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FACTORS AFFECTING THE IMPLEMENTATION OF OCCUPATIONAL THERAPY HOME PROGRAMMES FOR CHILDREN WITH LEARNING DIFFICULTIES IN GAUTENG

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A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Science in Occupational Therapy.

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Declaration

I, Shruti Joshi hereby declare that this research report is my own work. It is being submitted for the degree of Masters of Science in Occupational Therapy at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other university.

16th Day of October, 2019.

Dedication

I dedicate this report to my husband Shane who is my north star and my shining light during the darkest of times. Thank you for always encouraging and supporting me through this process of completing my MSc.

To my fur babies Lady and Smokey, who love me unconditionally and who instinctively know when a cuddle will make me feel better.

I would like to thank my parents who supported me on my journey, looked after my babies when I needed them to and provided many hot meals during busy times and times of stress. I really appreciate it.

And finally to the amigos, Sue, Sharna and Jessica, who were on this life-changing journey with me. You ladies were there every step of the way, through the ups and downs. We ranted with each other and encouraged each other, laughed and cried together. I am truly blessed to be able to call you friends and I could not have made it without you.

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I sincerely thank the therapists and parents who took the time to help structure the questionnaire and the many that filled out the questionnaire, without you this project would not have been possible.

Abstract

The purpose of the study was to determine what parents of children with learning difficulties, attending mainstream schools and who access private occupational therapy services, in Gauteng, consider to be factors affecting the implementation of home programmes. Paediatric occupational therapists use home programmes as a part of treatment, to enhance therapeutic outcomes and sometimes as a substitute for therapy.

The study used a quantitative descriptive cross-sectional survey design, and a convenient sample was sourced from 88 occupational therapy private practices in Gauteng. A survey questionnaire was compiled, based on literature, and piloted for content validity. This was distributed electronically using RedCap.

Seventy nine questionnaires were returned and analysed. The results indicated that the parents were mostly responsible for the implementation of the home programme. Most participants ascribed moderate to maximal importance to their children's home programmes and were willing to implement the home programme a few times a week for 15 minutes or less. Very few parents were involved in the design of the programme and programme goals and the therapist seldom based the programme on a home visit.

The greatest barrier to implementation of home programmes was lack of time, with other barriers being child fatigue or overstimulation, family factors, lack of resources and poor programme content. Facilitators to home programme implementation included specific and easy to follow exercises/activities, collaborative goal setting, inclusion of the family in the activities, incorporating the programme into daily routine, and regular communication with the therapist.

Parents suggested that changes such as providing carefully selected programme activities and therapist guidance would most improve implementation of home programmes

The factors influencing home programme implementation, experienced by South African parents in Gauteng, are similar to those identified in other studies and texts.

The study also identified deficits in the occupational therapists' process of designing and monitoring home programmes, which has implications for clinical practice and parents adherence to home programmes.

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Operational Definitions

Learning difficulties: In the context of this study, this is defined as any difficulty, within the context of a school classroom, which impacts learning to the extent that intervention is required. This includes children diagnosed with ADHD, ADD and other conditions for which intervention can help to improve function within the school environment.

Home Programme: Therapeutic tasks that parents perform with their child at home. These tasks are aimed at achieving intervention goals (Novak, 2011; Bazyk, 1989).

Private Practice: Privately funded healthcare service, independent of government. These services are funded by medical aid/insurance or the clients themselves (Medical Schemes 2016/2017).

Abbreviations

LSEN: Learners with Special Educational Needs

REDCap: Research Electronic Data Capture

Layout of study

Chapter 1- Introduction

This chapter describes the premise of the study. It justifies the necessity of the study, as well as stating the research problem, purpose, aim and objectives of the study.

Chapter 2 – Literature Review

The literature review considers the factors that influence implementation. These factors include, the role of parents, parent-therapist interaction, support from the therapist, communication, family-centred practice, structuring of the programme, routine, context, complexity of the programme and therapy outcomes.

Chapter 3 –Methodology

This chapter includes the study design as well as the participant inclusion and selection criteria. It describes the pilot study and the subsequent changes made to the questionnaire. It also describes the process of collecting the data from the final questionnaire that was filled in by the parents in the study. Frequency tests and measures of central tendency were used to analyse the data.

Chapter 4 – Results

Demographic data of parent participants and children with learning disabilities, receiving private occupational therapy and have home programmes is reported in this chapter. What parents consider as facilitators and barriers to their implementation of home programmes is also described and are discussed with the use of graphs and tables.

Chapter 5 – Discussion

The discussion interprets the implications of the results in terms of the literature and current practice in the structuring and implementation of occupational therapy home programmes. It compares the findings of the current study with those in other studies and also incorporates literature to substantiate findings and aid possible solutions to barriers.

Chapter 6 – Conclusion

This chapter includes a summary of the findings of the study. Recommendations for clinical practice as well as further research are also noted.

CHAPTER 1 INTRODUCTION

1.1 Background to Study

Occupational therapy is an essential treatment option for children with learning difficulties or disabilities (Case-Smith & O'Brien, 2014). In South Africa, occupational therapists are employed by special schools by Provincial Departments of Basic Education to provide services to Learners with Special Educational Needs (LSEN) such as those diagnosed with learning disabilities as well as motor or cognitive impairments. However, due to the limited number of 380 special needs schools (Pather, 2011), many of the estimated 87,647 children with learning disabilities attend mainstream schools.

Although the National Department of Basic Education, which governs schooling in South Africa, has had an inclusive education policy for children with disabilities since 2001 (Department of Education, 2001), the proposed district-based teams which were envisaged to support learners with disabilities in mainstream schools have not been effective in providing occupational therapy services to these children (Pather, 2011). Therefore, children with learning disabilities attending mainstream schools have very few options for accessing occupational therapy services within the mainstream school context. However, occupational therapy services are available from therapists in private practice, which are costly and due to economic barriers in South Africa, many parents, even those in middle to high socioeconomic contexts are restricted in the number of sessions they can afford (Davies, 2016). While occupational therapists at public health facilities do cater for children with learning disabilities and more severe physical or cognitive deficits, these services are restricted to children under the age of 6 years, in terms of budgetary constraints (Saloojee et al., 2006).

In order to provide more cost effective service delivery, occupational therapists that treat children in mainstream schools, rely on the use of home programmes, not just as an adjunct to therapy but often as a substitute for treatment sessions. These occupational therapy home programmes typically support or have similar the goals to that of school-based occupational therapy, to facilitate the child's

learning process. Intervention includes making adaptations to the children's learning environment and facilitating their occupational performance by providing them with coping mechanisms and improving skills by addressing client factors such as postural and motor-control, visual perceptual and cognitive functioning (Case-Smith & O'Brien, 2014; Bayona et al., 2006).

The prescribed home programmes need to be implemented by parents or caregivers. Previous research on Australian parents' experience of occupational therapy home programmes has been qualitative in nature. This research found that the implementation of home programmes can be affected by various factors including parents' willingness to accept help, their perception of the importance of the home programme and their insight into the child's disability (Novak, 2011).

The provision of on-going positive support and feedback with regards to developing activities that meet the child's and family's needs are also important (Novak, 2011; Hinojosa & Anderson, 1991). The extent to which parents are included in setting the goals for the home programme and their ability to develop a routine for the implementation of the programme need to be considered. This is difficult in a school setting, where the occupational therapy is provided on the school premises during school hours, as there is little interaction with the parents. Collaboration is easier for the therapist and parents in a private practice setting where parents bring their children for therapy sessions and there is direct contact between the therapist and parent (Davies, 2016).

Most available literature on home programmes pertains to research done in developed countries. Only one South African study completed by Davies in 2016 explored the opinion of therapists about home programmes in the South African context, which indicated factors such as language and cultural differences impacting home programmes. The study also showed that time constraints hinder the implementation of home programmes and parental involvement in the programme, even in better resourced contexts, where families access private occupational therapy services in mainstream schools (Davies, 2016). Having obtained this information from South African therapists, it would also be beneficial to have feedback from South African parents who are tasked with the

implementation of home programmes or their children with learning difficulties who attend mainstream schools.

1.2 Statement of the Problem

Many South African occupational therapists assumedly prescribe home programmes as they are considered an essential in assisting with achieving the desired therapy outcomes for children with learning difficulties. Literature on the importance of home programmes indicate that problems exist with the implementation of these home programmes (Hanna & Rodger, 2002). Also in the researcher's experience prescribed occupational therapy home programmes are not always effectively implemented by parents. Studies have been done in other parts of the world to verify the effectiveness of home programmes for children with Autism and Cerebral Palsy (Novak & Berry, 2014). There is little literature available to indicate what South African parents, whose children attend mainstream schools and receive occupational therapy, perceive to be barriers or facilitators to their implementation of occupational therapy home programmes.

1.3 Purpose of the Study

The purpose of the study is to determine the factors affecting implementation of occupational therapy home programmes, as perceived by parents of children who are currently attending a mainstream school and receive occupational therapy services in a private practice setting. This will assist occupational therapists to structure home programmes that are effectively implemented.

1.4 Research Question

What factors do parents of children with learning difficulties, attending occupational therapy in a private practice setting, perceive as barriers and facilitators to home programme implementation?

1.5 Aim of the Research

The aim of the study is to determine the factors affecting home programme implementation, as perceived by parents of children at mainstream schools who access private occupational therapy services.

1.6 Research Objectives

- To determine what factors parents (of children with learning difficulties at mainstream schools and, receiving private occupational therapy services) identify as barriers and facilitators to their implementation of occupational therapy home programmes.
- To determine the possible solutions, parents (of children with learning difficulties at mainstream school and, receiving private occupational therapy services) suggest, to improve the implementation of home programmes.

1.7 Justification for the Study

Information from the study would give paediatric occupational therapists in Gauteng insight into the factors that parents in the province perceive to be barriers and facilitators to their implementation of home programmes. Awareness of these barriers and facilitators would contribute to the body of research pertaining to home programme implementation, and allow occupational therapists to better structure and understand parents' concerns about home programmes so that they are more likely to be implemented. Better home programme implementation will result in increased support of therapy outcomes and ultimately benefit the clients.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Literature for this review was sourced from the following data bases: Proquest, ERIC, Science Direct and PubMed. Some of the literature sourced was published in the 1990s and was reviewed as the iconic literature on home programmes and the initial research supporting the principles of home programme development.

Search words included: home programmes, occupational therapy and specific learning disabilities. As no published articles on home programmes for children with learning disabilities were found, the literature below reflects information from textbooks related to occupational therapy for children with this condition and research on home programmes for children with other conditions such as cerebral palsy and autism.

This literature review will consider the context in which therapy occurs, the need for home programmes, the importance of including parents in the design of home programmes as well as facilitators and barriers that international studies have found regarding parents' and caregivers' implementation of home programmes.

2.2 Context in which the home programme is implemented

Due to the changes in society, the progression of time, and the limited resources within healthcare systems, parents have become increasingly involved in coordinating services and implementing home programmes (Law et al., 2005). The employment situation of caregivers, as well as the availability of childcare and transport were all seen as contextual factors that influenced families' participation in intervention services (Davies, 2016).

