

Capable special school environments for behaviour that challenges

Paper 1: Evidence-based practice for young people with severe learning difficulties, ASD and challenging behaviour.

Paper 2: Implementing a multi-element framework to support pupils with ASD and challenging behaviour.

Submitted by Gary John Lavan to the University of Exeter as a thesis for the degree of Doctor of Educational Psychology in Educational, Child & Community Psychology, May 2012.

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I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

(Signature)

Table of Contents

Paper 1 Abstract	Page 3
Paper 1	Pages 4 - 61
List of tables and figures for Paper 1	Page 5
List of Appendices for Paper 1	Page 6
Background to Present Study	Page 7
Selected Literature Review	Page 9
Brief overview of autism and ASDs	Page 9
Challenging Behaviour	Page 12
Intervention approaches	Page 14
Design	Page 21
Research Questions	Page 21
Assumptions	Page 21
Method	Page 22
Ethical Considerations	Page 29
Findings	Page 31
Quantitative Analyses	Page 34
Qualitative Analyses	Page 35
Discussion	Page 42
The use of commonly reported approaches	Page 42
The impact of staff attributions	Page 44
Access to training and debriefing	Page 47
Conclusions	Page 49
Reflections	Page 51
Limitations	Page 51
Future Research	Page 53
Paper 1 References	Page 55
Paper 2	Pages 62 - 121
Appendices	Pages 122 - 227

Paper 1 Abstract

Numerous interventions have been identified by research as being effective in reducing the severity of some of the core impairments and challenging behaviours of young people with autistic spectrum disorders (ASDs) and learning difficulties. However, the literature cites significant disparity between what is demonstrated to be effective in supporting young people with ASD and challenging behaviour and the support young people and families actually receive in practice. Paper 1 examines the extent to which evidence-based practice translates into actual practice in special schools in the UK for young people with ASD, severe learning difficulties (SLD) and challenging behaviour. A questionnaire survey targeting 64 special schools in the Midlands was used in conjunction with a series of follow-up semi-structured interviews of school staff. The findings indicate that: 1) the ideal of eclectic provision is potentially undermined by a limited range of training received by staff in evidence-based approaches; 2) mechanisms for supporting staff emotional reactions are inconsistently implemented; 3) limited mechanisms exist for developing staff understandings of challenging behaviour. Furthermore, staff attributions regarding challenging behaviour are pivotal to the consistency and effectiveness of any support programme. Implications and future research directions are discussed.

Paper 1

Evidence-based practice for young people with severe learning difficulties, autism and challenging behaviour.

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List of Paper 1 Tables and Figures

Figure 1	Percentage of respondents of each staff level.	Page 25
Figure 2	Frequency of diagnoses between target young people.	Page 27
Figure 3	Percentage of respondents reporting varying degrees of responsibility of young people for challenging behaviours.	Page 165 (Appendix 5)
Figure 4	Percentage frequencies with which respondents receive debriefing following incidents.	Page 165 (Appendix 5)
Figure 5	Percentage of references made to different strategies for supporting young people with challenging behaviour.	Page 166 (Appendix 6)
Figure 6	Frequency with which each strategy was discussed as a positive approach for supporting challenging behaviour.	Page 36
Figure 7	Theme 1: Strategies and Approaches and sub-themes.	Page 37
Figure 8	Theme 2: Staff support mechanisms.	Page 39
Figure 9	Theme 3: Understandings of behavioural functions, development and maintenance.	Page 41
Figure 10	Percentage of references to each of the three identified types of staff support mechanisms.	Page 166 (Appendix 6)
Figure 11	Percentage of comments made regarding the function of challenging behaviours.	Page 170 (Appendix 9)
Figure 12	Percentage of references acknowledging the control dynamics within the adult-young person relationship.	Page 170 (Appendix 9)
Table 1	Frequency of challenging behaviours, level of difficulty in managing them, and level of responsibility young person perceived to have in respect of behaviours.	Page 32
Table 2	Percentage of respondents who use each of identified approaches and percentage of respondents who have received training in the approaches.	Page 33
Table 3	Illustrative examples of sub-themes for 'Strategies & Approaches'.	Page 167 (Appendix 7)
Table 4	Illustrative examples of sub themes for 'Staff support mechanisms'.	Page 168 (Appendix 8)
Table 5	Illustrative examples of sub themes for 'Understanding how behaviour develops'.	Page 171 (Appendix 10)
Table 13	EduBase search results	Page 163 (Appendix 4)
Table 14	Number of questionnaires returned by each responding school	Page 24

List of Paper 1 Appendices

Appendix 1	Literature Review.	Page 123
Appendix 2	Certificate of ethical research approval.	Page 153
Appendix 3	Staff questionnaire on challenging behaviour.	Page 159
Appendix 4	EduBase online database search for schools meeting research criteria.	Page 163
Appendix 5	Figure 3 & Figure 4.	Page 165
Appendix 6	Figure 5 & Figure 10.	Page 166
Appendix 7	Table 3 Illustrative examples of sub-themes for 'Strategies & Approaches'.	Page 167
Appendix 8	Table 4 Illustrative examples of sub themes for 'Staff support mechanisms'.	Page 168
Appendix 9	Figure 11 & Figure 12.	Page 170
Appendix 10	Table 5 Illustrative examples of sub themes for 'Understanding how behaviour develops'.	Page 171
Appendix 15	Example interview transcript	Page 179
Appendix 21	Thematic analysis procedure	Page 224
Appendix 22	Semi-structured interview procedure and interview schedule	Page 226

Background to the present study

The study was commissioned by a local authority concerned by the number of young people with severe learning difficulties (SLD) and autistic spectrum disorders (ASD) who transfer from specialist provision within the authority to 'out-of-area' placements. Generally, these transfers occur due to local provision being unable to support the challenging behaviour presented by the young people within their school and/or home environments. The local authority was keen to understand the types of interventions recommended by research and how these are used across a range of schools and authorities in order to ensure best practice within the authority. The local authority was also keen to explore, within one school for children with SLD and ASD, how support for challenging behaviour could be improved for pupils identified by the school as requiring additional behaviour management.

The first focus for Paper 1 of the study is therefore an exploration of the extent to which evidence-based practice translates into actual practice in special schools in the UK. The focus on the use of evidence-based practice is emphasised because: firstly, at a local level the authority where the study was conducted is concerned about the number of young people who transfer to expensive 'out-of-area' educational placements due to local special schools being unable to effectively support the challenges that their behaviour can present; and secondly, because the literature review (Appendix 1) identified significant disparity between what is demonstrated to be effective in supporting young people with ASD and challenging behaviour and the support young people actually receive in practice. In a study which attempted to review the existing peer-reviewed literature around challenging behaviour and develop

summary statements through a process of consensus-building, Dunlap *et al.* (2006) conclude that “of particular concern for the field of behavioural disorders is the lack of correspondence between what is known about effective practices and what practices young children with challenging behaviour typically receive” (p. 29).

The second focus for Paper 1 is on identifying potential barriers to effective support for this client group. A significant body of research exists supporting the view that “responses to challenging behaviour can often be inconsistent, and that plans are often not followed” (Willner & Smith, 2008, p. 154). If indeed there is a disparity between recommendations from the literature and the services young people actually receive, then it is essential that schools and supporting professionals are clear on factors which may contribute to this phenomenon.

Paper 2 of the research uses the findings from Paper 1 to examine how the impact of these barriers may be reduced in a UK special school environment.

Selected literature review

In the full Literature Review (Appendix 1), and in this introduction to Paper 1, I explore the link between ASD, SLD and challenging behaviour and map out the landscape of the most commonly used interventions and supports for ASD and challenging behaviour by examining the key approaches described in the literature.

In order to ascertain which approaches are reported in the literature as being commonly used, I conducted repeated searches of the online databases PsycARTICLES, PsycINFO, JSTOR, and EBSCO EJS. While conducting searches, the following initial search terms were used in various combinations: autism; challenging behaviour; evidence-based practice; ASD. Further search terms used in subsequent searches included: theories of autism; autism in practice; autism and families; and autism behaviour intervention. From the search results, papers selected for review were predominantly those published within the past ten years, or those which had been cited by multiple articles. However, due to the large number of search results returned I opted to initially examine papers which reviewed the outcomes of multiple research studies. Additionally, research studies were also identified through literature cited in papers selected from the search engine results.

Brief overview of autism and ASDs

Autism has been defined as:

“the most commonly studied of a spectrum of developmental disorders that are believed to be neurobiologically based but which, at this point, for lack of good biomarkers, are defined purely by behavior. In the last 20 years, the definition of

autism has shifted in emphasis from extreme aloofness and positive signs of abnormality in repetitive and sensorimotor behaviors to a greater awareness of the importance of more subtle reciprocal social communication deficits as core features” (Lord, 2010, p. 815).

Autistic Spectrum Disorders (ASDs) are characterised by “severe deficits in socialisation, communication, and repetitive or unusual behaviours” (Levy, Mandell, & Schultz, 2009, p. 1627). There are a range of other terms used to describe conditions which constitute autistic spectrum disorders, including: autism; PDD-NOS (pervasive developmental disorder - not otherwise specified); ASC (autistic spectrum conditions); Asperger Syndrome; Rett Syndrome; CDD (Childhood Disintegrative Disorder); high functioning autism; and high functioning PDD-NOS. It should be acknowledged that there is a wider debate relating to the appropriateness of the terms ASD, ASC or Autism Spectrum (AS) to describe diagnoses. Some services, including the school where Paper 2 of this study was conducted, have opted to use the term ASC. Parsons *et al.* (2009) suggest that “recognising the tensions between using “condition” or “disorder” as part of the diagnostic label, the best solution might be to refer to children and adults on the autism spectrum” (p. 28). However, the papers referred to within this study predominantly use ASD, and for continuity for the reader it is this term that will be used throughout this research.

There exists an extensive body of research which seeks to determine causal factors in ASD with Hughes (2008) identifying “1000 studies published in 2007” (p. 425). Despite such a wealth of research, no unambiguous explanation exists as to what causes ASD. Proposed biological causes range from difficulties

during pregnancy or birth, to viral infections and other medical conditions (Volker & Lopata, 2008). It is beyond the scope of this review to explore these factors in detail, but a recent review of the major findings and trends in the literature (Volkmar, Lord, Bailey, Schultz, & Klin, 2004) found general acceptance that genetic factors play a central role, although the severity of symptoms could potentially be influenced by a range of unknown environmental effects.

Prevalence rates

Since the original description of autism by Kanner (1943) the frequency with which autistic spectrum disorders are reported has increased rapidly. There appears little consensus as to how prevalent the conditions actually are. Estimates of prevalence range from as few as 10 cases per 10,000 population (Fombonne, 2003), to as many as 157 cases per 10,000 population (Baron-Cohen *et al.*, 2009). A recent review of all studies between 1966 and 2010 suggests that prevalence rates for autism are around 22 per 10,000 of population, and rates for ASD at 70 per 10,000 of population (Saracino, Noseworthy, Steiman, Reisinger, & Fombonne, 2010). Increasing prevalence rates can in part be attributed to earlier diagnosis of the condition. ASD is now increasingly diagnosed by the age of two years old (Lord, 1995; Moore & Goodson, 2003).

Broader phenotype

One factor which contributes to the variation in reported prevalence rates suggests that the conceptualisation of autistic spectrum disorders has become broader, with more conditions being recognised under a broadening umbrella of

ASD. “The broadening conceptualization of ASDs and the lack of clear delineation of where the spectrum of autistic disorders begins and ends have made the categorical diagnosis of children and adults whose symptoms fall outside the boundaries of definite autism more problematic, even while it has become easier within the boundaries” (Volkmar *et al.*, 2004, p. 138).

Inclusive educational practices

A broader phenotype of ASD and increasing prevalence rates have resulted in an increased need for schools, local authorities, and educational psychologists to develop systems to support the education of children with ASD. This necessity has been amplified by a recent drive towards a more inclusive educational system. This drive has been described as “the biggest challenge facing education systems, that of developing practices that will reach out to those learners who are failed by existing arrangements” (Ainscow, 2007, p. 3).

Challenging Behaviour link

Educational psychologists and other involved agencies and supporting professionals are increasingly likely to have involvement with children with ASD as a combined result of the reported increases in prevalence rates, the broader phenotype, and the drive toward more inclusive education systems. In the researcher’s personal experience, when referring children with both SLD and ASD to educational psychologists, teachers and schools often seek help primarily with managing the behaviour displayed by these children.

Although many groups could be described as presenting with behaviour that challenges staff, the term ‘challenging behaviour’ used in the context of this

study refers specifically to certain behaviours displayed by young people with ASD and learning difficulties in combination. Pilowsky, Yirmiya, Doppelt, Gross-Tsur, & Shalev, (2004) report that the social, communicative and behavioural impairments that are typical of children with ASD and associated learning difficulties often result in the development of atypical behavioural patterns including: aggressive and self-injurious behaviours; impulsivity; hyperactivity; rituals; and severe communication deficits. Machalicek *et al.* (2007) describe how “challenging behaviors such as aggression, non-compliance, self-injury and stereotypy are common to school age children with ASD” (p. 230). Such behaviour can be defined as ‘challenging’ “when it is 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” (RCPsych, BPS & RCSLT, 2007).

Research by Emerson (2001) also describes how challenging behaviour in this context can present problems across all aspects of a child’s life, including the limiting of: their access to community facilities; social participation; and educational provision. “The combination of intellectual and behavioural disabilities can blight the lives of those affected and place the health, safety, and welfare of those who care for them in jeopardy. They also represent a significant challenge to agencies involved in the purchase or provision of education, health, and welfare services” (Emerson, 2001, p. 1).

Some research has demonstrated that despite the move towards deinstitutionalisation and inclusive practices in the UK, people with ASD in combination with learning difficulties are at particularly high risk of losing their

placements as a result of services being unable to cope with the extreme challenges their behaviour can present, and that the phenomena continue into adulthood as “placements continue to break down, resulting in admissions to institutions or specialist units, or crisis moves to alternative community accommodation” (Phillips & Rose, 2010, p. 201). In a study into the breakdown of local school placements for such children, McGill, Tennyson, and Cooper (2006) report that “it is clear that, in general, the children present a range and complexity of need that some local services currently struggle to meet” (p. 614). The following section will examine the most commonly used intervention strategies as described within the literature.

Intervention Approaches

Within the literature there is little agreement, generally, as to whether any particular theories or approaches can claim superiority over any others studied. Dunlap *et al.* (2006) emphasise a concerning gap between what research can demonstrate as being effective and what services young people with ASD typically receive in practice. In reviewing the literature it becomes apparent that researchers are far from in agreement as to how best to intervene to support children, families and schools in managing challenging behaviour. In their review of the literature, Volkmar *et al.* (2004) acknowledge the difficulty in being comprehensive due to the appearance of 3,700 articles on ASD in the decade preceding their paper. Having focused on what they believed to have been the major trends within that literature they concluded that “a number of innovative behavioural and educational interventions have been developed, but often solid data on efficacy and cost-effectiveness are lacking” (p. 155). Parsons, Guldberg, MacLeod, & Jones (2009) conducted an international review of the

literature examining 499 articles comprising both empirical studies and articles based on professional experiences. From the 100 empirical papers retained for review they concluded that “children and adults with ASD are not an homogeneous group with the same or similar needs ... one type of approach or intervention is unlikely to be effective for all” (p. 124).

Some specific approaches frequently reported in the literature include; social stories, incidental teaching, music therapy, and sensory integration (Smith, Groen, & Wynn, 2000). In their review of the literature, Skokut, Robinson, Openden, and Jimerson (2008) focus on approaches which have been described in the literature using single-subject design methodologies, citing the following interventions as being the most promising approaches for promoting social and cognitive competence for young people with ASD: Discrete Trial Training (DTT); Pivotal Response Treatment (PRT); Learning Experiences: An Alternative Program for Preschoolers and Parents (LEAP); The Picture Exchange Communication System (PECS); Incidental teaching; and The Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH). The National Autistic Society (2010) outlines these and other interventions and approaches covering a range of theoretical perspectives including: behavioural; social; dietary; skill-based; physiological; relationship-based; and medical.

One intervention programme highlighted by the National Autistic Society as being widely used is the PECS approach. “Certain therapies have become extensively used. One such intervention is the Picture Exchange Communication System” (Howlin, Gordon, Pasco, Wade, & Charman, 2007, p.

474). Another approach extensively used is the TEACCH (Treatment and Education of Autistic and Communication Handicapped Children) programme. Mesibov, Shea, Schopler (2005) report that TEACCH effectively “targets critical areas in executive functioning, engagement, communication, and social skills” while Mesibov and Shea (2009) describe their programme, TEACCH, as “an example of an evidence-based practice” (p. 570). However, despite many positive findings within the research, “the findings of some individual studies have suggested a less than clear picture of the effectiveness of interventions to decrease challenging behaviour” (Machalicek, O’Reilly, Beretvas, Sigafoos, & Lancioni, 2007, p. 238). A meta-analysis study of the PECS approach conducted by Flippin, Reszka, and Watson (2010) highlighted “concerns about maintenance and generalization” (p. 178), and a randomised controlled trial by Howlin, Gordon, Pasco, Wade, and Charman (2007) also found that “treatment effects were not maintained once active intervention ceased” (p. 473).

Many of the interventions described above have their theoretical roots in Applied Behaviour Analysis (ABA). A study by Steege, Mace, Perry, and Longenecker (2007) found “thousands of research studies” (p.92) exploring the use of approaches based in Applied Behaviour Analysis (ABA). Smith *et al.* (2000) were the first to publish a randomised controlled trial of ABA-based intervention. However, this study showed ABA to be most effective only with the provision of at least twenty-four hours per week of direct work with the child. Clearly such interventions could potentially be very intrusive in terms of the expectation that they place on families in terms of resource- and time-commitments.

With such a large volume of research containing such variation within the literature it is useful to examine the findings of review papers that summarise some of the most influential findings. A review conducted by Volkmar *et al.* (2004) argues that no single approach is best for all individuals with ASD or even for the same individual across time. As no single approach has been conclusively proven to be more effective across all situations than any other, much research has begun to advocate utilising a range of strategies. In their international review of the literature into educational interventions for ASD, Parsons *et al.*, (2009) report that “it is clear that a range of interventions (eclectic provision) should continue to be funded and provided for families” (p. 115). Eclectic provision recognises that different individuals will respond in different ways depending on the choice of intervention.

The school which forms the focus of Paper 2 supports young people with diagnoses of ASD and/or SLD. In the researcher’s own experience, teachers, schools, and families often seek advice on how to support the challenging behaviour of young people with ASD and SLD from; educational psychologists, clinical psychologists, speech and language therapists, occupational therapists, paediatricians, social workers and other professionals. As multi-agency work often offers competing explanations and interventions for challenging behaviour, school staff and families can feel overwhelmed and confused. In a three-year project using interviews to examine the process and impact of multi-agency working on families with a disabled child, Abbott, Watson, & Townsley (2005) state that “the combination of this group of children’s needs for health, social care and education means that it is inevitable that several agencies will be involved throughout their lives” (p. 229). The literature, it seems, is unclear as to

how best to intervene to support children with challenging behaviour and ASD. “A major concern is the large, and possibly growing, gap between what science can show is effective, on the one hand, and what treatments parents actually pursue” (Volkmar *et al.*, 2004, p. 155). The nature of the barriers to, and facilitators of, effective intervention are not clear. The following section examines some of these potential influences in more detail.

Staff Attributions as a potential barrier

Some research suggests that staff exhibit a wide range of emotional reactions to challenging behaviour. Bromley and Emerson (1995) used structured interviews of staff in residential, day-time and peripatetic services for people with learning disabilities to collect information regarding all people with learning disabilities and challenging behaviour in a single metropolitan borough. They state that “staff report that a significant proportion of their colleagues usually display such emotional reactions as sadness, despair, anger, annoyance, fear and disgust to episodes of challenging behaviour” (p. 341). Furthermore, there is also a large variation in the ways in which staff attributes causal influences to challenging behaviours. “Staff attributed the causes of the person's challenging behaviour to a diversity of internal psychological, broad environmental, behavioural and medical factors” (Bromley & Emerson, 1995, p. 341). Their research argues that the way staff perceive the causes of challenging behaviour influences their willingness to follow intervention strategies and potentially undermines those strategies. “Belief systems held by individual members of staff are likely to influence the perceived appropriateness of alternative courses of action [and] may impede the delivery of effective support by undermining habilitative or treatment plans” (Bromley & Emerson, 1995, p. 342).

Similarly, according to Hastings and Remington (1994), the constructs that staff use in making sense of someone's challenging behaviour may impact substantially upon their behaviour towards the person, the likelihood of them seeking external opinions or support, and the likelihood that they will implement effectively any advice given by colleagues, professionals, or managers. Assessing the reactions and attitudes of staff towards challenging behaviour may be a crucial factor in the success of interventions, and ultimately the breakdown or success of placements.

Training needs and staff emotional reactions as a potential barrier

Staff training has been implicated as a crucial factor in successfully supporting people with ASD and challenging behaviour. McDonnell *et al.* (2008) used a quasi-experimental design to measure the effects of a 3-day training course in the management of aggressive behaviour in services for people with autistic spectrum disorders. Their study showed that "staff training can increase staff confidence in managing aggression in people with autism spectrum disorders" (p. 311).

Other research has suggested that in order to support people with challenging behaviour, training elements should focus on staff understandings of the link between their own personalities and their emotional well-being. Using a cross-sectional questionnaire survey of 103 staff measuring clients' challenging behaviour according to staff perception, Chung and Harding (2009) found that certain ways of reacting to episodes of challenging behaviour may be detrimental to staff's own well-being. "Training programmes for staff should incorporate the complex relationship between personality traits and well-being.

Further studies should aim at identifying other personality traits that could increase or decrease resilience of staff working in this area” (p. 549).

Rose, Home, Rose and Hastings (2004) used a survey study of two staff groups (n=101 and n=99 respectively) working with people with intellectual disabilities to study staff well-being focusing on staff positive perceptions of their work. They concluded that “managing staff emotional reactions to challenging behaviour (e.g. through staff support interventions such as counseling after incidents) or intervening using cognitive techniques to reduce the experienced severity or frequency of those emotions may help to minimize staff stress and burnout” (p. 222). The focus school for Paper 2 of my research uses the term ‘debriefing’ to describe these types of supports, and for continuity this is the term I shall adopt for the remainder of this paper.

A lack of supportive systems for training staff and regular debriefing, according to this research, may present a significant barrier to the effectiveness of any intervention programme intended to support children with challenging behaviour. Much research implicates this factor as crucial to successful support and intervention. “Some research has sought to tease out more subtle individual and service-related characteristics that affect the likelihood of [placement] breakdown, but none to date has studied staff reactions” (Phillips & Rose, 2010, p. 202). According to this line of research, staff reactions to challenging behaviour seem paramount to changing attributions of blame regarding the behaviour, which may in turn be paramount to the success of any programme implemented.

Design

The broad aim of Paper 1 is to clearly map out the existing landscape around commonly used interventions to support children with ASD and challenging behaviour in special schools in the UK, and then to explore factors which may promote or present barriers to implementing these approaches in practice.

Research Questions

Paper 1 of the research seeks to answer the following research questions:

- To what extent are school staff utilising the approaches most commonly reported in the literature?
- To what extent do staff attributions regarding challenging behaviour correlate with the use of commonly reported approaches?
- To what extent do school staff receive debriefing and training regarding challenging behaviour?

Assumptions

The intended audience for Paper 1 was primarily the local authority where the study was commissioned. However, the researcher acknowledges that the findings may be of interest to many schools experiencing challenging behaviour from children with ASD and SLD. I have undertaken a systematic survey of 64 special schools within a pre-defined geographical region of the UK, and I assume that the research will produce generalised knowledge regarding the extent to which approaches and interventions reported in the literature as being widely used are actually being utilised in practice. The survey method used is intended to be replicable and in this sense it is intended to produce an objective summary of the landscape around how interventions are used for the target

population. The survey approach used is also intended to develop an account of how staff in special schools supporting young people with ASD attribute causal influences regarding challenging behaviour. Although acknowledging that perceptions of challenging behaviour are subjective in nature, socially constructed and therefore changeable, the survey method used is intended to be objective in the sense that it could be reproduced within a subsequent study to provide comparative data. I anticipate that the research will support existing literature which has demonstrated the need for a flexible, eclectic and positive approach to supporting young people with ASD, SLD and challenging behaviour.

Method

The focus for Paper 1 was on describing the relationship between recommendations from the literature regarding evidence-based practice and actual practice within schools. A summary of commonly used strategies, frameworks and approaches was created to develop a list of potential interventions. This was incorporated into a questionnaire circulated to teaching and support staff in 64 special schools from local authorities in the Midlands area, and follow-up semi-structured interviews of seven teachers. Data from these sources was triangulated to improve the internal validity of the findings. Data were gathered through: a detailed literature search; a questionnaire survey; and semi-structured interviews. Each of these processes is described below.

Literature search

A detailed exploration of the literature was conducted to summarise the

interventions which are reported as being most commonly used. A list of these techniques, strategies, and intervention frameworks was included as part of the questionnaire (Appendix 3).

Questionnaire

In order to gain an understanding of practice across the target geographical area, it was decided that a questionnaire survey would be the most appropriate method, allowing a large sample to be taken relatively quickly and incurring less financial cost compared to other methods such as individual interviews. Schools were selected from a UK government database (EduBase) of special schools. Two criteria were used to select which schools were sent questionnaires. A comprehensive search was conducted for all special schools in the 'Midlands' region where the primary SEN category (SEN1 name) contained either the term SLD or ASD in combination with any other category name. A second search was then conducted for all schools in the same locality where the secondary SEN category (SEN2 name) contained either SLD or ASD. A final search of the same criteria within the third SEN category was completed. Appendix 4 details the number of schools returned in each search category. In total 64 schools were returned using the search criteria outlined above. The first search – of primary SEN category returned 57 schools, and the second search of secondary SEN category returned a further 7 schools. No further schools were returned by a search of third SEN category. Each school was coded individually.

Questionnaires (Appendix 3) were circulated to teachers and teaching assistants in the 64 identified schools within the Midlands area. The

questionnaire required staff to indicate; which of the listed approaches or strategies they use; how much training they have received in the approaches; and their attributions regarding responsibility relating to challenging behaviour. Before being sent to schools, the questionnaire was reviewed by the head teacher of a local school for young people with ASD and also by the Lead Educational Psychologist for the local authority where the study was conducted. Following piloting, Q3 was altered to ask about responsibility for the behaviour rather than asking about blame for the behaviour as responsibility was felt to be a less emotive term.

Table 14, below, shows the breakdown of how many responses were received from each school.

School #	Original Code Used	Number of questionnaires returned	Number of respondents consenting to interview
1	C	5	3
2	F	6	3
3	N	1	1
4	Q	5	3
5	R	7	5
6	AF	4	0
7	AO	4	0
8	AQ	2	1
9	AW	31	15
10	AX	3	2
11	BA	5	1
12	BK	5	4

Table 14: Number of questionnaires returned by each responding school

78 staff from 12 schools completed questionnaires. The response rate was lower than had been anticipated. Some schools declined to take part in the study stating that staff had already been asked to complete questionnaire

studies in that academic year, or that staff would not have the time to complete them. One school stated that their staff only completes questionnaires for professionals working directly with the school. Other schools failed to respond at all.

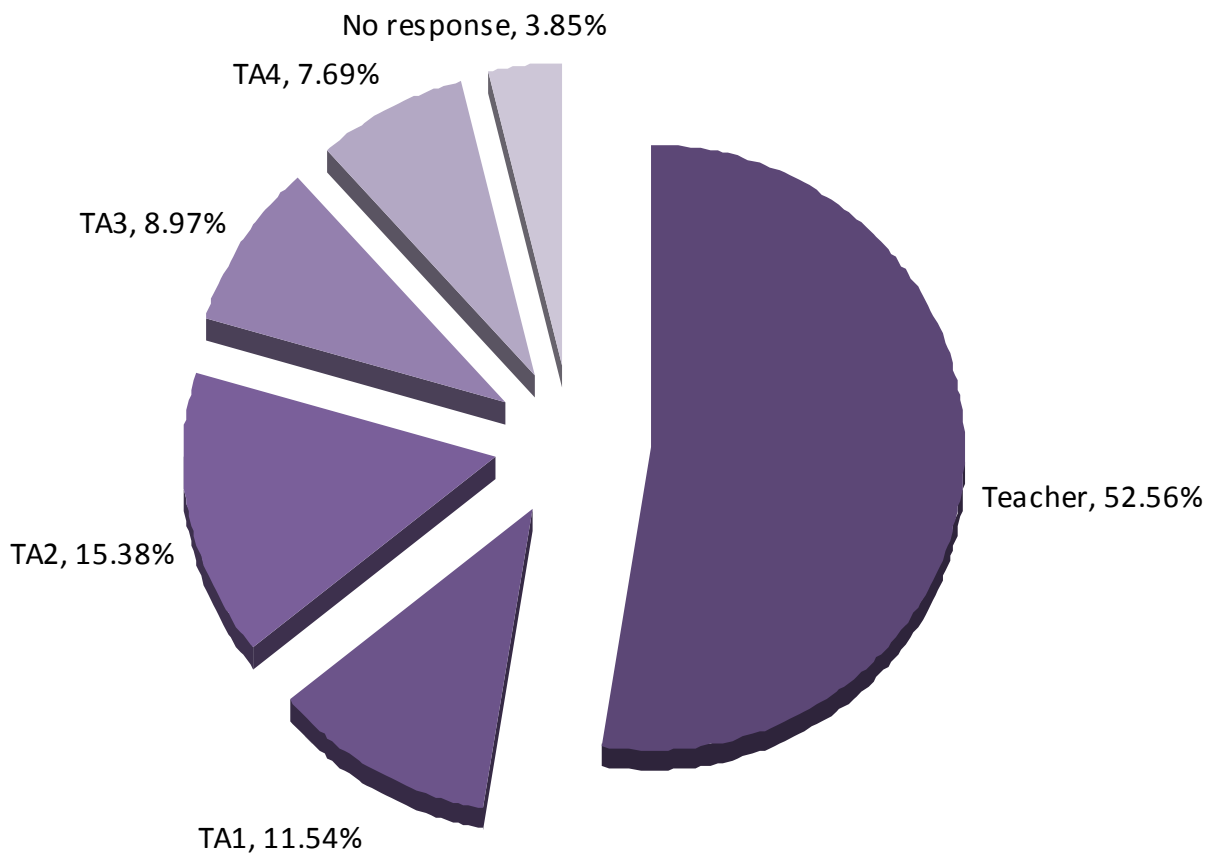


Figure 1. Percentage of respondents of each staff level.

Figure 1 (above) summarises the percentage of questionnaire respondents of each staffing level as follows: 53% of respondents were teachers, 8% were level four teaching assistants, 9% level three teaching assistants, 15% level two teaching assistants and 12% level one teaching assistants. 4% of respondents did not provide data for this question.

Semi-structured interviews

Staff completing the questionnaire were asked to indicate their consent to participate in an interview regarding challenging behaviour and use of intervention strategies. I opted for face-to-face semi-structured interviews to allow participants opportunity to express views and thoughts which may have been precluded by the questionnaire survey. Although the questionnaire allowed for comments in addition to the structured questions, I felt it was important that staff had the chance to fully describe any issues regarding how challenging behaviour was supported in schools in order to produce data which reflected actual practice within the local area. Semi-structured interviews were selected rather than structured interviews to provide a balance between controlling the interview and leaving space for participants to take control.

Interviewees were selected from those respondents who consented on the questionnaire to be interviewed. The response rate for consent to interview was higher than anticipated (Table 14, above). Of the 78 questionnaires returned, 38 staff consented to taking part in the interview process. From this, seven staff were selected for a semi-structured interview lasting approximately forty minutes. Due to time and financial constraints, interviews were conducted within schools within the local authority where the study was conducted. Respondents were selected to provide representation from each teaching level (Teacher, TA4, TA3, TA2 & TA1).

Confidentiality and anonymity were discussed prior to each interview (See example interview transcript, Appendix 15) and participants were asked if they consented to the interview being audio recorded. Audio recordings were used to

later transcribe each interview before being deleted. During each interview, participants were asked questions relating to challenging behaviour in their school. Appendix 22 details the semi-structured interview questions used by the researcher to organise these conversations. Questions were selected from this schedule to help the interview flow, and so each interview comprised different combinations of the questions. Appendix 15 provides the full transcript of one of the interviews conducted. The interview schedule was designed to reflect the questions asked in the questionnaire. The interview schedule was reviewed at the piloting stage by the same head teacher and Lead Educational Psychologist who reviewed the questionnaire. No amendments were made to the schedule during this pilot stage.

