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(Professional Qualification)

Occupational Therapy Project 4

Module: OT6054

“An investigation into the behavioural differences children with autism display between the home and school environment: Parents’ Perspectives”

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An investigation into the behavioural differences children with autism display between the home and school environment: Parents’ Perspectives

Abstract

Children with autism can have difficulty demonstrating appropriate behaviour as a result of their diagnosis, causing frustration to both themselves and their care-givers. Despite growing knowledge of behavioural difficulties associated with autism, relatively little is understood about how these behaviours transfer across settings.

This study aimed to investigate whether parents identified a difference in their children’s’ behaviour between the school and home setting, and to explore potential variables reported.

A questionnaire was drawn up to address the purpose of this study and completed by parents of children with autism. Results found that the higher proportion of participants (52%) believed their child behaved better in the school environment, 44% suggested their child behaved the same in both these environments and only 4% indicated behaviour to be better in the home environment. Variables including; parents’ marital status, child’s age of diagnosis, type of school and use of visual schedules are all examined.

This study further highlights the importance of examining the client’s context as part of the occupational therapy process and understanding the client in his/her multiple environments both when assessing and providing interventions.

Further research should take a qualitative form to gain a more comprehensive insight into the behaviour of these children across settings.
Introduction

Autism spectrum disorder (ASD) is a neurodevelopmental condition whose prevalence is increasing globally (Newschaffer et al, 2005) and its presence is more prevalent in children than Down syndrome, diabetes, spina bifida and cancer (Filipek et al, 1999). The current DSM-IV states that in order for a child to qualify for an autistic disorder diagnosis they must meet all of the following criteria; (1) a qualitative impairment in social interaction, (2) qualitative impairments in communication, (3) restricted, repetitive, and stereotyped patterns of behaviour, interests, and activities (American Psychiatric Association, 2000).

Children with autism exhibit certain behaviours relating to their diagnosis which can be both challenging and problematic (Clements & Zarkowska, 1995) such as; temper tantrums, obsessional and repetitive behaviours (Dickinson & Hannah, 1998), hyperirritability (Lecavalier et al, 2006), along with many others. Common characteristics such as impaired social skills and a difficulty with adapting to change in routine can cause additional difficulty in the daily lives of these children. These characteristics and behaviours can prove to be difficult for both parents and teachers alike. However, the debate as to whether the child behaves better at home or at school, and the reasons for this is an area which has not been fully explored. While there has been non-researched speculation that a child with autism behaves better in school (National Autistic Society, 2010) than at home it still remains an area that requires an evidence-based investigation. This is necessary in order for therapists to understand how a change of environment can affect their clients’ behaviour and in turn, influence their ability to participate in occupation.

The objective of this research is to explore this debate by considering whether parents believe there to be a considerable difference between their child’s behaviour in school compared to at home. It will also attempt to identify variables between both environments which could present as factors influencing any such differences that arise.

If this research finds there to be a true discrepancy between environments it would further support the importance of providing therapy to children in various settings (Hanft, 2000)
and how different environments can affect a client’s occupational performance (Law et al, 2001).

**Literature Review**

Generally autism is not diagnosed until the child is at least three years of age as it is hoped the symptoms will fade out over time. However, it has been found that an early diagnosis has many benefits (Moore and Goodson, 2003) for both the child and family alike; involving the child’s behaviour, the child’s ability to perform at school and overall task performance. Chung et al (1995) found that children with autism, who are not diagnosed early, may be referred to inappropriate services and programmes which do not accurately cater for their particular needs. It has been found that early intervention services are a success and produce valuable results for these children (Rogers, 1996). In Roger’s (1996) study, these early intervention programmes resulted in significant IQ and language gains, improved social behaviour and decreased symptoms of autism (1996; 243) all of which could result in the child performing better in school.