The home circumstances of children, especially those in single parent households or households with working mothers, could be a barrier to implementing home programmes and have important implications for home programme design. With circumstances changing in modern times, there is higher prevalence of divorce

resulting in more multi-household families. There is also a larger number of working mothers in single-parent as well as two parent households, due to the higher cost of living. As a result, home programmes should be moulded in respect of household contexts and the activities that are important in the home. Further consideration should be given to the fact that working mothers have less time to spend with their children, which could influence execution of home programmes. For the purpose of the study done by Novak, Cusick & Lannin (2009), parents reported that they, on average, implemented their home programme 17.5 times a month and spent a mean of 16.5 minutes on each session, thus implying that home programmes should include short activities.

Implementing a home programme in a context where there are other siblings result in increased responsibility on behalf of the siblings and periods of jealousy. Mothers in these circumstances reported an appreciation for home programmes which allowed siblings to become involved and feel included. They felt that this would make the family unit closer and stronger and they appreciated support from the therapist with regards to adaption of the programme to suit their environment (Thompson, 1998).

In a broader South African context, poverty and limited access to healthcare services have an impact on occupational therapy services. A South African study found that disabled children in the context of poverty have limited access to specialised healthcare professionals and schooling. The study concluded that caregivers could be trained to facilitate certain basic things (Saloojee et al., 2006). Within the South African education system, there is limited access to occupational therapy services in mainstream schools, unlike full service and special schools (Sonday et al., 2012). Children in mainstream schools are currently accessing private practitioners who practice on the school premises or independently. Low income families may be unable to afford these services. In these cases, structuring a home programme may be a more cost effective option than regular treatment sessions and could be effective where the family does not have access to or cannot attend regular contact therapy sessions. Facilities and cultural practices should be taken into account when structuring a programme (Goldbart & Mukherjee, 1999).

Hinojosa & Anderson (1991) showed that therapists find it difficult to work with parents who were facing multiple stressors such as unstable family units, lack of financial resources or poor parenting skills, which could affect the consistency of intervention and subsequent carryover of intervention goals. Other cultural factors may need to be considered in these families and accommodated. Studies in countries such as India confirmed that in developing countries, the lack of therapists available to treat children with special needs increases the demand on parents to participate in therapy (Goldbart & Mukherjee, 1999). This shows that the home context is important to consider when structuring home programmes.

In a school setting, the therapy often happens on the premises during school hours and there is little interaction with the parents. In a private practice setting where parents bring their children for therapy sessions, it is easier for the therapist and parents to collaborate in the therapy process with regard to active participation in the implementation of an occupational therapy home programme (Davies, 2016).

In South Africa, occupational therapists are only placed in schools for learners with special needs. Mainstream schools follow an inclusive education policy allowing disabled children to attend these schools; however there is limited availability of healthcare service providers in these schools. A South African study reflected on the countries' inclusive education policy and the occupational therapists who participated in the study agreed with the ethos of the policy but felt that in reality, there was insufficient resources and support to implement this policy (Sonday et al., 2012).

Families are forced to access costly private services if the waiting list for a public service is too long (Thompson, 1998). If the service is not available in a public health setting, then private services are the only option.

The most current annual report by the Council for Medical Schemes in South Africa indicated that of all the beneficiaries of medical aids nationwide, Gauteng has the largest percentage of approximately 39%. Approximately 4.3% of all medical aid claims made in 2016, nationwide, was for occupational therapy. The report also showed that around 42% of the occupational therapists in private practice are in Gauteng and 47% of their visits are paid. (*Council for Medical Schemes Annual Report,* 2016/2017). This would suggest that more than half of

the visits made would require parents to pay out of pocket. Gauteng statistics for 2016 also showed only 2.5 occupational therapists per 10 000 potential beneficiaries (*Council for Medical Schemes Annual Report,* 2016/2017).

Gauteng encompasses 18 178 square kilometres of the total 1 220 813 square kilometres of South Africa. It is the smallest of the nine provinces, representing 1% of the total land area in South Africa (*Community Survey: In Brief*, 2016). Of the total population in South Africa (55 653 654 people), 13 399 724 people reside in Gauteng. This equates to 24.1% of the total population living in Gauteng. (*Community Survey: In Brief*, 2016). According to the most recent national census, Gauteng has a total population of 12 272 263 people (*Community Survey: Provinces at a glance*, 2016).

Current research on the South African health system revealed that although NHI pilots had largely positive reports, there is concern regarding financial and practical sustainability in the future (Fusheini & Eyles, 2016).

2.3 Access to occupational therapy private practice services

In South Africa, public mainstream schools follow an inclusive education policy allowing disabled children to attend these schools (Department of Education, 2001). A South African study on inclusive education and the need for occupational therapy services at mainstream schools in the Western Cape found that while occupational therapy participants in the study agreed with the ethos of the policy, they felt that in reality, there were insufficient resources and support to implement this policy (Sonday et al., 2012). Gauteng statistics for 2016 also showed there are limited resources with only 2.5 occupational therapists in private practice per 10 000 potential children requiring their services (Council for Medical Schemes Annual Report 2016/2017).

Therefore, Gauteng families of children with learning difficulties attending mainstream public schools are limited to accessing costly private sector occupational therapy services (Thompson, 1998). Even if parents have medical aid, the most current annual report by the Council for Medical Schemes in South Africa indicated that more than half of the visits made to private occupational therapists would require parents to pay out of pocket. Of all the beneficiaries of

medical aids nationwide, approximately only 4.3% of medical aid claims made in 2016 were for occupational therapy (Council for Medical Schemes Annual Report 2016/2017).

2.3.1 Factors related to home programmes in the private practice services in South Africa

Davies (2016), in a study which compared the prescription of home programmes in different health and education sectors in South Africa, found that private occupational and physiotherapy practice was the most conducive to implementing a family centred approach. In a private practice setting the therapist had regular contact with parents as the child attended therapy on a regular basis. This supported the development of a relationship with the parent and facilitated communication and most parents had the resources required for the home programmes. Despite this, the relationship between therapists and parents was reported to be a business type relationship rather than a partnership based on collaboration. Therapists reported that they were the experts and guided therapy, which is a medical model approach. Therapists reported that parents, who were paying for therapy, expected the therapist to 'fix' their child and were not willing to become involved in the extra effort required by home programmes.

However, where parents were motivated and involved in their child's home programme, they had a good understanding of the impact and value of home programmes. This positive perception resulted in greater involvement than in other settings such as school based and the public sector therapy. On-going support of home programmes in private practice was therefore associated with the higher frequency of therapy, parent contact, fewer language barriers, and the availability and use of technology such as cell phone and email contact (Davies, 2016).

2.4 Home Programmes

The purpose of early intervention occupational therapy is to address childhood difficulties or delays as early in the developmental process as possible. These difficulties could be in any area of development (physical, cognitive, social or emotional). Research, on early intervention, shows that using everyday activities

in natural environments has positive benefits on child development. These natural environments include home and community settings (Dunst et al., 2006). Home programmes are thus a part of early intervention as they form the part of therapy that children need to implement in their own contexts and not the therapy environment. This also enables children to practice skills more frequently and not only in the therapy environment.

Occupational therapy home programmes for children with disabilities have been described as “a form of guidance and advice, which become a way of life for parents and children. Through regular practice of activities at home, parents maximise their child’s potential. Parents use the guidance and support that they gain from home programmes to build confidence about how to help their child” (Novak, 2011:209). These home programmes are an effective treatment option due to the large number of children living at home in need of continuous therapy (Novak et al., 2013). This also supports the need to do therapy in the child’s natural setting to obtain optimal application of neural plasticity (Novak, Cusick & Lannin, 2009). In addition, because the programmes are executed in the child’s natural environment (e.g. home/school), gains are functional and hold meaning (Novak, Cusick & Lannin, 2009). Novak (2011), found parents reported that occupational therapy home programmes are effective in helping children reach their potential and therefore due to the benefits of home programmes, ensuring successful implementation is important.

Occupational therapists, when prescribing home programmes, include child executed activities consisting of among others, structured tasks, environmental adaptations to promote success and parent education to enhance the way the child learns and participates in activities (Novak, Cusick & Lannin, 2009). Therapists reported greater satisfaction with therapy when families followed their recommendations and became involved in intervention (Hinojosa & Anderson, 1991). Research shows that compliance to therapy and home programmes can be problematic and that therapists need to consider a number of factors related to the parents, child and the context in which they live when prescribing home programmes (Novak, 2011; Hinojosa & Anderson, 1991).

2.5 Factors affecting implementation of Home Programmes

2.5.1 Role of parents in the planning and execution of Home Programmes

In the past therapists worked within the framework of the medical model, in which the therapist was the expert and thus directed intervention. In the 1980's however there was a shift to a biopsychosocial model in occupational therapy, with client centeredness and increased parent participation being emphasised. Subsequently, parent training and development of home programmes became part of early intervention programmes (Bazyk, 1989). As a result therapists identify the level of interest of the parents as well their needs and priorities regarding their child (Bazyk, 1989) before issuing home programmes. The role of parents is now seen as one of the most important components for the successful implementation of home programmes (Novak, 2011), which is congruent with the World Health Organisations people-centred approach which the South African government has adopted.

Since home programmes given by therapists have to be executed by parents or someone who supports them in caring for their child, parents' perception of its usefulness and effectiveness will influence their willingness to spend time and effort in executing the home programme. When parents are included in the structuring of a home programme, with their preferences taken into account, they are more willing to implement the home programme regularly (Novak & Berry, 2014).

Therapists should work with parents to select treatment options so they can decide what would best suit each family's specific context (Bazyk, 1989). Parents can then be empowered by being provided with the knowledge and support necessary to meet their child's needs (Hinojosa & Anderson, 1991).

There are a number of advantages of including parents in the structuring of the home programme. Firstly, they would best know their child's and family's preferences and routine, as well as their home environment (Novak & Cusick, 2006). These advantages directly impact the implementation of and adherence to home programmes, but are reliant on the parent-therapist relationship and the

ability of the therapist to hear the parents' needs and develop a home programme that meets these needs as well as the therapists goals for therapy.

2.5.2 Parent – therapist interaction

Contact with parents is essential when prescribing a home programme, in order to establish whether they are able to execute the home programme and whether they feel it is effective for the goals to be achieved. Activities in the home programme should be selected based on an understanding of the family's needs (Hinojosa & Anderson, 1991) and parents need to be trained should there be specific exercises in the home programme, thus facilitating home programme implementation.

A study on families living in chronic poverty showed that the mind-set of these parents in terms of temporal orientation is focussed in the present rather than the future. This affected their execution of home exercises as therapists' goals are often future oriented. This highlights the importance of communication between the therapist and parents and the value of parents' involvement in goal setting and the structuring of a home programme. It is the therapists' duty as the service provider, to enhance communication with the parents (Humphry, 1995).

Furlong & Mcgilloway (2015) also found that it was important for therapists to form a relationship with the parents who were implementing the home programmes as this allowed the therapist to determine whether parents were motivated and committed to implementing the treatment programme. Parents are more likely and willing to participate when they have enough information (Blue-Banning et al., 2004). Parents and therapists need to agree on goals and therapists need to ensure that parents are open to the idea of implementing a programme at home. When home programme activities are recommended, the therapist should also communicate when and under which circumstances it should be implemented (Hinojosa & Anderson, 1991).