Young people

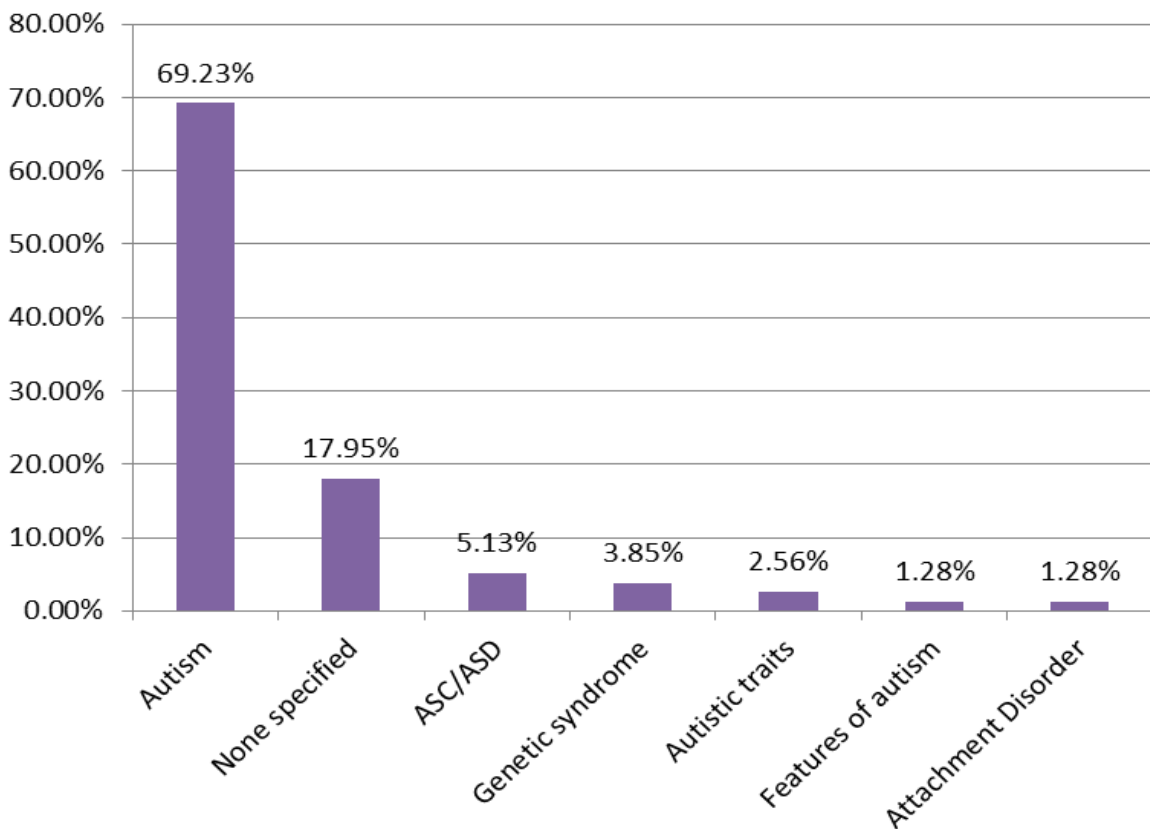


Figure 2. Frequency of diagnoses between target young people.

On the questionnaire, respondents were asked to think about one young person with whom they work. From the responses received, 91% were relating to male pupils and 9% to female pupils. Mean average age of pupils was 10 years 6 months. Staff identified which, if any, diagnoses had been given by a medical professional for the target young person. 69% of young people had a diagnosis of autism, with the distribution of other responses summarised in Figure 2.

Method of Analysis

Responses from the rating scale questions on the questionnaires were subject to rank order correlational analyses to determine any relationships between the different variables.

Responses given in the open-ended questions on the questionnaire and during semi-structured interviews were aggregated and subject to thematic analysis (Aronson, 1994) to illustrate predominant and recurring themes. Appendix 21 details the procedure used for this analysis. Thematic analysis is appropriate for analysing the data in this study as I intended to acknowledge, and develop an understanding of, the ways in which staff make meaning of their experiences of challenging behaviour. Also, I wanted to acknowledge and develop an understanding of how the social context of the special school environment may impinge upon those meanings. In order to do so, an analysis which seeks to explore patterns and themes across all of the available data was selected. The analysis carried out was inductive, rather than deductive as no coding framework was established before the data were analysed. Rather, the codes themselves were developed during and throughout the analysis stage based on

those themes which I deemed to be most frequent, most relevant or most useful in answering the research questions.

Ethical Considerations

I followed guidance from the Code of Ethics and Conduct set out by the British Psychological Society (BPS, 2009) for Paper1 of the study (see Appendix 2: Certificate of Ethical Approval). Issues regarding confidentiality, informed consent, safe guarding, and feedback were carefully considered as summarised below.

Confidentiality: Electronic records of the data (including interview transcripts and audio recordings) were stored on a secure system using whole disk encryption and recognised virus protection. Paper documents were locked in a filing cabinet locked in a secure building. Electronic information was only accessible by myself using a logon ID and password. All data was coded to ensure anonymity. When the research is completed, all raw data will be destroyed by shredding or disposed of digitally.

Informed Consent: Informed consent for EP/researcher involvement was gained from parents of children in the research group and from staff prior to interview. Participants were made aware of how the research findings will be used. Participants were reminded that they had the right to withdraw from the research at any given time and that if they chose to do so, data related to them would be destroyed.

Safe guarding: It was made clear to participants that in the exceptional event that evidence emerged to raise serious concerns about the safety of participants or other people, information would be passed on to relevant bodies.

Feedback: All participants were made aware that they will be offered the opportunity to review a general feedback online at the end of the research project. This will outline the aims, and key findings of the research. A copy of this will be made available to all schools who returned questionnaires, and all teaching staff who participated in the semi-structured interview phase.

Findings

Challenging behaviour

Questionnaire respondents were asked to think about a target young person with whom they worked and report: the types of challenging behaviour that the young person presented with; the frequency with which these behaviours occurred; how difficult they found the behaviour to manage; and their perception of how responsible the young person was for their behaviour. Rating scales were used to assess the perceptions of respondents for the final three dimensions (see Appendix 3 for an example of the questionnaire used). Table 1, below shows the distribution of challenging behaviours occurring more than once per week (rated 5, 6, or 7). It also summarises, for responses where behaviour did present more than once per week, the percentage of respondents who perceived the behaviour as very difficult to manage (rated 5, 6, or 7). The third column reports the percentage of respondents who rated the young person as being largely responsible (rated as 5, 6, or 7) for the behaviour.

Observed Behaviour	% of respondents reporting behaviour presenting more than once per week	% of respondents reporting behaviour as very difficult to manage	% of respondents who perceived young person as largely responsible for the behaviour
Out of seat (or wandering)	84.6%	20.8%	63.9%
Non-compliance	79.5%	42.7%	67.6%
Tantrums	71.8%	45.5%	64.1%
Hitting others	69.2%	46.4%	71.2%
Loud vocalisations / screaming	66.7%	41.3%	61.3%
Repetitive behaviours	56.4%	31.4%	40.8%
Dropping to floor	51.3%	54.0%	72.0%
Kicking others	42.3%	30.8%	56.0%
Pinching others	42.3%	56.3%	66.7%
Scratching others	37.2%	58.7%	65.9%
Property destruction	34.6%	26.9%	67.3%
Self-injury	29.5%	35.0%	51.3%
Biting others	26.9%	48.9%	57.4%
Eating non-edible items	26.9%	37.5%	54.5%
Spitting	25.6%	48.1%	78.6%
Spitting at others	21.8%	40.7%	67.9%
Head-butting others	21.8%	27.0%	68.4%
Inappropriate touching (others)	17.9%	16.0%	66.7%
Masturbating	11.5%	26.7%	66.7%
Smearing	2.6%	50.0%	60.0%

Table 1. Frequency of challenging behaviours, level of difficulty in managing them, and level of responsibility young person perceived to have in respect of behaviours.

Approach or Intervention	% of respondents who reported using the approach ever with the target young person	% of respondents who reported having received <i>any</i> training in the approach in past 12 months
Makaton (or other sign)	83.3%	59.0%
PECS (Picture Exchange Communication System)	71.8%	32.1%
Physical restraint	56.4%	60.3%
TEACCH	48.7%	32.1%
Intensive Interaction	41.0%	17.9%
Social Stories	38.5%	14.1%
Medication	25.6%	11.5%
Music therapy	25.6%	3.8%
SULP (Social Use of Language)	19.2%	2.6%
Dietary intervention	10.3%	2.6%
Comic Strip Conversations	10.3%	0
ABA (Applied Behaviour Analysis)	6.4%	1.3%
SPELL	3.8%	2.6%
Lovaas method	2.6%	1.3%
EDY (Education of the Developmentally Young)	2.6%	1.3%
Auditory Integration Training	0	0
Son Rise	0	1.3%
Daily Life Therapy	0	1.3%
LEAP	0	0
Pivotal Response Treatment	0	0
Autism Assistance Dogs	0	0

Table 2. Percentage of respondents who use each of identified approaches and percentage of respondents who have received training in the approaches.

Quantitative Analysis

- *To what extent are school staff utilising the approaches most commonly reported in the literature?*

Respondents were asked to describe the approaches used within their classrooms and the level of training they have received in these approaches during the past 12-month period. Table 2, above, summarises the percentage of staff who report using each approach and those who report having received any training in that approach.

In order to assess the relationship between training received and use of approaches, a Spearman's Rank Order correlation was run to determine the relationship between the level of training respondents have received in each of the approaches and the use of those approaches in practice. There was a positive correlation between training received and use of approach in practice, which was statistically significant, but only at a low level. ($r_s(78) = .278, P = .014$).

- *To what extent do staff attributions regarding challenging behaviour correlate with the use of commonly reported approaches?*

Figure 3 (Appendix 5) summarises the percentage of staff reporting the perceived level of responsibility the young person holds for their challenging behaviour. A Spearman's Rank Order correlation was run to determine the relationship between respondents' perceptions of the young person's level of responsibility for challenging behaviour and the level of training respondents have received in each of the approaches. The relationship between perception of responsibility and amount of training received was not statistically significant ($r_s(77) = .127, P = .271$).

- *To what extent do school staff receive debriefing and training regarding challenging behaviour?*

Results indicate that staff do not routinely receive debriefing following incidents of challenging behaviour. Figure 4 (Appendix 5) details the frequency with which respondents report receiving a debriefing following an incident of challenging behaviour. 11% of staff reported never receiving debriefing. 38.4% reported receiving debriefing sometimes, 26% often, and 28.8% of respondents reported receiving debriefing every time. Some respondents indicated more than one category, such as 'sometimes' and 'often'. Table 2, (p. 33, above) details the amount of training received in each approach. Makaton, PECS, Physical Restraint and TEACCH were the only approaches in which more than 32% of staff had received any training in the most recent 12-month period. Training in only Makaton and Physical Restraint had been received by more than 50% of respondents.

Qualitative Analysis

Theme 1: Strategies and approaches

Figure 6 (below) summarises the frequency with which approaches were discussed as positive supports for young people with challenging behaviour. 'Being consistent' and 'physical intervention' were the two most-cited approaches seen to have a positive impact. Figure 5 (Appendix 6) summarises the breakdown of references made to each different type of approach. Thematic analyses of these data revealed three dominant themes. These are: the importance of adapting interpersonal styles; an emphasis on reactive rather than proactive strategies; and that staff modify and adapt approaches to suit individual young people. Figure 7 (page 37) summarises these themes.

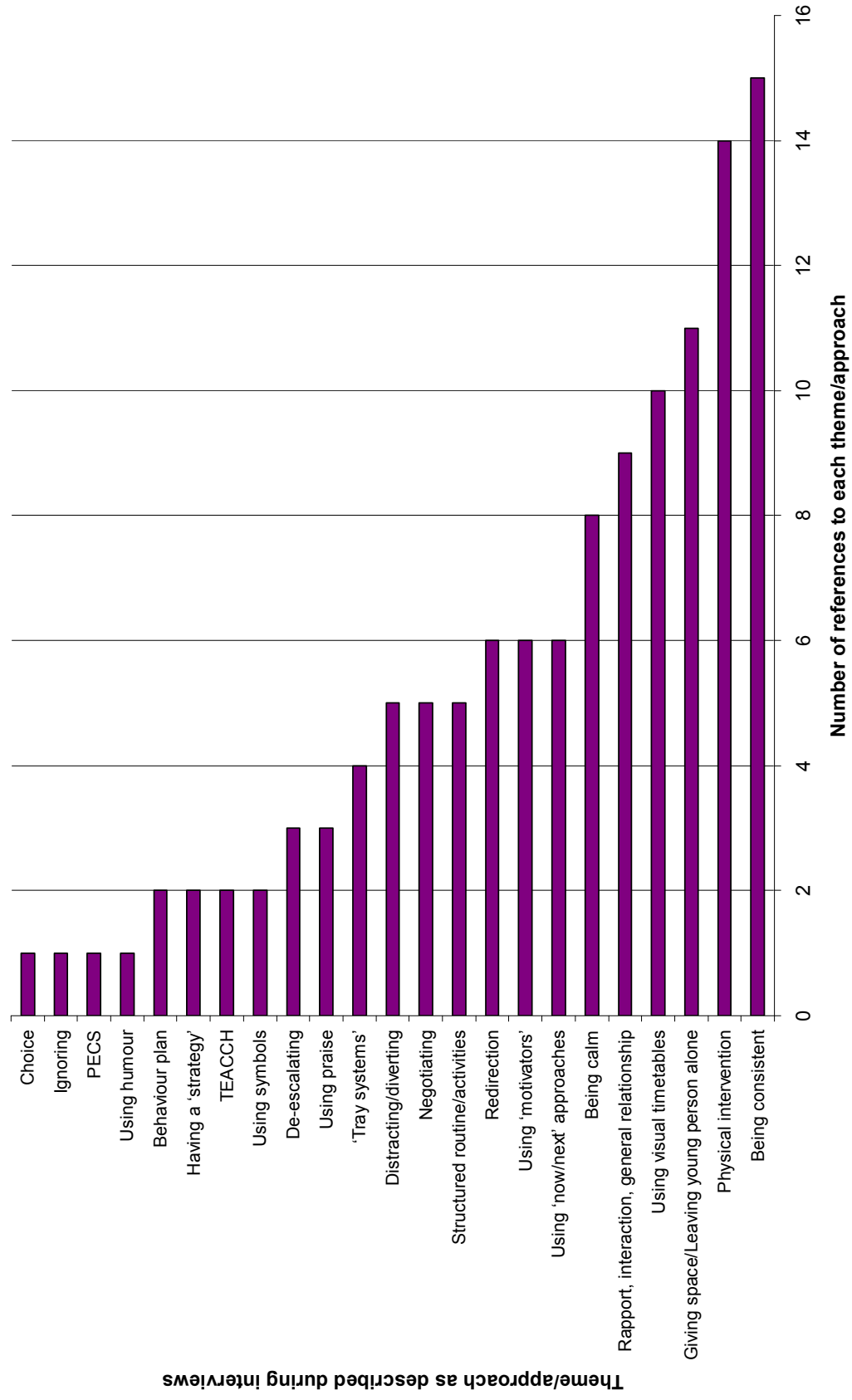


Figure 6. Frequency each strategy was discussed as a positive approach for supporting with challenging behaviour during interviews.

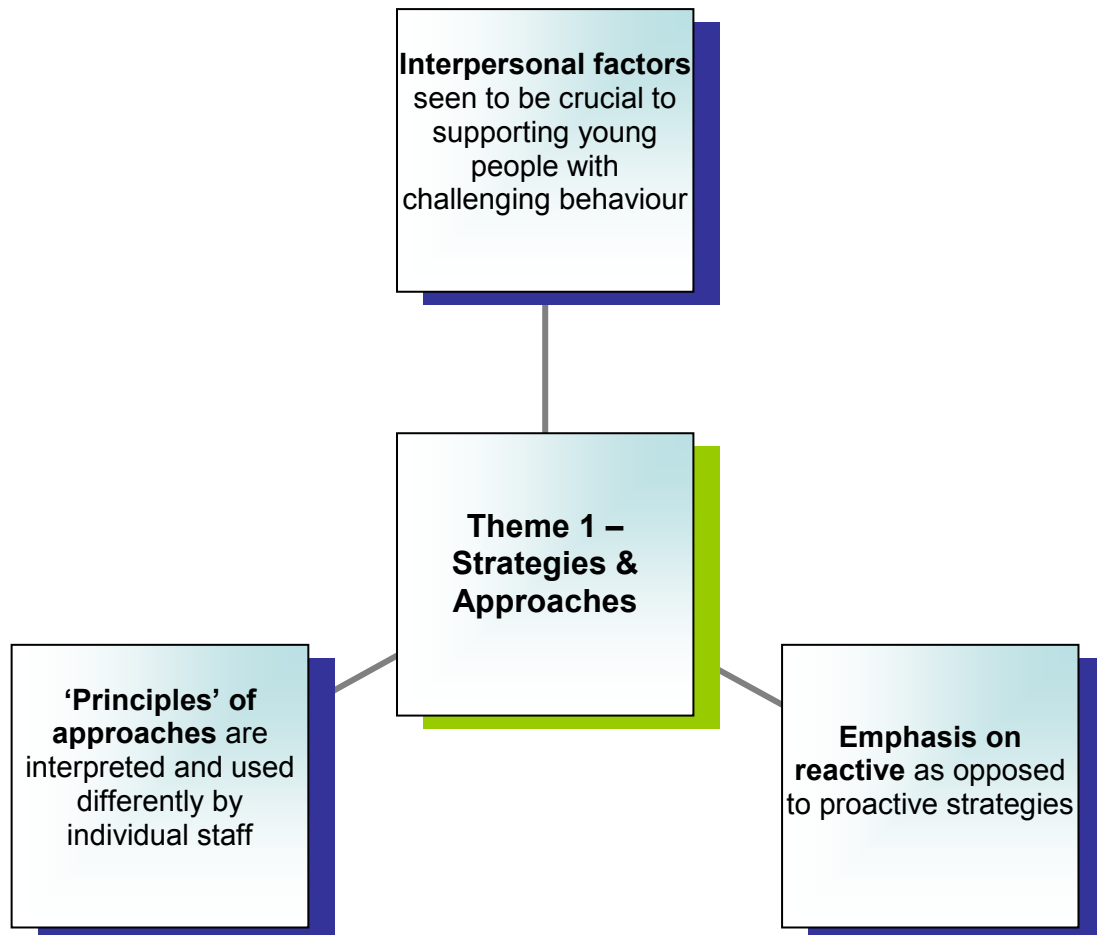


Figure 7. Theme 1: Strategies and Approaches and associated sub-themes

Illustrative examples of each of these sub-themes is summarised in Table 3 (Appendix 7).

Theme 2: Staff support mechanisms

Thematic analysis revealed three key aspects of support which were deemed crucial by staff. These were: practical support (including provision of resources such as time); technical support (including the provision of training and external advice); and psychological support (including the opportunity to talk about difficult experiences). These sub-themes are summarised in Figure 8 (below). Figure 10 (Appendix 6) summarises the percentage frequencies with which each of the three types of support were highlighted.

Staff described a plethora of psychological factors which they recognised within their work. During the semi-structured interviews, there were 35 instances of staff describing psychological and emotional difficulties they encountered through their work. Staff used the following terms when describing the psychological impacts of their work: distressing; hurt; difficult; scared; self-blame; painful; cry; hard; frightened; injury; wearing; stressed; tired.

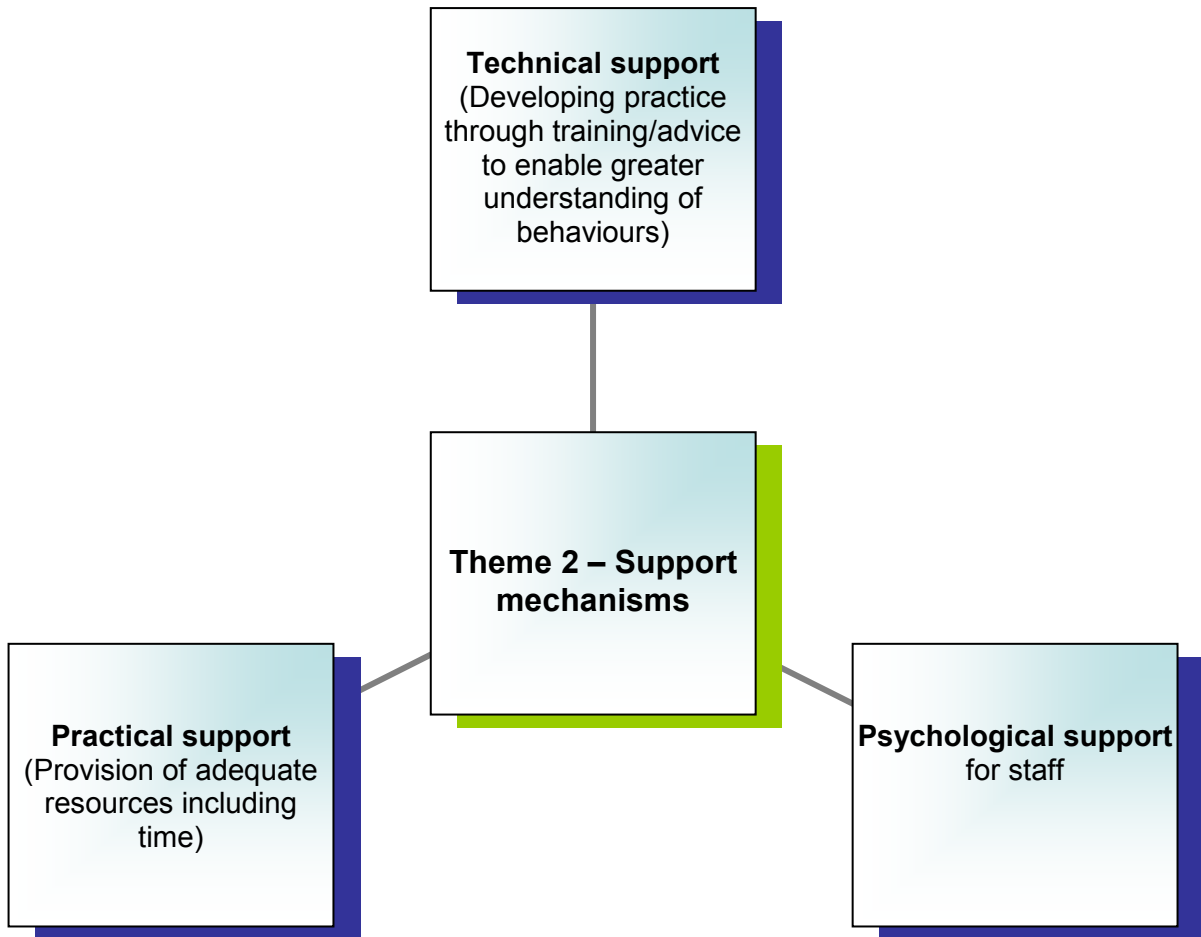


Figure 8. Theme 2: Staff support mechanisms

Illustrative examples of each of these sub-themes is summarised in Table 4 (Appendix 8).

Theme 3: Understandings of behavioural functions, development and maintenance

Thematic analysis revealed four dominant sub-themes related to staff understandings of the functions of challenging behaviour and how it develops and is maintained. These were: uncertainty around the function of behaviour; wide-ranging opinions about whether the origin of challenging behaviour is internal or external to the young person; recognition of influences beyond staff control (including influences on behaviour from home); and recognition of control dynamic effects within the adult-young person relationships. These are summarised in Figure 9 (below).

Figure 11 (Appendix 9) summarises the percentage of comments made by staff in relation to the functions of challenging behaviour. 55% of these comments were references to being uncertain about the function of behaviour. Figure 12 (Appendix 9) summarises the percentage of references made by staff acknowledging the control dynamics within the adult-young person relationship. 43% of these comments referred to the young person's challenging behaviour serving to allow them to 'get their own way' or 'always wanting their own way', while 27% referred to the staff believing the challenging behaviour was the young person's way of 'being in control'.

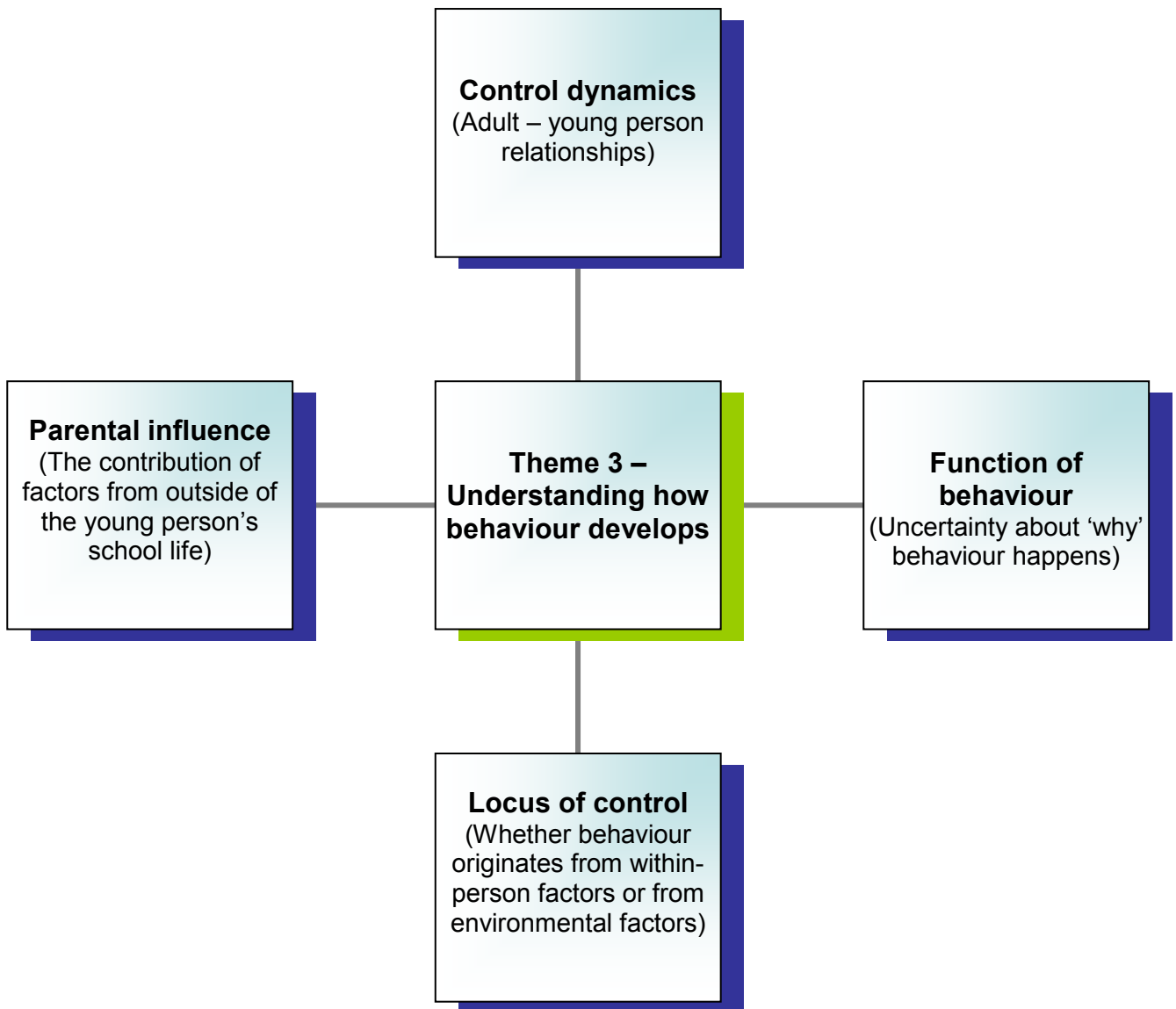


Figure 9. Theme 3: Understandings of behavioural functions, development and maintenance

Illustrative examples of each of these sub-themes is summarised in Table 5 (Appendix 10).

Discussion

Paper 1 of the research provides an overview of the extent to which evidence-based approaches for supporting children with ASD, SLD and challenging behaviour are utilised in practice in 12 special schools in the United Kingdom. Paper 1 also explored factors that may serve as barriers to, or facilitators of, effective implementation of support strategies. Specifically, the influence of staff attributions regarding challenging behaviour was of primary interest. Each of the research questions will now be discussed in turn, before some concluding remarks regarding the implications for practice and future research in this area.

Use of commonly reported approaches

The first research question asked, to what extent are school staff utilising the approaches that the literature reports as being commonly used? In their international review of practice, Parsons *et al.* (2009) report unequivocally that an eclectic approach to supporting children with ASD is both necessary and appropriate. However, of twenty-one approaches identified through the study, only five (Makaton; PECS; physical restraint; TEACCH; and Intensive Interaction) had been used ever by more than 40% of participants. Participants appeared generally unaware of many of the approaches listed. For example, despite ABA being reported in the literature as being one of the most effective frameworks, and the only approach supported by randomised controlled trials (Smith, 2000), only 6% of participants reported having ever used ABA, and only one participant had received any training in ABA in the most recent twelve months. It must be acknowledged that many of the approaches described are underpinned by the principles of ABA and that staff may well use these principles regularly without realising that they are doing so.

“I have not heard of a lot of the strategies, however we constantly talk to the young man and he does understand especially when calm”. (Taken from responses to open-ended questions on questionnaires: Appendix 16).

The dominant themes to emerge from qualitative analyses describe: use of reactive rather than proactive approaches; reliance on subjective judgements and interpersonal styles; and using adapted principles of evidence-based approaches (See Figure 7, p. 37). This supports findings from previous research which has shown that ‘diffusion’ and ‘intermittent restraint’ were cited as the most used strategies for dealing with aggression and self-injury (Male, 2003). The findings indicate that while staff generally draw heavily on one or two evidence-based approaches to inform their practice they rely primarily on their individual interpersonal styles to tailor the environment and produce a ‘best-fit’ with the young person’s needs. This individual adaptation is reflective of recommendations from some researchers: “Intervention ... needs to be a two-way process that relies on typically developing people adapting their communication styles and their learning environments to the person on the spectrum” (Guldberg, 2010, p. 169). However, my findings suggest that staff opting to develop their own individual approaches impacted negatively on the provision of consistent support for young people.

“We’re given plenty of ideas, but you can’t just do it on your own. I think some staff look at it as ‘oh we’ve got to do this, this and this’. They don’t think outside the box. They’re given ideas but they don’t really carry on with the ideas, they just think about what they want to do and go with that”.

(Taken from semi-structured interviews: Table 3, Appendix 7).

In summary, it appears that staff are utilising a limited range of evidence-based approaches, tending to rely more often on their individual interaction style and their ability to adapt to the young person. This is not to say that this approach is insignificant. Indeed it is supported as a valid approach within the literature. However, reliance on individual interactional styles, it seems, generates a high degree of inconsistency of approach between staff which presents a potential barrier to effective support for challenging behaviour.

Impact of staff attributions

The second research question asked, to what extent do staff attributions regarding challenging behaviour correlate with the use of evidence-based practices? Although the study did not reveal any significant relationships between level of experience and attributions regarding challenging behaviour, it was evident that attitudes about responsibility for the behaviour ranged markedly between participants from zero responsibility on behalf of the young person to complete responsibility on behalf of the young person. Some staff (15%) indicated that they think the child is responsible for their actions for all of their challenging behaviours. Other staff (11%) indicated that they think the child is rarely responsible for their challenging behaviour, and many staff (71%) had views somewhere in between these two extremes. This supports the findings of Bromley and Emerson (1995) who reported that “staff attributed the causes of the person's challenging behavior to a diversity of internal psychological, broad environmental, behavioral and medical factors” (Bromley & Emerson, 1995, p. 341).

The factor cited most by staff as effective is a consistent approach by all staff (see Figure 6, p. 36), yet the majority of respondents also cited inconsistent

application of strategies as being commonplace within their experience. The findings indicate that inconsistency develops partly because of the way individuals adapt their interpersonal styles when supporting young people with challenging behaviour:

“if you don’t all sing from the same hymn sheet it’s difficult to implement because children learn to expect one thing and respond really well, but you get another person – everybody works slightly differently – and you get another person who interprets it a little differently”.