There has been significant research investigating behavioural problems associated with autism (Gladow et al, 2005; Tonge et al, 1999; Horner et al, 2002), which can have negative effects on the child’s overall behaviour at home and in school. Observable behaviours of children with autism can be indicative of sensory processing difficulties as measured by the Sensory Profile measure (Dunn, 1999). It was found that sensory processing patterns have both universal qualities and context-specific qualities in children with autism (Bennett Brown & Dunn, 2010) when examining both the school and home context.

Occupational therapists are concerned with examining a client’s performance in their various occupational environments and understand that the physical, social and cultural environments can affect a client’s ability to perform occupations (Creek, 2010; Law, et al, 1996). It is therefore understandable that occupational therapists aim to assess and implement interventions in the client’s own environment (CAOT, 1991). Considering the
importance of the environment on occupational performance, it is essential to understand both the home and school environment when providing therapy to a child with autism.

A paper by Szatmari et al (1994), aimed to investigate the level of agreement between parent and teacher scores of psychopathology in children with pervasive developmental disorders (PDD). It was found that parents reported more autistic behaviours than teachers when completing the Autism Behaviour Checklist (ABC). The researchers presented 1) the stress of the mother, and; 2) the child’s educational placement to be two variables that had significant associations with the difference in scores. Other issues such as the school environment being more structured and parents having fewer resources at home to control behaviour were suggested to further account for the discrepancy in autistic behaviours reported between parents and teachers. Szatmari et al’s (1994) study also suggested a reason for caution when collecting information from several informants.

As parents are an important part of the paediatric occupational therapy process (Duncan et al, 2010), it is critical to examine their view of their child’s behaviour between settings, rather than only examining behaviour at school from a teachers point of view. Szatmari et al’s (1994) study found during informal interviews with the parents, that there was an agreement in behavioural discrepancy across settings, however, this was an anecdotal finding and the authors suggested more research be done on this area. This supports the purpose of this research to assess the behaviours of children with autism between settings from solely a parent’s point of view.

**Methods**

**Purpose**

The purpose of this study was to investigate whether the general behaviour of a child with autism changes between different physical environments. As children spend the majority of their time between both the school and home setting, it was deemed essential by the researcher that these be the environments examined. The study also attempts to
understand what factors may influence this change between settings, if in fact a considerable difference arises.

Participants

It was firstly proposed by the author that both the teachers and parents of the children would be involved but later dismissed due to previous studies having taken this approach and suggesting there to be a discrepancy between informants (Szatmari et al, 1994). They presented of possibility of reasons for the discrepancy including; 1) unique, non-accessible information which is not of knowledge to the other participant, 2) lack of agreement between the informants, 3) biased responses by one informant, 4) different perceptions of what is considered normative, 5) different characteristics of the informants. By using one informant per child, the researcher hopes to eliminate some of the above speculations for the discrepancies between the informants and identify the differences in behaviours from a one informant only point of view.

It was decided in order to assess the behaviours of children with autism, someone close to the child who spends time with them on a regular basis would be essential. Glascoe (1998), found parents to be the people who know their children best and also recognises parents as the main interventionists in their children’s lives. For this reason, it was determined that parents who have a child with autism were to be included in this study.

Inclusion and exclusion criteria: Participants can be of any gender, they must be a parent to a child who has a diagnosis of an autistic spectrum disorder who is currently enrolled in and attending school, the child may be in either pre-school, 1st or 2nd level school and may be either attending a mainstream school or a special school. The exclusion criterion was any participants under the age of 18. If both parents of the same child were present at the place of recruitment only one questionnaire was provided to be completed.

Recruitment: Participants were recruited from a local parents’ support group for families of children with autism in the Irish midlands. The researcher attended a monthly meeting within this service and informed the attendees of the research study, what was involved and their option to participate. Twenty-nine individuals were present at the meeting, two were
excluded due to them representing a child who already had a representative participating in the study and one individual refused to partake. Twenty-six participants were recruited in total.

