of schooling behaviour was good, only deteriorating later. His behaviour reportedly improved substantially following cochlear implant. However, as he progressed through school and academic demands increased, he found class work more difficult and frustrating, and had frequent outbursts. This seemed to be more related to his difficulties keeping up with the rest of the class,

and in particular in certain lessons such as arithmetic. His mother reported how she would patiently try to help him with mathematical calculations only to find that he had forgotten how to do them the next day.

During his assessment we performed a school observation. It was clear from it that Tom had great difficulties with abstract meaning and required one-to-one support in order to avoid him getting angry and frustrated.

Reported obsessional behaviours included watching videos repeatedly, refusing to let others stop the video and becoming upset when others tried to turn the television off. Tom was reported as having never really shown imaginative or symbolic play. He was also reported as having problems with food with an aversion to getting 'messy' and being quite fussy.

Parents described lifelong feeding difficulties. He had had to undergo a feeding programme for which he saw a psychologist for 6 months. However, the programme was unsuccessful because of his communication difficulties. Tom has an aversion to foods unrelated to his usual, limited diet and is extremely sensitive to temperature extremes and textures.

More positively, Tom was found to have a very good sense of direction, an excellent memory especially for detail, a particular aptitude and love of geography and the ability to spend much time reading books.

Tom had been referred to the deaf Child & Family Service initially by a Clinical Psychologist because of concerns regarding language delay and behavioural problems at home and school. Behavioural advice and support were provided to his parents and school staff, and Tom was subsequently discharged from clinical services one and a half years later following reports of marked improvements in behaviour and communication skills. Tom was rereferred 4 years later because of recurrences of the above challenges.

Developmental history

Tom's mother almost miscarried at 20 weeks, resulting in a Shirodkar suture and ritodrine to halt premature labour. She required several hospital admissions which enabled pregnancy to progress to 36-weeks gestation. He was born by emergency caesarean section because of foetal distress but had a good APGAR score of 9 at 10 minutes. He weighed 1.76 kg at birth, fed well and was considered to be alert, fit and healthy. Gross motor milestones were unremarkable. Delayed language development culminated in diagnosis of deafness at 15 months. Implementation of tutoring in British Sign Language started at the age of 3.

Tom is the older of two siblings, and the only deaf member of his extended family. Two paternal cousins have developmental difficulties, one having diagnoses of ADHD and dyspraxia and the other being described as 'odd with slow language development'. His sister, who is 3 years younger than him, has been diagnosed with dyslexia and dyspraxia. In addition to the above Tom has received a diagnosis of dyspraxia. His dyspraxia has required intensive work with occupational therapists including attention to fine and gross motor skills.

Tom is described by those who know him well as always being very affectionate and trying to talk to other children. He likes people and wants to be liked, will initiate social interactions, but at times can be inappropriate in his social tendencies. He does not have a best friend and has difficulties relating socially to others. Tom tends to get on best within small groups of individuals. He has problems initiating and maintaining friendships and often misunderstands other people's intentions. He has trouble understanding facial expressions and uses little facial expression in his communications with others. Tom tends to take language and rules literally with little room for flexibility. He tries to

follow rules and wants to please adults yet doesn't understand authority. Tom attends a school for deaf students where psychoeducational strategies and individual anger-management sessions had been offered. Short-term memory problems present as difficulties retaining spellings and numerical information. However, he has excellent long-term memory.

Cognitive assessment, using the WISC III-UK, found Tom's nonverbal abilities to be within the average range. Lowest scores were obtained on subtests Comprehension and Digit Span. Observational evaluation confirmed Tom as avoiding eye contact, having little interest in engaging in activities with clinicians and responding to questions with little emotion.

The above presentation and history were considered consistent with a diagnosis of ICD-10 Asperger's Syndrome in the presence of emotional and behavioural dysfunction aggravated by the social consequences of Tom's deafness.