(Table 3, Appendix 7).

According to Hastings and Remington (1994), the constructs that staff use in making sense of someone’s challenging behaviour may impact substantially upon their behaviour towards the person, the likelihood of them seeking external opinions or support, and the likelihood that they will implement effectively any advice given by colleagues, professionals, or managers. Where staff teams are all operating with differing individual perspectives regarding the function of behaviour there will be little agreement as to how best to intervene to support the young person, thus undermining the consistency of approach used.

So in summary, it seems that staff attributions may pose a substantial barrier to the effectiveness of intervention efforts. This impact seems to be related to the range of individual attributions that exist within a team of staff. It seems that, if not well coordinated, the practice of staff adopting individualised approaches may potentially contribute to a high degree of inconsistency of approach. “It may not be a particular member of staff that is upsetting the person with autism by their particular behaviour, but just that there is inconsistency in the ways in

which different staff treat the person with autism” (Jordan, 2001, p. 172). Where there is greater variation in staff attributions, and where staff have limited training and hence limited response options, there will be inconsistency of approach as staff all interpret and adapt their approaches in different ways.

Access to training and debriefing

The third research question asked, to what extent do special school staff receive debriefing and training regarding challenging behaviour? As outlined in the literature review eclectic provision (Parsons *et al.*, 2009) is regarded as the most appropriate means of delivering effective support for young people with ASD and challenging behaviour. However, the findings indicate that staff typically receive training in only one or two evidence-based approaches. Training in just two approaches (physical intervention and Makaton) had been received by more than a third (33%) of staff in the most recent twelve month period. Furthermore, 24% of staff report having received no training in any evidence-based approaches over the most recent twelve month period.

Perhaps unsurprisingly, the results from this study indicate that staff are more likely to use approaches in which they have received the most training. Physical intervention was the approach that most staff received training in. It should be noted that training in physical restraint is not typically training solely in physical handling of young people. Of the training named by participants in this study, a substantial proportion of the training focuses on factors leading to the development of challenging behaviour and developing understanding of how to reduce occurrences. The delivery of 'eclectic provision' may be undermined by a restricted range of training in evidence-based approaches. Some staff report using approaches every day in their work, yet report having received no formal training in using these approaches. This phenomenon also appears to contribute to the issue of a lack of consistency of approach noted by many participants.

Staff also report a number of areas where they feel additional support would be beneficial. These themes from the qualitative analysis can be categorised as psychological support, practical support and technical support (see Figure 8, p. 39). With regard to debriefing, the data shows that the use of debriefing is inconsistent. Only 29% of participants reported receiving a debriefing after every serious incident of challenging behaviour. 49% reported receiving debriefing after such incidents either 'sometimes' or 'never'. Debriefing is acknowledged within the literature as being an important process for staff. "Just as the person with autism and SLD may need stress reduction measures as a matter of priority, so also do staff, and there should be supportive debriefing sessions following all incidents in which a member of staff is hurt" (Jordan, 2001, p. 182). Training and debriefing may play a vital role in contributing towards a consistent approach by helping to align views regarding the factors maintaining challenging behaviours and developing a shared understanding of appropriate responses.

Conclusions

It seems that a number of barriers to optimal support for young people with ASD, SLD and challenging behaviour exist. These barriers, it seems, combine and contribute to a lack of consistency of approach. The findings identified a number of key elements which contribute towards this inconsistent approach to support. First, the ideal of eclectic provision is undermined by a limited range of training in evidence-based approaches received by staff. In the most recent twelve month period 24% of participants had received no training in any of the twenty one identified approaches. This then translates into practice with a similar limited range of evidence-based approaches utilised, with staff instead tending to rely on their interpersonal skills and abilities in adapting their individual style of interaction to produce a best-fit between the young person and their environment. Additionally, where evidence-based approaches are used, there is a tendency for staff to modify and adapt these approaches to produce multiple interpretations of the same strategies and approaches.

Second, the findings also highlight a range of support mechanisms that staff seek support from. The provision of these supports was also found to be inconsistent, again posing a potentially significant barrier to effective support for young people. These staff support mechanisms (see Figure 8, p. 39) can be categorised as:

- Psychological and emotional support
- Technical support (developing practice through training/external advice);
- Practical support (provision of adequate resources, including time).

Third, the findings highlight limitations around how staff develop their understanding of how and why challenging behaviour develops and is

maintained. Contributing to this barrier is the variation in attributions that staff make regarding challenging behaviours. Staff operate with individual attributions about challenging behaviour which can be markedly different from attributions made by colleagues supporting the same young person. The result is that there exists great variation with regard to how staff explain the development and function of behaviour that challenges them, and correspondingly how they then select and adapt their approach in working with that young person. It seems that staff do not always have adequate supports in place to be able to develop robust explanations of the challenging behaviour in a manner that is consistent, coherent and shared by all staff.

This stage of the research has demonstrated that the effectiveness of interventions for this client group is potentially undermined by three key barriers presenting from:

1. a limited range of staff training;
2. inconsistently implemented mechanisms for supporting staff emotional reactions and practical responses;
3. limited mechanisms for developing understandings of challenging behaviour.

In order for eclectic provision to be implemented staff need to be aware of the wide range of evidence-based approaches available. It seems likely that local authorities and special schools may need to expand the range of training in a variety of evidence-based approaches available. Additionally, schools need to implement clear and consistent structures for developing shared understandings of challenging behaviours and mechanisms of supporting staff psychologically in working effectively with challenging behaviour.

Reflections

Effectiveness of methods used

The data from the rating scales, open-ended questions on questionnaires and from interviews triangulates well suggesting that questionnaires are an effective means of eliciting information regarding support for young people with ASD and challenging behaviour. There were several respondents who stated that they found the questions relating to responsibility of the child for their challenging behaviour difficult to answer. However, this was also true for interviewees, suggesting that the notion of responsibility or blame for challenging behaviour may itself be a difficult issue to elicit views on. The method of questionnaire or interview seemed not to be the important factor.

53% of questionnaire responses were from teachers with 43% from support staff and 4% not providing this information. Proportionally there are far more support staff in the schools surveyed than there are teachers. The disproportionately high number of responses from teachers may be related to a number of factors. Some of the schools only asked teachers to complete questionnaires as it was felt that support staff did not have the time to do so. Other factors, which it would be useful to explore further, may include the perception of how important challenging behaviour is in the classroom or how confident staff are to discuss challenging behaviour.

Limitations

The researcher acknowledges that the study will have been influenced by numerous factors, and the limitations of Paper 1 are outlined here:

- *Researcher bias*: The findings of this study will have been influenced by my very involvement as researcher. The focus of the research and the

data collection methods used will have influenced, to various degrees, the responses of participants. The questionnaire design may have omitted areas of interest that other researchers would choose to focus on. Similarly, the questions and prompts used during semi-structured interviews may have biased certain responses over others. The effects of such phenomena were hopefully minimised by the use of: semi-structured interviews as opposed to structured interviews; open-ended questions; and opportunities for additional comments on questionnaires.

- *Social desirability*: The questionnaire and interviews used in Paper 1 may have resulted in participants providing answers that they perceived to be most socially acceptable, rather than answers which were an accurate reflection of their thoughts, feelings and attributions. It is hoped that the use of distant (questionnaire) and face-to-face (interview) methods helped to negate any such effects, but this is difficult to quantify.
- *Semantics*: In the questionnaire participants were asked to comment upon the level of 'responsibility' which the young person held for their behaviour. This may have been too ambiguous as a concept. Several participants commented upon how difficult they found it to frame challenging behaviour in terms of 'responsibility'. Future research in this area may benefit from drawing upon the work of Weiner (1979, 1983, 1985, 1986) who describes three basic dimensions along which causal attributions can be classified: 'locus' (whether the cause resides within or outside the person), 'controllability' (the extent to which the cause of a person's behaviour is perceived to be under their control) and 'stability' (the extent to which the cause of a person's behaviour is perceived to be

enduring or temporary. Other variables that have been found to influence the attributions that staff make about their clients' challenging behaviour include the topography of the behaviour (Hastings 1995) and its perceived functions (Morgan & Hastings 1998; Hastings *et al.* 2003; Noone *et al.* 2006), and the severity of the client's intellectual disability (Tynan & Allen 2002). A more detailed examination of these factors would be beneficial to our understandings of how attributions impact upon intervention efforts.

- *Small sample size:* Further studies would be needed to see whether patterns reported in the current research were the same for different parts of the United Kingdom. The current study reports data from 12 Midlands schools, although 64 schools fulfilling the criteria were invited to respond.

Future Research

Future research is needed to examine the barriers that families and educational establishments face when trying to support young people with ASD and challenging behaviour. Also, how the effectiveness of carefully selected direct interventions, drawing on an eclectic approach as outlined by Parsons *et al.* (2009), is impacted by these barriers requires more detailed analysis. Addressing the potential barriers described within the literature in combination with well-selected appropriate evidence-based intervention approaches, may yield the most promising framework for supporting families and children with the complex combination of ASD, learning difficulties and challenging behaviour.

Paper 2 of the research will use a series of case studies within one special school to explore the impact of the potential barriers identified in Paper 1. It is acknowledged within the research that one type of approach is unlikely to be effective for all (Parsons *et al.*, 2009) and several researchers (LaVigna *et al.*, 2002; McIntosh *et al.*, 2010) have advocated the use of frameworks that draw upon multiple evidence-bases in order to support challenging behaviour effectively. “Challenging behaviour is best dealt with through the same processes of understanding, reducing stress, and teaching, that underpin all good practice in working with individuals with autism and sld” (Jordan, 2001, p. 170). With regard to this notion, the case studies will not seek to advocate for the implementation of any particular evidence-based approaches. Rather they will seek to develop a supportive framework to address the barriers identified here as contributing to inconsistency of approach. Specifically, the following questions will be considered:

- To what extent does implementing a multi-element framework promote a reduction in challenging behaviour within the special school environment?
- To what extent does implementation of a multi-element framework alter staff attributions regarding challenging behaviour?
- To what extent is a multi-element framework a socially valid means of supporting challenging behaviour?
- What can special schools do at a systems level to promote effective support and reductions in challenging behaviour?

The effectiveness of using a multi-element framework is discussed and proposals made regarding what schools can do at a systems level to promote effective support for young people with ASD and challenging behaviour.

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Paper 2

Implementing a multi-element framework to support pupils with ASD and challenging behaviour.

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Table of Contents

Paper 2 Abstract	Page 64
Paper 2	Pages 65 - 121
List of tables and figures for Paper 2	Page 65
List of Appendices for Paper 2	Page 66
Introduction	Page 67
Selected Literature Review	Page 70
Barriers	Page 70
Summary	Page 78
SPACE framework	Page 79
Design	Page 82
Assumptions	Page 83
Research Questions	Page 83
Method	Page 84
Ethical Considerations	Page 88
Findings	Page 90
Quantitative Analyses	Page 90
Qualitative Analyses	Page 94
Discussion	Page 99
Impact on challenging behaviour	Page 99
Impact on staff attributions	Page 100
Social validity	Page 106
Implications for school systems	Page 106
Implications for educational psychologists	Page 109
Conclusions	Page 111
Reflections	Page 112
Limitations	Page 112
Future research	Page 113
Paper 2 References	Page 114
Acknowledgements	Page 121
Appendices	Pages 122 – 227

Paper 2 Abstract

Paper 1 identified a number of potential barriers to effective support for young people with ASD, SLD and challenging behaviour. Paper 2 summarises the literature and research bases around these potential barriers and uses a series of case studies within one special school to explore the impact of these potential barriers on intervention. A multi-element framework was developed and utilised to implement personalised support programmes for target pupils, dependent on the specific needs of the individual young people participating. Staff attributions regarding challenging behaviour were assessed via questionnaire pre- and post- implementation to examine any changes, and levels of challenging behaviour and serious incidents were monitored throughout intervention following an initial baseline measure. A focus group was used to ascertain the social validity of the interventions used. The study concludes that: staff have knowledge of a limited range of evidence-based approaches; staff attributions regarding challenging behaviour can undermine the consistency of approach used; staff support and effective monitoring systems are significant components in reducing challenging behaviour in the school environment; collaboration with families and professionals is essential for the social validity of interventions. Limitations of the present study and suggestions for future research in this area are discussed.

List of Paper 2 Tables and Figures

Figure 13	The SPACE framework for managing challenging behaviour in children with ASD and SLD.	Page 81
Figure 14	Interrupted time-series design of case studies for Stage 2. Example shows case study where only one intervention change takes place.	Page 86
Figure 15	Case Study 1: Significant reductions in challenging behaviour levels and corresponding increases in time on-task and sessions spent with peers.	Page 92
Figure 16	Factors which contribute to good social validity within interventions.	Page 95
Figure 17	The influence of consistency upon staff attributions.	Page 96
Figure 18	Single-loop and double-loop processes for understanding and intervening with challenging behaviour.	Page 103
Figure 19	Focus Group Presentation.	Page 218 (Appendix 20)
Table 6	Five components of the SPACE framework with the psychological theories underpinning each component.	Page 173 (Appendix 11)
Table 7	Case-wise summary of quantitative data.	Page 93
Table 8	Illustrative examples of factors influencing social validity.	Page 96
Table 9	Illustrative examples of factors influencing consistency in schools.	Page 98
Table 10	Features of theory-in-use which inhibit (Model I) or encourage (Model II) double-loop learning.	Page 105
Table 11	Required aspects of each component of the SPACE framework identified through the research as being required.	Page 215 (Appendix 18)
Table 12	Summary of future research areas.	Page 217 (Appendix 19)
Table 13:	Demographics of young people selected for case study.	Page 87
Table 14	Focus group participant summary	Page 87

List of Paper 2 Appendices

Appendix 1	Literature Review.	Page 123
Appendix 2	Certificate of ethical research approval.	Page 153
Appendix 11	SPACE Framework – Underpinning Psychological Theories.	Page 173
Appendix 12	Functional Contextualism.	Page 174
Appendix 13	Example recording chart (Paper 2).	Page 175
Appendix 14	Pre- and post- attribution questionnaire.	Page 176
Appendix 16	Responses from open-ended questions on questionnaire.	Page 193
Appendix 17	Focus Group transcript.	Page 204
Appendix 18	Table 11: Identified aspects of each component of the SPACE framework identified through the research as being required. Plus explanation of how these factors were measured during implementation.	Page 215
Appendix 19	Table 12: Summary of future research areas.	Page 217
Appendix 20	Figure 19: Focus Group presentation.	Page 218
Appendix 21	Thematic analysis procedure	Page 224
Appendix 22	Semi-structured interview procedure and interview schedule	Page 226

Introduction

Paper 1 described how, despite a large and increasing body of research into interventions for ASD and challenging behaviour, there remains a lack of agreement within the literature as to how best to intervene to affect reductions in challenging behaviour in an educational context. A study by the Royal College of Psychiatrists, British Psychological Society and Royal College of Speech and Language Therapists (2007) concluded that severe challenging behaviour “is likely to lead to responses that are restrictive, aversive or result in exclusion” (p. 10). Many research studies have claimed to demonstrate superiority of one approach over many others. However, there appears to be little agreement generally as to whether any approaches can claim superiority over any other approaches studied. Numerous studies have concluded that no one approach is suitable for all individuals or for the same individual across time and that ‘eclectic provision’ (Parsons *et al.*, 2009) is the ideal means of supporting young people with ASD. Paper 1 of my research supported the notion that much of what is reported in the literature as effective evidence-based practice does not always transfer readily into effective practice in educational contexts. Many researchers argue that the intervention approach selected need not be the most important factor in supporting young people with ASD and challenging behaviour. In her preface, Jordan (2001) concludes that we need “not to be side-tracked by divisive claims for particular approaches, and to be ready to defend the needs of these vulnerable children” (p. x).

This leads one to ask what other factors are important in supporting young people with ASD and challenging behaviour? If research is able to demonstrate the benefits of certain approaches to support children with ASD and challenging behaviour under certain conditions, it seems that barriers must exist that often

prevent the effective use of these strategies in practical terms. Paper 1 of my research described a limited range of training being received by staff serving as a potential barrier to the ideal of 'eclectic provision' (Parsons *et al.*, 2009). Paper 1 also revealed a number of other potential barriers to effective implementation which culminate to produce inconsistencies that prove detrimental to support programmes and implementation of interventions in an educational context. Specifically the barriers identified are: support mechanisms for staff; influence of external factors including family life; and understandings of behavioural functions.

To focus on specific intervention techniques in the absence of these wider influences seems insufficient, yet dominates the research into this area. The effectiveness of certain intervention approaches, particularly those grounded in the principles of applied behavioural analysis (ABA), seem well supported within the literature (Steege, Mace, Perry, & Longenecker, 2007). However, it also seems apparent that any approach to supporting the management of challenging behaviour is likely to be undermined by a lack of specific attention to the barriers proposed above. The focus for Paper 2, therefore, is to explore the extent to which these factors serve as barriers to effective support and how these proposed barriers may be overcome within a special school environment. Comparatively little research has focused on systems-based approaches that consider how these different barriers interact, tending instead to focus on specific interventions at an individual level. Few, if any, comprehensive models or approaches exist that integrate evidence-based interventions and systematically incorporate strategies for overcoming proposed barriers within a special school environment.

The next section briefly summarises the key literature around each of the potential barriers proposed through the findings of Paper 1 and the Literature Review (Appendix 1).

Selected Literature Review

In this literature review I summarise the research around each of the barriers proposed through Paper 1. In order to ascertain the evidence as reported in the literature, I conducted repeated searches of the online databases PsycARTICLES, PsycINFO, JSTOR, and EBSCO EJS. While conducting searches, I initially used the following search terms in various combinations: challenging behaviour; evidence-based practice; ASD. Further search terms used in subsequent searches included: autism and family; challenging behaviour intervention; attribution theory; and autism behaviour intervention. From the search results, papers selected for review were predominantly those published within the past ten years, or those which had been cited by multiple articles. Additionally, research studies were also identified through literature cited in papers selected from the search engine results.

Barriers

The lack of consensus regarding intervention discussed in the Introduction, above, and in the Literature Review (Appendix 1) highlights an inconsistency between what research states is effective and what children and families actually receive in practice. Why interventions can be demonstrated as effective for some children with ASD and not for others, or even for the same individual across time, is not well understood. However, there can be a number of reasons why interventions proposed by theory may not translate into what is actually delivered in practice. Baird (2010) suggests that “theory might be too new to have been worked through to its practical implications; impractical and therefore not implemented; it could be out of touch with the realities on the ground; or practice might be more advanced than theoretical explanations” (p. 113). Within these broad explanations there are potential barriers, highlighted through Paper

1 and within the literature, which may well limit effective implementation of any interventions for supporting challenging behaviour. Attitudes of supporting staff and collaboration between families and other professionals have all been implicated as possible barriers to effective support. Each of these factors will be discussed now with reference to the relevant literature.

Support for staff

Research using interviews of staff in residential, day-time and peripatetic services for people with challenging behaviour has demonstrated that “belief systems held by individual members of staff are likely to influence the perceived appropriateness of alternative courses of action [and] may impede the delivery of effective support by undermining habilitative or treatment plans” (Bromley & Emerson, 1995). According to Hastings and Remington (1994), the constructs that staff use in making sense of someone’s challenging behaviour may impact substantially upon their behaviour towards the person, the likelihood of them seeking external opinions or support, and the likelihood that they will implement effectively any advice given by colleagues, professionals, or managers. Noone, Jones, and Hastings (2006) report that staff responses to challenging behaviour are inextricably linked to their attributions about the behaviour.

Some research suggests that staff exhibit a wide range of emotional reactions to challenging behaviour. Bromley and Emerson (1995) state that “staff report that a significant proportion of their colleagues usually display such emotional reactions as sadness, despair, anger, annoyance, fear and disgust to episodes of challenging behaviour” (p. 341). Furthermore, there is also a large variation in the ways in which staff attributes causal influences to challenging behaviours. “Staff attributed the causes of the person's challenging behaviour to a diversity

of internal psychological, broad environmental, behavioural and medical factors” (Bromley & Emerson, 1995, p. 341). This research argues that the way staff attributes causes to challenging behaviour influences their willingness to follow intervention strategies and potentially undermines those strategies.

A synthesis of the ideas presented regarding belief systems (Bromley & Emerson, 1995), and Hastings and Remington's (1994) work on constructs may suggest that some staff make fundamental attribution errors in respect of who is to blame for the challenging behaviour, placing blame with the person engaging in the behaviour. Fundamental attribution error is “the tendency to overestimate dispositional causes and underestimate situational causes in affecting others’ behaviour” (Riggio & Garcia, 2009, p. 108). If this is the case then it could be hypothesised that training staff with regard to functions of behaviour, alongside regular opportunities for debriefing, grounded in Personal Construct Psychology (Kelly, 2003), may decrease the tendency for fundamental attribution errors to be made in respect of challenging behaviours.

There is a body of literature which critiques attribution theory and fundamental attribution error (see Weiner, 1983). However, much research has demonstrated that staff attributions are correlated with their subsequent helping behaviour in ‘real’ situations (Lucas, Collins, & Langdon, 2009) and crucially many of the studies which have questioned the use of attribution theory have been based on vignette studies which Lucas *et al.* (2009) demonstrate to be insufficient at predicting staff responses and behaviour. There are also alternative theoretical approaches that might be more successful than attribution theory for understanding staff responses to frequently-occurring challenging behaviour. These include the theory of planned behaviour (Ajzen 1991), and a model

proposed by Hastings and Brown (2002) that focuses on the cumulative impact of challenging behaviour on staff well-being and burn-out. Further exploration of these alternative models would be useful for future research in the area.

Other research has suggested that in order to support people with challenging behaviour, training elements should focus on staff understandings of the link between their own personalities and their emotional well-being. Paper 1 of the current research demonstrated that staff identify three key areas of support: psychological; technical; and practical, that impact upon their ability to provide effective and consistent support (Paper 1, p.50). Chung and Harding (2009) surveyed 103 staff regarding their perceptions of clients' challenging behaviours and found that certain ways of reacting to episodes of challenging behaviour may be detrimental to staff's own well-being. "Training programmes for staff should incorporate the complex relationship between personality traits and well-being. Further studies should aim at identifying other personality traits that could increase or decrease resilience of staff working in this area" (p. 549). A lack of supportive systems for training staff and a lack of regular debriefing may present a significant barrier to the effectiveness of any intervention programme. "Some research has sought to tease out more subtle individual and service-related characteristics that affect the likelihood of [placement] breakdown, but none to date has studied staff reactions" (Phillips & Rose, 2010, p. 202).

Support for families

In addition to effectively supporting staff in educational settings, much research focuses on effective collaboration with parents, carers and families. Paper 1 demonstrated that staff acknowledge "the contribution of factors from outside of the young person's school life" (p. 41). Other research has identified the

importance of “developing a more effective partnership relationship, allowing a positive and non-judgmental dialogue between parents and educators” (Easen, Kendall, & Shaw, 1992, p. 282). Research has also shown that families of children with ASD and challenging behaviour can face pressures above and beyond those experienced by families of typically developing children. Pressures present in terms of: financial burden and an increase in practical demands (Breslau, Salkever, & Staruch, 1982); low social support and isolation (Florian & Krulik, 1991); and marital discord (Walker, Johnson, Manion, & Cloutier, 1996). Supporting with the easing of these pressures and promoting family resilience (Patterson, 2002) may be an essential component of any holistic intervention framework.

Experiencing some parental stress is normal and adaptive for all parents. However, in a study of 54 families Davis and Carter (2008) who used questionnaires and face-to-face assessments, concluded that “parents of children with ASD typically report higher levels of parenting stress and higher affective symptoms when compared to parents of typically developing children and to parents of children with other disabilities” (p.1278). Further evidence from research for emphasising the importance of supporting family members is presented in a study by Bromley, Hare, Davison, and Emerson (2004) which reports that “findings indicated that over half of mothers screened positive for significant psychological distress and that this was associated with low levels of family support and with bringing up a child with higher levels of challenging behaviour. Mothers were more likely to report lower levels of support if they were a lone parent, were living in poor housing, or were the mother of a boy with ASD” (p. 409).

Research has indicated positive, as well as negative influences resulting from having a child with autism in a family. In a survey of 175 caregivers of a child with ASD Bayat (2005) notes that “positive contributions of autism were articulated to be family closeness, learned lessons in compassion, change of outlook of life, patience, and personal empowerment. Negative effects of autism were identified to be alteration of the family's functions, strained relationships and personal goals, and parental depression” (p. 3340). As a result of the demands of ASD behavioural characteristics, and the increased likelihood that siblings may also encounter problems with learning and/or behaviour, parental stress is shown to be elevated in families of children with ASD. Typically, parental stress associated with having a child with ASD is increased most markedly by; communication impairments, uneven cognitive abilities, and problematic social relations (Bebko, Konstantareas, & Springer, 1987).

Other dominant factors include regulatory problems such as sleeping, eating, and emotional regulation, as reported by Dominick, Davis, Lainhart, Tager-Flusberg, and Folstein (2007). In a study into emotional well-being in mothers of adolescents with autism, Barker, Hartley, Selzer, Floyd, Greenberg and Osmond (2010) found that “on occasions when behavior problems were higher, depressive symptoms and anxiety were higher” (p. 1). Likewise, in their study of 104 mothers with a child with ASD and 342 mothers of a child without ASD Hoffman, Sweeney, Hodge, Lopez-Wagner, and Looney (2009) used the Parenting Stress Index to assess stress levels and, of mothers of a child with ASD emphasised “the need to develop interventions to help these mothers reduce their stress” (p. 178).

Some studies have drawn contrasting conclusions as to how best to achieve this. While still acknowledging the importance of supporting families as pivotal, some researchers have suggested that the most effective way of doing this is by concentrating on working directly to reduce the challenging behaviour presented by the young person. Estes, Munson, Dawson, Koehler, Zhou, and Abbott (2009) surveyed 73 mothers to assess how child characteristics influence parenting stress and psychological distress, concluding that “clinical services aiming to support parents should include a focus on reducing problem behaviors in children with developmental disabilities” (p. 375). Other studies have suggested that “parents need the opportunity to share and receive support from other parents who understand the lived reality of caring for a child with complex needs” (Carter, Cummings, & Cooper, 2007, p. 537). In this sense, poor support for families would serve as a barrier to effective support for the child and potentially significantly undermine any child-focused intervention.

Multi-professional collaboration

A further strand of research has implicated the importance of professionals working jointly to support the child and the family. Carter, Cummings, and Cooper (2007) used an Appreciative Inquiry study to explore examples of best multi-agency working practice with families and staff (n=69) working with young people with complex needs. In their study multi-agency working is described by as an almost inevitable aspect of support for children with complex needs. “This diverse group of children often requires high levels of physiological, psychological and social care which brings them and their families into therapeutic contact with a wide range of health, social and education professionals and people from other agencies” (Carter *et al.*, 2007, p. 527). Much research has implicated the importance of professionals working jointly to

support the child and the family. “More than 20 years of research with disabled children, young people and their families has highlighted the need for the different professionals and services that support them to work more closely together” (Abbott, Watson, & Townsley, 2005, p. 229).

There are, however, numerous influences on multi-professional working that can present barriers to effective management of challenging behaviour. “Despite partnership/seamless care in multi-agency working being deemed to be a regulatory ideal, many research studies demonstrate that, in practice, such ideals are problematic and services are often not experienced as seamless” (Carter *et al.*, 2007, p. 528). According to other studies, multi-agency working appears to make some positive, but not necessarily significant, differences to the lives of families. “The way that professionals conceptualise their practice may hinder attempts to collaborate effectively” (Easen, Atkins, & Dyson, 2000, p. 355).

The effectiveness of multi-agency working is shown by other researchers to have limited effectiveness in terms of outcomes for young people with complex health needs. In their three-year research project into the process and impact of multi-agency working to support families of children with complex health needs, Abbott *et al.* (2005) conclude that multi-agency services “had made a big difference to the health care needs of disabled children but were less able to meet the wider needs of the child and the family - particularly in relation to social and emotional needs” (p. 1). In their exploration of best-practice in multi-agency working Carter, Cummings, and Cooper (2007, p. 537) conclude that an essential aspect of support is that “parents and people from across the various agencies need to work together to ensure that the most appropriate person acts

in the role of a long-term coordinator, where the family wants this aspect of support”. The most important aspect of this component would seem to be ensuring that there are shared goals and understandings – that the joint working is truly collaborative.

Monitoring and recording systems

Comparatively little research has been conducted into the use of recording and monitoring systems within interventions for challenging behaviour. Paper 1 demonstrated that staff generally experience great difficulty in developing a functional understanding of challenging behaviour (Figure 9, p. 41). This supports other research which has investigated this component. LaVigna (1996) described the Periodic Service Review and highlighted the need for effective monitoring of patterns of change which can then be used to assist staff in deciding directions for altering intervention programmes. The important aspect of this component is that data, rather than subjective opinions about the process or presentation of behaviour, should dictate changes to any support plan.

Summary

The proposed framework (Figure 13, below), draws together best practice from these five areas of the literature and develops this into a multi-element system of delivery which seeks to reduce the presentation of challenging behaviour for young people with ASD and severe learning difficulties. Specific focus is given to the relative importance of staff attributions, as Paper 1 highlighted the impact that this can have on consistency of approach and consequently effectiveness of support.

In interpreting the findings, I will also discuss the social validity of such a framework, anticipating that such validity will be high. Social validity has not been measured effectively in previous studies into challenging behaviour. Often it has relied on subjective measures based on ratings scales, which may or may not offer opportunity for consumers to express the extent of their opinions. Alternatively, feedback has been elicited in face-to-face meetings between researchers and consumers, in which case the consumer may be eager to please the researchers (Schwartz & Baer, 1991). “The real goal of measuring social validity is not to determine how satisfied consumers are with a treatment, but to determine when a consumer does not like a treatment” (Machalicek, O’Reilly, Beretvas, Sigafoos, & Lancioni, 2007, p. 243)

SPACE Framework

The SPACE framework (Lavan, 2012) proposed here by the researcher, is intended to consider challenging behaviour from the perspective of multiple theory bases including behavioural, systemic, cognitive-behaviourist, and psychodynamic (see Table 6, Appendix 11 for a fuller description) and then to reach agreement between professionals as to appropriate courses of action, irrespective of the theory base those interventions may emerge from. Any effective framework for supporting children with ASD and challenging behaviour needs to consider the problem situation in terms of the goals that will alleviate that problem. “Frameworks relate goals to specific intervention techniques and explain why interventions work. However, clients may not know how the framework relates to the goal unless the EP makes the explicit link” (Fox, 2003, p.99). In order to do this, the experiences of all stakeholders need to be considered as equally valid, and links drawn between these experiences and how the suggested intervention will relate to their understanding of the situation.

Woolfson *et al.* (2003) assert that psychologists must use a coherent, and integrated framework for approaching problems and issues, and that “the EP should not be the only person who retains knowledge of the framework that is being used, but that they should share the Integrated Framework with other stakeholders” (p. 288). Such a framework should emphasise an ecological systems approach, a collaborative and transparent approach and multiprofessional team working (Woolfson *et al.*, 2003).

In Paper 2, I applied the broad principles of a systems-level multi-element framework to a UK special school environment in an effort to ascertain both the efficacy and the social validity of such a model when applied to young people with ASD, SLD, and challenging behaviour. The impact of this was gauged using a series of individual case studies as explained below.