Data Collection and analysis

A quantitative research method was chosen to answer the research question because it provides information that is comparative (Millard, 1991) and it also aims to eliminate bias and error (Firestone, 1987) and avoids reflexivity (Taylor, 2000). The questionnaire form of research maintains both the confidentiality and anonymity of the participants as names or other forms of identity are not included. As examining a child’s behaviour can be a sensitive topic to the child’s parents, questionnaires were chosen as they are less intrusive than qualitative methods. The Questionnaire was developed by the author to address the purpose of this study in compliance with best practice principles for minimising bias, enhancing precision and to contribute to the reliability and validity of the measure (Weisberg et al, 1996). Thirty questions made up the questionnaire (appendix B) including one key open ended question to add a qualitative aspect to increase the depth of the data (Taylor, 2000).

Responses to the open-ended question were subjected to a thematic analysis while SPSS (Statistical Package for Social Science) Version 19 was utilised to generate descriptive statistics for variables of interest.

Ethics

Ethical approval was sought and attained from The University of Limerick, Education & Health Sciences ethics committee (EHSREC). Questionnaires were accompanied by cover letters (appendix A) explaining the research and principles of informed consent to participants. Participants were informed of their right to refuse participation. They were also provided the option to leave questions blank, if they were too sensitive to the participant or if they did not wish to disclose particular information.
Reliability was achieved by piloting the questionnaire to three individuals to ensure it was comprehensible to the identified sample and that it accurately collected data required to answer the research question. Issues of validity often arise with a self-reported questionnaire (Taylor, 2000), however, as they are anonymous, participants are encouraged to answer the questions truthfully which in turn, increases the validity of their responses.

In accordance with the Data Protection Act (2003) the researcher takes full responsibility for ensuring electronic data is stored on a password protected computer and questionnaires are stored in a locked cabinet. As outlined by the ethics committee, questionnaires will be kept for seven years and shredded on the 31st May 2019, while computer files will be deleted manually.

**Results**

Twenty-six participants in total were included in this study, providing information relating to their child with autism. The questionnaire collected demographic information relating to the child and found, 77% of the children to be male and 23% female which is broadly in line with recent research suggesting autism affects boys about 4 times more often than girls (Rubenstein & Merzenich, 2003).

**Fig 1- Histogram representing current age of the children**

The mean age of the children included in this study was 7.9 years old while ages ranged from 4-15 years of age (Fig 1). Out of the twenty-six children, six of them were currently in Montessori or pre-school, seventeen were attending primary school and the remaining three children were in secondary school.
Table 1 below, represents the age at which the child was diagnosed with autism. The majority of children were diagnosed between 3-6 years old (58%) but a surprising 15% were diagnosed under 3 years with 27% having been diagnosed after the age of 7.

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 3 years</td>
<td>4</td>
<td>15%</td>
</tr>
<tr>
<td>3-6 years</td>
<td>15</td>
<td>58%</td>
</tr>
<tr>
<td>7-10 years</td>
<td>7</td>
<td>27%</td>
</tr>
</tbody>
</table>

A majority of 54.17% of the children are currently attending ordinary classes in mainstream school while a further 33.33% were also attending mainstream school but were in special classes within the school. A smaller 12.5% were attending special school instead of mainstream school (Fig 2).

The results from the questionnaire illustrate that parents believe their child to behave either better in school (52%), or to behave the same in both settings (44%), while only one participant, or 4% believed their child to behave better at home (Fig 3).
An interesting finding came from additional results showing that the eleven participants who found their child to behave the same in both settings were children whose parents either strongly agreed, agreed or remained neutral with the statements “my child generally behaves well at home” and “my child generally behaves well at school”.

Table 2

| Where is child better behaved | Count | Marital status | | | | | Total |
|-------------------------------|-------|---------------|---------|---------|---------|---------|
|                               |       | Single | Married | Seperated | Total |
| At home                       |       | 0      | 1       | 0         | 1      |
| % within Where is child       |       | .0%    | 100.0%  | .0%       | 100.0% |
| better behaved                |       |        |         |           |        |
| At school                     |       | 2      | 10      | 1         | 13     |
| % within Where is child       |       | 15.4%  | 76.9%   | 7.7%      | 100.0% |
| better behaved                |       |        |         |           |        |
| Behaves same at both          |       | 1      | 10      | 0         | 11     |
| % within Where is child       |       | 9.1%   | 90.9%   | .0%       | 100.0% |
| better behaved                |       |        |         |           |        |
| Total                         |       | 3      | 21      | 1         | 25     |
| % within Where is child       |       | 12.0%  | 84.0%   | 4.0%      | 100.0% |
| better behaved                |       |        |         |           |        |
Examining the effect of the parents marital status on which setting the child behaves better in resulted in a majority of two thirds of the children whose parents were single were found to behave better in school than at home while the remaining, one third regard behaviour to be the same in both the home and school setting (table 2).