2.5.2.1 Support from the therapist

Regular support and coaching of parents with regards to evaluating the outcomes and identifying improvement have been shown to positively affect home programme execution (Novak & Cusick, 2006). Studies have shown that parents

included regular coaching, follow-up support, information regarding what to expect, and regular feedback regarding progress, as part of the role of therapists in facilitating the execution of home programmes by parents. Other help which parents felt was useful included goal directed activities, the provision of a library of ideas, a list of activity equipment if necessary, and keeping an exercise logbook to monitor progress. Providing a smaller range of activities or exercises that parents felt confident in executing has also shown to be important (Novak & Cusick, 2006; Novak, 2011).

The concept of “parent-training” with regards to home programmes, which implies a one directional interaction from the therapist, has been replaced with “parent-professional collaboration” implying a partnership between the therapist and parent (Bazyk, 1989). Although the therapists are experts in their field, parents are experts with regards to what works for their family and child (Bazyk, 1989). The collaborative partnership requires therapists to strive to understand the unique perspective of each parent (Hanna & Rodger, 2002).

Parents reported that guidance from the therapist was an important factor influencing the successful implementation of their home programme as this helped them in understanding what to do and how to do the activities. This influenced their perception of the programme as being worthwhile which was a motivating factor in their execution of the home programme. Parents also reported that they benefited from support sessions where they could verify whether they were implementing their home programme correctly and could also update the programme if necessary (Novak, 2011). A study on early intervention by Thompson (1998) showed that mothers required constant reassurance and feedback from their therapist. Provision of personal support to mothers, by the therapist, was perceived by the mothers to be as important as the intervention with their child.

2.5.2.2 Positive relationships and communication

Families are shown to be more involved when their consulting therapist is friendly and in contrast, are less likely to implement the home programme if they perceive the therapist to be unfriendly (Thompson, 1998). Mothers emphasized the value of positive relationships and communication with their therapists and felt reassured

when the therapist shared information regarding their experiences with other children and families in a similar situation (Thompson, 1998). The results of Thompson study reflected that mothers perceived that therapists measured progress by change in client factors and component skills rather than in the functional goals. This emphasizes the importance of therapists' communication of not only the component skill goals but more importantly, their link to functional goals, in order for parents to monitor and appreciate improvement (Thompson, 1998). As function in areas of occupation is the goal of occupational therapy, it is important for parents to understand and appreciate the functional goals.

School-based occupational therapists in South Africa tend to have a restricted interaction with the parents of children they see in therapy as therapy takes place during the school day (Davies, 2016) and parents are often not present during the sessions. An American study on the implementation of mental health programmes in schools also described difficulties in contacting parents and challenges in engaging parents in treatment as well as doing the homework with their children (Langley et al., 2010). Restricted interaction with parents would result in restricted interaction and ability to foster relationships.

2.5.3 Development and structuring the programme

Parents' or caregivers' personal factors, in addition to the child's factors, need to be taken into account during programme development. The home programme should be based on goals that have been set collaboratively by the therapist and the parents. Parents have reported that being involved in the construction of a home programme allowed them to incorporate their own parenting style and this facilitated their implementation of the home programme (Novak, 2011).

Including personal factors in the structuring of the home programme assists in addressing the child's as well as the families' needs. This makes the programme realistically implementable (Hinojosa & Anderson, 1991). "Partnership home programs" is a model described by Novak and Cusick (2006), where parents are included in the structuring of the home programmes (Novak & Cusick, 2006). This has shown to be effective in improving function and ensuring parental satisfaction with home programmes. A partnership home programme is developed in collaboration with the parent to determine how much time is available, when the

programme will be executed and which activities would work in their home. The partnership home programme should also be developed based on a home visit rather than discussion in an institutional setting. While a therapist directed programme includes a list of activities to practice, a partnership programme would comprise of a library of ideas to optimize the environment, adapt tasks and educate the parent (Novak, 2011). Thus, when based on the Partnership home programme model, occupational therapy home programmes are sensitive to the family's resources and daily routine which further ensures compliance.

Novak & Cusick (2006) reported that when parents were included in the design of home programmes, they expressed a preference for home programmes above making a set appointment at an occupational therapy facility. This is because the flexibility of the home programme allowed them to fit the therapeutic activities or exercises into their schedule and environment and thus accommodate the time at which they carried out the programme. Therapists should therefore be flexible and creative in the process of developing home activities and ensure that the home programme follows a family centred service (Bazyk, 1989).

Law et al. (2005) provided further guidelines on a family-centred approach in terms of providing written information to parents in relation to home programmes.

Their study also found that one document might not suit all families. Parents with higher education levels were found to have higher expectations of the educational materials. Parents with all levels of education did however report that the educational materials impacted their knowledge, thinking and intention to change their behaviour. Providing written information, especially when distributed electronically was found to be cost-effective (Law et al., 2005). Delivering written material electronically would be cost effective for the therapist and would also save the families the resources of travel, time and finances which they would incur if the information was delivered during a contact session with a therapist.

Providing parents with knowledge and instructions for home programmes in a format appropriate to them is a facilitator in the implementation of home programmes, however if the programme does not fit into their family routine compliance may be affected (Novak, 2011).

2.5.4 Family Centred Practice

A study on family-centred services by MacWilliam, Tocci & Harbin (1998) identified five themes with regard to recommended practice for therapist interaction with families. The first theme is “Family Orientation: Opening the Door” or establishing a good rapport with parents so they can trust the therapist enough to divulge their own concerns, whether or not they are related to the child. The second theme, “Positiveness: Thinking the Best of Families”, mentions that therapists should recognise the efforts that parents make and not pass judgement. The third theme, “Sensitivity: In the Parents’ Shoes”, advocates that therapists should try to understand the needs, concerns and priorities of the parents and also the feeling and reasons behind parent behaviour. The fourth theme, “Responsiveness: Doing Whatever Needs to Be Done”, includes therapists paying attention and taking action when parents have a complaint or express a need, as the parents expressed feeling empowered by this along with the provision of options. The therapist should also be optimistic and enthusiastic. The fifth theme, “Friendliness: Treating Parents as Friends”, noted that developing friendships with parents allowed the therapists to be honest with the parents without offending them. The sixth theme, “Child and Community Skills”, indicated that the therapist should integrate their work with community activities. The therapist should be able to collaborate with other agencies in the communities in which the families live (MacWilliam, Tocci & Harbin, 1998).

The above study is supported by the literature on “Collaborative Family Professional Partnership” as described by Blue-Banning *et al.* (2004), which identified six themes with respective indicators which professionals rendering family centred services should employ. They indicated that common sense and human decency were essential in order for therapists to provide family centred therapy. . Their themes included “Communication” which is indicated by sharing resources, being clear, being honest, communicating positively, being tactful, being open, listening, communicating frequently and coordinating information. “Commitment” was indicated by being flexible, regarding work as more than a job, regarding the child and family as more than a case, encouraging the child and family, being accessible to the child and family, being consistent and being sensitive to emotions. The theme of “Equality” was indicated by avoiding use of a

directive attitude, by empowering parents, validating others, advocating for the child or family with other professionals, allowing reciprocity among family members, being willing to explore all options, fostering harmony among all stakeholders, coming to the table and avoiding "turfism" and acting as an equal. "Skills" were indicated by taking action, having expectations for the child's progress, meeting individual special needs, considering the whole child or family and being willing to learn. The theme of "Trust" was indicated by being reliable, keeping the child safe and being discreet. The last theme, "Respect", was indicated by valuing the child, being non-judgemental, being courteous, exercising non-discrimination and avoiding intrusion (Blue-Banning *et al.*, 2004).

Both of the above studies described themes related to recognising the family members as individuals and recognising parents' needs as well as their effort, trust, advocacy, and the need for the therapist to be non-judgemental. Thus parental well-being has also been associated with family centred service delivery (King et al., 1999). Research has indicated that parents are more satisfied when a service follows these family centred principles and this satisfaction has an overall positive effect, including better adherence to treatment and decreased parental distress (Law et al., 2003).

Therapists who design home programmes should take into account that in addition to each family being different, each family member is unique in their thinking and approach, and this can change over time (Kruijsen-Terpstra et al., 2013). Mothers and fathers could have different approaches and this would affect how a home programme is executed, if both parents are involved.

2.5.5 Embedding home programmes into routines

Therapy intervention services for individual children with learning difficulties, in general, add strain to families that often already have busy routines. In a study by Thompson (1998), mothers reported that a strict/structured family routine was required in order to accommodate the contact sessions with the therapists as well as time for the home programme. Time constraints are a major factor for mothers who are obliged to enfold activities (give attention to a number of goals in a single activity) in order to cope. They prioritise their focus on tasks for child care, and even more so when their child has special needs (Thompson, 1998). Mothers fit

the tasks they need to do around child care (Segal, 2000) and use enfolding in order to maximise their time, but use unfolding or concentration on one goal in the task in order to improve the occupational performance of their children when necessary. They also unfold activities in order to carry out an activity that is child-centred, such as play with their children (Larson, 2000).

Occupation-based practice focuses on the occupations of each individual and aims to engage the child in occupation in order to enhance their participation in the various contexts in which they must function. In the case of children, the occupations of both the child and parent/caregiver need to be taken into account when planning intervention (Rodger & Kennedy-Behr, 2017).

Therapists working in a school-based setting have reported that occupation plays a large role in their practice due to the fact that they practice in the child's natural context (Benson, 2013). Therapists perceive that occupation-based practice is easy for parents to understand and generalize into everyday living (Estes & Pierce, 2012). If therapists prescribe home programme activities that are unfolding, these activities need to be feasible for the mother's available time resources. Mothers admitted that if the home programme was too demanding on their routine, they selectively adapted the home programme. However, when practice and repetition provided by the home programme maximized their child's progress and the improvement noted on a weekly basis, this was reported as encouragement to continue executing the home programme regularly (MacWilliam, 1992).

Barriers to implementing home programmes as reported by parents were related to home programmes that were extremely rigid, as they felt this imposed too much pressure on them (Novak, in press). They were more likely to execute the home programme when it fitted into or became part of their routine which facilitated implementation of the home programme on a regular, non-negotiable basis. Other parents however, reported that they preferred flexibility to conduct the activities or exercises at various times that suited their schedule. Mothers also reported that as their children improved, they could introduce more flexibility in implementing the home programme within the family routine (Thompson, 1998). Since a strict routine can be taxing on families, allowing or encouraging flexibility as the child

improves could be a motivator for parents to implement the home programme for maximal effectiveness. Adapted activities that are embedded in the child's and family's everyday routine as part of the home programme allow more carry-over than in de-contextualised exercise (Brown & Bowen, 1998).

Collaborative goal setting should therefore be sensitive to the schedule of the family and allow for selection of activities that can be consistently performed (Hinojosa & Anderson, 1991). Mothers perceived that when the therapist failed to involve families' time use in the planning and implementation of the therapy services, it resulted in unnecessary adjustment of personal and family routines. They reported that the use of an individualised as opposed to general home programme potentially reduced the need of the family to make adjustments in their routine (Thompson, 1998). The goal for therapists with each child is therefore to identify the best times to do certain activities and also select activities that can easily be incorporated into the families' routine so as to reduce stress. Once parents are made aware of goals, they may be able to better assist in identifying opportunities for therapeutic activities that fit within their daily routine. Embedded activities within routine occupations may be preferable as they can direct movement and skills towards a goal that is motivating and may support enfolding. The child should also have a choice in which activities they would like to do at home. Thus, the context of each home must be considered when developing any home programme (Bazyk, 1989).