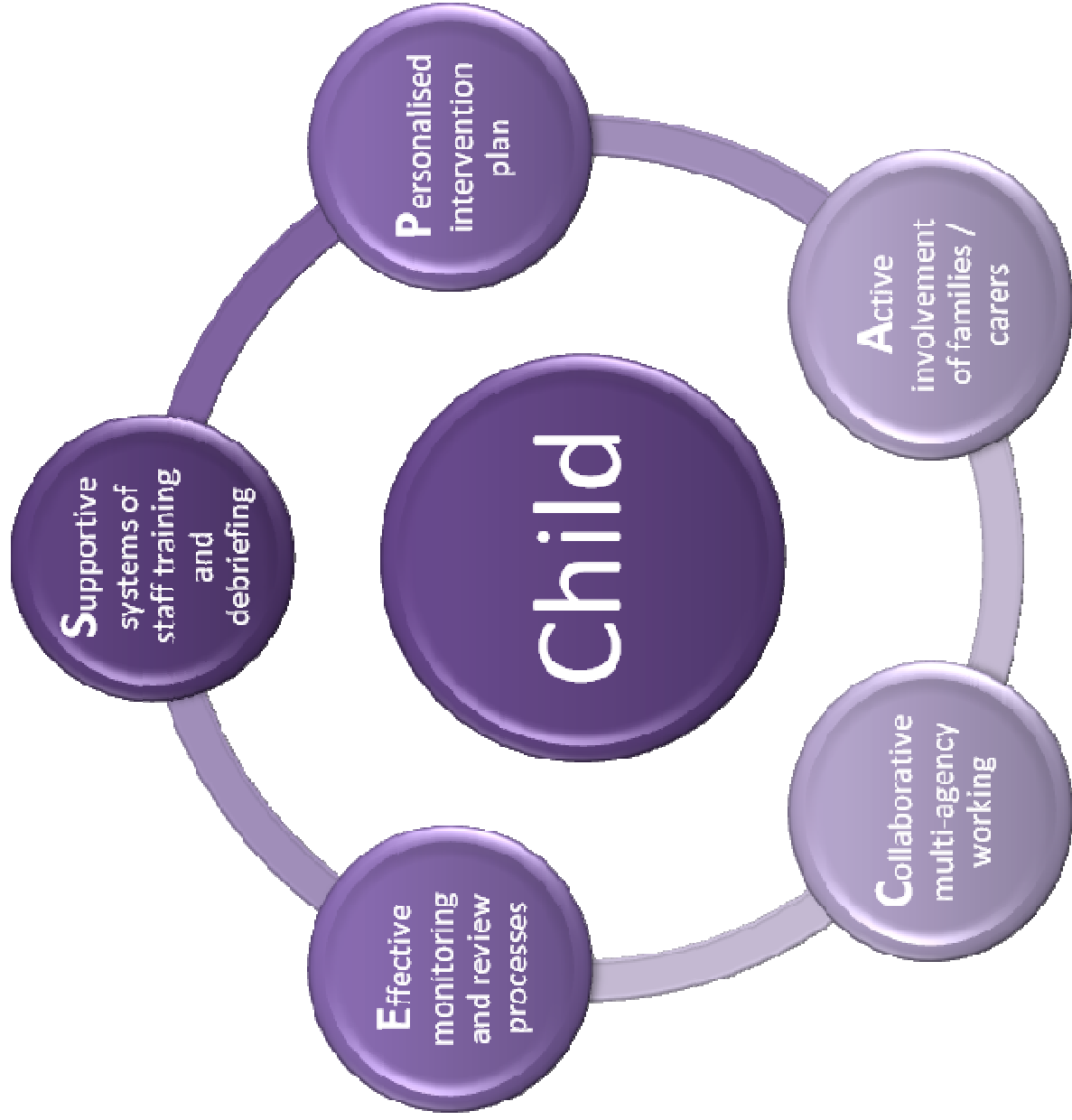


Figure 13: The SPACE framework (Lavan, 2012) for managing challenging behaviour in children with ASD and SLD.

Design

Paper 2 of the research explores any differences in levels of challenging behaviour before and after implementing the SPACE framework. The framework was implemented for target pupils within a special school. As part of the existing practice within the target school, staff developed individualised support programmes for each young person, drawing upon the approaches outlined in Paper 1. The level of intervention provided in each of the five SPACE components was measured before and during the duration of the study. Staff attributions were assessed before and after implementation to examine any changes.

The researcher recognises that within the broad framework of multi-element support implemented there were inevitably changes during implementation which created instability in the interventions and diversity in participants' experiences. All of these factors "undermine the logic of an experimental design because these developments – all natural, even inevitable, in real world programs – call into question what the "treatment" or experiment actually is" (Patton, 2002, p. 54). The research, therefore, used mixed methods including a quasi-experimental approach, combining quantitative data with qualitative inquiry.

Assumptions

The emphasis of the case studies for Paper 2 was on outcomes for young people and staff at their school following implementation of the SPACE framework. The research will produce knowledge, specific to the school and the population studied, regarding the influence of the identified barriers and of staff attributions upon levels of challenging behaviour. This is contextually based knowledge which assumes a functional relationship between the interventions and the outcomes. A fuller explanation of functional contextualism (Biglan, 2004) is provided in Appendix 12.

Research Questions

Paper 2 asks the following research questions:

- To what extent does implementing a multi-element framework (SPACE) promote a reduction in challenging behaviour within a special school environment?
- To what extent does implementation of a multi-element framework (SPACE) alter staff attributions regarding challenging behaviour?
- To what extent is a multi-element framework (SPACE) a socially valid means of supporting challenging behaviour?
- What can special schools do at a systems level to promote effective support and reductions in challenging behaviour?

Method

Data collection

Paper 2 used a series of participant observation case studies following implementation of intervention programmes within a target school. An interrupted time-series type of quasi-experimental design was used (Figure 14, below). The following process was followed for each case study:

1. For each case study, an initial baseline measure of challenging behaviour levels was taken. A school-wide recording system was developed and implemented to collect this data, with class staff recording levels on a session-by-session basis. (See Appendix 13 for an example of the recording charts used by staff). Staff working with target pupils were asked to complete a questionnaire which assessed their attributions regarding challenging behaviour prior to implementation (see Appendix 14).
2. This was then followed by a functional assessment conducted by the researcher and subsequent agreement between researcher, school staff, and parents as to appropriate intervention.
3. On-going recording and review of behaviour levels pre-, during-, and post-intervention using the same school data collection system as step 1. Additionally, the level of input within each component of the SPACE framework was measured throughout intervention (see Table 7, page 93 below, and Appendix 18 for a full explanation of these measurements).
4. A follow-up questionnaire survey (the same as used in step 2) to assess staff attributional beliefs after implementation of intervention was given to supporting staff.
5. A focus group was run to ascertain the social validity of the various

combinations of intervention approaches used. The group comprised three teaching staff and one parent, identified by asking head teachers of two local special schools, including the target school, for expressions of interest. Six participants had been expected to join the focus group but two were absent on the day, and one participant did not contribute answers during the session. The data were supplemented with one further semi-structured interview with a teacher drawn from the target school at the end of the research. Real case study examples were presented to the group via PowerPoint software (see Figure 19, Appendix 20) describing actual interventions used during the research, and feedback was elicited from these participants using the questions presented during the presentation. These were audio recorded and transcribed by the researcher later (See Appendix 17 for full transcript).

Interrupted time-series design

Figure 14 (below) describes the process followed for each case study. A baseline measure of behaviour levels was taken at the beginning of the case study and these behaviour levels were measured continuously throughout implementation. At various points throughout each case study changes were made to the level of one of the SPACE components. For example, a multi-professional meeting took place, a parent home visit took place, or a new classroom strategy was introduced. These changes are described as 'Intervention(s)' in Figure 14. The number of intervention changes varied for each case study dependant on the needs of individual young people. The final 'Measurements' described in Figure 14 comprised the attribution questionnaires for staff and the focus group process described earlier.

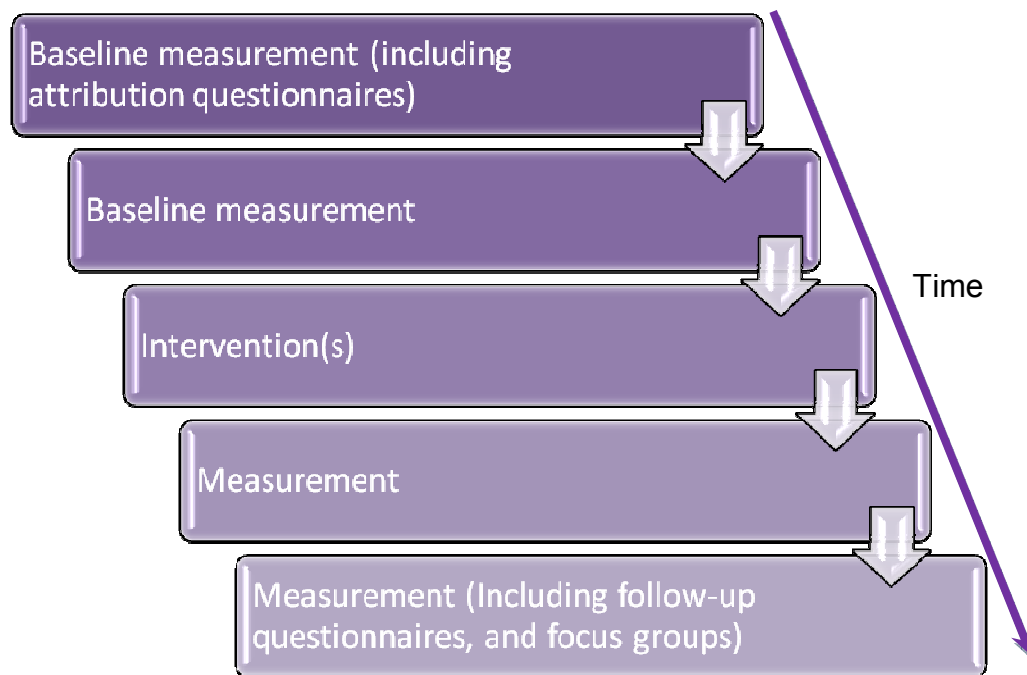


Figure 14: Interrupted time-series design of case studies for Stage 2. Example shows case study where only one intervention change takes place.

Participants

The study comprised seven case studies within a single school. Average age of young people was 9 years 11 months, with 1 female and 6 males Young people were selected for case study using existing procedures within the school for identifying pupils in need of behaviour support in addition to regular classroom practice. These pupils had existing behaviour plans written and regularly reviewed containing specific guidance on managing identified behaviours. Pupils who the school felt required more intensive focused support formed the population for this research. It was not possible to identify these pupils prior to commencement of the study. As the pupils were not pre-selected for this research, the sampling was opportunistic, and randomised. All pupils used for the case studies met the criteria for this study (diagnosis of autism or ASD and

severe learning difficulties). The young people selected for case study are summarised in the Table 13, below.

Young person/ Case study reference	Age at start of study	Gender
1	8	M
2	14	M
3	11	F
4	7	M
5	10	M
6	7	M
7	12	M

Table 13: Demographics of young people selected for case study.

Members of the focus group were selected from two special schools within the authority where the target school was located. Head teachers of both schools were asked to identify staff that could be approached to invite to the focus group. This was done on the basis of which staff could be released from class duties with minimal disruption. Four staff from the target school agreed to participate, one staff from the second school and one parent from the target school. On the day of the focus group meeting, two staff were absent. The staff who attended the focus group are summarised in Table 14, below.

Focus Group participant	Gender	Source	Status
1	F	Target school	Parent
2	F	Target school	Teacher
3	F	Target school	TA Level 2
4	F	School 2	TA Level 3

Table 14: Focus group participant summary

Ethical Considerations

I followed guidance from the Code of Ethics and Conduct set out by the British Psychological Society (BPS, 2009) Paper 2 of the study. Issues regarding confidentiality, informed consent, safe guarding, and feedback were carefully considered as detailed below.

Confidentiality: Electronic records of the data, including focus group and interview transcripts and audio recordings, were stored on a secure system using whole disk encryption and recognised virus protection. Paper documents were locked in a filing cabinet locked in a secure building. Electronic information was only accessible by myself using a logon ID and password. All data was coded to ensure anonymity. When the research is completed, all raw data will be destroyed by shredding or disposed of digitally.

Informed Consent: Informed consent for EP/researcher involvement was gained from parents of children in the research group, and from staff and parents prior to the focus group and supplemental interview. Through regular observation by the researcher and through regular meetings with school staff, the suitability of all interventions was monitored rigorously. Staff were free at any time to alter the type of intervention being used in response to signs of anxiety or distress from young people or in response to concerns raised by parents, in accordance with existing school policy.

Safe guarding: It was made clear to participants that in the exceptional event that evidence emerged to raise serious concerns about the safety of participants or other people, information would be passed on to relevant bodies.

Feedback: All participants (staff and parents involved in interviews and the focus group and parents of young people selected for case study) will be offered the opportunity to review a general feedback document at the end of the research project. This will outline the aims, and key findings of the research.

Findings

Quantitative analysis

- *To what extent does implementing a multi-element framework (SPACE) promote a reduction in challenging behaviour within a special school environment?*

Table 7, below, details for each case study any change in behaviour levels and any change in staff attributions regarding the behaviour. For Case Study 6 school staff did not complete sufficient data records to allow analysis of change in behaviour. Of the remaining six cases, five showed a reduction in levels of behaviour and one showed an increase. Each case study was rank ordered to reflect the level of intervention received in each component of the framework, as described on page 93, with a rank score of 1 indicating the highest level of intervention within that component. The degree of behaviour change for each young person pre- and post-intervention, and any change in attributions of staff pre- and post-intervention were also rank ordered. Nonparametric correlations were run to determine relationships between rank orders of the four proposed barriers ([S], [A], [C] and [E]) and rank orders of changes in challenging behaviour levels.

A significant correlation was shown between increased consistency of recording ([E]) and decrease in challenging behaviour ($r_s(7) = -.857, p = .014$).

There was also a significant correlation between decrease in challenging behaviour and reduction in attributions that viewed the child as responsible for their challenging behaviour ($r_s(7) = -.893, p = .007$).

Figure 15, below, details significant decreases in challenging behaviour for Case Study 1 and corresponding increases in time spent on-task and time spent working alongside peers.

- *To what extent does implementation of a multi-element framework (SPACE) alter staff attributions regarding challenging behaviour?*

Nonparametric correlations were run to determine relationships between the four proposed barriers ([S], [A], [C] and [E]) and any changes in staff attributions. A significant correlation was shown between increased consistency of recording ([E]) with a reduction in attributions which viewed the child as responsible for their challenging behaviour ($r_s(7) = -.857, p = .014$).

A significant correlation was also shown between increased level of staff support ([S]) and a reduction in attributions which viewed the child as responsible for their challenging behaviour ($r_s(7) = -.815, p = .025$).

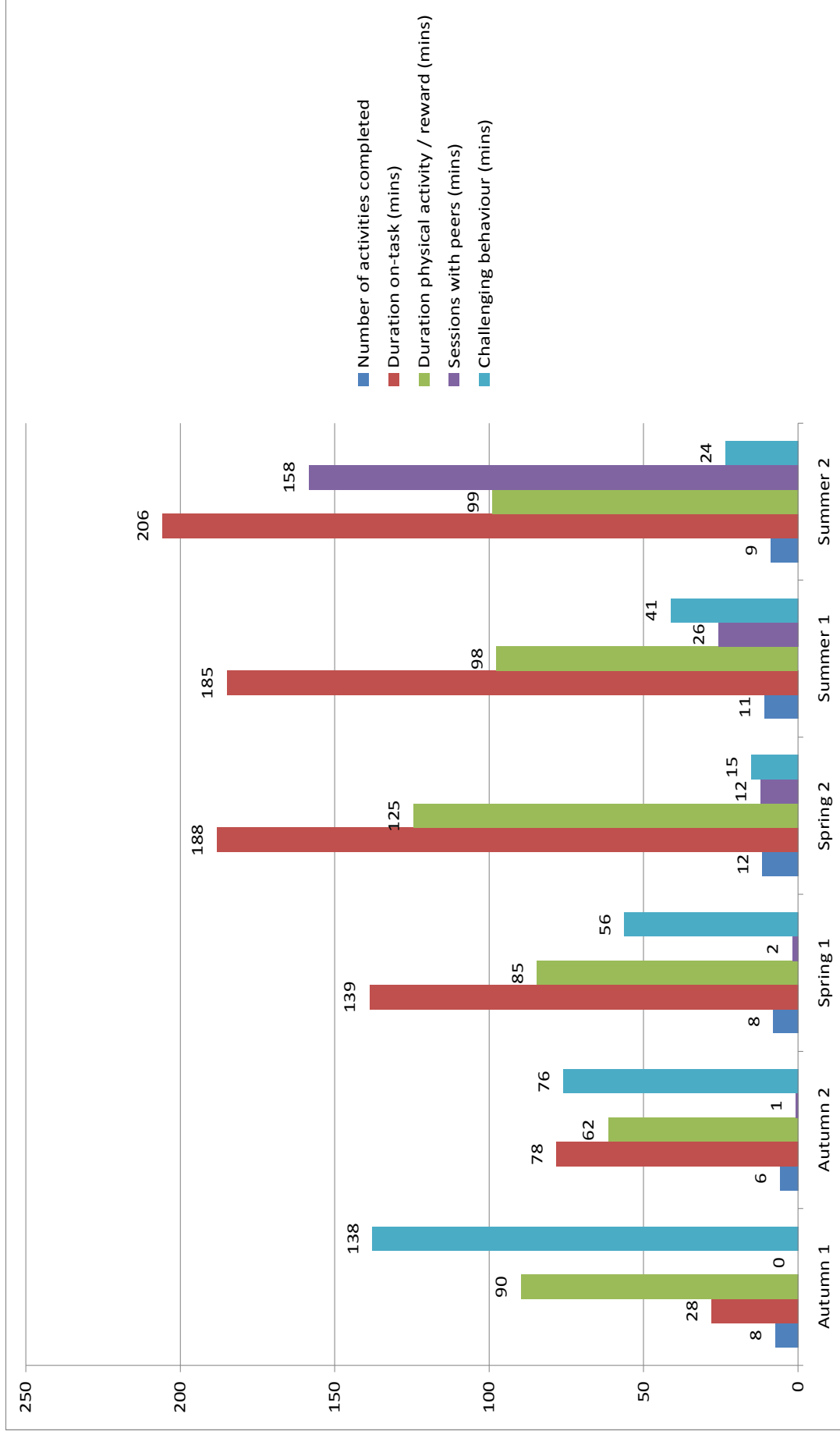


Figure 15. Case Study 1: Significant reductions in challenging behaviour levels and corresponding increases in time on-task and sessions spent with peers, as daily averages.

Case Study	Age	Sex	Rank orders for level of:					Recording (E)	Change in behaviour	Change in attributions
			Staff support (S)	Programme elements (P)	Family Involvement (A)	Multi professional Collaboration (C)				
1	8	M	1	1	1	1	1	- 69.3%	- 48.6%	
2	14	M	2	2	4	7	2	- 58.8%	- 33.3%	
3	11	F	3	6	5	3	6	- 2.5%	- 18.2%	
4	7	M	4	3	5	6	4	- 0%	+ 8.4%	
5	10	M	5	4	7	3	3	- 51.5%	- 26.9%	
6	7	M	5	5	2	3	7	N/A *	- 2.0%	
7	12	M	5	7	3	2	5	+ 75.0%	+ 14.8%	

* Case Study 6 data for behaviour levels presenting before intervention were inaccurate and are omitted here.

Table 7: Case-wise summary of data (See also Appendix 18).

Rank orders for each case study were assigned as follows: For Staff support (S), the number of regular structured team meetings and the number of debriefing sessions were recorded. For Programme elements (P), the number of proactive strategies written in the young person's behaviour plan throughout intervention were recorded. For Family involvement (A), the number of home visits and meetings in school between parents and school staff were recorded. For Multi-professional collaboration (C), the number of multi-professional meetings regarding the young person were recorded. For Recording (E), the number of behaviour logs and incident reports filed through the school's bespoke behaviour system were recorded. A ranked score of 1 indicates the highest level of intervention within that particular component.

Qualitative Analysis

- *To what extent is a multi-element framework (SPACE) a socially valid means of supporting challenging behaviour?*

Responses given in the open-ended questions on the questionnaire and during the focus group and supplemental teacher interview were aggregated and subject to thematic analysis (Aronson, 1994) to illustrate predominant themes. Appendix 21 details the procedure used for this analysis.

A focus group consisting of three school staff and one parent was held to elicit views regarding the social validity of the interventions and framework used. These are summarised in Figure 16 and Table 8, below. Attendance at the focus group was lower than anticipated and the data were supplemented with a follow-up interview of one teacher and by data collected through the open-ended questionnaires used in Paper 1. (See Appendix 17 for the full focus group transcript, Appendix 16 for open-ended responses, and Appendix 20 for the Focus Group presentation).

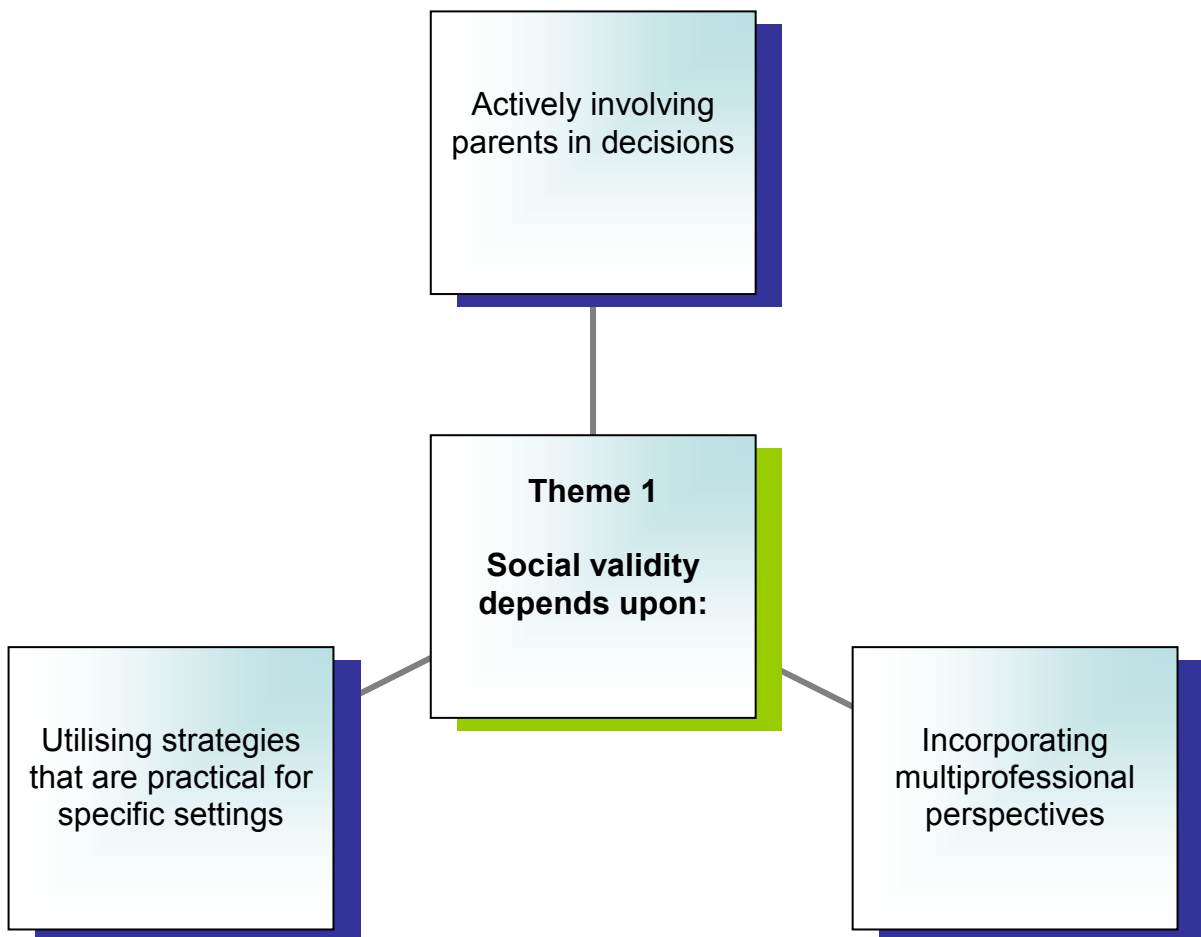


Figure 16. Factors which contribute to good social validity within interventions

Patterns	Themes	Illustrative examples
<p>1 Social Validity depends upon:</p>	<p>Incorporating multiprofessional perspectives</p> <p>Actively involving parents in decisions</p> <p>Utilising strategies that are practical for specific settings</p>	<ul style="list-style-type: none"> • I do think you need to get advice straight away from your nurses and all your professionals. If it's the class teacher, that's just one opinion isn't it. • I think teachers can just be like, 'oh I know everything', but they don't! They need to be asking other professionals. • If they had more support at home from outside agencies, that might be good. • I think it's great that parents were involved, because obviously it's their child - that they are kept up to date with all the information that's going on and they can let school know how he's been at home. • I think I'd like to see them more really. We have home-school diaries...I don't think we have enough really. We have one half hour session every term and I just think that's rubbish. • parents don't see all staff – they only see the teacher, and I think I'd like to know what the people are like working with my child. • they're the most important person and they need to know everything that's going on with the child. • Whatever we felt was best for her child she was supportive - and used some of those strategies herself at home, because if they were working in school she wanted to know about it. • If they've got a strategy that works at home, that's fine. If you've got one that works at school, that's fine. If it's not consistent but it's working – at least parents are trying something. • I think consistency is important. But how I deal with my own child at home is different to how I would deal with children at school. It all depends on the environment doesn't it.

Table 8. Illustrative examples of factors influencing social validity.

Through analysis of this data, a second dominant theme emerged which was related both to social validity, and to staff attributions (Figure 17 and Table 9, below). This theme relates to the notion explored in Paper 1 of consistency of approach, which results from the development of shared attributions regarding challenging behaviour and is central to the development of practices which are socially valid.

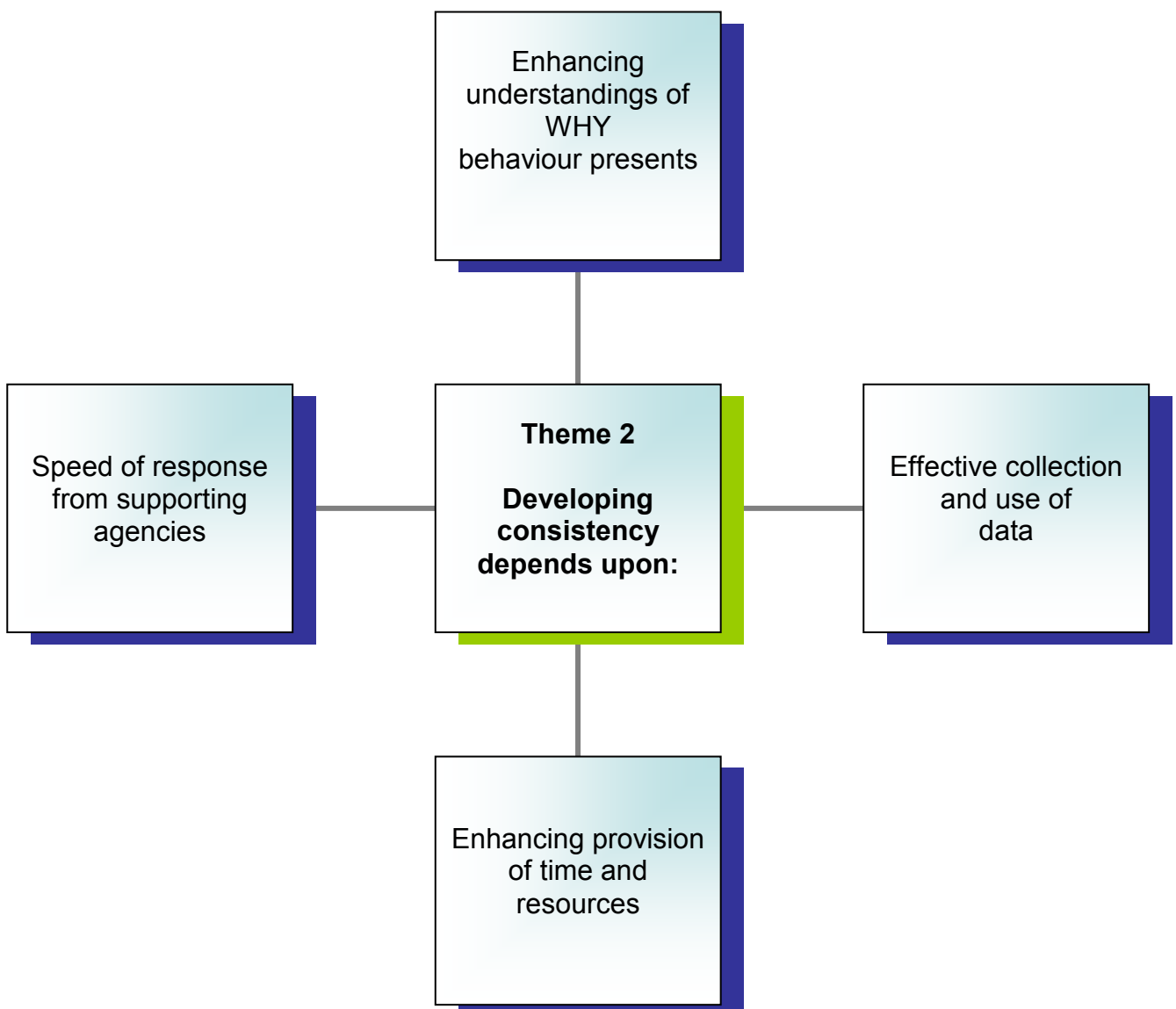


Figure 17. The influence of consistency upon staff attributions.

Patterns	Themes	Illustrative examples
2 Developing consistency in schools depends upon:	Enhancing understandings of why behaviour presents	<ul style="list-style-type: none"> • it just depends on what 'mood' he is in that day! Sometimes no one knows what has caused his aggressive behaviour. • it was me that went to the intervention team and said look, I've read this, this is what's good for children with Fragile X, can he go? and they said yes. But the OT didn't know. • Difficult to answer this - may be bored - might be condition - might be to get a response. • This child tries very hard to comply. When things are wrong in his head he finds it impossible to manage.
	Effective collection and use of data	<ul style="list-style-type: none"> • I think everything should be recorded, and that would help with those weekly meetings. • You've got to be recording things. If it is hormonal, you know, once a week or once a month or whatever it is you can pick up on a pattern then. • you can't remember things in the long-term.
	Enhancing provision of time and resources	<ul style="list-style-type: none"> • I think people still believe that 'time-out' to debrief is a sign of weakness • when it's that bad it should be daily though that people are debriefing. Because it also helps the staff just let off steam, to get together and talk about how things have gone that day, I think once a week is not enough if a child's that bad.
	Speed of response from supporting agencies	<ul style="list-style-type: none"> • I don't think they're that fast in working and to get back to you. • The educational psychologist, that takes weeks to see her – she only comes to school once per fortnight. • in Canada they had everybody on site, so it wasn't done in six weeks time – it could be done there and then. They could pull an emergency meeting like that and that's what they need.

Table 9. Illustrative examples of factors influencing consistency in schools.

Discussion

The aim of Paper 2 was to provide an account of the potential barriers to effectively supporting young people with challenging behaviour, severe learning difficulties and autism spectrum disorders, as outlined in Paper 1. The study found that: staff have knowledge of a limited range of evidence-based approaches ([P]); staff attributions can undermine the consistency of approach used; staff support ([S]) and effective monitoring systems ([E]) were significant components in reducing challenging behaviour in the school environment; collaboration with families ([A]) and professionals ([C]) was essential for the social validity of interventions. Each of the research questions will now be discussed in turn, before some concluding remarks regarding the implications for practice and future research in this area.

Impact on challenging behaviour

The first research question asked; to what extent does implementing a multi-element framework (SPACE) promote a reduction in challenging behaviour within a special school environment? Table 7, above, summarises the changes in behaviour and changes in attributions within each individual case study. The findings show that where staff meet regularly to discuss the challenging behaviour and agree shared understandings of that behaviour, there is a correlated decrease in attributions which view the child as responsible for their behaviour. Additionally, where there is a reduction in such attributions there is a reduction in frequency of challenging behaviours. Furthermore, a reduction in challenging behaviour is also noted where staff systematically use recording and analysis of challenging behaviour. Where staff don't meet regularly to discuss the behaviour, or don't use recording systematically, challenging behaviours did not reduce.

Special schools dealing with high levels of challenging behaviour typically focus on the 'problem' behaviour as the target for intervention. In this respect, schools seek direct intervention, as part of the 'Personalised Intervention Plan' ([P]) component of the SPACE model, with the hope that doing so will reduce the challenging behaviour and remove the 'problem'. However, such an approach attempts to address the more obvious observable behaviours, but often pays less regard to some of the factors which may actually underpin that behaviour. This research has demonstrated that attention to these observable behaviours alone is often insufficient in producing a significant change in behaviour. Central to any improvements in challenging behaviour is the consistency of approach which develops. Figure 17, (page 96, above), summarises the key elements which contribute towards a consistent approach.