As evident from Fig. 4 above, the use of a visual schedule at home was used by 20% of participants but a significantly higher 65% reported their child to use one while in school. Four participants reported using the visual schedule across both settings while seven participants did not use one in either setting. Results also found that three participants did not know if their child used one while in school.
Table 3- Distribution of responses to questions examining routine

<table>
<thead>
<tr>
<th></th>
<th>Child generally copes well to a change in daily routine</th>
<th>More change to daily routine at home than in school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>Percentage (Rounded to nearest %)</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>Agree</td>
<td>7</td>
<td>27%</td>
</tr>
<tr>
<td>Neutral</td>
<td>4</td>
<td>15%</td>
</tr>
<tr>
<td>Disagree</td>
<td>9</td>
<td>35%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 3 above finds that 47% of participants believe their child to have difficulty with a change in their daily routine, while a smaller 39% find their child to cope well with a change in daily routine. This is supported from written feedback in the questionnaire;

“At home things can change, due to other children...and (she) can have tantrums”.

Examining both the home and school environments in relation to a change in daily routine; the results found that a majority of participants agree that there is more change to the routine in home than at school. This coincides with some parents responses in the questionnaire as a reason for why the child behaves better in school;

“He loves structure and routine and sameness (in school)”

Out of 11 participants who provided reasons their child behaved better in school than at home; 7 (64%) used the word “routine” or “structure” as a key influence on behaviour.
Table 4- Distribution of responses to questions examining discipline

<table>
<thead>
<tr>
<th></th>
<th>The school use similar disciplining methods as at home</th>
<th>My child receives stricter discipline at home than at school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage (Rounded to nearest %)</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Agree</td>
<td>9</td>
<td>35%</td>
</tr>
<tr>
<td>Neutral</td>
<td>10</td>
<td>38%</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
<td>15%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>No answer</td>
<td>1</td>
<td>4%</td>
</tr>
</tbody>
</table>

As evident from Table 4 (above), a reassuring 43% agreed to different extents, that the school uses similar discipline methods as at home. 38% remained neutral while 15% disagreed. Only two of the participants find discipline to be stricter at home, while seven disagree that discipline is stricter at school.

87% of parents believed their child enjoyed going to school (fig 5), however, this did not appear to have a significant effect on whether or not the child behaved well in the school setting. Only three participants reported their child not to enjoy school but all of those still believed their child to be better behaved in school than at home.
When asked if their child had attended an occupational therapy (OT) session, twenty-three of the participants (88%) reported their child to have been present in at least one OT session (Fig. 6) while three (12%) participants received no input from occupational therapy. Of those twenty-three participants’ children who attended an OT session, only nine received a school visit by the occupational therapist (Fig 7).

**Fig 6- Percentage of children who attended an OT session**

![Bar chart showing the percentage of children who attended an OT session.](chart1)

**Fig 7- Percentage of children who received an OT school visit**

![Bar chart showing the percentage of children who received an OT school visit.](chart2)
**Discussion**

**Incorporating the environment into therapy**

Occupational therapists have long been aware of the importance in taking the environment into account when providing therapy to clients and this is reflected in many of our models of practice including; the Model of Human Occupation (MOHO) (Kielhofner & Forsyth, 1997), the Person-Environment-occupation model (PEO) (Law et al, 1997), Canadian Model of Occupational Performance and Engagement (CMOP-E)(Polatajko, 2007). All the mentioned Models include the environment as a core component and are models which are used frequently in occupational therapy practice today. These models are commonly used in the realm of paediatric OT (Barker Dunbar, 2007) also, and so the notion of paying particular importance to the environment when providing therapy to children stands. In order for both assessments and interventions alike to be effective we need to understand our client in all their daily contexts (Rabiero, 2001).