Tom's family are very caring and had worked really hard in helping him with his behavioural problems. They had learnt sign language to improve their communication with Tom. In particular, his mother is fluent and has over many years tried different ways of dealing with Tom's difficulties. His family agreed that the understanding provided by the diagnosis of Asperger's Syndrome had enabled them to change their approaches to Tom for the better. For instance they had developed more tolerance to his need of routine and rigidity (difficulties to face change) and had become more careful in making explanations clearer and more concise in order to avoid misunderstandings. However, they still agreed that a parenting skills course specially tailored for deaf children would be beneficial in order to fine-tune their already impressive parenting abilities. Due to geographical distance and work commitments it was agreed that Tom's mother would attend groups and would share techniques learnt with her husband.

Tom's mother attended all groups. She found it

a practical and simple step-by-step system of how to get that good behaviour from my children that I always wanted but never quite knew how to achieve. The programme has helped me by challenging some of my attitudes and preconceptions. Previously I just expected my children to behave well and I felt personally affronted if they misbehaved or plainly chose to ignore or disobey me. During these weeks I have learned that good behaviour has to be built up and the programme has given me ideas and strategies as to how to go about it. The programme on the whole has been very helpful. The step-by-step techniques have been particularly good. It was also good to learn from other parents.

Comments were also made about the usefulness of parents sharing difficult experiences and personal tips.

The Eyberg Child Behaviour Inventory, Parenting Stress Index and The Home Situations Questionnaire, all showed substantial reductions in scores over the course of the Webster-Stratton group: The Eyberg Child Behaviour Inventory showed an impressive decrease in problem score (17 down to 3) and intensity (145 down to 107). The Parenting Stress Index showed the following scores: Defensive Responsive decreased from 21 to 12, Parental distress from 33 to 21, Parent-Child Dysfunctional Interaction 33 to 21, Difficult Child from 52 to 41. The total stress score decreased from 118 to 84. These scores demonstrated that the interaction parent-child did improve, with marked reduction in the parental distress scores. Tom was still rated as a difficult child, but this again showed some reduction. More importantly, the total stress levels were reduced almost to two-thirds of the initial score (or 30% of the initial score).

The Home Situations Questionnaire also showed a consistency in lowering of the scores indicating a general improvement in the overall behaviour with problems scores decreasing (10 to 6) and a remarkable decrease on intensity (64 to 14).

Parent-child relationships and parental stress levels were documented and commented upon as having improved substantially, coincident with the marked reduction in parental distress scores. It is worth to mention that Mary reported a noticeable difference in Tom's behaviour at Session 5. Overall Tom was still rated as a difficult child, but far less so than previously. Eighteen months after completion of the sessions, Tom and his family are still benefiting from the behavioural improvements brought up through the parenting group experience.

The families shared their child's diagnosis with other members of the group, and reflected on their experiences of dealing with these diagnoses, in addition to their child deafness. The reduced size of the group enables parents to feel comfortable to talk freely about these conditions and, on a practical level to allocate ample time to be dedicated to adapt the behavioural techniques to the specific needs of each child, allowing for their psychiatric diagnosis. For instance, special attention was taken on making commands very clear, literal and concise to avoid misinterpretations and difficulties with abstract thinking as seen in Asperger's Syndrome, and the use of pictorial methods to further clarify accurate meaning.

The parents had time during each session for feedback on their homework and to comment on how confident they felt about using the newly learned techniques. They completed a parent weekly evaluation (as provided in the Incredible Years Parent Programme by Webster-Stratton) to comment on the helpfulness of the content of each session, the use of videotapes, the group leaders teaching, and the group discussion, plus any other additional comments.

Discussion

Parents and clinicians were in agreement regarding the positive outcome of the group sessions. An additional session was scheduled to obtain detailed feedback. Parents commented in particular on the usefulness of handouts and homework tasks, as well as the weekly reviews, in which ideas were swapped and reflected on. Group discussion and the group leaders' teaching were regarded as very useful consistently by all parents in most sessions. Videos were also reported as useful. Families stated that they would have preferred to see deaf children in the videos. To date such videos are not available. Programme length and geographical-accessibility problems as well as the need to organize babysitters for other children were raised as challenges. Parents agreed that the major problems that originally prompted them to begin this treatment for their child had improved and that they were optimistic about their expectation for good results from this treatment. Overall, on a scale of 1 to 10 (where 10 means full achievement), all parents graded their achievements as 7.