Impact on staff attributions

The second research question asked; to what extent does implementation of a multi-element framework (SPACE) alter staff attributions regarding challenging behaviour? Previous research has shown that if staff make attributions that 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, and that if staff make attributions that the behaviour is out of the person's control they are more likely to feel sympathy and to provide help (Rae, Murray, & McKenzie, 2011, p. 296). The findings of this research show that changes in attributions do occur when staff are utilising recording systems and when staff are meeting as a group to discuss challenging behaviour and develop shared understandings about that behaviour. The process of regularly discussing the behaviour serves

to psycho-educate staff regarding functions of behaviour, which in turn serves to reduce the fundamental attribution errors made by staff – the extent to which they see responsibility residing within the individual as opposed to within the environment. Supporting staff to develop a ‘Shared Understanding’ negates the effects of differential attributions being made within a staff team.

Double-loop learning

It is useful at this point to consider the school environment in terms of the theories used by staff to govern their own behaviour within those systems. Argyris (1980) proposes an argument of espoused theory versus theory-in-use. Paper 1 demonstrated that the espoused theory relating to challenging behaviour incorporates a selection of evidence-based approaches such as TEACCH, PECS and Makaton. However, the dominant theories-in-use within special schools supporting young people with challenging behaviour centred around notions such as adopting a consistent approach and adapting interpersonal styles.

Effectiveness, according to Argyris’ argument, results from developing congruence between the two theories (espoused theory and theory-in-use). Paper 1 showed that inconsistent practice develops because there is incongruence between the espoused theory and the theory-in-use. Paper 2 demonstrated that where systems are put in place to counteract this phenomenon, developing shared understandings about challenging behaviour, practice became more consistent and challenging behaviour reduced. In order to develop more effective practice, it is apparent that developing systems within

the school that encourage processes of aligning staff understandings is pivotal to removing barriers to intervention.

Where staff operate within a policy that does not encourage systematic development of understandings, 'single loop learning' (Argyris *et al.*, 1985) becomes dominant. Figure 18, below, shows how staff can become limited in their response options when something goes wrong. An initial option for many staff is to look for another strategy that will address the difficulty and work within the existing governing variables. Existing plans, which are limited by a restricted range of training, are therefore operationalised rather than being questioned. Single loop learning is reactive, corrective action – a 'quick fix'. When the error detected (challenging behaviour) is corrected quickly in the short-term (using reactive strategies such as restraint and time-out) the school system can continue to implement its existing policies and achieve its present objectives.

Argyris (1991) argues that all people utilise a common theory-in-use in problematic situations and that this inhibits double-loop learning. Using theory-in-use involves "making inferences about another person's behaviour without checking whether they are valid and advocating one's own views abstractly without explaining or illustrating one's reasoning" (Edmondson and Moingeon, 1999, p. 161). Furthermore, theories-in-use are shaped by a disposition to 'winning' and to avoiding embarrassment. Paper 1 highlighted control dynamics as a dominant theme within this research (Figure 9, p. 41). Other researchers too have highlighted the notion of control as dominant within staff teams (Rae *et al.*, 2011).

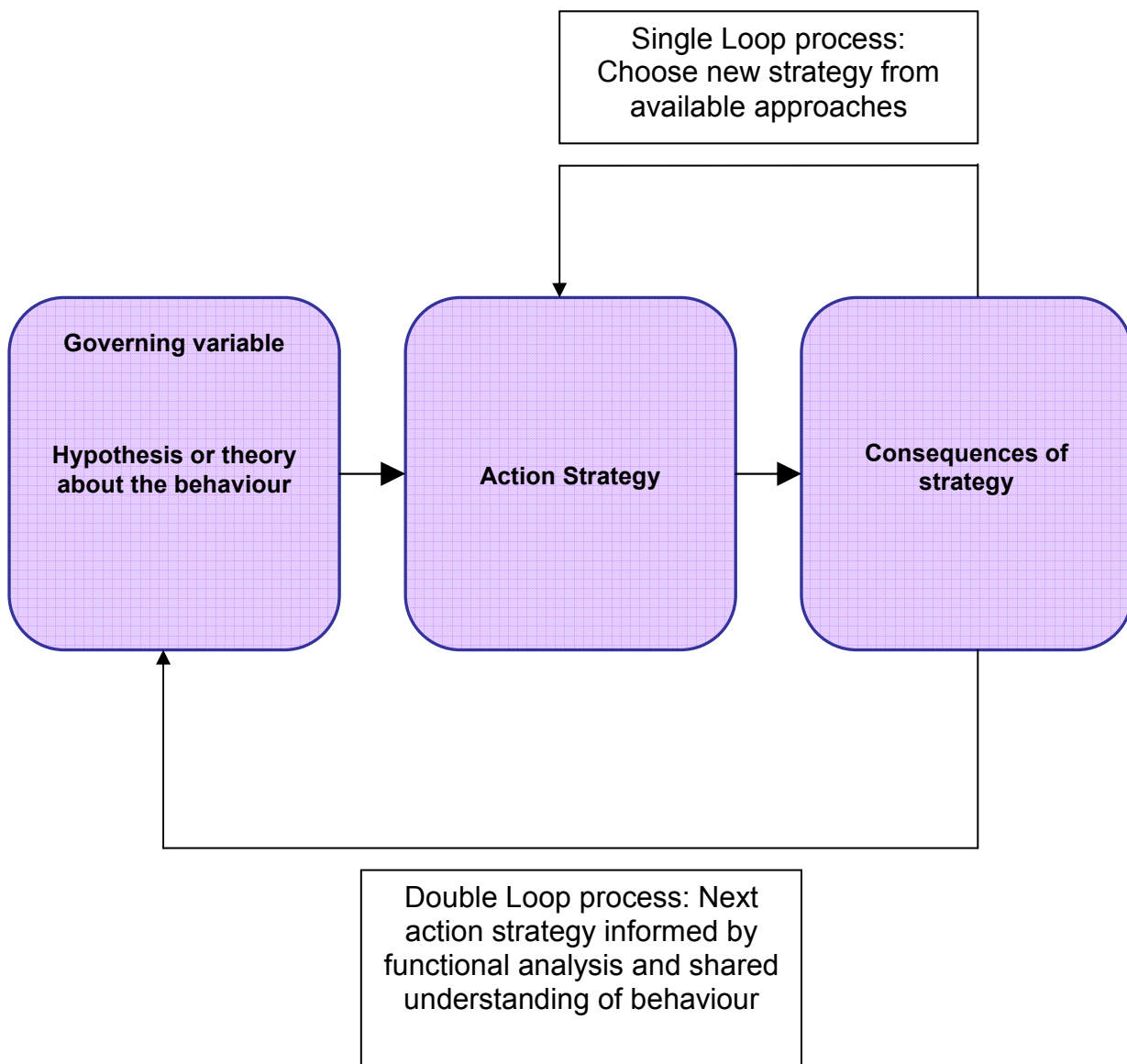


Figure 18: Single-loop and double-loop processes for understanding and intervening with challenging behaviour.

An alternative response proposed by Argyris (1991) is to question critically the governing variable (functions of behaviour, shared understandings). By providing staff time for discussing shared understandings and questioning and changing hypotheses and understandings about the causes of challenging behaviour, staff are able to generate new action strategies. Double-loop learning occurs when the error (challenging behaviour) is detected and corrected in ways which involve the modification of the school's underlying norms, policies and objectives. Significant features of double-loop learning include the ability to call upon good quality data and to make inferences from it (see Table 10, below). Double-loop learning is necessary if schools and staff are to make informed decisions in rapidly changing and often uncertain contexts (Argyris, 1991). Fundamental to any school system for supporting challenging behaviour is the development of practice that values, provides time for and encourages the development of shared understandings of why the challenging behaviour occurs.

	Governing values	Primary strategies	Operationalised by:	Consequences
Model I Adapted from Argyris, Putnam and McLain Smith (1985, p. 89).	<ul style="list-style-type: none"> • Achieve the purpose as the actor defines it • Win, do not lose • Suppress negative feelings • Emphasize rationality 	<ul style="list-style-type: none"> • Control environment and task unilaterally • Protect self and others unilaterally 	<ul style="list-style-type: none"> • Unillustrated attributions and evaluations e.g. “You seem unmotivated” • Advocating courses of action which discourage inquiry • Treating one’s own views as obviously correct • Making covert attributions and evaluations • Face-saving moves such as leaving potentially embarrassing facts unstated 	<ul style="list-style-type: none"> • Defensive relationships • Low freedom of choice • Reduced production of valid information • Little public testing of ideas
Model II Adapted from Anderson (1994).	<ul style="list-style-type: none"> • Valid information (behaviour data) • Free and informed choice (eclectic provision) • Internal commitment 	<ul style="list-style-type: none"> • Sharing control • Participation in design and implementation of action 	<ul style="list-style-type: none"> • Attribution and evaluation illustrated with relatively directly observable data • Surfacing conflicting views • Encouraging public testing of evaluations 	<ul style="list-style-type: none"> • Minimally defensive relationships • High freedom of choice • Increased likelihood of double loop learning

Table 10: Features of theory-in-use which inhibit (Model I) or encourage (Model II) double-loop learning.

Previous studies have suggested that teaching staff typically lack sufficient skills or training to be able to draw accurate conclusions. “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” (Rae *et al.*, 2011, p. 299). Being supported in developing an understanding of the function of the behaviour may allow staff to more readily align their attributions and views about intervening to manage the behaviour.

Social validity

The third research question asked; to what extent is a multi-element framework a socially valid means of supporting challenging behaviour? The findings from the qualitative analysis demonstrate that use of a multi-element framework is a socially valid means of supporting with challenging behaviour. While staff support [S] and effective monitoring [E] contribute significantly to the effectiveness of support programmes in school [P], active family involvement [A] and multi-professional collaboration [C] were considered most significant when considering social validity (see Fig. 16, p.95, above). For each of the case studies described during the focus group session, participants highlighted the involvement of families and multi-professional groups as the essential criteria for determining whether or not an intervention had social validity.

Implications for school systems

The final research question asked; what can special schools do at a systems level to promote effective support and reductions in challenging behaviour? Paper 1 highlighted a limited range of training being provided to staff in

evidence-based approaches. This is contrary to the ideal of 'eclectic provision' (Parsons *et al.*, 2009) recommended within the literature. However, Paper 1 has also demonstrated that whichever approaches are adopted for use with particular individuals, several factors combine to present potential barriers to that support. The findings from Paper 1 and Paper 2 suggest five key areas which must be addressed when developing school systems to support with challenging behaviour, as outlined below. Each component is summarised in Table 11, Appendix 18.

Personalised programmes

Irrespective of which evidence-based approaches are selected, any support programme for young people with challenging behaviour should focus on creating 'capable environments' (RCPsych, BPS & RCSLT, 2007) which incorporate "reactive strategies which are used at the time of the incident ..., behavioural approaches that target the reward systems ..., and positive programming approaches which teach the child alternative, adaptive ways of having his or her needs met" (Rae *et al.*, 2011, p. 296). My research has demonstrated that the likelihood of such interventions being successfully implemented are impacted by two crucial factors. Firstly, staff need knowledge and awareness of a wider range of potential approaches, and secondly, schools need to develop systems which encourage open dialogue regarding challenging behaviour, and develop healthy attributions regarding challenging behaviour. Paper 2 demonstrated that attributions made by individual members of staff may influence the likelihood of them implementing alternative approaches and therefore impede delivery of effective support. This supports findings from elsewhere within the literature: "people make attributions about the cause of the

event ... these attributions, together with their associated emotional responses, determine behaviour responses” (Lucas *et al.*, 2009, p. 2).

Staff support systems and Effective monitoring

This research demonstrated how attributions made by staff impact negatively on the consistency of approach which is recognised as being crucial to successful support. Where staff were given time to meet as a team, discuss challenging behaviour and develop shared understandings of that behaviour, and where staff systematically recorded and analysed patterns of behaviour, levels of challenging behaviour decreased significantly. Developing systematic processes for collecting, sharing and analysing data regarding challenging behaviour such as the Periodic Service Review system (See MacDonald *et al.*, 2010) may be a useful addition to the ‘Effective Monitoring’ ([E]) component.

Staff awareness of functions of behaviour is paramount to changing attributions regarding the behaviour, which may in turn be paramount to the success of any programme implemented. Staff who have not been adequately trained or debriefed are more likely to maintain attributions of blame which hold the child displaying challenging behaviour responsible, resulting in them being more likely to opt for aversive and unplanned treatments for that challenging behaviour (Lucas *et al.*, 2009). Any framework for intervening effectively to reduce challenging behaviours must therefore account for and prioritise such supportive systems for staff.

Active family involvement and Collaborative multi-professional working

Qualitative analysis highlighted the involvement of families and involvement of multi-professionals as crucial in order for interventions to be socially valid. However, these two components did not prove statistically significant in reducing challenging behaviour within the school environment. Future research into how best to provide support for families is required. Cappe *et al.* (2011) propose a 5-axis intervention model for parents of children with autism or PDD, based on cognitive-behavioural therapies and on a stress management programme. Their research emphasised a central role for a psycho-education programme in order to support and assist parents of children with autism, although it was not possible to incorporate such a programme within this study.

Implications for Educational Psychologists

The findings have highlighted the important role that staff attributions and understandings of challenging behaviour can have on the effectiveness or otherwise of interventions to reduce challenging behaviour. Of particular relevance to the work of educational psychologists in supporting young people with challenging behaviour, ASD and learning difficulties is the impact that the barriers explored here can have on the maintenance of challenging behaviour in the special school context. In line with previous literature (Jordan, 2001; Parsons *et al.*, 2009) the findings of this research emphasise the need to focus on some of the wider influences which maintain challenging behaviour, specifically: helping schools to support staff psychologically; ensuring that families and multi-professionals are actively involved in programme design; developing effective systems for recording and monitoring data relating to challenging behaviour; and developing systematic processes to support staff in

generating shared understandings of the function that challenging behaviour serves for individual young people. Only through supporting the development of these wider systems can interventions be maximally beneficial for young people and their families.

Conclusions

In conclusion, the study found that: staff have knowledge of a limited range of evidence-based approaches; staff attributions can undermine the consistency of approach used; staff support and effective monitoring systems were significant components moderating attributions and reducing challenging behaviour in the school environment; collaboration with families and professionals was essential for the social validity of interventions. Paper 2 concluded that all five components described by the SPACE framework are necessary in supporting young people with ASD and challenging behaviour in UK special schools. Staff need access to training in a wider range of approaches to foster a climate of eclectic provision. However, implementation of any intervention programme is likely to be seriously undermined if specific attention is not paid to systems for: staff support and monitoring and recording. A failure to attend to these wider systemic issues will often not result in significant or lasting behavioural change for the individual. Similarly, to ensure social validity of interventions, collaboration with families and professionals is essential. Within the case studies explored here, where the framework was applied systematically, the results were significant reductions in challenging behaviour for young people.

Reflections

Limitations

The researcher acknowledges that the study will have been influenced by numerous factors, and the limitations of Paper 2 are outlined here:

- *Time threats:* As data was collected across a 12-month period, events not controlled for by the study likely occurred which produced changes in the behaviour of young people studied. It is hoped that by using multiple case studies such maturation effects were minimised.
- *Materials:* The study did not use a standardised or validated questionnaire or interview schedule; therefore the results should be interpreted with some caution.
- *Restricted participant numbers:* The focus group used in this study was small (four participants). The findings from the focus group were supplemented using additional interviews and data from qualitative responses on questionnaires. “One way the social validity of treatments for challenging behaviour in school settings may be better evaluated is by allowing larger and more varied groups of possible consumers to examine actual examples of challenging behaviours of students during baseline and treatment” (Machalicek *et al.*, 2007, p. 244). Future research would benefit from sampling a larger group of participants.
- *Internal validity:* It was not possible to control for the numerous influences upon the behaviour displayed by participants within the study. “There are lots of extraneous factors that can lead to changes in behaviour, changes that can be confused with the effects of our intended manipulations” (Field & Hole, 2003, p. 62).

Future Research

The findings of this research require support from further research in each of the five component areas outlined within the SPACE framework. Areas of potential further study have been highlighted throughout this thesis and are summarised in Table 12 (Appendix 19).

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Appendices Contents Page

Appendix 1	Literature Review	Page 123
Appendix 2	Certificate of ethical research approval	Page 153
Appendix 3	Staff questionnaire on challenging behaviour	Page 159
Appendix 4	EduBase online database search for schools meeting research criteria	Page 163
Appendix 5	Figure 3 & Figure 4	Page 165
Appendix 6	Figure 5 & Figure 10	Page 166
Appendix 7	Table 3 Illustrative examples of sub-themes for ‘Strategies & Approaches’	Page 167
Appendix 8	Table 4 Illustrative examples of sub themes for ‘Staff support mechanisms’	Page 168
Appendix 9	Figure 11 & Figure 12	Page 170
Appendix 10	Table 5 Illustrative examples of sub themes for ‘Understanding how behaviour develops’	Page 171
Appendix 11	SPACE Framework – Underpinning Psychological Theories	Page 173
Appendix 12	Functional Contextualism	Page 174
Appendix 13	Example recording chart (Paper 2)	Page 175
Appendix 14	Pre- and post- attribution questionnaire	Page 176
Appendix 15	Example interview transcript	Page 179
Appendix 16	Responses from open-ended questions on questionnaire	Page 193
Appendix 17	Focus Group transcript	Page 204
Appendix 18	Table 11: Identified aspects of each component of the SPACE framework identified through the research as being required. Plus explanation of how these factors were measured during implementation	Page 215
Appendix 19	Table 12: Summary of future research areas	Page 217
Appendix 20	Figure 19: Focus Group presentation	Page 218
Appendix 21	Thematic analysis procedure	Page 224
Appendix 22	Semi-structured interview procedure & schedule	Page 226

Literature Review

Promoting the reduction of challenging behaviours in children with autism in UK special schools

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Introduction: Autistic Spectrum Conditions and Challenging Behaviour

In this literature review I will, firstly, map out the landscape of existing understandings of interventions for autism and challenging behaviour by examining the key approaches recommended in the literature. Secondly, I will explore potential barriers to successful implementation of these approaches as proposed within the relevant literature, before concluding with a proposal for future research directions.

In order to ascertain the evidence as reported in the literature, the author has conducted repeated searches of the online databases PsycARTICLES, PsycINFO, JSTOR, and EBSCO EJS. While conducting searches, the author initially used the following search terms in various combinations: autism; challenging behaviour; evidence-based practice; ASD. Further search terms used in subsequent searches included: theories of autism; autism in practice; autism and families; and autism behaviour intervention. From the search results, papers selected for review were predominantly those published within the past ten years, or those which had been cited by multiple articles. However, due to the large number of search results returned I opted to initially examine papers which reviewed the outcomes of multiple research studies. Additionally, research studies were also identified through literature cited in papers selected from the search engine results.

Brief overview of autism

Autistic Spectrum Disorders (ASD) are characterised by “severe deficits in socialisation, communication, and repetitive or unusual behaviours” (Levy et al., 2009, p. 1627). There are a range of other terms used to describe conditions

which constitute the autistic spectrum, including: autism; PDD-NOS (pervasive developmental disorder - not otherwise specified); ASD (autistic spectrum disorders); Asperger Syndrome; Rett Syndrome; CDD (Childhood Disintegrative Disorder); high functioning autism; and high functioning PDD-NOS. For the purposes of this paper, the term autism will be used to refer specifically to autistic disorder, and ASD will be used to refer to other conditions within the spectrum.

There exists an extensive body of research which seeks to determine causal factors in autism. Hughes (2008) reviews “1000 studies published in 2007 on all aspects of autism” (p. 425). Despite such a wealth of research, no unambiguous explanation exists as to what causes ASD. Proposed biological causes range from difficulties during pregnancy or birth, to viral infections and other medical conditions (Volker & Lopata, 2008). It is beyond the scope of this review to explore these factors in detail, but a recent review of the major findings and trends in the literature (Volkmar, Lord, Bailey, Schultz, & Klin, 2004) found general acceptance that genetic factors play a central role, although the severity of symptoms could potentially be influenced by a range of unknown environmental effects. Autism has been defined as:

“the most commonly studied of a spectrum of developmental disorders that are believed to be neurobiologically based but which, at this point, for lack of good biomarkers, are defined purely by behavior. In the last 20 years, the definition of autism has shifted in emphasis from extreme aloofness and positive signs of abnormality in repetitive and sensorimotor behaviors to a greater awareness of

the importance of more subtle reciprocal social communication deficits as core features” (Lord, 2010, p. 815).

Understandings and definitions of autism are continually evolving. This is due partly to reported increases in autism prevalence rates (Baron-Cohen *et al.*, 2009), partly to the broader phenotype of autism (Volkmar *et al.*, 2004) and partly to a drive towards more inclusive educational practices (Ainscow, 2007). Each of these factors will be discussed in more detail below.

Prevalence rates

Since the original description of autism by Kanner (1943) the frequency with which autistic spectrum conditions are reported has increased rapidly. There appears little consensus as to how prevalent the conditions actually are. Estimates of prevalence range from as few as 10 cases per 10,000 population (Fombonne, 2003), to as many as 157 cases per 10,000 population (Baron-Cohen *et al.*, 2009). A recent review of all studies between 1966 and 2010 suggests that prevalence rates for autism are around 22 per 10,000 of population, and rates for autistic spectrum conditions at 70 per 10,000 of population (Saracino *et al.*, 2010). Increasing prevalence rates can in part be attributed to earlier diagnosis of the condition. Autism is now increasingly diagnosed by the age of two years old (Lord, 1995; Moore & Goodson, 2003).

Broader phenotype

One factor which contributes to the variation in reported prevalence rates suggests that the conceptualisation of autistic spectrum conditions has become broader, with more conditions being recognised under a broadening umbrella of

ASD. “The broadening conceptualization of ASDs and the lack of clear delineation of where the spectrum of autistic disorders begins and ends have made the categorical diagnosis of children and adults whose symptoms fall outside the boundaries of definite autism more problematic, even while it has become easier within the boundaries’ (Volkmar *et al.*, 2004, p. 138).

Inclusive educational practices

A broader phenotype of autism, and increasing prevalence rates have resulted in an increased need for schools, local authorities, and educational psychologists to develop systems to support the education of children with autism. This necessity has been amplified by a recent drive towards a more inclusive educational system. This drive has been described as “the biggest challenge facing education systems, that of developing practices that will reach out to those learners who are failed by existing arrangements” (Ainscow, 2007, p. 3). However, research has demonstrated that despite the move towards deinstitutionalisation and inclusive education in the UK, children with ASD in combination with challenging behaviour are at particularly high risk of losing their educational placements as a result of services being unable to cope with the extreme challenges their behaviour can present. “Placements continue to break down, resulting in admissions to institutions or specialist units, or crisis moves to alternative community accommodation” (Phillips & Rose, 2010, p. 201).

Challenging Behaviour

Educational psychologists and other supporting professionals are increasingly likely to have involvement with children with ASD as a combined result of the

reported increases in prevalence rates, the broader phenotype, and the drive toward more inclusive education systems. “The combination of this group of children’s needs for health, social care and education means that it is inevitable that several agencies will be involved throughout their lives” (Abbott, Watson, & Townsley, 2005, p. 229). The nature of that involvement will frequently require support in some form for managing behaviours that people supporting the child find challenging. The social, communicative and behavioural impairments that are typical of children with autism and associated learning difficulties often result in the development of atypical behavioural patterns. Examples of behaviours often presented by children with autism may include aggressive and self-injurious behaviours, impulsivity, hyperactivity, rituals, and severe communication deficits (Pilowsky et al., 2004). If any of these behaviours persist then the term challenging behaviour may be used to describe them.

Challenging behaviour in this context refers to behaviours typically displayed by some individuals with a severe learning difficulty and can be defined as “culturally abnormal behaviour of such an intensity, frequency, or duration that the physical safety of the person or others is likely to be placed in serious jeopardy, or behaviour which is likely to seriously limit use of, or result in the person being denied access to, ordinary community facilities” (Emerson, 2001, p. 7). Research by Emerson (2001) describes how challenging behaviour can present problems across all aspects of a child’s life, including the limiting of: their access to community facilities; social participation; and educational provision. “The combination of intellectual and behavioural disabilities can blight the lives of those affected and place the health, safety, and welfare of those who care for them in jeopardy. They also represent a significant challenge to

agencies involved in the purchase or provision of education, health, and welfare services” (Emerson, 2001, p. 1).

Due to the uncertainties around causes, the complex issues around increased prevalence, and the variety of interventions reported in the literature, approaches taken in supporting a child with ASD and challenging behaviour may vary significantly from one practitioner or institution to the next. The following section will examine the different intervention strategies proposed within the literature and explore the arguments for and against the different approaches.

Intervention Approaches

Numerous interventions for children with autism and challenging behaviour have been developed and been demonstrated by research as being effective in reducing the severity of some of the core impairments and challenging behaviours of the child with ASD. The National Autistic Society (2011) outlines these interventions covering a range of theoretical perspectives including: behavioural; social; dietary; skill-based; physiological; relationship-based; and medical. Some specific, widely used approaches reported to be successful include; social stories, incidental teaching, music therapy, and sensory integration amongst others (Smith, Groen, & Wynn, 2000).

Many of the interventions which are most widely used and most studied have their theoretical roots in Applied Behaviour Analysis (ABA). “Since the 1960s, researchers and clinicians in the field of applied behavior analysis have used methods based on principles of learning to increase adaptive behavior and

decrease the occurrence of behavior disorders” (Neidert et al., 2010, p. 103). A study by Steege, Mace, Perry, and Longenecker (2007) found “thousands of research studies” (p.92) exploring the use of approaches based in Applied Behaviour Analysis (ABA). Personalised intervention approaches and individual behaviour support plans founded in applied behaviour analysis are often cited as effective means to supporting with challenging behaviour. Blair, Fox, and Lentini (2010) report that “implementation of the individualized behavior support plan by teaching staff resulted in higher levels of engagement and a reduction in challenging behaviour” (p. 68). In their review of the literature, Skokut, Robinson, Openden, and Jimerson (2008) concur, citing the following principle techniques and intervention methods, all grounded in applied behaviour analysis, as being the most effective approaches: Discrete Trial Training (DTT); Pivotal Response Treatment (PRT); Learning Experiences: An Alternative Program for Preschoolers and Parents (LEAP); The Picture Exchange Communication System (PECS); Incidental teaching; and The Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH).

One intervention programme highlighted by the National Autistic Society as being widely used is the PECS approach. “Certain therapies have become extensively used. One such intervention is the Picture Exchange Communication System” (Howlin et al., 2007, p. 474). Another approach widely researched and used is the TEACCH (Treatment and Education of Autistic and Communication Handicapped Children) programme. Mesibov, Shea, Schopler (2005) report that TEACCH effectively “targets critical areas in executive functioning, engagement, communication, and social skills” while Mesibov and

Shea (2009) describe their programme, TEACCH, as “an example of an evidence-based practice” (p. 570). Despite many positive findings within the research, however, “the findings of some individual studies have suggested a less than clear picture of the effectiveness of interventions to decrease challenging behaviour” (Machalicek et al., 2007, p. 238). A meta-analysis study of the PECS approach conducted by Flippin, Reszka, and Watson (2010) highlighted “Concerns about maintenance and generalization” (p. 178), and a randomised controlled trial by Howlin, Gordon, Pasco, Wade, and Charman (2007) also found that “treatment effects were not maintained once active intervention ceased” (p. 473).

With such a large volume of research containing such variation within the literature it is useful to examine the findings of review papers that summarise some of the most influential findings. In doing so, it becomes apparent that the literature is far from in agreement as to how best to intervene to support children, families and schools in managing challenging behaviour. In one review of the key findings in the literature, Volkmar *et al.* (2004) argue that “a number of innovative behavioural and educational interventions have been developed, but often solid data on efficacy and cost-effectiveness are lacking” (p. 155).

Collecting appropriate data and demonstrating effectiveness and suitability of intervention strategies is further complicated by a recent drive towards “standards such as ‘evidence-based practice’ in psychology and ‘scientifically-based research’ in education” (Mesibov & Shea, 2011, p. 114). Smith *et al.* (2000) were the first to publish a randomised controlled trial of ABA-based intervention. ABA was shown to be most effective with the provision of twenty-

four hours per week of direct work with the child. Clearly such interventions could potentially be very intrusive in terms of the expectation that they place on families in terms of resource- and time-commitments.

There remains little agreement, generally, as to whether any theories or approaches can claim superiority over any others studied. Parsons, S., Guldberg, K., MacLeod, A., & Jones, G. (2009) conducted an international review of the literature, concluding that “children and adults with ASD are not an homogeneous group with the same or similar needs ... one type of approach or intervention is unlikely to be effective for all” (p. 124).

A comprehensive review conducted by Volkmar *et al.* (2004) argues that no single approach is best for all individuals with autism or even for the same individual across time. As no single approach has been conclusively proven to be more effective across all situations than any other, much research has begun to advocate utilising a range of strategies. In their international review of the literature into educational interventions for autism, Parsons *et al.*, (2009), report that “it is clear that a range of interventions (eclectic provision) should continue to be funded and provided for families” (p. 115). Two examples of approaches that employ this philosophy are the IABA Multi-element Model (LaVigna *et al.*, 2002), and Positive Behaviour Support (PBS) (McIntosh *et al.*, 2010). Approaches such as these recognise that different individuals will respond in different ways depending on the choice of intervention and have explored ways of providing more inclusive provision for children with ASD by focusing on elements of systems theory and the development of teacher-child relationships (Emam, 2009). The use of systems theory in combination with

existing applied behaviour analysis techniques in these ways may yield promising developments within eclectic intervention programmes.

The literature, it seems, is unclear as to how best to intervene to support children with challenging behaviour and ASD in combination with severe learning difficulties. Teachers, schools, and families often seek advice from; educational psychologists, clinical psychologists, speech and language therapists, occupational therapists, paediatricians, social workers and other professionals. As multi-agency work often offers competing explanations and interventions for challenging behaviour, school staff and families can feel overwhelmed and confused. How to intervene is also a problem highlighted in the literature as different professionals, influenced by different socio-political contexts, all draw upon a different theory base to inform interventions. “A major concern is the large, and possibly growing, gap between what science can show is effective, on the one hand, and what treatments parents actually pursue” (Volkmar *et al.*, 2004, p. 155). The nature of the barriers to, and facilitators of, effective intervention are not clear. “Of particular concern for the field of behavioural disorders is the lack of correspondence between what is known about effective practices and what practices young children with challenging behaviour typically receive” (Dunlap *et al.*, 2006, p. 29).

Barriers

The lack of consensus within the literature discussed above highlights an inconsistency between what research states is effective and what children and families actually receive in practice. Why interventions can be demonstrated as effective for some children with autism and not for others, or even for the same

individual across time is not well understood. However, there can be a number of reasons why interventions proposed by theory may not translate into what is actually delivered in practice. Baird (2010) suggests that “theory might be too new to have been worked through to its practical implications; impractical and therefore not implemented; it could be out of touch with the realities on the ground; or practice might be more advanced than theoretical explanations” (p. 113). Within these broad reasons, there are specific practicalities highlighted in the literature which may well present as barriers to effective implementation of interventions for supporting challenging behaviour. The following sections will review research into some of the potential barriers as suggested in the literature.

Arguments exist within the literature that implicate several factors which may either serve to promote support for challenging behaviour or serve as a barrier to support for challenging behaviour. Attitudes of supporting staff, collaboration between families and other professionals, and recording and monitoring systems have all been implicated as possible barriers to effective support. Each of these factors will be discussed now.

Staff Attributions

Some research suggests that care staff exhibit a wide range of emotional reactions to challenging behaviour. Bromley and Emerson (1995) state that “care staff report that a significant proportion of their colleagues usually display such emotional reactions as sadness, despair, anger, annoyance, fear and disgust to episodes of challenging behavior” (p. 341). Furthermore, there is also a large variation in the ways in which staff attribute causal influences to challenging behaviours. “Care staff attributed the causes of the person's

challenging behavior to a diversity of internal psychological, broad environmental, behavioral and medical factors” (Bromley & Emerson, 1995, p. 341). This research argues that the way staff perceive the causes of challenging behaviour influences their willingness to follow intervention strategies and potentially undermines those strategies. “Belief systems held by individual members of staff are likely to influence the perceived appropriateness of alternative courses of action [and] may impede the delivery of effective support by undermining habilitative or treatment plans” (Bromley & Emerson, 1995, p. 342).