An American study (Hofferth & Sandberg, 2001), found that children between the ages of 6-12 spend an average of twenty-one hours a week or approximately 13% of their week in school. There have been no formal studies produced relating to time spent by Irish or European children in school, however, the Department of Education and Science report (1995) states that Irish primary schools must have a minimum of twenty-eight hours per school week (5.6hrs/day). This is slightly reduced by an hour a day for infant and 1st classes (Department of Education and Science, 1995). As children spend such a large proportion of their time in the school context, it is therefore surprising that out of the twenty-three children who were seen by an occupational therapist in this study, a mere nine of them (39%) received a school visit by the occupational therapist.

Out of the nine children who received an OT school visit, six parents agreed with the statement “generally my child behaves well in school”, two participants remained neutral and only one disagreed with the statement. This offers suggestion that providing therapy in the school environment may impact a child’s behaviour in this context. Again, out of the nine who received an OT school visit, six of the children were believed by their parents to
behave the same in both the school and home setting. This could suggest that linking therapy to both of these contexts could enable similar behaviours across settings.

**Behaviour of children with autism across settings**

This study found there to be a discrepancy in the behaviour of children with autism across settings in the majority (56%) of the participants’ cases, with many believing the child to be better behaved at school (52%) than at home (4%). This is consistent with results from other studies which examined questionnaires completed by both parents and teachers of children with autism (Ehlers et al, 1999; Szatmari et al, 1994). There are many suggestions in the literature for this finding, of which, more structure at school stands out as being the most prominent (Schmit et al, 2000; Szatmari et al, 2006; Ehlers et al, 1999; Szatmari et al, 1994). The parents of this study appeared to agree with the suggestion that better behaviour in school is due to more structure and routine in the day. The words “structure” or “routine” were used by 64% of parents to explain why their child behaved better in school.

“He loves structure and routine and sameness”.

“More structure at school than at home”

From this study, a higher majority of participants reported there to be more changes to the child’s routine at home than at school (Table 3).

**Variables which account for differences in behaviour across settings**

*Age of diagnosis* - A sufficient evidence base exists to support diagnosing a child with autism at a young age (Moore and Goodson, 2003; Chung et al, 1995; Rogers, 1996). These studies believe with a young diagnosis, the children can be referred to the right services which can improve a child’s behaviour by teaching the parents’ ways to manage and control the child’s outbursts. The oldest child to be diagnosed in this study received a diagnosis at ten years of
age, and was reported having difficulty coping to a change in routine and her parent reported; “she does not always follow instructions and can have tantrums”. As this child is currently fourteen, she has only been receiving services for her autism for a maximum of four years, which could explain why she has difficulty following instructions and with a change in routine. Perhaps, if this child received a diagnosis at a younger age, strategies would have been put in place and well established to improve some of the difficulties her and her parent are currently experiencing.

**Use of visual schedules**—Visual aids are commonly used to assist children with autism in maintaining attention and sequencing their activities and environments (Hodgdon, 1995). Visual schedules are a set of pictures which visually communicate to the child a list of daily activities and their order for completion. Hodgdon (1995) found that children using visual schedules, show more compliance and fewer behavioural problems when what is expected of them is displayed visually. Changes in events or transitioning from one activity to the next can be confusing for children with autism which can cause them to act out or demonstrate poor behaviour. Occupational therapists often use visual schedules to increase on-task and on-schedule behaviour (Bryan & Gast, 2000) in children with autism and found they result in “high levels of on-task behavior with appropriate scheduled materials correlated with a decrease in non-scheduled behaviours” (Bryan & Gast, 2000:563-564). Mesibov et al (2005; 36) suggest how a visual timetable can have positive effects for children with autism and is something to assist with behavioural problems. From this study, the use of visual schedules was considerably higher (65%) in school, where behaviour is believed to be better, than at home (20%). This offers support for the use of visual schedules for children with autism across settings.