Clinicians' views were equally enthusiastic. Sessions were perceived as helping parents to reinforce and fine-tune already good parenting skills, as well as increasing parental self-esteem through acknowledgement of hard work and understanding of the psychological effects of deafness.

In our sample all families had good signing skills, in particular Tom's mother, but it was Tom's additional social and communication difficulties, relating to his having Asperger's Syndrome, that required extra support in terms of further differentiation of the programme. The main differences Tom required were:

- Having Asperger's Syndrome left Tom more rigid as well as rendering him less able to change patterns of behaviour. He needed assistance in developing more creative and adaptive skills to combat this disability;
- It was also necessary for techniques to be explained more succinctly, clearly and concretely in order to avoid misunderstandings and difficulties arising out of Tom's deficits in abstract thinking;
- Some of the difficulties Tom experienced were related to his need for social skills training. Tom enjoyed role playing so this was encouraged as a technique to use at home and school.

Conversely, there were also multiple beneficial components of the therapeutic package shared between Tom and other nonautistic deaf children:

- the emphasis on teaching children to learn to read emotions and the need for constant eye contact;
- learning and increasing the repertoire of behavioural ways of expressing a range of emotions;
- the need to adapt materials to make them more visual and deaf friendly, for example using clocks with visual alarm systems during time out and drawing cartoons to explain time out in a more visual way.

Parents were also witnessed as devising household rules and extending their new skills to hearing siblings. The additional peer support and understanding of each other's problems seemed crucial, and parents were enthusiastic, receptive and creative about adapting materials so as to be accessible to deaf children.

Important clinical practice points when working with deaf children and their families include the following: (1) Deaf children miss out substantially on incidental learning which needs acknowledging clinically; (2) deaf children usually need extra help to differentiate, label and express a range of emotional states; and (3) communication problems, often with parents, carers or teachers, play a large role in the aetiology of emotional and behavioural difficulties.

The results provide evidence that parenting groups adapting Webster-Stratton techniques to the unique requirements of deaf children may be valuable and have a place in the therapeutic management of developmental, emotional and behavioural difficulties in this complex client group. Approaches need to incorporate a number of issues:

- Parents of deaf children have few opportunities to describe and share grief reactions and feelings of disappointment relating to late identification of deafness;
- Communication difficulties in families of deaf children are a common reason for emotional and behavioural problems in deaf children;
- Additional social and communicatory issues (as exemplified by Tom) need to be considered, identified and treated;
- Communication deficits in deaf children also relate to poor emotional vocabulary, (Peterson, 2002) and inability to access incidental learning.

This is the first report of successful application of Webster-Stratton group approaches to the management of long-term recurring developmental, emotional and behavioural difficulties in a young deaf person. Furthermore sophisticated research approaches are now needed to clarify clinically beneficial components and to refine adaptations required in order to meet the complex needs of young deaf people who have emotional and behavioural difficulties and their families. This programme was tailored for children with quite severe, multiple and complex needs which are the majority referred to a Tier 4

service. A different project is being conducted at the deaf children service in York, which is school based. The families of children attending a deaf school have been invited to attend a short parenting course (five sessions) focusing in dealing with the diagnosis of deafness and a broader view on behavioural management, aimed at children with less severe behavioural problems.

Current lines of research in deaf children and parenting are influenced by the new medical advances. Deafness can now be easily diagnosed at birth due to the availability of the new neonatal screening program (Baroch, 2003). This is in turn making possible the early detection and treatment of behavioural problems. On a preventative stance some organizations such as the NDCS (The National Deaf Children's Society) are already offering short parenting courses and a DVD to families. They are researching on the outcome of this project. In addition to this, deaf organizations such as Deafworks are also offering parenting skills courses to deaf parents.