2.5.6 Complexity of the home programme

Novak has reported that parents initially feel overwhelmed by all the information they were provided with, regarding the home programme. They also reported some feelings of inadequacy as they felt they did not have the skills or knowledge to execute the home programme. Written home programmes were reported to be a facilitator in the implementing home programmes as this served as a reminder and guideline to follow and made parents less anxious about correctly executing activities (Novak, 2011).

The occupational performance coaching method guides practitioners to attend to problems. This method involves the occupational therapist coaching the parent to identify ways for them to facilitate the occupational performance of their child and

thus attain their goals for therapy. This method includes addressing the “three enabling domains” which are: emotional support, information exchange and a structured process. Techniques used by the therapist to help parents identify coping strategies include collaborative performance analysis, questioning, listening, observing, modelling, explaining and in-vivo coaching. This method is in line with family-centred practice as there is collaboration between the therapist and the family to ensure that the treatment is effective (Graham, Rodger & Ziviani, 2013).

2.5.7 Evaluating the outcomes of home programmes

A study exploring the use of the occupational performance coaching method showed that when parents were able to understand the goals as well as track and report progress, they reported better experiences and improved therapy. The study showed that the use of coaching as well as a family centred approach can be effective in evaluating outcomes and achieving therapy goal (Graham, Rodger & Ziviani, 2010). Thompson (1998) reported that mothers appraised their input into the home programme according to their child’s progress. When their child progressed they perceived their effort and the intervention as worthwhile.

Regular progress updates from the therapist, regardless of whether the feedback was positive or negative, was also perceived to be a motivator by parents implementing home programmes (Novak, 2011).

2.6 Summary

In summary, the literature indicates that internationally, parents have identified factors such as being included in the design of a home programme and being well trained in its requirements and implementation as facilitators. Parents expressed preference to home programmes as opposed to occupational therapy appointments at the occupational therapists practice, due to the flexibility afforded by home programmes. On the other hand, factors such as the nature of the household and the employment status of particularly mothers, acted as potential barriers to implementing home programmes. Shorter home programmes were also shown to be implemented more consistently. The broader context of the country

as well as the home and school contexts are also shown to be important considerations when structuring home programmes.

It is, however, not known what influences the implementation of home programmes for children with learning disabilities attending private practice occupational therapy in the Gauteng area of South Africa.

CHAPTER 3: METHODOLOGY

3.1 Study Design

The study used a descriptive cross sectional quantitative survey design. A questionnaire was compiled using literature and a pilot study including occupational therapists and parents was conducted to refine the questionnaire. Once the final questionnaire was compiled, parents were asked to complete the questionnaire at one point in time. Surveys serve the purpose of systematically gathering information from a sample of people in order to gain descriptors which might apply to the population to which these people belong (Groves et al., 2009). The descriptors in this study are the factors that influence parent's implementation of home programmes. This was applicable to this study which aimed to explore the views of parents on factors influencing the implementation occupational therapy home programme for their children with learning difficulties, including the barriers, facilitators and possible solutions to barriers in a research sample that may be generalizable to all South African parents whose children receive private occupational therapy. An electronic survey was used in this study. Advantages of a survey, particularly an electronic survey, include that they are time and cost effective, allow for sensitive topics to remain anonymous and their ability to reach a larger sample (Cope, 2014). Computer access and computer literacy are, however, disadvantages to using electronic surveys with some cohorts of possible participants (Cope, 2014).

3.2 Population and Sample

The population comprised parents of children with learning difficulties, attending mainstream schools, but who accessed private occupational therapy services in the Gauteng and had a home programme as part of the therapeutic intervention.

3.2.1 Selection Criteria

A sample of convenience was used in the study. Occupational therapists working in private practices delivering services to children with learning problems in mainstream schools were approached to participate in the study and snowballing was used to increase the number of practices participating in the study.

The occupational therapy practitioners were requested to identify parents at their practices, who fitted the inclusion criteria. The parents were approached by their therapist and invited to be participants in the study. Parents, who agreed to participate, were invited to anonymously complete the questionnaire developed specifically for this study. The sample consisted of parents, in the Gauteng Province of South Africa but was limited to those who could afford private occupational therapy.

Inclusion criteria:

- Parents of children with learning difficulties
- Parents whose children receive private occupational therapy and had a home programme
- Parents whose children attend mainstream schools

Caregivers were excluded from participating in this study.

3.2.2 Sample size

Fifty four occupational therapists in private practice in Gauteng were approached and agreed to participate in the study. An approximated yield of 200 parents from these practices was anticipated. Using Cochrane's formula, a sample size of a minimum of 75 parents provided a sample which represented this population with a 5% margin of error for continuous nature of data collected in this study (Bartlett, Kortlik & Higgens, 2001).

3.3 Research Instruments

A questionnaire was compiled by the researcher specifically for this study was based on factors in the literature which were shown to facilitate and present barriers to home programme implementation. A pilot study including occupational therapists and parents was conducted to refine the questionnaire. Once the final questionnaire was compiled, parents were asked to complete the questionnaire at one point in time. The questionnaire had two parts:

3.3.1 Demographic Information

The questions in this part explored demographic criteria of the parents such as age, gender, employment status, marital status, level of education and access to

helpers/caregivers. Demographic information about the child attending occupational therapy, who received the home programme, was also gathered. This included the child's age, school grade, and any diagnosis related to their involvement in occupational therapy (See Appendix A).

3.3.2 Home Programme Questionnaire

This part of the questionnaire included questions relating to factors influencing the implementation of the home programme, barriers or facilitators to the implementation of a home programme, (such as value of the programme, and training by the therapist, time available, who carries out the programme and whether it is seen as valuable) and possible solutions from the parent perspective to problems they identified. The questionnaire had a mix of closed-questions, questions answered on a Likert scale and open ended questions. The open ended questions allowed parents to comment on barriers, facilitators and possible solutions with regards to their home programme. Questions covered included: importance ascribed to the home programme, time available to execute the programme, content of the home programme, collaboration with the therapist, who directs the programme and how many ideas were provided to add variation to the programme, aspects of the programme that work for parents and whether the programme is flexible and accommodates the resources available and daily routine, and whether they received support from the therapist. The inclusion of parents' personal preferences and feedback on whether they were correctly implementing their home programme were considered important.

3.4 Research procedure

3.4.1 Pilot study to confirm content validity of the survey questionnaire

A pilot study to determine the content validity of the questionnaire was completed. The draft questionnaire was evaluated by a sample of five occupational therapists as subject matter experts (SMEs) and five parents of children who have received a home programme, as end users of the occupational therapy service.

A convenient sample of therapists, ,with a minimum of five years of work experience who were currently providing therapy to mainstream children who had learning difficulties and were prescribing home programmes were invited to

participate. Each of these therapists then invited a parent from their client load, who was implementing a home programme, to comment on the content validity of the questionnaire. The parent and therapists participating in the pilot study were provided with an information sheet and consent form.

Each of the participants in the pilot study was required to rate every question in part 2 of the questionnaire based on its relevance, clarity, simplicity and ambiguity on a 4-point scale (1: complete revision, 2: some revision, 3: minor revision, 4: no revision). There was also, space for comments on each question. Each question was analysed for each variable. For each of the questions, the scores from the 10 participants in the pilot study were added and then converted to a percentage. A content validity index of 0,75 (Yaghmaie, 2003) was required in order for the questionnaire to be considered as having adequate content validity.

The following content validity scores were calculated for each question from the evaluation of the ten participants:

The overall content validity of the questionnaire was 0.94, thus the questionnaire was concluded to be valid as a whole.

From the Table 3.1 it can be seen that each question averaged above the content validity target of 0.75 and thus did not need to be altered or eliminated.

Table 3.1 Content validity index scores for each question on the questionnaire.

Question	Calculated content validity average
1	0,93
2	0,89
3	0,98
4	0,91
5	0,92
6	0,86
7	0,97
8	0,93
9	0,91
10	0,95
11	0,98
12	0,91
13	0,96
14	0,98
15	0,9
16	0,96
17	0,98
18	0,99
19	0,87
20	1
21	0,98
22	0,94
23	1

Some changes were however made to the draft questionnaire following comments made by the participants, into account. The questions that were altered are described below. The participants are referred to by number (Therapists: T1 – T5 and Parents: P1 – P5), in order to maintain confidentiality and anonymity.

Question 1 and Question 2:

Question 1 was noted by T1 to be slightly clumsy and T4 commented that the question was a bit vague. In addition, T1, T3, T4 and P4 mentioned that Question 1 and Question 2 were very similar... Question 1 (“How much do you value your current home programme?”) and Question 2 (“How much value would you ascribe to your home programme?”).They were combined to form one question in the final questionnaire

(“How much value would you ascribe to your current home programme?”).

Question 3:

T3 and T4 both commented that a list of potential benefits should perhaps be provided, as they felt that the parents might not be able to answer suitably. None of the parents commented that the question was vague or difficult to answer. Furthermore, the researcher felt that providing choices would be leading and limiting. As content validity had been achieved for this question, the question was not changed.

Question 4:

P2 commented that the options should be similar to Question 5. The researcher felt that the options were appropriate and as content validity was achieved, thus the options were not changed. The question was however changed to “the home programme” rather than “your home programme” in order to keep it consistent throughout the questionnaire.

Question 5:

T2 commented on a grammatical error and the question was changed to “How often are you willing to implement the activities/exercises in the home programme?”

Question 6:

T1, T4, P4 and P5 all felt that the question should be reworded. Two participants suggested the phrase

“per day” rather than “at one time”. The researcher reworded the question to “How much time, per day, were you requested to spend on the home programme?

Question 7:

T1, P2 and P5 all suggested that the wording be changed to have a better flow from the previous question, thus the question was modified to “How much time, per day, are you able to spend on the home programme?”

Question 8:

T1 and T3 both suggested that there should be options to choose from. The researcher felt that this would be limiting and as the question was rated as having valid content, it was not changed. The question was however split into two separate questions in order to ensure clarity:

“Are you able to implement your child’s home programme for the amount of time suggested?”

“Are you able to implement your child’s home programme as frequently as the therapist has suggested?”

Question 12:

T2, T4 and T5 felt that the phrase “goal directed” was vague. T1 suggested that the question include “activities” and not just “exercises”. The researcher amended the question to: “Are the exercises/activities in the home programme directed at achieving therapy goals?”

Question 14:

T1 suggested that the question should state that more than one option can be selected. The researcher added “more than one option may be selected” to the question in order to ensure maximal information be generated by the question.

Question 15:

T1, T2, T4 and P2 all suggested that it was necessary to specify what the document was. The researcher therefore reformulated the question to “Do you have the necessary written information regarding the exercises/activities in the home programme?”

Question 16:

The researcher added “activities” to the question in order to make it more consistent with the previous questions.

Question 19:

T1, T3 and T4 felt that the question should specify what the “follow-up” was for. T4 suggested an added question that would work better than “follow-up” but address the same issue. The researcher reworded the question to: “Do you have a means of giving feedback regarding your child’s home programme?”

Additional Questions:

Following the participants suggestions the researcher added four additional questions to the questionnaire.