**Marital status**—The correlation between a parent’s marital status and the child’s behaviour is one which has been of interest in recent years. Epidemiological studies have found marriage breakdown to have a strong influence on a child’s development (Cummings & Davies, 1994; Robins, 1991). Szatmari et al’s (1994) study suggested parental stress levels could explain why parents identified more difficult behaviours than the teachers. Single
mothers, can carry double the burden, which may cause them to be more stressed than married women (Alexander et al, 2009; 428), perhaps enabling them to report more difficult behaviours at home. This research study found a two third majority of the children whose parents were single, reported being better behaved in school than at home. A significantly smaller one third regarded the child’s behaviour to be the same in both the home and school setting. A response provided by a single parent as to why their child behaves better at school is;

“(He) plays up a lot at home...believe that he does behave better at school”.

**Cross-informant correlations in autistic behaviours**

Previous studies have clearly found a disagreement between parent and teacher scores of autistic behaviours amongst children with autism (Ehlers at al, 1999; Szatmari et al, 1994). In the study by Ehlers et al (1999), teachers were found to rate the children higher on the Autism Spectrum Screening Questionnaire (ASSQ) than the parents. A suggestion offered for this, was that teachers base their responses against the background of other children without autism’s behaviour as observed in the class. This cross-informant discrepancy is not only evident when examining children with autism’s behaviour but can be generalised to other populations of children examining emotional and behavioural problems (Achenbach et al, 1987) also. Poor correlations are so frequently found when examining problems and difficulties in children that they are being referred to as “the most robust findings in child clinical research” (De Los Reyes & Kazdin, 2005). It is perhaps no wonder this is the case, especially when gaining information from both teachers and parents alike where both parties have different perspectives, knowledge and insights.

It is necessary for occupational therapists to gather accurate information about their client in all his/her occupational contexts, and so, attaining information from multiple informants may be deemed essential to the OT process. This research understands the value of gathering client accounts from multiple informants (e.g. teachers and parents); however, it
highlights the need for caution when doing so. This is due to informants accounts being influenced by personal judgments and knowledge.

Both studies previously mentioned, Ehlers at al (1999) and Szatmari et al (1994) reported a difference in scores between parent and teacher informants which they concluded was a discrepancy between informants. As this study only examined the parents’ perspectives and found the majority of them to believe a difference in behaviour occurs between the home and school setting, it indicates there may be an accurate difference in behaviours across the settings rather than solely a discrepancy in informants’ scoring of behaviour.

**Implementations for occupational therapy**

This study found there to be a reported discrepancy in the behaviour of children with autism in both the home and school environment, as indicated from parents responses in the questionnaire. It offers further evidence for the need and the importance to assess a child in both environments, aiming to attain an accurate and well-rounded picture of the child. While studies who compiled both parent and teachers opinions on behaviour (Ehlers at al, 1999; Szatmari et al, 1994) suggest their findings prove a discrepancy in cross-informant correlations of autistic behaviours, this study highlights there may be a true discrepancy in behaviours rather than discrepancies between informants’ opinions. Therapists should also be aware of the effectiveness of visual schedules in both environments in controlling behavioural outbursts of children with autism. From this study, the use of visual schedules appeared to be of assistance in controlling behavioural outbursts within the settings they were used. This ties in nicely with previous research on the effectiveness of visual schedules with children with autism (Bryan & Gast, 2000; Meisibov et al, 2005).

**Limitations**

A small sample size was the main limitation of this study, which may have meant it was underpowered to show significant differences in behaviour between the school and home.
environment. Time and financial limitations also played a part which could have enhanced both the validity and reliability of this study by incorporating in class and at home observations of the children between settings. Enabling the researcher to observe the children in both settings would provide a first-hand account of their behaviour and draw a more accurate conclusion of behavioural differences across settings. This would also assist in eliminating cross-informant discrepancies while still gathering observed information rather than blinded perceptions. The researcher acknowledges the fact that the parents have not witnessed their child’s behaviour in school so cannot accurately account for it. However, the researcher trusts that being the child’s primary caregiver, they would have a good insight from discussions with the school staff, parent-teacher meetings and school reports.