Similarly, according to Hastings and Remington (1994), the constructs that care staff use in making sense of someone’s challenging behaviour may impact substantially upon their behaviour towards the person, the likelihood of them seeking external opinions or support, and the likelihood that they will implement effectively any advice given by colleagues, professionals, or managers. Assessing the reactions and attitudes of staff towards challenging behaviour may be a crucial factor in the success of interventions, and ultimately the breakdown or success of placements.

Other research has suggested that in order to support people with challenging behaviour, training elements should focus on staff understandings of the link between their own personalities and their emotional well-being. Chung and Harding (2009) found that certain ways of reacting to episodes of challenging behaviour may be detrimental to staff’s own well-being. “Training programmes for staff should incorporate the complex relationship between personality traits

and well-being. Further studies should aim at identifying other personality traits that could increase or decrease resilience of staff working in this area” (p. 549).

The lack of supportive systems for training staff and regular debriefing, according to this research, may present a significant barrier to the effectiveness of any intervention programme intended to support children with challenging behaviour. Much research implicates this factor as crucial to successful support and intervention. “Some research has sought to tease out more subtle individual and service-related characteristics that affect the likelihood of [placement] breakdown, but none to date has studied staff reactions” (Phillips & Rose, 2010, p. 202). According to this line of research, staff reactions to challenging behaviour seem paramount to changing attributions of blame regarding the behaviour, which may in turn be paramount to the success of any programme implemented.

Other researchers however, have stressed instead the importance of developing family support systems and family resilience as a key aspect of supporting children with ASD and challenging behaviour.

Family resilience

A further strand of research in the area emphasises not the educational or direct therapeutic approaches adopted, nor the importance of supportive staff systems outlined above. Instead, some researchers focus on the family as the most important area for intervention and support. Autism and challenging behaviour affects children in such a way that it can increase dramatically the demands parents must meet in trying to adapt to their child’s behaviour, and to the behaviour, prejudices and assumptions of people who come into contact with

the family. Families of children with autism and challenging behaviour often face pressures above and beyond those experienced by families of typically developing children.

Pressures present in terms of: financial burden and an increase in practical demands (Breslau, Salkever, & Staruch, 1982); low social support and isolation (Florian & Krulik, 1991); and marital discord (Walker, Johnson, Manion, & Cloutier, 1996). Supporting with the easing of these pressures and promoting family resilience (Patterson, 2002) is suggested by some researchers an essential component of any holistic intervention framework. Research has identified the importance of “developing a more effective partnership relationship, allowing a positive and non-judgmental dialogue between parents and educators” (Easen, Kendall, & Shaw, 1992, p. 282).

Experiencing some parental stress is normal and adaptive for all parents. However, “parents of children with ASD typically report higher levels of parenting stress and higher affective symptoms when compared to parents of typically developing children and to parents of children with other disabilities” (Davis & Carter, 2011, p.1278). Further evidence from research for emphasising the importance of supporting family members is presented in a study by Bromley, Hare, Davison, and Emerson (2004) which reports that “findings indicated that over half of mothers screened positive for significant psychological distress and that this was associated with low levels of family support and with bringing up a child with higher levels of challenging behaviour. Mothers were more likely to report lower levels of support if they were a lone

parent, were living in poor housing, or were the mother of a boy with ASD” (p. 409).

As a result of the demands of autistic behavioural characteristics, and the increased likelihood that siblings may also encounter problems with learning and/or behaviour, parental stress is shown to be elevated in families of children with autism. Typically, parental stress associated with having a child with autism is increased most markedly by; communication impairments, uneven cognitive abilities, and problematic social relations (Bebko, Konstantareas, & Springer, 1987). Other dominant factors include regulatory problems such as sleeping, eating, and emotional regulation, as reported by Dominick, Davis, Lainhart, Tager-Flusberg, and Folstein (2007).

Research has indicated positive, as well as negative influences resulting from having a child with autism in a family. “Positive contributions of autism were articulated to be family closeness, learned lessons in compassion, change of outlook of life, patience, and personal empowerment. Negative effects of autism were identified to be alteration of the family's functions, strained relationships and personal goals, and parental depression” (Bayat, 2005, p. 3340).

In a study into emotional well-being in mothers of adolescents with autism, Barker, Hartley, Selzer, Floyd, Greenberg, Osmond, (2010) found that “on occasions when behavior problems were higher, depressive symptoms and anxiety were higher” (p. 1). Likewise in their study into stress experienced by mothers of children with autism Hoffman, Sweeney, Hodge, Lopez-Wagner, and Looney (2009) emphasise “the need to develop interventions to help these mothers reduce their stress” (p. 178). Further findings have suggested that

“parents need the opportunity to share and receive support from other parents who understand the lived reality of caring for a child with complex needs” (Carter et al., 2007, p. 537). Cappe, Wolff, Bobet, and Adrien (2011) propose a 5-axis intervention model for parents of children with autism or PDD, based on cognitive-behavioural therapies and on a stress management programme. Their research emphasised a central role for a psycho-education programme in order to support and assist parents of children with autism.

As discussed earlier, the focus in the literature is predominantly on interventions aimed at the individual child’s deficits and ways of facilitating their education and development. These interventions can be very effective and sometimes produce dramatic improvements for individuals when implemented robustly. However, researchers concerned with familial support suggest that parents are under elevated levels of stress due to the added pressures they are under, and that their ability to implement any of these programmes may be severely diminished. In this sense, poor support for families would serve as a barrier to effective support for the child and potentially significantly undermine any child-focussed intervention.

Even where studies agree on the importance of family support they have sometimes drawn contrasting conclusions as to how best to achieve this. While still acknowledging the importance of supporting families as pivotal, some researchers have suggested that the most effective way of doing this is by concentrating on working directly to reduce the challenging behaviour presented by the young person. For example, Estes, Munson, Dawson, Koehler, Zhou, and Abbott (2009) conclude that “clinical services aiming to support parents

should include a focus on reducing problem behaviors in children with developmental disabilities” (p. 375).

Multi-agency working

Other researchers have suggested that it is actually the effectiveness of multi-agency working which should be focussed upon when looking to impact positively on outcomes for children with challenging behaviour and their families. “More than 20 years of research with disabled children, young people and their families has highlighted the need for the different professionals and services that support them to work more closely together” (Abbott, Watson, & Townsley, 2005, p. 229). Multi-agency working is described by Carter, Cummings, and Cooper (2007) as an almost inevitable aspect of support for children with complex health needs. “This diverse group of children often requires high levels of physiological, psychological and social care which brings them and their families into therapeutic contact with a wide range of health, social and education professionals and people from other agencies” (Carter *et al.*, 2007, p. 527).

Much research has implicated the importance of professionals working jointly to support the child and the family. However, “Despite partnership/seamless care in multi-agency working being deemed to be a regulatory ideal, many research studies demonstrate that, in practice, such ideals are problematic and services are often not experienced as seamless” (Carter *et al.*, 2007, p. 528). According to other studies, multi-agency working appears to make some positive, but not necessarily significant, differences to the lives of families. “The way that professionals conceptualise their practice may hinder attempts to collaborate

effectively” (Easen et al., 2000, p. 355). The effectiveness of multi-agency working is shown by other researchers to have limited effectiveness in terms of outcomes for young people with complex health needs. In their research into the use of multi-agency working to support families of children with severe health needs, (Abbott *et al.*, 2005) conclude that multi-agency services “had made a big difference to the health care needs of disabled children but were less able to meet the wider needs of the child and the family--particularly in relation to social and emotional needs” (p. 1).

In their exploration of best-practice in multi-agency working Carter *et al.*, (2007) conclude that an essential aspect is that “parents and people from across the various agencies need to work together to ensure that the most appropriate person acts in the role of a long-term coordinator, where the family wants this aspect of support” (p. 537). The most important aspect of this component would seem to be ensuring that there are shared goals and understandings – that the joint working is truly collaborative.

Monitoring and recording systems

There also exists a smaller body of research which examines the use of recording and monitoring systems within interventions for challenging behaviour. Research that has investigated this component, such as the Periodic Service Review (LaVigna, 1996) highlights the need for effective monitoring of patterns of change which can then be used to suggest directions for altering intervention programmes. The important aspect of this component is that data, rather than subjective opinions about the process or presentation of behaviour, should dictate changes to any support plan.

Conclusions and recommendations for future research

Despite a large and increasing body of research into interventions for autism and challenging behaviour, there remains a lack of agreement within the literature as to how best to intervene to effect reductions in challenging behaviour in children with autism in an educational context. Two debates seem to exist within the literature.

Firstly there is much disagreement regarding the question of how best to intervene directly with challenging behaviour in educational settings to support children, families, and schools. Secondly, in part due to the lack of agreement around whether to, or how best to intervene directly, other research has implicated more indirect intervention approaches aimed at overcoming potential barriers to effective implementation of interventions. These approaches, focused on overcoming suggested barriers, have also been demonstrated by researchers as being effective. However, for reasons discussed earlier, it seems that much of what is reported in the literature does not always transfer readily into effective practice in educational contexts.

Due to the apparent lack of effectiveness in successfully converting research evidence into practice, it appears likely that substantial barriers exist with respect to the implementation of any chosen intervention and that focusing on removing these barriers should be an essential component of any planned intervention programme. If, as seems to be the case, research is able to demonstrate the benefits of certain approaches to support children with autism and challenging behaviour, it seems that barriers must exist that often prevent

the effective use of these strategies in practical terms. Barriers suggested in the literature include the quality of staff support systems, family and multi-professional collaboration, and use of monitoring and reporting systems.

The interventions discussed in the literature, such as the TEACCH approach, or the PECS system are an important aspect of supporting children with challenging behaviour, but even the most established programmes are not always beneficial for all children, or for the same child across time. Many research studies have claimed to demonstrate superiority of one approach over many others. Other studies however have argued that such evidence is lacking, and that no one approach can be demonstrated to be superior in comparison to other approaches (Parsons *et al.*, (2009); Volkmar *et al.*, (2004)). A recent theme within the literature has been to advocate an eclectic approach when selecting direct interventions for children with autism and challenging behaviour. In support of an eclectic approach to selecting interventions, Mesibov and Shea (2009) emphasise the importance of “evidence-based practice in psychology that also incorporates the elements of clinical expertise and flexibility based on cultural variables and clients’ unique circumstances” (p. 577).

Comparatively little research has focused on systems-based, holistic approaches that consider how these different aspects interact, tending instead to focus on specific interventions at an individual level. Few, if any, comprehensive models or approaches exist that integrate multidisciplinary interventions and systematically incorporate strategies for overcoming proposed barriers. It would seem that a consideration of potential barriers to implementation of effective practice is crucial. To focus on specific, child-

focused intervention techniques in the absence of these wider interactions seems insufficient, yet dominates the research into this area. Multi-element approaches, such as the IABA model, use systems theory in combination with existing applied behaviour analysis techniques and may yield promising developments within eclectic intervention programmes. Yet even the success of multi-element approaches appears prone to being undermined by the existence of the barriers discussed earlier.

The barriers to successful implementation are not clear within the existing literature, but research exists to suggest that; staff attributions, collaboration with families and professionals, as well as monitoring systems can all serve as a barrier to, or promoter of, effective implementation of interventions. The effectiveness of certain intervention approaches, particularly those grounded in the principles of applied behavioural analysis, seem well supported within the literature. However, it also seems apparent that any approach to supporting the management of challenging behaviour is likely to be undermined by a lack of specific attention to these barriers outlined above.

Future research is needed to examine the barriers that families and educational establishments face when trying to support young people with autism and challenging behaviour. Also, how the effectiveness of carefully selected direct interventions, drawing on an eclectic approach as outlined by Parsons *et al.* (2009), is impacted by these barriers requires more detailed analysis. Addressing the potential barriers described within the literature in combination with well-selected appropriate evidence-based intervention approaches, may

yield the most promising framework for supporting families and children with the complex combination of ASD, learning difficulties and challenging behaviour.

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Graduate School of Education

Certificate of ethical research approval

STUDENT RESEARCH/FIELDWORK/CASEWORK AND DISSERTATION/THESIS

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To activate this certificate you need to first sign it yourself, then have it signed by your supervisor and by the Chair of the School's Ethics Committee.

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Your name: Gary Lavan

Your student no: 590035422

Degree/Programme of Study: Doctorate in Educational, Child and Community Psychology

Project Supervisor(s): Tim Maxwell and Karen Harris

Your email address: gl247@exeter.ac.uk and Gary.Lavan@wolverhamptoncyp.org.uk

Tel: 07917443438

Title of your project:

Promoting the reduction of challenging behaviours in children with autism in UK special schools

Brief description of your research project:

Intervening to support children with autism is a growing problem for local authorities due to a number of factors including: increases in prevalence rates; the broader phenotype of autism; and the drive towards inclusive education practices. Children with autism often display challenging behaviour that puts them at high risk of exclusion, often culminating in school placement breakdown, and admission to residential educational establishments. As such, severe challenging behaviour displayed by children with autism presents an acute management challenge to schools and local authorities. Often educational psychologists will be requested to support such children, with an emphasis on reducing challenging behaviours and increasing engagement within the classroom. There are frameworks and behavioural

technologies that the literature reports as being beneficial in supporting young people with challenging behaviour to cope in school and community environments.

Evidence-based interventions are an important aspect of supporting children with challenging behaviour, but even the most established programmes appear not always to be beneficial for all children. There appear to be barriers which have a significant impact upon the child and the challenges their behaviour can present.

Phase one of the research will explore any differences between those interventions which the literature supports as being effective and what children and young people actually receive in practice. The researcher will also propose potential barriers to successful implementation that may exist.

Phase two will seek to develop and implement a working framework for intervening to support challenging behaviour in a special school. This will investigate the relative significance of the identified barriers to successful intervention with challenging behaviour.

Give details of the participants in this research (giving ages of any children and/or young people involved):

Phase 1 participants:

- School staff questionnaire: All special schools in the Midlands area will be offered the opportunity to partake in this part of the research. A questionnaire will be sent to all special school staff investigating use of different approaches. Schools will be provided an outline of the research, the opportunity to seek further information and be given a summary of findings.
- Semi-structured interviews: Follow-up interviews exploring use of evidence-based interventions will be conducted with a number of staff who give consent for this.
- Observations: Classroom observations to explore use of evidence-based interventions will be conducted for a number of staff who consent to this taking place.

Phase 2 participants:

- The information gathered from Phase 1 will inform the target pupils for specific case studies in Phase 2. The intervention framework proposed in Phase 1 will be implemented for target pupils in a single special school in the West Midlands. Pupils (aged between 4-19years) will be identified through existing school systems for identifying pupils in need of additional behavioural support. Identified support staff will also be involved as recipients of a targeted training and debriefing schedule. The effectiveness of this programme in supporting staff will also be under research. Focus groups consisting of parents and school

staff will be held towards the end of the project to assess the social validity of the intervention programmes implemented.

Give details regarding the ethical issues of informed consent, anonymity and confidentiality (with special reference to any children or those with special needs) a blank consent form can be downloaded from the GSE student access on-line documents:

I will be following the Code of Ethics and Conduct set out by the British Psychological Society (BPS, 2006). Issues regarding respect, confidentiality, informed consent, safe guarding, and feedback will be carefully considered as detailed below.

Respect: The views of children, parents and teachers will be paramount in this study. I will ensure that these are listened to, respected, represented and acted upon. I will also endeavor to respect individual, cultural and role differences, including those involving age, disability, education, ethnicity, gender, language, national origin, race, religion, sexual orientation, marital or family status and socio-economic status.

Confidentiality: Records of the data collected (including interview transcripts and any audio recordings) will be stored in a secure and safe place. Electronic information will only be accessed by the researcher with their logon ID and password. All information will be stored on a secure system using whole disk encryption and recognised virus protection. Electronic and paper information will be locked in filing cabinet locked in a secure building. Information will be coded to ensure anonymity. This will remain anonymous in the write up of the research. Collected written information will be destroyed by shredding and securely disposed of when it is no longer required. Any audio recording will also be disposed of digitally when it is no longer required.

Informed Consent: It will be essential to obtain informed consent form parents for child participants and from staff in the Phase 2 research group, and also for staff and parents taking part in focus groups. Informed consent will also be gained in Phase 1 for staff opting to participate in semi-structured interviews and classroom observations. Records of when, how and from whom consent was obtained, will be recorded. Participants will be made aware of how the research findings will be used. Essentially, informed consent will be an ongoing process throughout the research. Participants will be reminded that they have the right to withdraw from the research at any given time and that if they choose to do so, data related to them will be destroyed.

Safe guarding: It will be made clear to participants that in the exceptional event that there is evidence to raise serious concern about the safety of participants or other people, information will be passed on to relevant bodies in accordance with the Child Protection Act 1989.

Feedback: All participants from Phase 1 and Phase 2 will be offered the opportunity to review a general feedback online at the end of the research project. This will outline the aims, and key findings of the research. In Phase 1, staff who participate in classroom observations, and interviews will receive verbal feedback, and schools will receive feedback about overall response rates and key conclusions from this stage of

the project. In Phase 2, the target school, and parents of all pupils participating in the study will receive a summarised account of the key findings.

Give details of the methods to be used for data collection and analysis and how you would ensure they do not cause any harm, detriment or unreasonable stress:

Data Collection

Phase One:

- Quantitative: A quantitative measure using a questionnaire (6 questions on 4 sides A4) will be used to sample the views of school staff. This questionnaire will involve ratings scales, given options and allow for fuller responses if required. It will also gather demographic information regarding role.
- Qualitative: Information to determine the current views and perceptions on school based support for challenging behaviour will be obtained through open-ended responses on the questionnaire, semi-structured interviews, and observations. With the consent of participants, interviews will be recorded and transcribed. This will then be coded thematically.

Data Analysis for Phase One:

- Quantitative data will be input into the SPSS statistical package to allow for statistical analysis of the information. This will provide numerical data regarding use of different intervention approaches, amount of training and debriefing received, and attributions of causal factors. It will provide an overview of the descriptive statistics, including the mean scores, standard deviation and distribution of scores.
- Qualitative information will be transcribed and uploaded to NVivo for thematic coding and further analysis. Differences among views of participants regarding attributions of causal factors will be explored and cross comparisons made with regard to level of training and debriefing, and intervention approaches used.

Data Collection for Phase Two:

Multi-element framework intervention

A single school in Wolverhampton will be the focus of the intervention. Pupils at the school have severe learning difficulties and many present with challenging behaviour. As part of the school's response to, and intervention with, this challenging behaviour the school uses existing school systems to identify pupils in need of additional behavioural support. For Phase 2, the researcher will work with school staff to implement evidence-based interventions, as identified in Phase 1, for target pupils. These interventions will be implemented as part of a multi-element approach comprising best practice from research into staff support systems, family and multi-professional collaboration, and monitoring systems.

- Quantitative: A quantitative measure using the school's system for recording levels of challenging behaviour will be used to establish baseline on post-intervention levels of behaviour. A 1-page questionnaire to sample the views of school staff regarding their attributions of causal factors will be completed during baseline and post-intervention. This questionnaire will involve ratings scales, given options and allow for fuller responses if required. It will also gather demographic information regarding role.
- Qualitative: Any information provided in the open-ended responses on the 1-page questionnaire, and information regarding social validity collected through the focus group sessions will be recorded and then coded thematically.

Data Analysis of Phase Two:

- All qualitative information from the staff questionnaire will be transcribed and uploaded to the NVivo software package. Data will then be coded and organised thematically to determine the effects of the programme in terms of staff attributions of causal factors to challenging behaviour. Likewise, information from the focus groups will be transcribed, uploaded to NVivo and coded thematically to determine the social validity of intervention programmes.

Give details of any other ethical issues which may arise from this project (e.g. secure storage of videos/recorded interviews/photos/completed questionnaires or special arrangements made for participants with special needs etc.):

During the data collection, data analysis and write up, data (questionnaires, audio recordings, consultation meeting records, observation records, interview data and personal individual data) will be securely stored in a locked filing cabinet in a secure building. As previously mentioned, electronic information will only be accessed by the researcher with their logon ID and password. Electronic information will also be stored on a secure system with whole-disk encryption and recognized virus software, within a locked building. It will be destroyed when it is no longer required.

Give details of any exceptional factors, which may raise ethical issues (e.g. potential political or ideological conflicts which may pose danger or harm to participants):

This is a particularly sensitive area of research and therefore informed consent and right to withdraw must be strictly adhered to. The findings may be potentially controversial from the perspective of Wolverhampton local authority, or the target school. Feedback about the findings will be discussed in full with the head-teacher of the target school and the Principal Educational Psychologist prior to any public sharing of these findings. It is also the responsibility of all those involved in the research to raise concerns about any of the participants, particularly in Phase Two where the well-being of the pupils and their families is of paramount importance. Parents of this cohort must be fully informed and be offered clear channels of communication to the researcher throughout the case study period.

Staff questionnaire on challenging behaviour

Instructions

- Please read each question carefully before answering.
- For all questions please tick the appropriate box or circle the most appropriate response.
- For example, for this question, if the child has never engaged in self-injury, circle 0.

Q.) How often does this behaviour occur? (0= never, 7=daily)

Self-injury 0 1 2 3 4 5 6 7

Thank you very much for taking the time to complete this questionnaire.

All answers from this questionnaire will be treated with the strictest of confidence. Data used will be treated anonymously.

If you have any questions or would like any further information please do not hesitate to contact:

Gary Lavan on (01902) 556519, or Gary.Lavan@wolverhampton.gov.uk

For the questions in this questionnaire, please think of ONE pupil in your class whose behaviour can be challenging.

Pupil's gender: Male Female

Pupil's age: _____ years

School name _____

Are you (please circle): Teacher | TA1 | TA2 | TA3 | HLTA | Other

Staff questionnaire on challenging behaviour

Q1) Has any medical professional (eg. Doctor, paediatrician) ever said that this young person has (circle all applicable):

Autism | Autistic traits | ASC/ASD | Features of autism | PDD-NOS | A genetic syndrome

Q2) For this young person, please indicate how often the following behaviours occur and how difficult they are to manage:

	How often does this behaviour occur?							How difficult is this behaviour to manage? (0=no difficulty, 7=unmanageable)								
	0 = never	1 = Has occurred once	3 = Apprx once per month	5 = Apprx once per week	7 = daily	0	1	2	3	4	5	6	7			
Out of seat (or Wandering)	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Self-injury	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Hitting others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Kicking others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Biting others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Head-butting others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Pinching others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Scratching others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Inappropriate touching (others)	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Spitting at others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Spitting	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Dropping to floor	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Smearing	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Eating non-edible items	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Property destruction	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Repetitive behaviours (rocking, flapping, tapping etc.)	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Masturbating	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Loud vocalisations / screaming	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Non-compliance	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Tantrums	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7

Q3) Thinking about when these behaviours occur, to what extent do you think the young person is responsible for the behaviour?

	When these behaviours occur, to what extent do you think the young person is responsible for their actions? (0= not at all, 7=completely responsible)								
Out of seat (or Wandering)	0	1	2	3	4	5	6	7	
Self-injury	0	1	2	3	4	5	6	7	
Hitting others	0	1	2	3	4	5	6	7	
Kicking others	0	1	2	3	4	5	6	7	
Biting others	0	1	2	3	4	5	6	7	
Head-butting others	0	1	2	3	4	5	6	7	
Pinching others	0	1	2	3	4	5	6	7	
Scratching others	0	1	2	3	4	5	6	7	
Inappropriate touching of others	0	1	2	3	4	5	6	7	
Spitting at others	0	1	2	3	4	5	6	7	
Spitting	0	1	2	3	4	5	6	7	
Dropping to floor	0	1	2	3	4	5	6	7	
Smearing	0	1	2	3	4	5	6	7	
Eating non-edible items	0	1	2	3	4	5	6	7	
Property destruction	0	1	2	3	4	5	6	7	
Repetitive behaviours (rocking, flapping, tapping etc.)	0	1	2	3	4	5	6	7	
Masturbating	0	1	2	3	4	5	6	7	
Loud vocalisations / screaming	0	1	2	3	4	5	6	7	
Non-compliance	0	1	2	3	4	5	6	7	
Tantrums	0	1	2	3	4	5	6	7	
	0	1	2	3	4	5	6	7	
	0	1	2	3	4	5	6	7	

Q4) After incidents of challenging behaviour, do you have chance to have a debriefing session – either from school colleagues or other professionals? (please circle one)

Never | Sometimes | Often | Every time

Please use the space below to make any other comments about responsibility for the behaviour this young person displays:

Q5) If any, which of the following strategies do you personally use aspects of in response to this young person's challenging behaviour:

	How often do you use aspects of this approach?									In the last 12 months, how much training have you received in this approach? (0= none, 1= one session, 2= a full day, 3=more than a full day)			
	0 = never	1 = have used once	2	3 = use once per month	4	5 = use once per week	6	7 = use daily	7	0	1	2	3
ABA	0	1	2	3	4	5	6	7	0	1	2	3	
Lovaas Method	0	1	2	3	4	5	6	7	0	1	2	3	
Dietary Intervention	0	1	2	3	4	5	6	7	0	1	2	3	
Physical restraint	0	1	2	3	4	5	6	7	0	1	2	3	
Medication	0	1	2	3	4	5	6	7	0	1	2	3	
Auditory Integration Training	0	1	2	3	4	5	6	7	0	1	2	3	
Son Rise	0	1	2	3	4	5	6	7	0	1	2	3	
Daily Life Therapy – Higashi	0	1	2	3	4	5	6	7	0	1	2	3	
SPELL	0	1	2	3	4	5	6	7	0	1	2	3	
TEACCH	0	1	2	3	4	5	6	7	0	1	2	3	
Makaton (or other sign)	0	1	2	3	4	5	6	7	0	1	2	3	
PECS or Picture Symbols	0	1	2	3	4	5	6	7	0	1	2	3	
Social Stories	0	1	2	3	4	5	6	7	0	1	2	3	
Comic Strip Conversations	0	1	2	3	4	5	6	7	0	1	2	3	
Social Use of Language (SULP)	0	1	2	3	4	5	6	7	0	1	2	3	
EDY	0	1	2	3	4	5	6	7	0	1	2	3	
Intensive Interaction	0	1	2	3	4	5	6	7	0	1	2	3	
LEAP	0	1	2	3	4	5	6	7	0	1	2	3	
Music Therapy	0	1	2	3	4	5	6	7	0	1	2	3	
Pivotal Response Treatment	0	1	2	3	4	5	6	7	0	1	2	3	
Autism Assistance Dogs	0	1	2	3	4	5	6	7	0	1	2	3	

Please use the space below to make any other comments about the way this young person's behaviour is managed:

Q6) Would you be willing to be interviewed for 30mins regarding challenging behaviour in school?

YES / NO . If yes, please leave your name here _____

All answers from this questionnaire and subsequent interviews will be treated with the strictest of confidence. Data used will be treated anonymously.

Thank you for taking the time to complete this questionnaire – it is greatly appreciated.

Appendix 4

Table detailing the number of schools returned in each search category from the online EduBase database. Search conducted 30th March 2011.

Search number	EduBase SEN Category	SEN designation	Number of schools returned
1	SEN1 (name)	ASD	12
2	SEN1 (name)	ASD-BESD	2
3	SEN1 (name)	ASD-SLCN	1
4	SEN1 (name)	Asperger's Syndrome [archived]	1
5	SEN1 (name)	MLD-SLD	3
6	SEN1 (name)	PMLD-SLD-ASD	1
7	SEN1 (name)	PMLD-SLD- ADHD-PD	2
8	SEN1 (name)	PMLD-SLD-PD	1
9	SEN1 (name)	SLD	32
10	SEN1 (name)	SLD-ASD	1
11	SEN1 (name)	SLD-BESD	1
12	SEN2 (name)	ASD	0 new schools
13	SEN2 (name)	MLD-ASD	1
14	SEN2 (name)	MLD-ASD-BESD- Delicate Medical- SPLD-SLCN	1

15	SEN2 (name)	MLD-SLD-ASD	1
16	SEN2 (name)	MLD-SLD-ASD- BESD-PD-SPLD- SLCN	1
17	SEN2 (name)	MLD-SLD-BESD	0 new schools
18	SEN2 (name)	MLD-SLD-SPLD	0 new schools
19	SEN2 (name)	SLD	2
20	SEN2 (name)	SLD-ASD-PD- SLCN	1
21	SEN2 (name)	SLD-PD	0 new schools
TOTAL			64 schools

Table 13: Number of schools returned in each search category from the online EduBase database.

Appendix 5

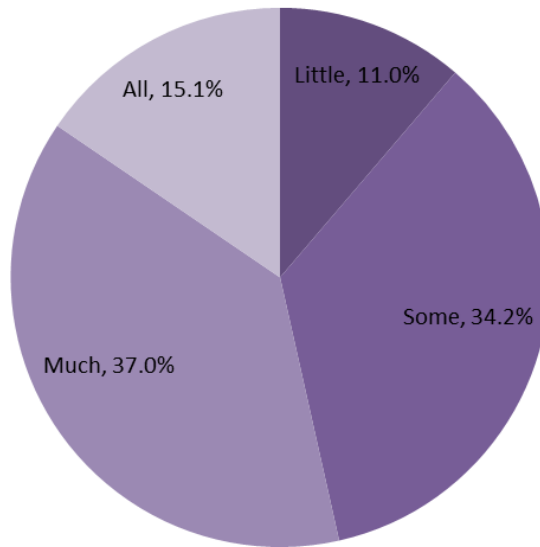


Figure 3. Percentage of respondents reporting varying degrees of responsibility of young people for challenging behaviours.

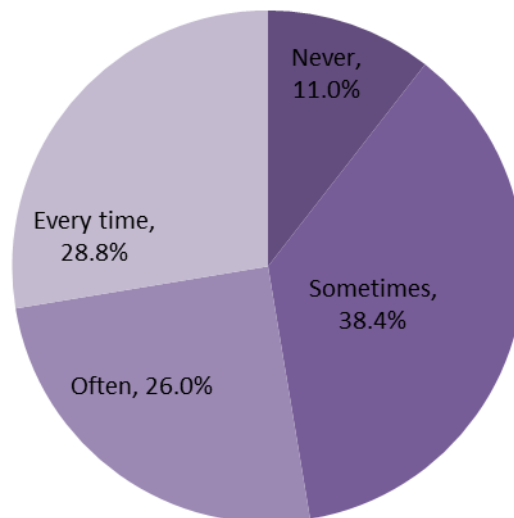


Figure 4. Percentages frequencies with which respondents receive debriefing following incidents of serious challenging behaviour.

Appendix 6

Content analysis relating to strategies used to support with challenging behaviour

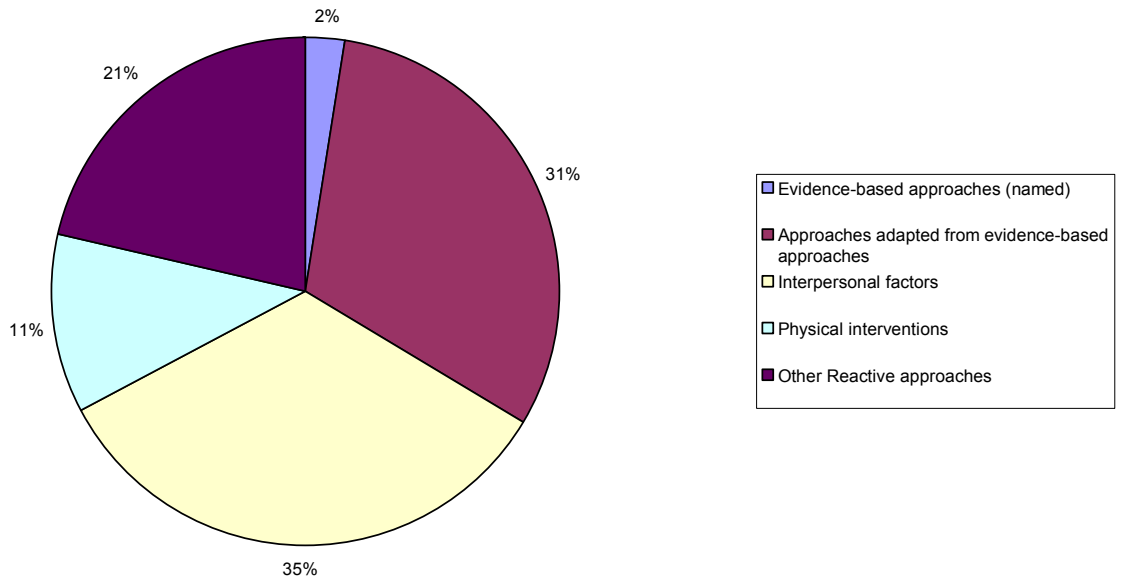


Figure 5. Percentage of references made to different strategies for supporting young people with challenging behaviour.