- Did the therapist discuss the benefits/importance of a home program? (Suggested by P5 and T4)
- Did the therapist explain the specific benefit/importance of the exercises/activities in the home programme? (Suggested by P5)
- Were the exercises/activities in the home programme explained adequately? (suggested by T4)
- Do you use the home program:
    - In addition to a regular therapy programme
- Exclusively ○ If exclusively, why? (Suggested by T1)
- Who does the home programme with your child? (Suggested by T1)

After consulting further literature, the following questions were added to the questionnaire:

- Do any of the activities in the home programme include sibling involvement?
- Are the instructions regarding the exercises/activities in the home programme easy to follow?
- Did you receive any written information from the therapist regarding the exercises in the home programme?

- Do you have a means of giving feedback regarding your child's home programme?
- Do you perceive the therapist to be friendly and approachable?

A copy of the finalised questionnaire can be found in Appendix A and B.

3.5 Data collection

Once ethical clearance was received from the Human Research Ethics Committee (HREC) at the University of the Witwatersrand the pilot study as described above was then conducted. The content validity of the questionnaire was confirmed and questionnaire was finalised as per the suggestions. The final questionnaire was transferred to the Research Electronic Data Capture (REDCap) online platform for easy distribution to the parents and to ensure that all responses could be anonymous.

The list of 88 paediatric occupational therapists in private practice in Gauteng was compiled from an online search. Many of the therapists were sourced on an online medical site, Medpages. The researcher then approached these private practitioners to participate in the study by recruiting parents in their practices. Each of the 88 occupational therapists was contacted via telephone call to determine their willingness to participate in the study, as well as to ascertain whether they met the criteria for the study. The therapists were sent an email containing the information sheet as well as the email link for the questionnaire (Appendix C and D). Of the 88 occupational therapists that were called, 38 had clients who met the inclusion criteria and were willing to distribute the email link to those clients (Appendix C and D).

Each of the 38 therapists that agreed to participate in the study was also asked if they knew any colleagues, who had clients, who met the criteria and who were willing to participate in the study. This yielded a further 16 occupational therapists who agreed to participate in the study. The total number of therapists that agreed to participate in the study was 54. Each of the 54 therapists agreed to distribute the Information sheet and REDCap link for the online questionnaire to the clients in their practice who were currently using occupational therapy home programmes and, who agreed to take part in the study. The first checkbox in the questionnaire

was to obtain informed consent and to let the participants know that they were filling in the questionnaire anonymously and that the information was going to be used for research. The therapists were blinded to the participants' comments ensuring that parents could not be identified and could answer the questions as truthfully as possible.

The recruiting therapists in the study were telephoned two or three times and as a reminder to distribute the questionnaire. Up to four reminders were sent to the parents to whom they sent the questionnaire. The therapists were also emailed up to four reminders to encourage the competition of the research questionnaire.

Data collection was done over a period of two months and was terminated when no more questionnaires were completed over a two week period, despite reminders. A total of 79 questionnaires were completed, which exceeded the minimal sample size of 75 participants, making the yield statistically relevant.

3.6 Data Analysis

A content validity study was done on the data from the pilot test. The results from REDCap were imported into Microsoft Exel.

Data	Variable	Type of data	Test
Demographic data of parents and children with learning disabilities, receiving private occupational therapy and have home programmes.	Age, gender, employment status, etc.	Nominal and Interval	Frequency and Measures of central tendency.
Data to determine what parents consider as facilitators and barriers to their implementation of home programmes as well as solutions to barriers.	Open ended questions Closed ended questions	Ordinal and Nominal	Frequency

Chi squared tests were used to compare the suggested and actual time for home programmes as well as the time parents were expected to use for home programmes and the time they were willing to spend on home programmes. Significance was set at 0.05.

Statistical programmes to be used for data analysis were Microsoft Excel and Statistica v13.2.

3.7 Ethical Considerations

Ethical clearance was obtained from the Human Research Ethics Committee (HREC) at the University of the Witwatersrand (M170821)(Appendix E). The managers of the occupational therapy private practices as well as the occupational therapists working in the practice were approached for permission to invite parents, of children they treat who meet the inclusion criteria (Appendix E), to participate in the study.

The questionnaires were distributed from the private practices via e-mail with an information sheet (Appendix E) and a REDCap online link to the survey to the parents. The return of the questionnaire was via the REDCap website to ensure anonymity of the participants and the information. Completion of the questionnaire assumed informed consent. Participation was voluntary and refusal to complete the questionnaire or withdrawal while doing so had no consequences in terms of their child's occupational therapy service. No names were required of the parents, child or occupational therapy service and thus confidentiality was ensured. The therapists were not aware of which of their clients completed the questionnaire as participation was voluntary and anonymous. The first checkbox in the questionnaire was to obtain informed consent and to let the parents know that they were filling in the questionnaire anonymously and that the information was going to be used for research. The parents participating in the study had the option of accessing the results of the study on request.

CHAPTER 4: RESULTS

4.1 Introduction

The results are presented in a format that followed the two parts of the questionnaire. The first part focuses on the demographics of the participants (parents) and their children. Results of part two related to the home programmes. Factors which literature reported to affect the implementation of the home programmes namely: time, implementation, content of the home programmes and support from the therapist are reported first (objective 1), Facilitators and barriers to implementing home programmes (objective 1) are reported next and finally suggestions for improving implementation of home programmes are then described (objective 2).

The questionnaire contained a mixture of closed- and open-ended questions and the number of participants who answered these questions differed. Some of the closed-ended questions were multiple choice or “Yes/No” options in which case only one answer could be selected. However, some of the multiple choice questions allowed multiple options to be selected therefore, the number of answers as indicated in the results were sometimes greater than the number of participants (N=79). Also, there were some respondents that did not complete all questions, especially open ended questions. The number of these participants is indicated in the tables and figures included in this chapter.

A sample size of 79 participants was recruited from the 88 private practices approached to assist with the study.

4.2 Demographics of the sample

4.2.1 Parents

As can be seen from Table 4.1 the highest number of participants were in the 31-40 year age group n=56 (70.89%) and most were female n=72 (91.14%). The majority of participants had tertiary education n=66 (83.54%), and were employed full-time n-53(67.09%), married n=74(93.67%) and had two children n=49 (62.03%).

Just under half of the parents n=39(49.37%) had assistance with childcare, from nannies and domestic helpers n=26 (32.91%). A small percentage had help from grandparents n=16 (20.25%) (Table 4.1).

Table 4.1 Demographics of parents (n=79)

		n	%
Age in years	under 20	1	1.27
	21-30	5	6.33
	31-40	56	70.89
	41-50	17	21.52
Gender	male	7	8.86
	female	72	91.14
Education	Primary School	1	1.27
	High School	12	15.19
	Tertiary education	66	83.54
Employment status	Part-time	17	21.52
	Full-time	53	67.09
	Student	1	1.27
	Not employed	8	10.13
Marital status	Married	74	93.67
	Separated	1	1.27
	Single	3	3.80
	Co-habiting	1	1.27
Number of children are there in the home	One	19	24.05
	Two	49	62.03
	Three	10	12.66
Someone in your home to help with childcare	Yes	39	49.37
	Nanny	14	17.72
	Domestic	12	15.19
	Parent	10	12.66
	Grandparent	6	7.59
	Au Pair	1	1.27

4.2.2 Demographics of Children receiving home programmes

From table 4.2 it can be seen that the demographics of the children of the participants attending occupational therapy and using occupational therapy home programmes were mostly between the ages of four and seven years old. The grades children were in ranged from Grade 000 to Grade 4 with two thirds of the children attending Grade 0 and Grade 1 (Table 4.2).

Table 4.2 Demographics of children Age (n-77) & Grade (n = 79)

		n	%
Age in years	Four	10	12.66
	Five	21	26.58
	Six	23	29.11
	Seven	13	16.46
	Eight	5	6.33
	Nine	3	3.80
	Ten	2	2.53
	Total	77	
Grade child currently completing	Grade 000	1	1.27
	Grade 00	12	15.19
	Grade 0	30	37.97
	Grade 1	23	29.11
	Grade 2	6	7.59
	Grade 3	5	6.33
	Grade 4	2	2.53
	Total	79	

Two of the participants did not include their child's age.

From Table 4.3 it can be seen that twenty five of the parents indicated that their child had a formal diagnosis and with ADD/ADHD, Autism Spectrum Disorder, Sensory Processing Disorder and Asthma being the most frequently reported (Table 4.3).

Table 4.3 Diagnoses of children receiving home programmes (n= 25)

		n	%
Medical Diagnosis	ADHD	5	6.33
	Sensory Processing Disorder	3	3.80
	Autism Spectrum Disorder	3	3.80
	Asthma	3	3.80
	ADD	3	3.80
	Speech Apraxia	1	1.27
	Hearing Loss	1	1.27
	Fine motor (not specified)	1	1.27
	Epilepsy	1	1.27
	Dysgraphia	1	1.27
	Behavioural disorder (not specified)	1	1.27
	Auditory Processing	1	1.27
	Anxiety	1	1.27

4.2.3 Therapy attendance and home programmes

Table 4.4 revealed that speech therapy, physiotherapy, psychology, play therapy and neurofeedback therapy were additional therapies that the children attended.

The data (Table 4.4) shows that of the 36 participants who indicated their children attended other therapies, the largest percentage was speech therapy n=30 37.97%, with the rest of the therapies attended by less than 4% of the children. Of the additional therapies, only one participant reported implementing home programmes for the both physiotherapy and play therapy, while n=19 24.05% participants were implementing a home programme for speech therapy.

Table 4.4 Therapy attendance and home programmes (n=36)

		n	%
Other therapies:	Speech therapy	30	37.97
	Physiotherapy	3	3.80
	Psychology	1	1.27
	Play therapy	1	1.27
	Neurofeedback therapy	1	1.27
Home programmes	Speech therapy	19	24.05
	Physiotherapy	1	1.27
	Play therapy	1	1.27

4.3 Factors influencing Home Programme Implementation

4.3.1 Value of the home programme

Table 4.5 reports that most of the participants indicated that they felt that their home programmes had some value.

Table 4.5 Value of home programme for your child (n=79)

	n	%
None	1	1.27
Minimal	15	18.99
Moderate	33	41.77
Maximal	30	37.97

The highest percentage of participants (41.77%) n=33 indicated that their occupational therapy home programme has moderate value, followed by 37.97% of participants who ascribed maximal value to their home programme. Only 18.99% of participants felt that their home programmes held minimal value and one participant felt that their home programme had no value.

Only 6 participants answered the open-ended question about the greatest benefits of the home programme. These participants' perceived benefit from their occupational therapy home programme to include: improving interaction with their child, keeping the child's mind active and helping to achieve therapy/treatment goals (Table 4.6).

Table 4.6 Greatest benefits of the of home programme (n=6)

	n	%
Not sure	1	1.27
Not applicable	1	1.27
Interaction with child	1	1.27
Keeps mind active	1	1.27
Helps to achieve treatment goals	2	2.53

4.3.2 Time for home programme

Most of the participants reported that they were asked to implement their home programme daily. There was not a significant difference between how often the participants were advised to do the home programme and how often they were willing to implement the home programme. There is however a higher percentage of participants who are willing to implement their child's home programme only a few times a week rather than daily as recommended by the therapist.

Most participants were requested to spend 15-30 minutes on home programmes. There was no significant difference between the time participants were requested to do the home programme and time they were willing to spend on the home programme. There was incongruence however between the percentage of participants willing to spend less than 15 minutes on the home programme and the number of those requested by the therapist to spend this amount of time on the home programme (Table 4.7).