Recommendations for future research

Future research is needed to further investigate the behaviours of children with autism in school versus the home environment and to explore the variables that affect the child’s behaviour between settings. Undertaking this research by qualitative methods would enhance the reliability of the research and allow a more in-depth regard to the variables which cause this discrepancy. Understanding the variables for the discrepancies will allow therapists to understand interventions or aids that could be put in place to assist the child with autism’s general behaviour. It would be beneficial to occupational therapy research, to investigate the type of OT interventions, if any; the child received which could account for either a correspondence or a discrepancy in behaviour across settings.

Conclusion

The purpose of this research project was to investigate whether a reported discrepancy existed in the behaviour of children with autism across settings from a parents’ point of view, and if so, what was the reason for this. The settings examined were both the home and school environments as the child spends most of his/her day in these settings (Hofferth & Sandberg, 2001).
This research was carried out following a study by Szatmari et al (2006), which investigated levels of agreement between parent and teacher scores of behaviour across settings. In Szatmari et al’s (2006) study, it was found that parents in general reported more problems with their child’s behaviour than the teachers. This research, aimed to investigate whether this discrepancy lay with the child veritably behaving differently in the two settings or if a true discrepancy in cross-informant correlations existed between the teachers and the parents.

Results from this study found that a small majority of participants (56%) reported their child to behave better in one setting over the other. Fifty-two percent believed their child to be better behaved in the school environment, while only four percent illustrated the child to behave better in the home environment. The school being a more structured environment with generally less change to daily routine was also highlighted by many parents as a reason why the child’s behaviour was better at school. This reported finding supports many other research articles which also drew the conclusion (Drew et al, 2002; Ehlers at al, 1999; Schmit at al, 2000; Szatmari et al, 2006) of the school being a more structured environment.

Variables such as; marital status of the parents, age of diagnosis, use of visual schedules and type of school the child was attending were noted to influence a difference in behaviours across settings and were explored in this article.

The fact that the larger percentage (52%) of participants noted their child to behave better in the school environment, offers some evidence that there may in fact be a discrepancy in the child’s behaviour between the school and home environment. This would suggest that perhaps Szatmari et al’s (2006) findings accurately reflected a difference in behaviour between both settings, rather than a discrepancy in cross-informant correlations. However, a notable forty-four percent of participants believed their child to behave the same in home as in school so no significant conclusions can be drawn on this issue.

This study highlights the importance of understanding our clients in all of their occupational environments in order to attain an accurate account of their strengths and weaknesses.
Observing the child in both the home and school setting should be undertaken to gain an accurate understanding of their occupational performance and of their occupational environments. The study further advocates for applying interventions which can be transferable across settings.

Some limitations of this study, especially small sample size restrict this researcher from making any transferrable conclusions. Further research with a larger sample size would be very beneficial in drawing more valid conclusions.

Further studies of this manner would benefit from a more qualitative research method to gain an in-depth account for changes in behaviour of children with autism across settings. Another research method which could be explored would be for the researcher to observe the children in both settings, which would take out the middle-man bias and enhance the reliability and validity of the study.

**Acknowledgements**

The author would like to thank her supervisors; Dr. Judith Pettigrew and Margot Barry for their continued assistance and support in conducting, analysing and interpreting this study. Acknowledgements and thanks also extended to the participants of this study who took time to complete this questionnaire. The author would also like to acknowledge and thank her housemates and fellow classmates; Ann Dunne, Lisa Mc. Daid and Victoria Morgan for all their suggestions and advice with this article. Finally she wishes to thank her family, for their opinions and support throughout all stages of the research process.
References


Appendix A - Cover Letter

An investigation into the behavioural differences children with autism display between the home and school environment: Parents’ Perspectives

Researcher: Jules Collins, 10000869@studentmail.ul.ie

Supervisor: Margot Barry, margot.barry@ul.ie

Purpose: You are kindly invited to participate in this research project concerning your perceptions of your child’s behaviour at home and at school. This study aims to identify any changes or similarities in the child’s behaviour between settings from the parent’s point of view.