Percentage of references to support in each of the three identified domains

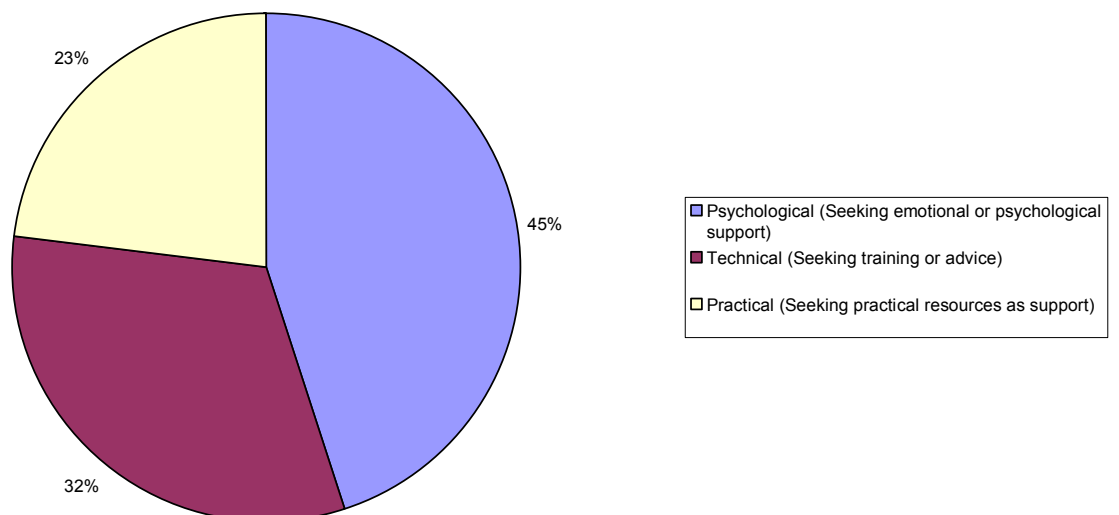


Figure 10. Percentage of references to each of the three identified types of staff support mechanisms.

Appendix 7

Patterns	Themes	Illustrative examples
1	<p>Interpersonal factors seen to be crucial to supporting young people with behaviour that challenges</p> <p>Emphasis on reactive as opposed to proactive strategies</p> <p>'Principles' of approaches being interpreted and used differently by individual staff</p>	<ul style="list-style-type: none"> • I don't use it for all the children, I use it for children that I personally have had difficulty getting them to focus. • Each child with challenging behaviour is supported differently. Which I think is good because they are individuals. It depends on what the challenging behaviour is that they're displaying. We don't always get it right. • I hadn't got a clue when he came into our class how to deal with him, and now the relationship that I have built is built on the same thing – going back to the routine and he knows what you will do with him and he knows what to expect. • We've got this very prescribed method of teaching our restraints and where to hold a child and all the rest of it. • That to me is really important – strategies, coping mechanisms, for staff and for pupils. And I think that's the way forward for everybody – and the more we use that, the less [physical intervention] we'll need to use. • I do very much believe that the [physical intervention] practice and the de-escalation and the way that we now work with children is very successful. • Staff working together - if you don't all sing from the same hymn sheet it's difficult to implement because children learn to expect one thing and respond really well, but you get another person – everybody works slightly differently – and you get another person who interprets it a little differently. • I've told the others about it but I don't know if they use it. • If you've not sat down as a team to talk about it, you're not all interpreting it in the same way, and I just think that rocks the boat. • What I do ... is sort of mirror that and have two or three structured activities that they complete with the work symbols then 'choose'. So it's along the same system but it's not exactly the same. • We're given plenty of ideas, but you can't just do it on your own. I think some staff look at it as 'oh we've got to do this, this and this' they don't think outside the box. They're given ideas but they don't really carry on with the ideas, they just think about what they want to do and go with that.

Table 3. Illustrative examples of sub-themes for 'Strategies & Approaches'.

Appendix 8

Patterns	Themes	Illustrative examples
<p>2 Support mechanisms</p>	<p>Technical support – Developing practice through training & advice (Support from sources external to the school) – to enable greater understanding</p>	<ul style="list-style-type: none"> • I think it's a case of looking at the behaviour, seeking help from outside, coming up with a strategy, trying it and seeing where that develops. • [EP] comes in and I just can not see a light at the end of the tunnel, and I just can't see it and we've got [EP] who comes in and says 'right, try this, try this' and it always works. And to me that's a huge support for us. • I did a TEACCH training course about 12 years ago. But for many years after that we never really introduced it. • Physical intervention quite a lot. What else was there? PECS, visual schedules... I wouldn't say so much training, but in terms of how to use them I think it's just part of practice. It's used here quite well. But no formal training. • The TEACCH system? I've only ever had the school TEACCH tray system and I can't even remember who delivered the training – that was much longer than twelve months ago. • Team Teach – I've had my refresher training this year, we've also had advanced Team Teach – those of us that were chosen to look at advanced holds for those young people that may need more than what is offered in basic Team Teach. • TEACCH? If I remember right, I think...No...or did I? I know a member of staff did some training on it but that was for only a selection of the staff. • [strategies] get used very little and as a team we can't understand why. So something is happening in class that's restricting their use as far as we're concerned.

Patterns	Themes	Illustrative examples
2	<p>Support mechanisms</p> <p>Psychological support for staff</p> <p>Practical support – Pressures from the education system – time for reflection and debriefing</p>	<ul style="list-style-type: none"> • When I've been bitten – I've only had about three or four bites which is brilliant – I feel silly, you feel that it's your fault, I've surprised myself with the feelings, you know I'm almost embarrassed to admit that this child has bitten me and I feel foolish. • In theory people should have a debrief afterwards – that doesn't always happen. I think that's very important to sit down, to take time out, to talk it through, to cry if you feel the need to cry because sometimes you get hurt and to go and cry is a good thing to do. • And also if you've had a particularly rough hour with a pupil you are physically drained – mentally and physically – and you go in to another child and I don't feel you can give your 100% again because you've lost 10% in that hour and there's no time to recharge your battery. • We're getting better at it but I think people do still take things on board themselves, and – I don't know whether it's a personal thing, that I've been hurt and I've got to deal with it because it's my fault – I don't know whether it's still that mentality but I think it's important to have that debrief. • I still think there's areas where senior management could do a lot more to support the staff. Quite possibly sometimes I think they're not aware of how stressed some staff are in here and I don't know what the answer is – there's not an easy answer. But whilst they possibly don't know, perhaps if they did know what could they do about it? Recommend that we had regular breaks? Recommend that we get a better sleep at night? • There is no time to make resources and because there is no time they're not implemented quick enough. And therefore we go on for a few days or weeks even and we're not actually getting any further forward with all the advice because we can't implement it because it's not there. • Even after an incident there is no time to go out – as much as your class say go and have five minutes, go and get yourself a drink, I don't feel I can, and I know the others are the same, because the behaviours are still ongoing and you've still got the children there who need support. So I don't think there's much time for us to regain ourselves again.

Table 4. Illustrative examples of sub themes for 'Staff support mechanisms'

Appendix 9

Comments made regarding the function of challenging behaviours

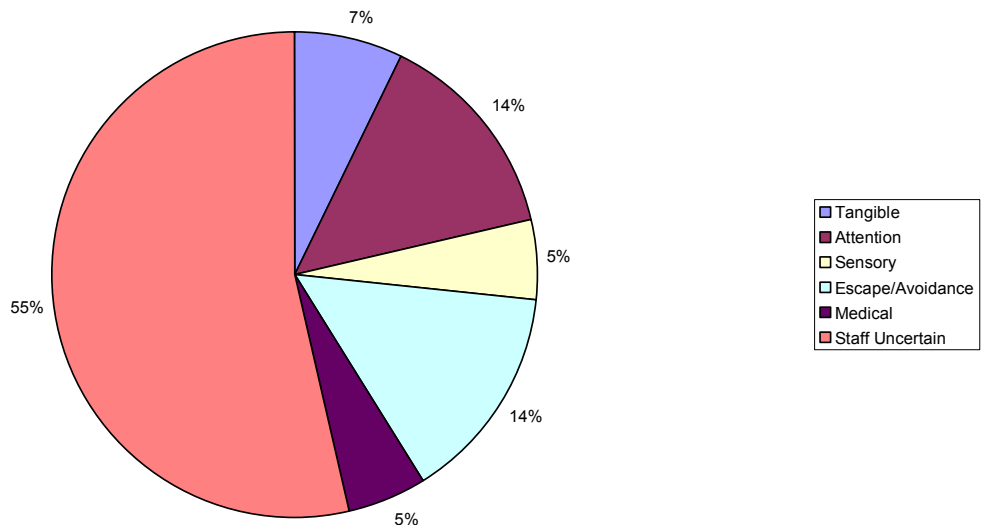


Figure 11. Percentage of comments made regarding the function of challenging behaviours

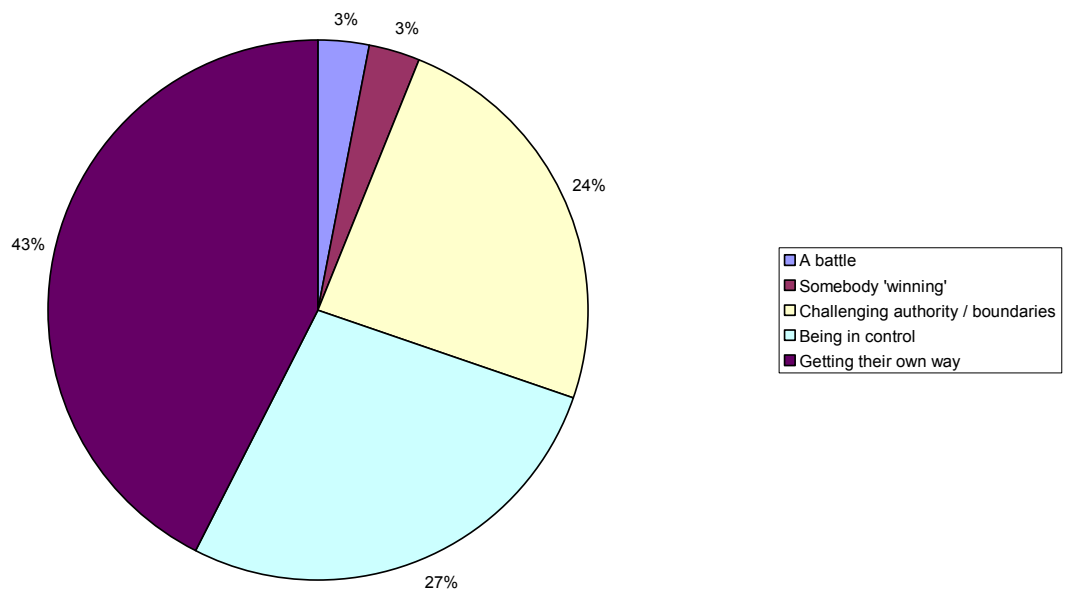


Figure 12. Percentage of comments made regarding control dynamics within the adult-young person relationship.

Appendix 10

Patterns		Illustrative examples
3	Understanding how behaviour develops	<p>Control dynamics and power</p> <ul style="list-style-type: none"> • It's all about control and wanting to control his environment and wanting to control everybody. • I was raised 'you respect your adults' – and if the adult says jump you jump! And the way we deal with children now is very different in every aspect in life. So just because you're the adult, you're not right • The compliant behaviour's not there – they don't know how to sit down, they don't know how to listen, and whilst they are autistic that doesn't stop them from sitting on a chair and behaving appropriately in a certain environment. I don't know why that is. • He didn't like the boundaries that were being set, he would challenge things that he didn't want to do which resulted in swearing, a lot of bad language. • Is what I'm asking them to do going to help them or 'am I asking you to do it because I want you to do it?' • It can be a fault with the people around and if somebody is not familiar with how you should treat that young person. And it's almost become a big power struggle, so they have caused the behaviours whereas if they'd let things go over their head it may have been different. So, it's not always down to the young person.
		<p>Locus of control (Whether behaviour originates from within-person factors or from environmental factors)</p> <ul style="list-style-type: none"> • I know they're growing up and their experiences are very different but you think 'have we gone wrong?' 'Is our practice wrong?' 'Is it the structure of the school?' and that fascinates me. • There can be faults within the young person but sometimes there can be faults within the team. • Communication is definitely one. But I've also experienced medical reasons like when kids have got eczema and they can't communicate that they want cream so there's medical issues, there's all sorts of environmental factors.

Patterns		Illustrative examples
3	Understanding how behaviour develops	<ul style="list-style-type: none"> • If there was an obvious trigger you knew what was coming and you could put things in place and deal with it but it was that coming out of nowhere. • And obviously I know there's an underlying something there and even though he's smiling, there's a big underlying issue – something could have happened in the morning, something could have happened an hour before, and all of a sudden he's reacting but I do sometimes still find that difficult to accept to be honest. • I think a lot of people see what's classed as their normal behaviour – their challenging behaviour – and they don't see this bit in the middle, why it's happened – we never look at that. • With the no triggers you couldn't deal with it, you didn't know when it was coming so you couldn't use any diversion tactics or anything that we've been taught.
		<ul style="list-style-type: none"> • I would say there are times we, as practitioners make mistakes, because we don't know the child anywhere near how a parent would know their child because there's nine in a class and they move round, but we have an understanding. • If that pupil hasn't slept the night before. If they don't feel very well and they can't tell you or the myriad of things that happen at home. You don't always get a parent that will tell you. • If they've learned to scream and shout – if they get given things – then they'll do the same behaviour again, at school. It's interesting to see how they are at home and how their parents are with them at home and that behaviour's brought into school and when you try and work against that – against what's happening at home – until a child gets to a certain maturity level that they know that they're not going to get it then it'll carry on. • sometimes we talk to parents and they tell us something that happens at home and we can share that with everybody else across school
		<ul style="list-style-type: none"> • Parental influence – factors from outside the young person's school life

Table 5. Illustrative examples of sub themes for 'Understanding how behaviour develops'

Appendix 11

The five components of the proposed SPACE framework are listed in the table below, alongside the psychological theories underpinning each component:

SPACE component	Psychological theories underpinning
Supportive systems for staff	Attribution Theory Personal Construct Psychology Systems Theory
Personalised intervention plans	Applied Behavioural Analysis Social Constructionism Systems Theory
Active involvement of families / carers	Systems Theory Family Resilience Theory Applied Behavioural Analysis
Collaborative multi-agency working	Systems Theory Personal Construct Psychology Social Constructionism
Effective monitoring and review processes	Systems Theory Applied Behavioural Analysis

Table 6: Five components of the SPACE framework (Lavan, 2012) with the psychological theories underpinning each component.

Appendix 12 – Functional contextualism

Although quantitative data was crucial in exploring the impact of components of the interventions, the researcher recognises that thorough analysis of the issues cannot be done effectively without illuminating the stories of the participants to whom these data relate. The schools for whom this research will be of benefit “must be interested in the stories, experiences, and perceptions of program participants beyond simply knowing how many came into the program, how many completed it, and how many did what afterwards” (Patton, 2002, p. 10). A contextualist stance is appropriate for this research because of the behaviour analysis approach to interventions within the framework which the study seeks to evaluate. “The phenomena of challenging behaviour can only be fully understood when viewed as a social construction, a position which is highly consistent with the ‘contextualist’ world view of behaviour analysis” (Emerson, 2001, p. 7).

“Contextualism is a philosophical tradition of American pragmatism. For contextualism, unique events are not problematic” (Biglan, 2004, p. 16). The events that the case studies within this research examine are unique to the school under study. The context within which the case studies will take place will vary greatly from the context within which other case studies may take place. Although it is hoped that the findings of the research will be widely applicable, there may be significant cultural, social, educational, and other influences that would make direct comparison of the efficacy of interventions between children from different schools very difficult. “A framework that acknowledges, and indeed celebrates, the analysis of the influences on the individual case is best suited to making progress on pinpointing manipulable influences that can be exploited to affect practice” (Biglan, 2004, p. 20). As a consequence of the intended audience and of the study’s aims and objectives, the inquiry will adopt a functional contextualist framework of analysis.

Appendix 13

Time	Activity (Describe any task, materials, help required)	Location	Staff	Work completed		Target Behaviours (Tally)				
				No. activities attempted	Time on activities	hitting others	spitting	self-injury	drop to floor	
8:45 – 9.15										
9.15 – 9.45										
9.45 – 10.15										
10.15 – 10.45										
10.45 – 11.15										
11.15 – 11.45										
11.45 – 12.15										
12.15 – 12.45										
12.45 – 1.15										
1.15 – 1.45										
1.45 – 2.15										
2.15 – 2.45										
2.45 – 3.15										

Staff questionnaire on challenging behaviour

Instructions

- Please read each question carefully before answering.
- For all questions please tick the appropriate box or circle the most appropriate response.
- For example, for this question, if the child has never engaged in self-injury, circle 0.

Q.) How often does this behaviour occur? (0= never, 7=daily)

Self-injury 0 1 2 3 4 5 6 7

Thank you very much for taking the time to complete this questionnaire.

All answers from this questionnaire will be treated with the strictest of confidence. Data used will be treated anonymously.

If you have any questions or would like any further information please do not hesitate to contact:

Gary Lavan on (01902) 556519, or Gary.Lavan@wolverhamptoncyp.org.uk

Pupil's gender: Male Female

Pupil's age: _____ years

School name _____

Are you (please circle): Teacher | TA1 | TA2 | TA3 | HLTA | Other

Staff questionnaire on challenging behaviour

Q1) For this young person, please indicate how often the following behaviours occur and how difficult they are to manage:

	How often does this behaviour occur?							How difficult is this behaviour to manage? (0=no difficulty, 7=unmanageable)								
	0 = never	1 = Has occurred once	3 = Apprx once per month	5 = Apprx once per week												
Out of seat (or Wandering)	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Self-injury	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Hitting others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Kicking others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Biting others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Head-butting others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Pinching others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Scratching others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Inappropriate touching (others)	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Spitting at others	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Spitting	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Dropping to floor	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Smearing	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Eating non-edible items	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Property destruction	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Repetitive behaviours (rocking, flapping, tapping etc.)	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Masturbating	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Loud vocalisations / screaming	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Non-compliance	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
Tantrums	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7

Q2) Thinking about when these behaviours occur, to what extent do you think the young person is responsible for the behaviour?

	When these behaviours occur, to what extent do you think the young person is responsible for their actions? (0= not at all, 7=completely responsible)								
Out of seat (or Wandering)	0	1	2	3	4	5	6	7	
Self-injury	0	1	2	3	4	5	6	7	
Hitting others	0	1	2	3	4	5	6	7	
Kicking others	0	1	2	3	4	5	6	7	
Biting others	0	1	2	3	4	5	6	7	
Head-butting others	0	1	2	3	4	5	6	7	
Pinching others	0	1	2	3	4	5	6	7	
Scratching others	0	1	2	3	4	5	6	7	
Inappropriate touching of others	0	1	2	3	4	5	6	7	
Spitting at others	0	1	2	3	4	5	6	7	
Spitting	0	1	2	3	4	5	6	7	
Dropping to floor	0	1	2	3	4	5	6	7	
Smearing	0	1	2	3	4	5	6	7	
Eating non-edible items	0	1	2	3	4	5	6	7	
Property destruction	0	1	2	3	4	5	6	7	
Repetitive behaviours (rocking, flapping, tapping etc.)	0	1	2	3	4	5	6	7	
Masturbating	0	1	2	3	4	5	6	7	
Loud vocalisations / screaming	0	1	2	3	4	5	6	7	
Non-compliance	0	1	2	3	4	5	6	7	
Tantrums	0	1	2	3	4	5	6	7	
	0	1	2	3	4	5	6	7	
	0	1	2	3	4	5	6	7	

Please use the space below to make any other comments about responsibility for the behaviour this young person displays:

All answers from this questionnaire and subsequent interviews will be treated with the strictest of confidence. Data used will be treated anonymously.

Thank you for taking the time to complete this questionnaire – it is greatly appreciated

Appendix 15

Interviewer (Gary Lavan) in bold typeface

Interviewee responses in standard typeface

Date of interview: June 2011

Anything that we talk about will be treated in confidence and anything you say, anything that is recorded, will be treated anonymously. This interview forms part of a wider piece of research that I'm doing which is looking at challenging behaviour across 64 special schools in the Midlands. Just be as open as you can be. The questions shouldn't be too hard – there are no right or wrong answers to the questions, I'm looking for your opinion about challenging behaviour as you see it. Ok. Is it ok if I record the interview?

Yeah.

So, if we could start – could you tell me a little about the types of challenging behaviour that you see around school?

The challenging behaviour that I see around school – that's down to the person, what you think is challenging isn't it? I would say the challenging behaviour I see around school is when children hit staff or peers. If they're biting, scratching, spitting, but I would also consider smearing, masturbating to be challenging behaviour. Climbing on furniture, throwing furniture around – I don't see it every day of course! I'm sure there's others but I think I've covered what I wanted to there.

So, those behaviours that you've described, are they the same across school or do you notice a difference, say between lower school and upper school?

I think there's a clear divide between lower school and upper school, but then I would argue that the nature of the children in upper school is quite different to the nature of the children in lower school. Lower school is predominantly autistic, in upper school we've got Down's Syndrome children and other ones that I know are different to autism but I don't know what they're all called. We have got one or two very challenging children in upper school that hurt when they're in crisis and it's very distressing for staff to deal with. In lower school the challenges are equally as challenging but they're not so painful to staff because they're littler. I want to add more to that, but I don't know what really.

Ok. So, have you noticed a change in school in terms of the challenging behaviour or has it always been as it is now?

I've been here six years and I would say the children we're seeing are quite different to what we had in the beginning. In my opinion the younger children who are coming to school – the compliant behaviour's not there – they don't know how to sit down, they don't know how to listen, and whilst they are autistic that doesn't stop them from sitting on a chair. **Ok.** And behaving appropriately in a certain environment. I don't know why that is. I don't know if the way families and education people are dealing with children now is very different to school in my day when I went to school. Different things have changed haven't they **Ok.** I also find it fascinating that a child that has come in

to [the lowest class] and might be compliant – I hate the word but I’m using it – might behave in this compliant manner, in twelve to eighteen months their behaviours are very different **ok** and I wonder why that is. I know they’re growing up and their experiences are very different but you think ‘have we gone wrong?’ ‘Is our practice wrong?’ ‘Is it the structure of the school?’ and that fascinates me. **Ok**. And I would like to think that the little ones that we’ve got now, when they finally get to the end of their school life, that they are – I don’t want to keep using the word compliant – as they leave that they are in control of their behaviour **yeah** and can be sociable. As they leave, that the challenging behaviours they are experiencing will go, and their behaviour will be more appropriate – that’s the right word! **Ok**.

So, of the challenging behaviours that you mentioned earlier on are there any behaviours that you personally find particularly difficult to manage?

To be very honest with you, it’s when you know you’re going to get hurt – if you know a child will hit, smack and I’m thinking in particular of [pupil]. You know that if you’re dealing with [pupil] that you’re going to get hurt, and I’m ashamed to admit that I’d be a little more reluctant to get involved – I’d be a little more placid in that than with a child that you know ‘yeah I’m going to get a thump’ but is not as challenging as that. What was the question sorry – put me back on track. **Are there any types of behaviour that you find particularly difficult to manage?** It’s the bites, the biting. When I’ve been bitten – I’ve only had about three or four bites which is brilliant – I feel silly, you feel that it’s your fault, I’ve surprised myself with the feelings, you know

I'm almost embarrassed to admit that this child has bitten me **ok** and I feel foolish. So when I'm working with [pupil] you're mindful that he's going to get hold of you at some point, but it's not because it's painful I just feel so stupid that I've allowed it to happen, really. So the biting. And the picking poo up off the playground floor, that's always a good one. Now that I'm thinking about it, the poo yeah! **Yeah. Ok.**

So, when you're dealing with – if you think about those two behaviours, but maybe other behaviours as well – do you have any strategies that you rely on or fall back on yourself to help manage situations?

My sense of humour. **Ok.** Certainly with the poo – the excrement – I hold my breath so I don't smell it and you use gloves and you pick it up. You have to do it, that's the way I look at it- you just brace yourself and get on with it. I make a joke out of it. And with the biting, it might be because my first experience of being bitten at school was a girl that had never bitten anyone and I don't think she's ever bitten since, so I do take it extremely personally. **Ok.** I don't know? How do you deal with it? You just try and keep yourself away from them don't you, and I am conscious that I'm always in short-sleeved t-shirts and I do think getting some sleeves on would help or something. But yeah, that type of thing.

So thinking then about the kind of approaches that are used around school generally - these could be approaches for challenging behaviour or they could be approaches that are autism-specific in terms of

teaching and learning – can you think of any of those type of approaches that you are aware of that are used around school?

So you'd want me talk about the use of the TEACCH systems and Team Teach practice and things like that? **Yes.** I think in an ideal world – as a Team Teach tutor – we've got this very prescribed method of teaching our restraints and where to hold a child and all the rest of it, and in real life a lot of that has to – it doesn't have to, it shouldn't – but it does go out the window. Our kids wriggle! When you do all your training, nobody wriggles like the kids do. However much you can predict behaviour when you know a child, they still do things that you're not geared up for. So, you'll grab somebody by the clothes to stop them doing something – which you know is not appropriate – and things like that. And, I sometimes – I think Team Teach is very successful in the lower part of the school – and when it's delivered properly I think it's a great tool, and the de-escalation side before the restraint practice. We had a talk on Monday night and he was saying that from an autistic perspective, a child or an adult with an obsession, he's saying that you should give it to them first, before they do their work, whereas everything we do in school is all geared on the behaviour so we always say work first and then the reward. And that to me brought home the autism, and behaviour and how on earth do you separate the two? And if you're giving the child their obsession before the work, will they work? Because if I had a glass of wine and a bar of chocolate I don't think I'd want to work after it! So that was very interesting. I do very much believe that the Team Teach practice and the de-escalation and the way that we now work with children is very successful. **Ok.** In the lower part of the school – in the upper part I think we are a little open to people getting hurt

badly. **Ok.** You know, if [pupil] goes, you're going to be in hospital. So I do think there are some areas we need help and support with. **Ok, thank you.**

Thinking about classes around school then are there any specific approaches that are used in classes that you're aware of?

From what I see, they're structured in that subjects are discussed as a whole and then the differentiation comes into play and the children go off with their respective support worker to do their work whatever that may be – the TEACCH tray system for children that need that support. There are visual timetable and I do think we could use visual supports far more. And then they all come back together at the end and the children are offered a choose system so everybody's getting a reward. **Ok.** But the children who need it more, it's more positive in the class – that's what I believe, that's what I see around school. **Ok.**

So thinking about those approaches – you talked about Team Teach, and visual structures that you use in class – how much training have you had in the approaches, and how much training do you think other staff have had?

If we talk about Team Teach first, I've had a whole week intensive training, and therefore should be using it appropriately. **Can I just ask if that was in the past twelve months that training?** I originally trained two years ago but I did a three day refresher just before Christmas, so yes. I'm not due to go for another eighteen months now. **Ok.** So I'm very familiar with the restraint process. As with TEACCH and the visual supports – that's what I do daily – I

haven't had any training in the past twelve months for that but I did a B-TEC and I did all the Picture Exchange Communication System, symbol bits and picture bits, **ok** I've got certificates for – which is a bit dangerous! But it has been much longer than twelve months. We did have a spate of refresher training, as in staff meetings on a Monday night that were an hour long and they're always difficult sessions because we're all knackered and we all think we know it all so when you're delivering it to a group of staff it is challenging. The TEACCH system? I've only ever had the school TEACCH tray system and I can't even remember who delivered the training – that was much longer than twelve months ago. I think that this school is absolutely brilliant at allowing people to go on professional development for finding strategies for our kids and actually bringing them back into school. But it's been a very busy year, so there you go! **Yeah. Ok.** I've done Sound Beam training recently, but that's not a behaviour strategy – it could be. It could be a calming thing! And that's going to be implemented in September. **Ok.**

Those approaches then, Team Teach, visual structures, is there anything that you think makes it difficult for the school to implement those approaches?

That's an interesting question. That's a very interesting question. Some of our Speech Therapists decided that some of our children needed Vocie Output Communication Aids – the VOCAs – and we use them in speech and language sessions wherever we can and we always say that the children use them successfully. When they go back into class and they're doing their regular daily life, they get used very little and as a communication team we

can't understand why – because it's the child's voice. So something is happening in class that's restricting their use as far as we're concerned. So that's what I'm sort of thinking – time's an issue. The time that the staff need to make resources for the pupils, there is an element of goodwill needed by our staff. Although I would argue that teachers could manipulate their support staff a little better than they do. There are times when they could say 'pop out and do this' when things are calm because that does happen during the day. But for a teaching assistant that's working their hours, to stop over and make resources can grate sometimes **ok** we all work for our money. Time has to be used well here in school and if it isn't that's when things fall apart. I could spend a day a week making resources, quite easily, but that's something I can't afford to do. So time's an issue. It's an interesting question – I've never really thought about it like that. What we do that stops us from working well? **That's ok.** It's a really interesting question. **Maybe come back to it at the end?** Yeah, I'll do a bit more reflection on that one yeah!

The challenging behaviours you talked about at the start – that you see around school – so not just the one's you find difficult – could you tell me a little bit about why you think those behaviours happen.

I am told (laughs) – that it's the child's way of expressing what they're feeling (laughs)! **Ok. Is that what you think, or...** (laughs) I'm laughing because that's the model answer. I don't always agree that it's down to the way the child's behaving because our kids are naughty – that's really wrong language to use, I'm sorry – but our kids are naughty – like any child they'll push their boundaries. It's all about what reaction – our kids are very clever! Certainly

from being from outside of the classroom you see things very differently to how the class see it because you're not involved in the event as such. If they don't get it from one adult they'll try the other and I do feel that some of our children will exhibit challenging behaviour to get what they want **ok**. If they've learned to scream and shout – if they get given things – then they'll do the same behaviour again, at school. **Ok**. It's interesting to see how they are at home and how their parents are with them at home and that behaviour's brought into school and when you try and work against that – against what's happening at home – until a child gets to a certain maturity level that they know that they're not going to get it then it'll carry on. **Ok**.

So, with all of that in mind, are there occasions when anybody is at fault, or to blame for challenging behaviours when they happen?

Well if we were all perfect parents, perfect carers, perfect adults, then – I'm just thinking, it's very easy as a practitioner to judge and to say 'if they weren't allowed to do that at home then they wouldn't do it here' – but any child will learn from birth if it cries it gets fed and it gets changed and it gets what it wants – and I have heard staff here in school very quick to criticise parents and say that's because mum and dad do it, and I've possibly said it myself because I'm not perfect, and that's why I like residential because you spend 24-7 with these children and then you understand why things happen at home and behaviour is dealt with differently at home to how we deal with it in school **ok** because as a parent, anybody else's child cries you're concerned but your own child cries and it pushes everything – you're there straight away, sort of. It's a different emotion with your own children as it is to somebody else's. Is

any body at fault? That's an interesting question as well – I can't keep getting out by saying 'that's an interesting question!' I think yeah, I think there is fault. Is somebody to blame for these challenging behaviours? I've got to say yes, there is then. Because if a child hits you to get a chocolate biscuit, to get fed, the next time they hit you shouldn't be giving them a chocolate biscuit should you? **Ok.** So yes I would say that there is. **Do you think that would apply in school as well as at home?** I would say there are times we, as practitioners make mistakes, because we don't know the child anywhere near how a parent would know their child because there's nine in a class and they move round, but we have an understanding. And we are inconsistent, we're humans, we bring our life in to schools – we shouldn't do but we do – I think it's a very complex area – school. Because you've got your rules of what you're trying to do – the teaching and the learning targets, you're under enormous pressure to achieve. You know, 'why isn't this child talking yet?' or whatever and ... **Ok.** **Do you want to leave that one there?** Yes!

We'll move on! Could you tell me your thoughts about how people in school with challenging behaviour are supported.