Table 4.7 Frequency advised and time requested and willingness to carry out the home programme

		n	%	p value
How often were you advised to implement the activities/exercises in the home programme?	Daily	36	45.57	0.080
	A few times a week	28	35.44	
	Once a week	13	16.46	
	Twice a month	1	1.27	
	Once a month	1	1.27	
How often are you willing to implement the activities/exercises in the home programme?	Daily	23	29.11	
	A few times a week	44	55.70	
	Once a week	12	15.19	
	Twice a month	0	0.00	
	Once a month	0	0.00	
	Never	0	0.00	
How much time, per day, were you requested to spend on the home programme?	Less than 15mins	25	31.65	0.074
	15-30mins	44	55.70	
	30-45mins	9	11.39	
	45-60mins	1	1.27	
	More than 60mins	0	0.00	
How much time, per day, are you able to spend on the home programme?	Less than 15mins	37	46.84	
	15-30mins	29	36.71	
	30-45mins	9	11.39	
	45-60mins	3	3.80	
	More than 60mins	1	1.27	

Significance p≤ 0.050*

4.3.3 Implementation of the home programme

Table 4.8 shows that the majority (92.86%) of the home programmes were implemented by the n=79 parents with very few using nanny's, tutors and family as alternatives.

Table 4.8 Who Implements the Home Programme

	n	%
Parents	78	92.86
Nanny	2	2.38
Uncle	1	1.19
Tutor	1	1.19
Sibling	1	1.19
Grandparents	1	1.19

Figure 4.1, shows that most of the participants used their occupational therapy home programmes in addition to regular therapy sessions (97.47%). The reasons that two participants were using their home programme exclusively were that the one parent was ill and thus unable to take their child for therapy sessions and another continued to implement a sensory diet after discharge from therapy.

The data indicated that 73.42% of the participants were able to implement the home programme for the suggested amount of time; however fewer participants (58.23%) were able to implement the home programme as frequently as suggested.

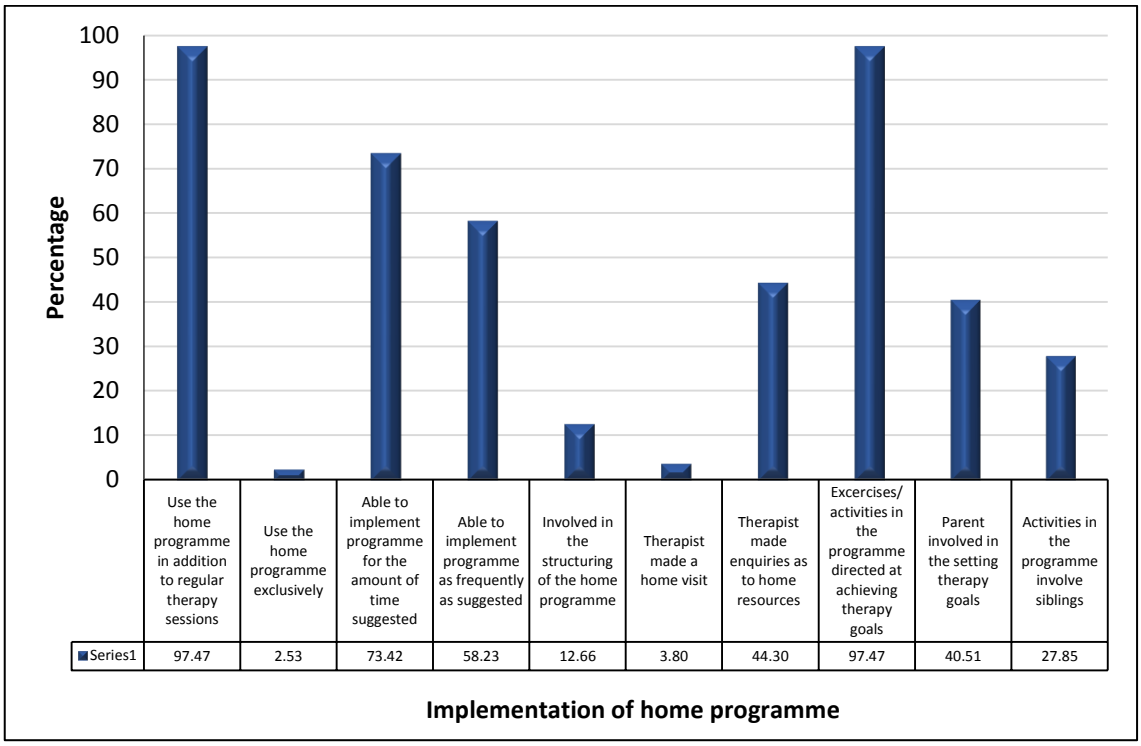

Figure 4.1 Implementation of the home programme (n=79)

Figure 4.1 reports a very small percentage (12.66%) of the participants reported involvement in the structuring of the home programme and even fewer (3.80%) reported that the therapist did a home visit. Therapists were reported to make enquiries with regards to the resources at home by 44.30% of the participants.

Majority of the participants (97.47%) reported that the exercises/activities in the home programme were directed at achieving therapy goals. However, only 40.51% of the participants were involved in setting therapy goals. Additionally, only 27.85% of the participants reported that the activities in the home programme involved siblings.

4.3.4 Time

Time constraints were listed as the greatest reason for not implementing the home programme for the amount of time or as frequently as suggested (75%). Other reasons for not implementing the programme for the suggested amount of time included: the child being fatigued or disinterested, the parents forgetting and the parents being ill. The frequency of implementation was affected by the child being fatigued/disinterested, the parents forgetting, the parent being ill and the child becoming overstimulated (Table 4.9).

Table 4.9 Reasons parents were unable to implement home programme

Why parents are unable to implement home programme for the amount of time by the therapist (n-23)			**Why parents cannot implement the home programme as frequently as suggested by the therapist (n=36)**		
	n	%		n	%
Time constraints	27	73.91	Time constraints	27	75.00
Child is fatigued	3	8.70	Child fatigued	3	8.33
Forgets	2	4.35	Forgets	2	5.56
Child is not interested	1	4.35	Child is not interested	1	2.78
Ill parent	1	4.35	Child becomes over stimulated	1	2.78
Not suggested by therapist	1	4.35	Not suggested by therapist	1	2.78
			Health issues	1	2.78

From Table 4.10 it can be seen that the most frequent reason for being able to implement the home programme for the amount of time suggested and as

frequently as recommended was having time available to do the home programme, sound time-management and fitting the programme into daily routine n=36 (65.45%). Parents reported that if they had time, managed their time and were organized, they were more likely to be able to implement the programmes frequently.

Other reasons for being able to implement the home programme were the activities being short, fun and easy to implement n= (18.92%), and the therapist providing hand-outs (10.81%). Parents indicated that understanding the importance of the activity, being motivated to implement the programme, spreading the activities throughout the day, having informal activities in the programme, incorporating the activities into daily routine and ensuring the help of both parents were also reasons that could facilitate the implement the programme as suggested (Table 4.10).

Table 4.10 Factors that assist the implementation of the home

What assists with home programme implementation for the amount of time recommended by the therapist (n=55)			**What assists parents to implement the home programme as frequently as the therapist suggested (n=36)**		
	n	**%**		**n**	**%**
Time - parent has time. Manages time and fits into family routine or normal tasks	36	65.45	Time - routine, parent has time, manages time, organisational skills	19	51.35
Positive results - motivated to help child, rewarding for child	6	10.91	Programme -activities are short, fun , easy to implement, limited	7	18.92
Programme - length, structure, fun activities, easy to implement	6	10.91	Therapist - provides specific activities, handouts	4	10.81
Help with implementing, both parents help or take turns	5	9.09	Understanding importance of the activities and motivated to help child	2	5.41
Therapist input explanation and demonstration with regular feedback with therapist	2	3.64	Spreading activities throughout the day and informal activities	2	5.41
			Routine and incorporating activities into normal tasks	2	5.41
			Both parents help	1	2.70

4.3.5 Content of home programme

The participants were allowed to select multiple options for the question that generated the data for the content of the home programme. Many participants reported that their home programme included specific exercises (89.87%). Some participants indicated that their home programme included general ideas (43.04%). Few participants indicated that their home programme included parent education (30.38). The least participants indicated that their home programmes included environment adaptations (18.99%) (Figure 4.2).

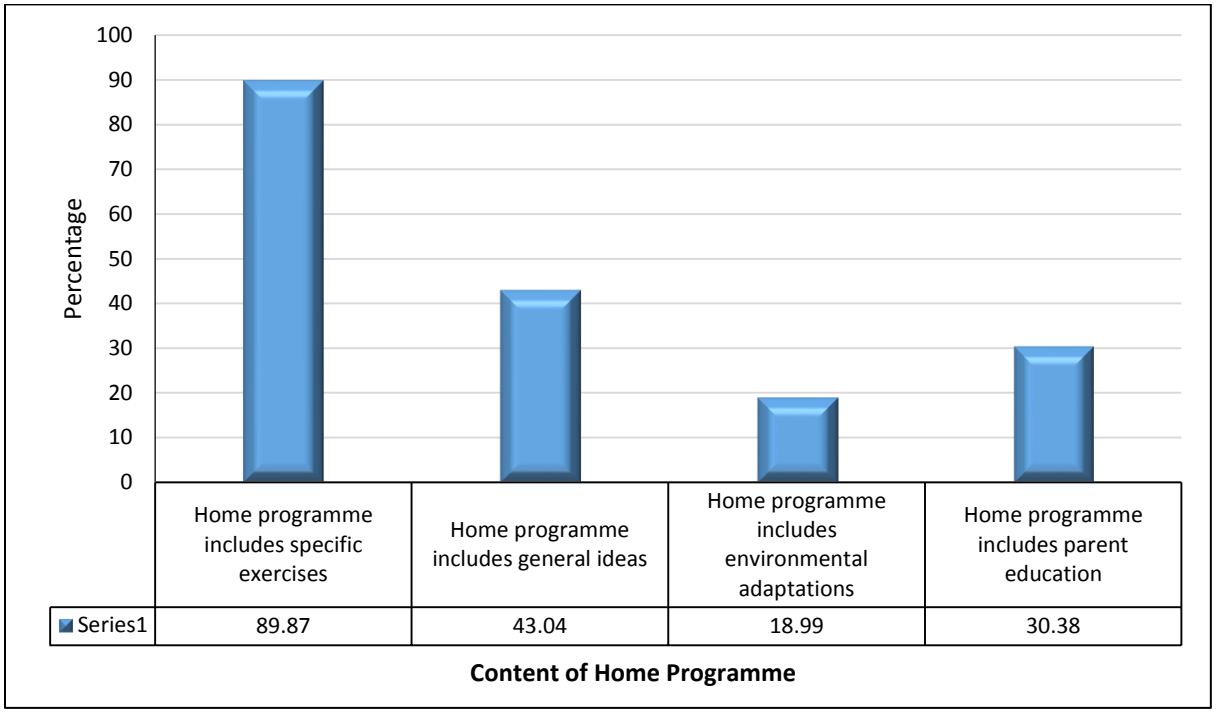

Figure 4.2 Content of home programme (n=79)

When asked what instructions were provided with the home programme, many participants reported that they were given the necessary written information regarding the exercises/activities in the home programme (92.41%) and that the instructions regarding the exercises/activities were easy to follow (98.73%) (Figure 4.3).