Participants: In order to participate in this study, you must be the parent or guardian of a child who has been diagnosed with autism. The child must be in school and under eighteen.

Procedure: Your participation involves answering questions on the questionnaire attached which will take an estimated 15 minutes. There are no known or anticipated risks to this study and if you feel unable or unwilling to answer any of the questions you may leave them unanswered.

Voluntary participation: Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled.

Confidentiality: Your responses are anonymous and cannot be tracked back to you individually as your name will not appear on the questionnaire. As this is the case, once you submit your questionnaire there will be no opportunity to withdraw from the study thereafter. All responses will be treated with the strictest sensitivity.

Consent: By filling out the questionnaire and returning it you will have given consent for this study.

This research has received ethical approval from the University of Limerick Research Ethics Committee. If you have concerns regarding this study, please contact: Chairman, Education and Health Sciences, Research Ethics Committee, EHS Faculty Office, University of Limerick, Tel (061) 234101 Email: ehsresearchethics@ul.ie
**Appendix B - Questionnaire compiled by author**

**Section A**

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has your child been diagnosed with Autism?</td>
<td>Yes</td>
</tr>
<tr>
<td>If so, how old was your child when diagnosed?</td>
<td>______ years old</td>
</tr>
<tr>
<td>How old is your child now?</td>
<td>______ years old</td>
</tr>
<tr>
<td>What is the gender of your child?</td>
<td>Male</td>
</tr>
<tr>
<td>What type of school is your child currently attending?</td>
<td>Ordinary classes in mainstream school</td>
</tr>
<tr>
<td>What class/year in school is your child currently in?</td>
<td>__________________________</td>
</tr>
<tr>
<td>Does your child have any siblings?</td>
<td>Yes</td>
</tr>
<tr>
<td>If so, how many?</td>
<td>________</td>
</tr>
<tr>
<td>Do any of these siblings have special needs?</td>
<td>Yes</td>
</tr>
<tr>
<td>How would you describe your current marital status?</td>
<td>Single</td>
</tr>
</tbody>
</table>
Section B

Q1. Where would you imagine your child to be better behaved?
   At home [ ] At school [ ]

Q2. Why do you think this is the case?
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

Q3. Do you find that your child enjoys going to school?
   Yes [ ] No [ ]

Q4. Has your child’s school contacted you regarding your child’s behaviour in school since September?
   Yes [ ] No [ ]

Q5. Has your child ever attended an occupational therapy session?
   Yes [ ] No [ ]

Q6. If you answered yes to the previous question, has the occupational therapist visited your child at school to observe them in a classroom environment?
   Yes [ ] No [ ]

Q7. Does your child use a visual schedule at home?
   Yes [ ] No [ ]

Q8. Does your child use a visual schedule at school?
   Yes [ ] No [ ]
Section C

In the table below, I would like you to read the statements in the left hand side and place a tick in the box you feel best describes to what extent you agree or disagree with the statement in the row. These questions are to be answered from your personal opinion and there is no right or wrong answer.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My child generally behaves well <strong>at home</strong>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child has trouble following set <strong>rules at school</strong>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child has difficulty with appropriate behaviour <strong>at home</strong>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child generally behaves well <strong>at school</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is more change to my child’s daily routine at home than <strong>in school</strong>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child communicates more verbally <strong>at home</strong> than <strong>at school</strong>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child generally copes well to a change in the daily routine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The school use similar disciplining methods as at home.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child has trouble following set <strong>rules at home</strong>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child receives stricter discipline <strong>at home</strong> than <strong>at school</strong>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child has difficulty with appropriate behaviour <strong>at school</strong>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My child socialises more <strong>at home</strong> than <strong>at school</strong>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>