I believe each child with challenging behaviour is supported differently. Which I think is good because they are individuals. It depends on what the challenging behaviour is that they're displaying. We don't always get it right. You're asking for a particular strategy are you? **If you can think of one, or just a general approach that might be taken?** I think the general approach is, I think, is that staff would try to give the child the opportunity to display a different behaviour to whatever it is they are displaying. To change that

behaviour. My minds gone off on a couple of tangents – I'm thinking about [pupil] taking his clothes off , it's not particularly challenging behaviour, if the kid's hot or sweaty he should take some clothes off but obviously we can't allow him to do that in school **ok** so what the staff have done is get him some tight fitting clothes and that seems to be working to a degree. Although his challenging behaviour hasn't been solved by this – it's sorted one little bit out. And with [pupil's] biting we're seeking outside help to find out what that's all about – the sensory issues and all the rest of it. And what I think staff would like is something that he can seek his teeth into that is not going to sink into their arms and just give him that – whatever it is that he needs – from that. So I think it's a case of looking at the behaviour, seeking help from outside, coming up with a strategy, trying it and seeing where that develops. **Ok.**

Thank you.

Related to that, when challenging behaviour happens in school, how do you think staff are supported?

In some areas I think they're supported extremely well and in other areas they're not. Sometimes that comes from the individuals concerned because some of us would quite like help and are quite happy to chat about it and some of us would rather deal with it by themselves. It's – I do feel in school and I'm saying it – in school the loudest and the naughtiest child gets all the attention and it's at the detriment of other pupils, whilst I also understand why that is the case because if one child's breaking down the doors, you've got to deal with him first. **Ok.** It's got to be that way. I still think there's areas where senior management could do a lot more to support the staff. Quite possibly

sometimes I think they're not aware of how stressed some staff are in here and I don't know what the answer is – there's not an easy answer. And whilst it's all well and good slating the senior management – and I'm not slating the senior management at all – but whilst they possibly don't know, perhaps if they did know what could they do about it? Recommend that we had regular breaks? Recommend that we get a better sleep at night? There's very little – apart from being sympathetic and empathetic with us – and ensuring that the bodies that are working with us are turning up with the answers – some strategies to work with the children. Whilst it's easy to sit here and say that, that's life in school. Is that ok? **Yes.**

There's only one more question. But before we move on to that, is there anything would like to say or add to what we've already talked about?

I do find myself getting quite protective over [school]. We don't always get things right and I think that one question in particular about, erm '**Is there anything that makes it difficult in school?**' Yeah, I do firmly believe that we as people have such an influence on our working day and our relationships with the children and with each other, and certainly doing the Team Teach training in the depth that I've done it in has made me very aware of my size, my smell – the fact that when I get going I'm quite a larger than life person. And whilst it works for some pupils, it doesn't work for everybody. And you do have an effect on the children. One relationship – with [pupil] – on residential went completely pear-shaped because all I was doing with him was dealing with him when he was in crisis. And half-way through the week I said to the other staff 'I need to be doing the treats with him, I need to be doing other

things with him'. Because I was the most confident in doing the restraints that was what I was dealing with, and he needs to experience the nice side of me as well. And it's hard work. It's really wearing. The building doesn't help. **Ok.** We haven't got a lot of room but you can't keep blaming things – this is the school we've had for a lot longer than I've worked here and we've always had autistic pupils – we've had our challenges before now, before Team Teach, before everything else and we got through somehow. **Yeah.** I really felt that's a really interesting question – maybe I should come back to you next week when I've thought about it some more! **Please do!**

Final question then. Can you think of an example of a time when either yourself or somebody else has done something really useful to help support a young person with challenging behaviour?

See I think there's lots of good work that goes on around school. I don't think it's one particular incident. I – certainly in the beginning of Team Teach when we were embracing de-escalation – actually seeing it work was brilliant. A child was getting agitated and you're bracing yourself for the roof to come off and somebody would just have that way of saying shall we do this or should we do the other, and it was gone. To see something working that staff had been sceptical about. I think it's taken staff a while to embrace the de-escalation because you do feel that you're rewarding challenging behaviour, which you're not because you don't let it get to that stage. Also, the older members of staff in particular – I was raised 'you respect your adults' – and if the adult says jump you jump! **Ok.** And the way we deal with children now is very different in every aspect in life. So just because you're the adult, you're

not right. And for some of the staff it's taken them a long time to recognise that actually, we shouldn't be speaking to children like this and it does work this way. So I can't really think of one particular incident. Although, when [pupil] originally calmed down, and things were getting on a more even keel with him, there was one particular day where he wouldn't do his work – he was distracted by [staff] working in the classroom. **Ok.** And he wanted to go outside, and he knew that if he went into crisis that he'd end up on the playground. And [staff] said that was fine but he still had to do his work, and she sent his work home with him, so he was learning that 'it's ok for me to go on the playground now, but I've still got to do my work' and it was him having the understanding that that was still going to happen. But [staff] stopped a crisis because he was going to do that. And people do de-escalation and don't know they're doing it. I think the whole ethos in school is good that way. **Ok, thank you. Right, unless you've got anything else that you want to add?**

No I'm going to stop talking now!

Well thank you very much for your time.

Appendix 16

To what extent do you think the young person is responsible for their behaviour?

- Repetitive behaviours - sensory? Person responds in these ways due to frustration (grabbing, squeezing, pinching, grinding teeth etc) therefore behaviour can spiral very quickly. Lack of understanding. Lack of communication. Not being cued in to end of task/change of activity. Being shouted at by other staff - situations not being explained - lack of tolerance?
- The child uses task avoidance and some behaviours when he does not want to do something. However, sometimes he is in 'crisis', very unfocussed and struggling - not in control of behaviours.
- When I take this student out on inclusion, she sometimes reacts inappropriately (verbally or by rocking repetitively) in response to the behaviours of her peers she works closely with. She cannot, I feel, help herself to control some of her actions and will often laugh out very loudly in class. With a calm and firm tone of voice by the teacher or by myself, will soon calm down.
- Due to this student being ill all the time it could have something to do with outbursts

- Sometimes his behaviour can be triggered by noise but other times noise does not seem to be the trigger, it just depends on what 'mood' he is in that day! Sometimes no one knows what has caused his aggressive behaviour
- It's difficult and something that needs improving. I think people still believe that 'time-out' to debrief is a sign of weakness
- Most incidents occur when there is a change of routine
- Seeking sensory stimulation constantly. Explores with his mouth to the point of hurting his gums and teeth. Likes hair pulled, asks for hair to be cut! Doesn't hurt other children, challenging behaviour geared towards staff/adults
- Very difficult to know if child in pain
- Visually impaired - needs to be cued into different activities etc. Often requires to sleep during the day - night time waking impacts onto daytime behaviour
- Difficult to answer this - may be bored - might be condition - might be to get a response

- I FEEL THAT QUESTION 3 IS FLAWED. THERE MAY BE CONTRIBUTING FACTORS WHICH TRIGGER OR SET OFF BEHAVIOURS IN THE YOUNG PERSON BUT I WOULD SUGGEST THAT A SLIDING SCALE OF RESPONSIBILITY FOR ACTIONS IS DIFFICULT TO APPLY. EITHER A PERSON CAN TAKE NO RESPONSIBILITY FOR AN ACTION BECAUSE THEY CANNOT STOP THEMSELVES DOING SOMETHING SCORING 0 OR THEY ARE RESPONSIBLE FOR THEIR ACTIONS ALBEIT THERE MAY BE MITIGATING CIRCUMSTANCES.
- This question is extremely difficult to answer as it seems to imply blame for the behaviour. The behaviours that challenge us as staff have a function for the pupil e.g. communication/sensory and are part of the ASC/ASD. Whilst the behaviour is the pupil's, the level of understanding means he is not aware of the consequences of the behaviour e.g. bruising after self-injury
- Some behaviour pupil is responsible for e.g. dropping to floor, pinching, scratching to gain a reaction/work avoidance. Sometimes these behaviours (& biting) is out of pupils control as he becomes VERY stressed as he is incredibly sound sensitive. Wandering and repetitive behaviours are part of his SLD and autism and difficult for him to control due to his level of learning difficulty

- Everything is a game and attention seeking. Once the tantrum starts it is very difficult to get him back - he becomes extremely distressed and upset
- Dependant on home situation - how anxious a parent may be
- We can usually see the triggers before a big kick off, but can very rarely stop it. He is taken out of class to a safe area away from children and furniture. With lots of calm talking and cuddles (if he will let you) he can usually calm in around 10-20 minutes
- He has a diagnosis of ADHD and also has type 2 diabetes - his blood sugars are still unstable. He also has a chaotic home environment
- Inexperienced parents - no other children in family. Parents not yet accepting of the particular needs of their child - still feeling that their child will outgrow his difficulties. Only just beginning to engage with other professionals. Very few boundaries at home, parents still do a lot for child
- To gain attention. Showing off to new people
- This child is struggling with emotional behaviour at present due to home circumstances and situation

- Chosen student finds sitting still difficult but is not diagnosed ADHD
- Attachment disorder. Very difficult to restrain. Physical aggression if restrained. This child tries very hard to comply. When things are wrong in his head he finds it impossible to manage. Seeking ASD diagnosis.
- This child becomes very frustrated if not given enough processing time and reacts strongly against a strongarm attitude - at these times I don't think he can be responsible for anything
- Because of the specific needs of this pupil (ASD, EFL) managing can be difficult as communication is so limited. Some words and gestures = lots of guessing
- Child has Fragile X which has many features of ASD and is on a low developmental level. Child has one to one adult supervision throughout the school day in a small class of 9 children, 6 adults. Adults trained in MAPA to deal with all children and he has improved over a year
- The child in question uses some of the behaviours as a way of communicating so he is responsible however often they are when there is a change of routine or when he doesn't understand so in these cases he is showing anxiety which he can not control. So it was difficult to answer 0-7 each case could be marked differently

- Find this part of the questionnaire hard to answer. Pupil is severely autistic so hard to say how aware he is of what he is doing. However, when he has hurt people he will stroke them and say 'gentle' so does have some understanding.
- Frustration due to others
- Has ODD so non-compliance etc not always his fault. Aggression to others can be deliberate and attention seeking

How much training have you received? Which approaches are used?

- Use of 2 staff members
- Moved to a larger space
- Medication used at home. Not react to challenging behaviour - don't use words such as 'No', 'Stop'.
- Medication used at home
- Medication used at home
- Medication used at home
- Mum has implemented a gluten free diet. Have looked into Autism Assistance Dogs independently. Think this and pets/animals as therapy should be an area we look into as a school.
- She has a PHP which we are to follow and adhere to when she displays challenging behaviour. Diversion and de-escalation is the most effective way of dealing with any challenging behaviour as they often prevent or reduce the situation from 'getting out of control'

- This pupil has responded brilliantly to a communication book (created by the communication team) but used in school to let the pupil know what's happening now and next
- Taken to sit outside and calm down
- Music therapy = iPod? Moving to sensory timetable, more sensory activity, early warning signs are exhibited by this pupil, need to intervene early, very able student when stimulated.
- Training is usually in-house with basic knowledge. Staff have been trained in some areas and are available to give advice and support
- Use of tactile cues
- Staff are trained in adopted version of PRICE for positive management of behaviour that may challenge. Communication strategies are frequently key to reducing incidents - as are sensory issues
- We use positive reward strategies. Also avoiding putting this child with one he is obsessed with ie, hitting kicking. He responds well to being spoken to calmly and being signed to with symbol supports for understanding.

- I HAVE NOT HEARD OF A LOT OF THE ABOVE STRATEGIES HOWEVER, WE CONSTANTLY TALK TO THE YOUNG MAN AND HE DOES UNDERSTAND ESPECIALLY WHEN CALM
- The strategies ticked above are used in school but not directly with the student I had in mind
- Important for staff to be consistent in behaviour plan. Support from home to achieve consistency across settings. Some behaviours linked to sensory function (OT referral)
- Would use Social Stories but not able to access them due to his level of learning difficulty
- Daily use of signs symbols, photos, and pictures to show now, next or where he is going if moving out of the classroom. Music cues are also used to help with the daily routine, including finished, hello, goodbye and clean up time
- Behaviour plan shared with home. Residential - short stay. Multi-disciplinary team. Consistent boundaries. Support from children's behaviour team.

- An attachment approach is used - we talk through his emotions and let him know we acknowledge them - use calming techniques such as massage
- Occasionally 1:1 is used to engage him in play to distract him from the other children at play
- he responds well to structure and a consistent approach from all staff involved with him
- Through talking through exactly what we expect of him and what will be happening next. He does become anxious so a visual timetable supports him to understand what is happening next or where he is going at the end of the school day.
- Social Use of Language = Elkan. Calm talking and Team Teach de-escalation technique
- Using Team Teach ethics - calm, caring, consistent and positive
- Aspects of TEACCH
- Consistently proactive in class using a highly experienced team

- 2:1 staff support, short achievable tasks, visual timetable, breaks for physical activity
- MAPA
- Social story to go swimming. TEACCH - schedule strip, visual timetable, work/reward. PECS phase 5 throughout the day
- Managed using ASD behaviour plan with strategies that all staff consistently follow. Symbol strips are used for daily schedule consistent with TEACCH approach so that pupil knows what to expect next and when rewards will be allowed.

Appendix 17

Thinking about the types of challenging behaviour that you experience, how are you supported in managing challenging behaviour?

We get SCIP training. Not that much from the top down, but probably more from within your class teams maybe.

And heads of department. We've had lots of meetings in the past. That's been quite helpful – we've had some positive feedback afterwards. I've worked with the assistant psychologist constantly about challenging behaviour, and also the educational psychologist.

Do you think that worked well in supporting you with challenging behaviour?

I don't think honestly that they offered us much. I think we worked better as a team thinking of decisions, and whether they were right or wrong they seemed to work. The assistant Ed Psych wasn't that forthcoming with ideas, but he was always willing to be there and support us in a supportive role rather than an advisory role.

Often feedback is never given to the SMT which has a knock-on effect to the classroom because we couldn't go to them because they didn't know anything about it – so it's about sharing information.

When working with a young person with challenging behaviour, what kind of things do you think are important when deciding upon strategies to use with them? ... Are there any factors that make it easy to

implement strategies, are there any things that make it difficult to implement strategies?

The difficulties I remember are about the rules – when we had a behaviour plan – we couldn't do certain things. We couldn't discuss as a team what we wanted to try and implement it straight away. We had to wait at least a week before it went through all the checks before we could then implement that into the classroom. It's far too long when you're trying to control behaviours. It's our idea, we're the ones going to be implementing it, and nobody helped us anyway, so what was the point waiting for it to be checked just to come back with a yes?

Parents are quite supportive with us, because we always keep an open dialogue with the parents. So if parents are in agreement I think that team should be able to make a decision. Have maybe the educational psychologist or somebody in to say yes or no but for it to take a week to get cleared is just far too long for the child and for the staff – for them to be controlling that kind of behaviour.

So how would you talk to parents about it?

Phonecalls. In the case that I'm talking about it was daily phonecalls. The parent was supportive. Whatever we felt was best for her child she was supportive. And use some of those strategies herself at home, because if they were working in school she wanted to know about it.

That leads me on to another question then. What I want to do is give a couple of examples, case studies, and ask you what you think is a

strength of what I describe, and what are any weaknesses of the support described.

(CASE STUDIES PRESENTED ON SCREEN)

Ok, Case Study 1 then. Any strengths or weaknesses?

I think it's great that parents were involved, because obviously it's their child, that they are kept up to date with all the information that's going on and they can let school know how he's been at home. So that dialogue's great isn't it.

I was going to agree with that. That was the first thing I picked up on.

The meetings, six weeks, I think that's too long. That's my opinion. I think it should be something weekly, and then it can be increased to two weeks or three weeks. I think six weeks is just too long. The multiprofessionals need to be available. This is something that when I went to a school in Canada they had everybody on site, so it wasn't done in six weeks time – it could be done there and then. They could pull an emergency meeting like that and that's what they need.

If I think about pupils I've worked with it can be, like, a half-term or more. Behaviours can change so drastically and sometimes you might only meet twice in the year. I think people need to know the child a bit more. Perhaps work with them a little bit more. Come into the classroom rather than just have a meeting because you've only then got the input of staff and people need to see these behaviours and a lot of the time they don't.

Behaviour records, that's good. And the time out room. I do think children with challenging behaviour need to mix with other children other wise they just get isolated in their own little world, and I do think they should be integrated, even

if it's like ten minutes per session and then taken out. I do think they need to have other social contact.

Ok, second case study then...

I like the bit where they all meet to review the behaviour plan. Because at least they all know, they're working with the child, and as he's changing positively or negatively. And with the logging of bad behaviour only, I don't know if there's a reason for that or not but I think everything should be recorded, and that would help with those weekly meetings then wouldn't it.

I think that when it's that bad it should be daily though that people are debriefing. Because it also helps the staff just let off steam, to get together and talk about how things have gone that day, I think once a week is not enough if a child's that bad. It needs to have a daily meeting where staff can sit together and discuss what issues are arising and how we can avoid those happening the next day.

And the parent contact, again that was a strength because they couldn't come in but they rang them every day so that's good.

And staff shouldn't be getting hurt. Once it gets to that stage, it should be almost like a traffic light system and when it's red we need to sort this out now, we can't have – too many staff are getting hurt and it's not fair on the staff, their family. And for the child, it's not good that they've got that aggressive that they're putting people in hospital.

Ok. Final case study then. Again strengths and weaknesses...

I think teachers can just be like, 'oh I know everything', but they don't! They need to be asking other professionals. Fine, they're working as a team but they need to ask the other professionals.

It could be hormonal, I mean there are lots of factors there at that age for a girl. So I do think you need to get advice straight away from your nurses and all your professionals. If it's the class teacher, that's just one opinion isn't it. Even if you did get somebody in and they said what you're doing is right you need to get back up and second opinions. And with parent contact, if parents aren't willing to, I think you need to go down the road of exclusion because if you're not going to be working with us then this is what's going to happen. I know it's quite hard but it would make those parents sit up and...

And it would benefit them anyway wouldn't it.

If your child's hurting somebody you need to know about this and it's not good that it's ... if you haven't got a good relationship with the parent the child's not going to get any better is it? You've got to be recording things. If it is hormonal, you know, once a week or once a month or whatever it is you can pick up on a pattern then.

Yeah, and you can't remember things in the long-term ...

You might need medication, she might be in pain. There's lots of things and how else are you going to get to the bottom of it?

Thank you. Moving on from case studies then, picking up on a couple of things which you've mentioned already – specifically how home and school work together, how closely do think school work with parents at the moment?

I think I'd like to see them more really. We have home school diaries...I don't think we have enough really. We have one half hour session every term and I just think that's rubbish, especially when our parents are so good that they would come.

The parents write in regularly and that's really good. It's because we put in the time, we put in the effort. We ring them, if there's a problem with any of the children I'm quickly on the phone, quickly.

As a parent you think, I'd like to know that myself. You know, my child's fallen over a couple of times and I haven't known about it and I've had to ring the school up. And if the school let me know, it's my decision then and I think the parents are the most important people in this role. As well, parents don't see all staff – they only see the teacher, and I think I'd like to know what the people are like working with my child.

If it's a staff meeting we could just have a twilight session and meet?

Or I know some school that put a show on, a puppet show, and the parents can then go and talk with staff. Rather than do it at the end of term do it at the beginning so parents can see all the staff they're working with.

Because it's not like teacher and TAs, it's more like a team and it would be more useful if they just saw the team. Like [pupil], if his parents come in and ask me what he's done I don't know! I just don't know!

It's important when our children have got special needs that the parents know exactly who they're working with.

But they should be made to come in because I've not even met some of our parents, a couple of parents. I've spoken to them but I've never met them face to face and that just irritates me because they should make the effort.

But they don't promote that enough in special schools.

And they're like 'well the child's got special needs, we can't put any more on them. We can't push them to come into school'. But you should be because they've got special needs. It's more important.

So similar question then, but this time instead of thinking about how home and school work together, thinking about how other professionals work with you?

I'm quite happy to go and approach all of them and email them all.

But I don't think they're that fast in working and to get back to you. And I know they've got a big caseload.

There's not enough of them. I mean Speech Therapist, in a special school, should be more than one and a half days per week, they should be in full time. Our children deserve more, there should be more speech and language therapists. Not sure about OT, I think they're a waste of space. They just give chewy tubes and you're like 'great, thanks for that'.

And they just sit in their office all day. Never actually doing anything, like any programmes.

We have a pupil who is now doing Rebound. But the occupational therapist never told me that. I had to go and research it myself and thought I'll see if I can get him on. She didn't come to me and say 'Fragile X syndrome, this is good for him', it was me that went to the intervention team and said look, I've read this, this is what's good for children with Fragile X, can he go and they said yes. But the OT didn't know. And like with physios – the children can't be ill on a Friday because there's nobody there to help! They should be full time.

Again, in the school system in Canada there was a bank of people and you could just buzz them. And that's what systems need to be in place here.

The educational psychologist, that takes weeks to see her – she only comes to school once per fortnight, and then the assistant ed psych isn't trained enough so they need to be training. That's not his fault. But somebody should be pushing training for him so he's got advice to go back to question 1 where we said 'do you get good advice?' – well there is support but they don't have the knowledge. So if you're going to get assistants to do the role of the 'big people', the 'main people', if you're going to get assistants in to do the programmes then they need to know exactly what they're doing, or at least know where to find the information. So that might be more helpful.

It's like, the assistant ed psych has given all the sheets we need but he hasn't come back to review anything with us. He hasn't come back to me and said anything.

And the speech and language assistant hasn't got any qualifications. She doesn't know anything!

Yeah, I've got two qualifications in that area, in speech and language, yet she comes in and takes the children out to deliver those programmes! They need to use people's skills a bit more don't they in special schools.

As well, school staff should be better educated. They shouldn't be writing in block capitals. Like this one member of staff is delivering speech and language programmes but if you ask her any advice she has no ideas at all and has to just go and ask the speech and language therapist but if they're not in, that's useless to us. Yeah, more training!

Thank you. Last question then. Thinking about when you settle on a strategy, whether that's as a class team or it's advice that's given to you. Do you think it matters if you use a strategy in school that parents can't use at home for any reason, and vice versa, do you think it matters if parents are using strategies at home to help with challenging behaviour that you cant use in school for any reason?

Hmmm, it would help if you could use it in but but...

I think consistency is important. But how I deal with my own child at home is different to how I would deal with children at school. It all depends on the environment doesn't it. It's completely different at home isn't it.

I guess if they've got a strategy that works at home, that's fine. If you've got one that works at school, that's fine. If it's not consistent but it's working – at least parents are trying something.

And if they tell us about it. Some of the things they do at home we can't do at school for legal reasons, or health and safety reasons. Like if a parent straps a child into a chair to eat for instance, that might be something we can't do, so. I think that's ok, because they're spending the majority of time with that child, and if that's how they cope, if they're coping. If they had more support at home from outside agencies, that might be good.

As long as it's not harmful.

In school then, if there was a strategy used that parents hadn't been made aware of?

But why wouldn't parents be told about it? Parents should be told shouldn't they. If somebody is doing something with my child I want to know about it. As

I said earlier in the interview, they're the most important person and they need to know everything that's going on with the child.

Yeah, you can question the school more than you can question the home.

Yeah.

Yeah, if you can't justify why you're doing it, or if you feel bad telling a parent, then generally it's not good is it? And then you shouldn't really be doing it. Or if you feel uncomfortable with doing something.

Yeah.

If you feel embarrassed doing it elsewhere. I've been in that situation just today, I tried to, just grab a boy for his own safety and afterwards I thought 'I don't know if I should have done that'. But I know why I did it – I did it to try and stop him from hurting himself. But if I'd have watched myself do it, I don't think I'd have been that impressed. And I don't think anyone would have been that impressed. But I do know that I didn't hurt him and I had just tried to stop him, but I should have just let him go.

But it's justified then, if you're doing it for the child's safety – you're allowed to use emergency action.

And there was somebody else in the room, and she said 'no, no that was fine'. But you shouldn't force a child to do anything against their will. You should say to the parent, 'look, I'm sorry, we tried but this was the outcome of it'. I don't think that staff should be afraid to say 'it's failed', or 'I do feel uncomfortable. Actually I'm not going to do this'. And you need to be supported by senior management then. There are a few SCIP moves I don't like using, so I don't use them. If a child's on the floor, as long as he's safe, if you're happy, as long as he's safe he will calm down won't he.

That should be expressed more I think. It should be more open. Just leave the child, just leave them.

So no I don't think you should if you're uncomfortable, but I do think there is a lot of pressure on staff to get things done.

Appendix 18

SPACE component	Required aspects
[S]upportive systems for staff	<ul style="list-style-type: none"> • Debriefing • Training • Regular structured team meetings to develop shared understanding of behaviour
[P]ersonalised intervention plans	<ul style="list-style-type: none"> • Eclectic approaches (Training in a range of interventions) • Regular structured team meetings to review plans
[A]ctive involvement of families / carers	<ul style="list-style-type: none"> • Open lines of communication • Involvement in planning of interventions • Designated lead professional / long-term co-ordinator • Psycho-education programme for parents (Cappe <i>et al.</i>, 2011)
[C]ollaborative multi-agency working	<ul style="list-style-type: none"> • Open lines of communication • Involvement in planning of interventions • Fast response • Designated lead professional / long-term co-ordinator • Shared framework / conceptualisation of practice
[E]ffective monitoring and review processes	<ul style="list-style-type: none"> • Regular systematic data collection process • Regular structured meetings to analyse data as a team

Table 11: Identified aspects of each component of the SPACE framework identified through the research as being required.

- During implementation of the interventions, the level of input received in each of the five components was measured as follows:

[S] – Number of debriefing sessions, pupil-specific training sessions and class-team meetings was recorded.

[P] – Number of new intervention techniques introduced and utilised was measured.

[A] – Number of meetings with parents/carers was recorded.

[C] – Number of multi-professional meetings with or without parents present was recorded.

[E] – Number of recording charts and incident reports completed within school was recorded.

- These were then ordered by rank in terms of level provided.

Appendix 19 – Future research areas

SPACE component	Future research area
Supportive systems for staff	<ul style="list-style-type: none"> • Attribution theory vs competing theories (Ajzen, 1991; Hastings & Brown, 2002). • The use of debriefing systems. • The impact of training in evidence-based approaches on staff attributions.
Personalised intervention plans	<ul style="list-style-type: none"> • Development of evidence-base of approaches described in Appendix 3.
Active involvement of families / carers	<ul style="list-style-type: none"> • Exploration of models such as that described by Cappe <i>et al.</i> (2011).
Collaborative multi-agency working	<ul style="list-style-type: none"> • Evidence to substantiate the role of multi-professional working in social validity of support.
Effective monitoring and review processes	<ul style="list-style-type: none"> • Evidence to substantiate the impact of recording and data analysis on staff attributions.

Table 12: Summary of future research areas.



Challenging Behaviour & Autism

Parent and school staff focus group

Gary Lavan



Question 1

- **What factors are important when deciding on strategies for supporting a young person with challenging behaviour?**



Question 2

What are the strengths/weaknesses in the following example....

BACKGROUND

- Male, aged 8 years
- Severe challenging behaviour – daily occurrences of school property damage (breaking windows and doors), physical assaults on staff (biting, spitting, hitting and kicking) throughout the day, daily incidents of targeting other young people (biting, hitting, kicking).

INTERVENTION

- Formal parent meetings set up in school every 6 weeks
- Informal chat with parents at start and end of each day when pupil dropped at school/collected
- Assessments conducted by EP, CP, OT, SLT
- Dedicated staff team set up to support on a rotation basis
- Focus on increasing access to activities young person enjoyed to help build relationships with staff
- Long term goal to re-integrate into classroom
- Withdrawal room used in severe instances, where pupil left to calm
- Behaviour levels logged by staff and reviewed by all staff weekly to monitor progress
- Data shared with parents and professionals at 6-weekly meetings



Question 3

What are the strengths/weaknesses in the following example...

BACKGROUND

- Male, aged 14 years
- Severe challenging behaviour – weekly occurrences prolonged physical assaults on staff (scratching, hitting and kicking) typically lasting 30-60 minutes

INTERVENTION

- Informal telephone discussions with parent at end of each day
- Assessments conducted by EP
- Behaviour plan developed that removed demands from young person, providing choice in which activities were attempted
- Regular meetings of staff team to discuss behaviour plan
- Focus on increasing access to activities young person enjoyed to help build relationships with staff
- Long term goal to re-integrate into classroom
- Behaviour levels logged by staff and reviewed weekly to monitor progress



Question 4

What are the strengths/weaknesses in the following example...

BACKGROUND

- Female, aged 11 years
- Challenging behaviour – daily occurrences physical assaults on staff (hitting, kicking and biting) occasional incidents of targeting other young people (hitting, kicking).

INTERVENTION

- Formal parent meetings offered every 6 weeks, declined by parents
- Assessments conducted by EP, CP, advice not used by class
- Focus on removing young person from the environment when challenging behaviour occurred
- Records of behaviour kept infrequently in school
- Teacher and EP meeting every few weeks to review progress



Question 5

- Are there any other factors you think are important for supporting a young person with challenging behaviour?

Figure 19: Focus Group presentation

Appendix 21 – Thematic Analysis

The qualitative data collected in Paper 1 and Paper 2 were subject to thematic analysis. The process used and described below was adapted from that described by Aronson (1994).

Performing the thematic analysis

Thematic analysis focuses on identifiable themes and patterns of living and/or behaviour. Ideas emerge which can be better understood following a thematic analysis.

Step 1 (collect the data). Audio recording of the interview

Step 2 (transcribe the conversations). Interview conversation transcribed (see Appendix 15 for example transcript).

Step 3 (list patterns of experiences). This can come from direct quotes or paraphrasing common ideas.

Step 4 (identify all data that relate to these patterns). The next step to a thematic analysis is to identify all data that relate to the already classified patterns.

Step 5 (combine and catalogue related patterns into sub-themes). See Table 3, Appendix 7 for an example of how these sub-themes were categorised. Themes are defined as units derived from patterns such as; conversation topics, vocabulary, recurring activities, meanings, feelings, or folk sayings and proverbs.

Step 6 (form sub-themes into comprehensive picture of collective experience). Themes that emerge from the informants' stories are pieced together to form a comprehensive picture of their collective experience. See Figure 7 (p. 37) for an example of such a comprehensive picture.

Step 7 (build a valid argument for choosing the themes). This is done by reading the related literature. By referring back to the literature, the interviewer

gains information that allows him or herself to make inferences from the interview. See Appendix 1 for Literature Review.

Step 9 (develop a story line). Once the themes have been collected and the literature has been studied, the researcher is ready to formulate theme statements to develop a story line. When the literature is interwoven with the findings, the story that the interviewer constructs is one that stands with merit. A developed story line helps the reader to comprehend the process, understanding, and motivation of the interviewer.

Appendix 22 – Semi-structured interview procedure & schedule

Procedure for semi-structured interviews

1. Select 8 staff from respondents to be interviewed
2. Make contact to arrange suitable time
3. Conduct interview using the schedule below to structure the conversation

Semi-structured Interview Schedule

1. Confidentiality and anonymity
2. Is it ok if I record this interview?
3. Tell me a little about how your class runs...
 - a. How many children, how many staff...
 - b. What autism-specific approaches are you aware of?
 - c. Do you use these in class?
 - d. How much training have you received in these approaches?
 - e. Is there anything that makes it difficult to use these approaches?
 - f. Do all staff use the same approach?
4. Tell me a little about the types of behaviour you experience in your class...
 - a. Is this the same as in other classes around school?
 - b. Has it always been like this?
 - c. Are there any behaviours you find particularly difficult to manage?
 - d. What strategies do you find particularly useful in managing challenging behaviour?
 - e. Is there a difference between managing behaviour and preventing behaviour?
5. Thinking about the challenging behaviours you have described, could you tell me a little about why you think they happen?
 - a. Why do you think some behaviours continue to happen on a regular basis?
 - b. Do you think anybody is at fault or responsible when these behaviours happen?
 - c. Would all of your class team agree with you?
 - d. Do you think that anybody is to blame for any of the challenging behaviours you have described?
6. Could you tell me your thoughts about how young people with challenging behaviour are supported in school?

7. Could you tell me a little about how staff are supported in managing challenging behaviour?

8. Can you think of an example of when you or somebody else has done something really useful to help support a young person with challenging behaviour?
 - a.

Thank you for your time. Your answers will be really valuable for this piece of research.