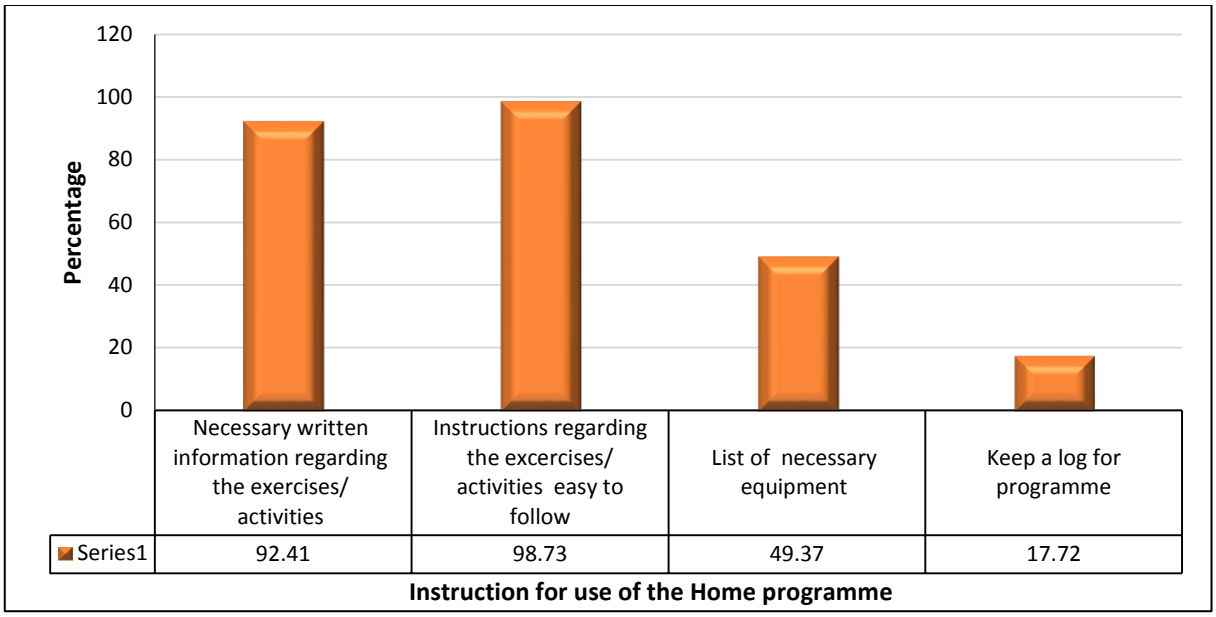

Figure 4.3 Instruction provided with the home programme (n=79)

A few participants reported that the home programme had a list of equipment necessary (49.37%) and fewer reported that they were keeping a log (17.72%).

4.3.6 Support from therapist

The data showed that all the participants felt that their therapists were friendly and approachable. A large percentage of participants reported that they had a means of giving feedback to the therapist (94.94%) and that the therapist monitors progress regularly (92.41%). Many participants reported that their therapists discussed the benefits/importance of the home programmes with them (89.87%), discussed the benefits/importance of the exercises/activities in the programme (86.08%), received written information from the therapist (86.08%) and had the exercises/activities in the home programme explained (84.81%). Fewer participants reported that they received training from the therapist (51.90%) (Figure 4.4).

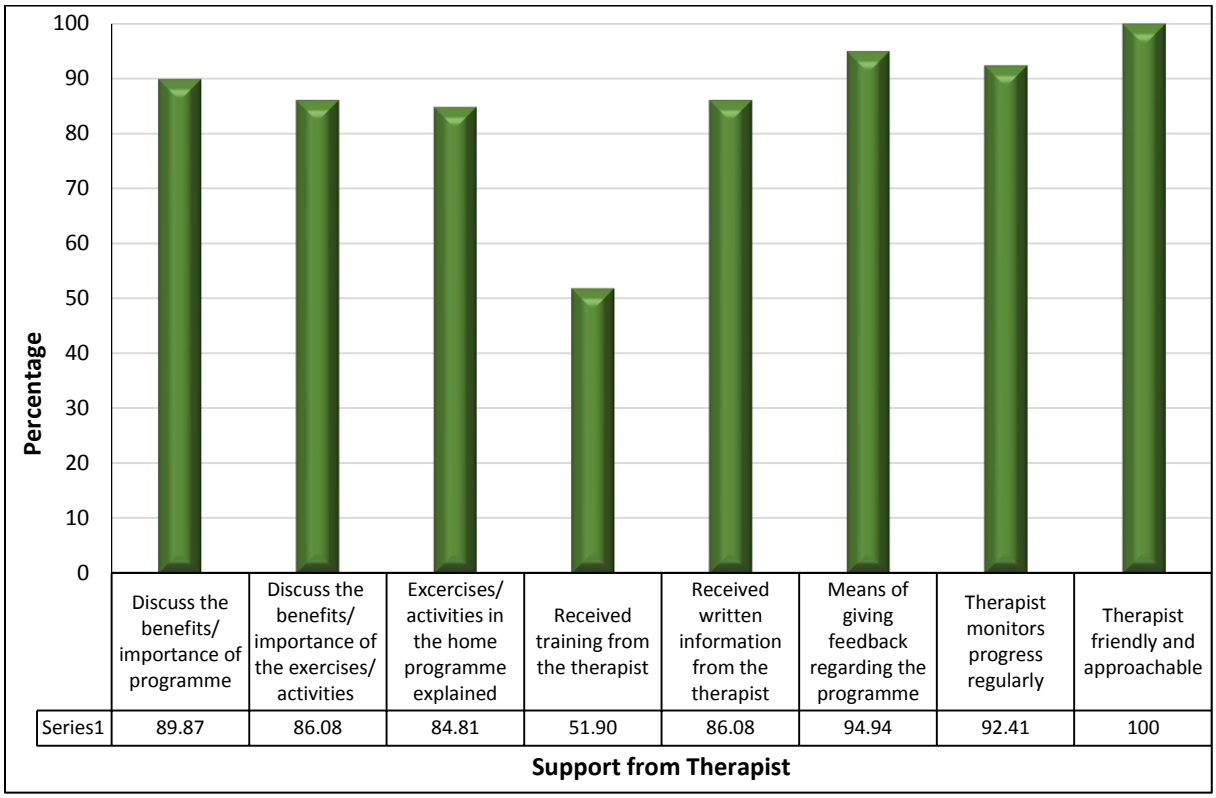

Figure 4.4 Support from therapist for home programme (n=79)

4.4 Barriers and facilitators to implementation of home programmes

The questions yielding the data for this section were open ended and each participant was able to list as many suggestions as they could. As with the reasons for not implementing the home programme frequently, the data showed that participants perceive their biggest barriers to be time constraints (58.90%), their children being fatigued/ill/uncooperative (26.03%) and the child becoming overstimulated (1.37%). Other factors however included family factors (4.11%), restrictions in the environment or resources (5.48%), exercises in the programme being too difficult (4.11%), (Table 4.11).

Table 4.11 Barriers and facilitators to implementation of home programmes

Barriers to implementing home programme (n=73)			**Facilitators to implementing home program (n=75)**		
	N	**%**		**n**	**%**
Time constraints, requires deviation from routine	43	58.90	Programme - goal setting clear, exercises are enjoyable, activities are easy, exercises are well explained and has incentives for child	30	40.00
Child fatigued, ill or uncooperative	19	26.03	Programme -structured routine, written handouts are provided, specific exercises are given	13	17.33
Family factors- siblings disrupt , parents fatigued or ill	3	4.11	Family -child cooperatives, siblings included or don't distract, help from both parents	12	16.00
Environment and Resources - availability of tools, financial constraints, weather	4	5.48	Parents value home programme. Prioritises programme, is organised, has time	9	12.00
Programme - exercises are difficult for the child or not well explained	3	4.11	Programme incorporated into daily events	5	6.67
Child becomes overstimulated	1	1.37	Environment and resources - suitable space to work in, all tools needed in one box	3	4.00
			Therapy - positive results seen, regular feedback with therapist	3	4.00

The two greatest facilitators were regarding the structure of the programme. Participants most frequently listed was clear goal setting and fun and easy activities that are well explained (40%). The following factors: structured routines with specific exercises and written hand outs (17.33%), family factors such as child cooperation, sibling inclusion and parent involvement (16%) and parent's time, value, prioritisation and organization (14%) were all within a similar frequency range. Other factors mentioned, included the programme being incorporated into daily events (6.67%), suitable environment and resources (4%), as well as positive results seen and feedback with the therapist (4%).

4.5 Suggestions to improve the implementation of home programmes

The findings for this objective were yielded from Q31 an open-ended question. The participants listed 46 suggestions which in their view would improve the implementation of home programmes. These are presented in Table 4.12.

Table 4.12 Suggestions to improve to implementation of home programmes (n=46)

	n	%
Therapist -more therapist guidance, explanation of how the home programme helps, better explanation of what is required, provides a clear schedule for the programme, is passionate	9	19.57
Instructions for programme - written hand outs that are child friendly, step-by-step instructions, list of resources needed for the programme. Parent's video the child performing the exercise at OT.	8	17.39
Content of programme - variety of exercises, online database written and video learning, Interactive online, no equipment is needed, flashcards with the exercises on them, incentives for the child. Exercises are short, fun, easy to do and implement, interesting for the parents as well, linked to the goals, form part of daily routine. Activities that can be implemented at school	18	39.13
Parents - prioritize the home programme, are disciplined, time management,	5	10.87
Implementation - train another family member, include siblings, structured routine, having a helper	4	8.70
Reminders for the parents	2	4.35

The highest number of comments was directed at content of the programme (39.13%). Therapist guidance (19.57%), instructions for the home programme (17.39%), and parent motivation (10.87%) were other significant factors listed. Lesser common factors included: who implements the programme (8.70%) and reminders for the parents (4.35%).

4.6 Summary

The demographic data showed that the majority of the research participants were mothers between the ages or 31 and 40 years old who were married, had a tertiary education and worked full-time. Almost half of the participants have someone that helps them with childcare in their home. The majority of the children

showed to be in Gr0 and Gr1 and a little over a third of the children attend speech therapy as well.

The participants ascribed moderate to maximal importance to their home programme. Most were requested to do their home programme daily or a few times a week and are willing to implement the programme that frequently. Most reported that the home programme does not take more than 30 minutes at a time and are willing to implement it for that length of time. The participants mostly reported implementing the home programme themselves. The home programmes were reported to be used in conjunction with therapy. Most participants reported that their home programmes included specific exercises that were easy to follow and included the necessary written information.

The first objective of the study was to find out what barriers and facilitators parents perceive, affect their implementation of home programmes.

A summary of barriers to home programme implementation as reported by the participants includes time, the child being fatigued/uncooperative, other family factors, environment and resources, programme exercises being difficult/not well explained and the child becoming overstimulated.

A summary of facilitators to home programme implements includes goal setting, enjoyable activities, incentives for the child, written hand outs, inclusion of the family in the activities, ensuring that parents value the programme, incorporating the programme into daily routine, suitable environment and resources and regular communication with the therapist.

Suggestions made by participants, for improved implementation of home programmes included the following factors: the content of the home programme (suiting the family and being short, fun and easy to implement), the therapist (providing written hand outs of instructions and resources necessary), as well as the therapists providing coaching and guidance. This supports the second objective of the study.