References

- Abidin, R. (1997). Parenting stress index: A measure of the parent-child system. In C. Zalaquett & R. Wood (Eds.), *Evaluating stress, a book of resources* (pp. 277-291). Lanham, MD: Scarecrow.
- Barkley, R.A., DuPaul, G.J., & McMurray, M.B. (1990). A comprehensive evaluation of attention deficit disorder with and without hyperactivity as defined by research criteria. *Journal of Consulting and Clinical Psychology, 58*, 775-789.
- Barkley, R.A., & Edelbrock, C.S. (1987). Assessing situational variation in children's behaviour problems: The Home and School Situations Questionnaire. In R. Prinz. (Ed.), *Advances in behavioural assessment of children and families* (pp. 157-176). Greenwich, CT: JAI Press.
- Baroch, K. (2003). Universal newborn hearing screening: Fine-tuning the process. *Current Opinion in Otolaryngology & Head and Neck Surgery, 11*, 424-427.
- DuPaul, G., & Barkley, R.A. (1992). Situational variability of attention problems: Psychometric properties of the revised Home and School Situations Questionnaire. *Journal of Clinical Child Psychology, 21*(2), 178-188.
- Eyberg, S., & Pincus, D. (1999). *Eyberg Child Behaviour Inventory and Sutter-Eyberg Student Behaviour Inventory: Revised*. Odessa, FL: Psychological Assessment Resources.
- Farel, A.M., & Hooper, S.R. (1998). Relationship between the maternal social group index and the parenting stress index in mothers of very low birthweight children now age 7. *Psychological Reports, 83*(1), 173-174.
- Hindley, P., Hill, P.D., & Bond, D. (1993). Interviewing deaf children, the interviewer effect: A research note. *Journal of Child Psychology and Psychiatry, 34*, 1461-1467.
- Hindley, P., Hill, P.D., McGuigan, S., & Kitson, N. (1994). Psychiatric disorder in deaf and hearing impaired children and young people: A prevalence study. *Journal of Child Psychology and Psychiatry, 35*, 917-934.
- Hindley, P., & Kitson, N. (2000). *Mental health and deafness*. London: Whurr.
- Lloyd, B.H., & Abidin, R. (1985). Revision of the parenting stress index. *Journal of Pediatric Psychology, 10*(2), 169-77.
- Meltzer, H., Gatward, R., Goodman, R., & Ford, T. (2000). *The mental health of children and adolescents in Great Britain*. London: Office of National Statistics.
- Meltzer, H., Gatward, R., Goodman, R., & Ford, T. (2003). Mental health of children and adolescents in Great Britain. *International Review in Psychiatry, 15*, 185-187.
- Patterson, J., Barlow, J., Mockford, C., Klimes, I., Pyper, C., & Stewart-Brown, S. (2002). Improving mental health through parenting programmes: Block randomized controlled trial. *Archives of Disease in Childhood, 87*, 472-477.

- Peterson, C.C. (2002). Drawing insight from pictures: The development of concepts of false drawing and false belief in children with deafness, normal hearing and autism. *Child Development, 73*, 1442–1459.
- Reitman, D., Currier, R., & Stickle, T. (2002). A critical evaluation of the parenting stress index-short form (PSI-SF) in a head start population. *Journal of Clinical Child & Adolescent Psychiatry, 31*, 384–392.
- Roberts, C., & Hindley, P. (1999). Practitioner review: The assessment and treatment of deaf children with psychiatric disorders. *Journal of Child Psychology and Psychiatry, 40*, 151–167.
- Scott, S., Spender, Q., Doolan, M., Jacobs, J., & Aspland, H. (2001). Multicentre controlled trial of parenting groups for childhood antisocial behaviour in clinical practice. *British Medical Journal, 323*, 1–7.
- Thomas, K.A., Renaud, M.T.R., & Depaul, D. (2004). Use of the parenting stress index in mothers of preterm infants. *Advances in Neonatal Care, 4*(1), 33–41.
- Vaccari, C., & Marschark, M. (1997). Communication between parents and deaf children: implications for social-emotional development. *Journal of Child Psychology and Psychiatry, 38*, 793–801.
- Webster-Stratton, C. (1984). Randomized control trial of two parent-training programs for families with conduct-disordered children. *Journal of Consulting & Clinical Psychology, 52*, 666–678.
- Webster-Stratton, C., & Hammond, M. (1997). Treating children with early-onset conduct problems: a comparison of child and parent training interventions. *Journal of Consulting & Clinical Psychology, 65*, 93–109.
- Webster-Stratton, C., Hollingsworth, T., & Kopacoff, M. (1989). The long-term effectiveness and clinical significance of three cost-effective training programs for families with conduct-problem children. *Journal of Consulting & Clinical Psychology, 57*, 550–553.