CHAPTER 5: DISCUSSION

5.1 Introduction

This chapter will incorporate a discussion of the demographics of the participants as well as their children in relation to the information yielded from the study. The factors related to parents' implementation of the home programmes will be considered with regards to: importance, time, other implementation factors, content and support from the therapist. A summary of the barriers to home programme implementation as well as facilitators and solutions to improve home programme implementation will be included.

5.2 The sample of participants

Seventy Nine parents, recruited from eighty eight private occupational therapy practices in Gauteng, completed the questionnaire. The power calculation (see 3.3.1) indicated that sample 75 was required to represent this population of parents who were required to implement occupational therapy home programmes for their children with learning difficulties with a 5% margin of error.

The demographic profile of the parents participating in the study indicated that the majority were between 30-40 years of age, married females and had tertiary education. The mothers' age group was congruent with the highest median of mothers' age at time of birth in South Africa, which is between 24-29 years (Statistics South Africa, 2018) as the children, of the participants, ages ranged from four to ten years.

The majority of the participants had 2 children and most of the participants in the study were working (n=53; 88.61%), with only n=17 21.52% of these participants working part-time. Just under half the participants has childcare assistance in the form of a domestic worker/nanny.

It can be assumed that the participants come from households with middle to high socioeconomic status. This favours compliance with home programmes as parents' education and socioeconomic status at higher levels have been found to

correspond with higher parental compliance with home programmes (Galil et al., 2001).

Almost half of the participants reported having help with childcare at home, which may be typical for many middle-higher economic families in South Africa, who have someone in their home with whom they can share their workload. This is not evident in other research on caregivers of children with special needs that require the implementation of a home programme. Having childcare help may assist with reducing some the stress of caring for a family and having to implement one or more home programmes with at least one child. Formal sources of support such as employed domestic workers or au pair and informal sources of support such as family members have been shown to reduce negative emotions for many parents, particularly mothers of children who need extra care and support (Murphy et al., 2007).

The participants reported that they were implementing the home programme themselves and only 12.66% reported that the other parent assisted with implementation. These results were not congruent with literature which indicates that the responsibility for meeting the child's needs in two-parent families is more likely equal when one or both parents work (Wight, Raley & Bianchi, 2008). This shows that mothers in South Africa appear to bear the brunt of implementing home programmes with their children, even if they are working. This may be a reflection of South African culture.

As most participants were employed it is likely that the participants had medical aid, usually offered as part of employment contracts, which fully or partially covered the expense of their child's therapy dependant on the benefit package. Therefore, parents appeared to be able to afford various therapies for their children with learning difficulties at least n=36 45.6% were receiving one other therapy and 3.79% were receiving multiple therapies (Table 4. 4).

South African law stipulates that inclusive education be practiced, thus children with mild to moderate learning barriers be accommodated in mainstream schools (Department of Education, 2001). However, severe medical conditions would result in more significant functional difficulties and these children can be referred to LSEN schools (Pather, 2011).

While occupational therapists at public health facilities do cater for children with learning disabilities and more severe physical or cognitive deficits, these services are restricted to children under the age of 6 years, in terms of budgetary constraints (Saloojee et al., 2006). Looking at the results, 31 of the children in the sample could have accessed services in this way, but were instead accessing private therapy. This could be due to lack of awareness of these services being available, the distance these facilities are from the home or the availability of private health insurance.

A small percentage (32%; n=25) of the children in the study were reported to not have a formal medical diagnosis indicating that most children in the study have milder functional difficulties that impact learning. The condition that was most commonly reported in the current study, at 6.33% (n=5), was ADHD. This was not unexpected as the greatest percentage of children, in inclusion classrooms in mainstream schools within South Africa, are reported to present with this diagnosis (Walton et al., 2009), even though there are no official statistics for the prevalence of ADHD in South Africa (Muthukrishna 2013).

The majority of the participants had children between Gr0 and Gr1 which are all in the foundation phase of schooling indicating that there may be a lack of focus on early intervention, before 5 years of age. It is recommended that therapy for learning disabilities commence earlier than the start of formal schooling and, according to the literature, only a minority of children are referred for assessment early with most parents being unaware of the importance of early intervention and the impact that delayed intervention can have on function at school (Marr & Cermak, 2003). It appears that in the current study, learning problems are often recognised when the child enters the education system which is consistent with the literature.

5.3 Factors related to the parents' implementation of home programmes

The first objective of the study was to determine what factors parents (of children with learning difficulties at mainstream schools and receiving private occupational therapy services) identify as affecting their implementation of home programmes. This included the importance, content and implementation of the programmes as

well as time available and therapist support for the home programmes prescribed for the children of the participants.

5.3.1 Importance of home programmes

Most participants ascribed moderate to maximal value to the occupational therapy home programmes for their children. Although the participants placed moderate to maximal value on their home programmes, only a few participants were able to report what the greatest benefits of their home programme were. Only six participants (7.59%) responded to the question regarding the benefits of the home programme. This suggests that the participants were largely unaware of, could not recollect the benefits of the occupational therapy home programmes or did not take the time to fill in this question, even though 89% (n=70) of participants reported that their occupational therapist discussed the benefits/importance of the home programme with them. The participants felt that if they understood the importance of the activities, then they would be more motivated to help their child.

This shows that therapists could facilitate home programme implementation by offering more information as to the importance of the activities in the programmes, or repeat this at each session to ensure, in collaboration with the parents, that the benefits of the home programme are agreed on, thus motivating the parents to implement these activities at home. As indicated by Novak et al. (2006) and Novak et al. (2009) home programmes are of greater value if they include benefits that are clearly defined, this should be an on-going consideration throughout the entire implementation of the programme. While the importance of the programme had been explained to majority of the parents in this study at the start of the programme, it is clear that this may not have been reinforced during the implementation of the programme. This may be why so few participants answered what the importance/benefit of the programme was in the questionnaire. It may also be due to the fact that this was an open-ended question and required more effort to complete then selecting items on a checklist. It is also not clear if parents understood the importance and benefits when they were explained, further emphasising the need to reiterate the benefits over the course of the programme rather than just at the beginning.

5.3.2 Time for home programmes

Time available was reported as the factor affecting home programme implementation by most participants. The results indicate that the participants are mostly able to implement their home programmes for the required amount of time at each sitting, but less were able to implement it as frequently as suggested by the therapist. Although there was no significant difference in terms of how often the participants were advised to do the home programme and how often they were willing to implement the home programme, there was a difference between how often the participants were willing to implement the home programme and how often the therapist indicated this should be done. This suggests that although the parents in the study are willing to implement the home programme as often as the therapist suggested, they would prefer implementing the home programmes less often.

There were a higher percentage of participants who reported that they are willing to implement their child's home programme only a few times a week n=44 rather than daily, as recommended by the therapist in most cases (n=36; 45.5%). This was also reflected in the difference between the time for which participants were requested to do the home programme and time they were willing to spend on the home programme at each sitting. The lack of a significant difference again, suggested that the participants perceive that therapists are prescribing that the home programmes be executed for reasonable lengths of time. Even though most participants reported that the 15-30 minutes recommended by the therapist was reasonable, they reported that they were only willing to spend 15 minutes or less on the home programme, probably because they experience time constraints.

As shown in other studies, participants' lack of time can be attributed to other responsibilities taking priority (Larson, 2000). Of the limited parents that responded to the open-ended question regarding the reasons as to why they were unable to implement the home programme for the amount of time or as frequently as suggested by the therapist, most reported that time constraints were the greatest limitation for both. This is understandable as most of the participants reported to be working either part-time or full-time, having other children and only half reported having someone at home that could help with childcare.

The majority of participants who implemented the home programme themselves were mothers, with only 2.7% reporting both parents were involved. As reported in a study by Thompson (1998) various family demands need to be continuously balanced especially when extra time is needed for one child. Thus, they probably find it difficult to implement a home programme that takes a specific amount of time every day or even a few times per week. More than half the participants reported that it is only by maintaining a strict routine and by being highly organised that they could complete the home programme with the frequency and for the time suggested by the therapist. They therefore needed to alter the family routine to get everything done and when changing family routines is too difficult mothers usually adapt the home programmes to fit the routine by reducing the time and frequency of implementation (Thompson, 1998).

The fact that a range of different therapists are all seeing the same child in different private practices and providing separate home programmes with no collaboration with each other further supports the fact that parents may have difficulty implementing the home programme as frequently or for as long as suggested by the therapist (Lawlor & Mattingly, 1998).

Therapists should consider the treatment options that best suit each family's context (Bazyk, 1989) and suggest alternates to a set 30 minute session every day. This may support more frequent implementation of the home programme with specific sessions reduced to three or four times a week and also fit better with time constrains, while still maintaining the intensity of treatment (Thompson, 1998).

5.3.3 Implementation of home programmes

Almost all of the participants reported that they used the home programmes in addition to regular therapy sessions, both occupational therapy and other therapies in many cases (n=36;45.5%). The fact that the children attend regular therapy could also affect the participants' attitude toward the home programme as it could be perceived as an added extra and perhaps not as important as the contact sessions with the therapist. Thompson (1998) found that mothers who viewed the therapist as an "expert" were often reluctant to be involved with

implementing the child's therapy at home. Although mothers' preference for the amount of involvement differed, mothers who were made to feel comfortable and included were more involved and more likely to implement a home programme with their child.

Research indicates that active participation with home activities by parents, with or without additional therapy, has a positive outcome. The increased frequency of input has been shown to result in greater change (King et al., 1999). Thus, it is important that therapists follow a family centred model of care which includes collaboration and partnership with parents (King et al., 1999) by involving the parents in setting the child's therapy goals and indicating that these could be achieved more quickly with added input at home (Law et al., 2003).

Other factors identified in the literature which affected the implementation of the home programme included home visits, determination of resources, goal setting with the parent and the involvement of siblings in the programme. Only three participants (3.8%) reported that the therapist did a home visit and less than half reported that the therapist made enquiries as to the resources available at home (44.3%; n=34). Although home visits have been shown to be useful for determining a safe environment for young children and determining the support system of the family (Peacock et al., 2013), they may not be essential in the context of the current study. The home itself does not need to be adapted for children with learning disabilities but rather routine, and presentation of activities to accommodate sensory issues in appropriate cases. Home visits are also not paid for by the medical aid funders resulting in therapists not getting paid. Considering that time is money, therapist may be less motivated to conduct these visits without getting paid.

However, it is concerning that according to the participants only half the therapists determined what resources are available for the home programme as this would be helpful to the therapist when designing a home programme for a specific child. This suggests that the therapists may not be designing home programmes specific to each child's context. The resource constraints should be discussed with mothers/parents as well as how times and activities could be adapted to achieve the goals set for their child. Having the necessary resources, whether it be human,

space, time or materials, is essential to doing any activity. Not making sufficient enquiries as to the resources available in the home can therefore be a significant limitation to the implementation of the home programme (Taylor et al., 2004).

Although almost all the participants believed that the exercises/activities in the home programme were directed at achieving therapy goals, only 40% (n=32) of the participants reported that they were involved in setting therapy goals. This is a major concern as parent–therapist collaboration for goal setting in occupational therapy home programmes is important. Evidence shows that a family-centred approach is effective when parents select priorities for intervention and develop the programmes together with the therapist and make decisions over how much time they can spend on the programme (Milton & Roe, 2017). Contrary to this however, a number of authors have reported that shared decision making with parents is less than ideal (Øien, Fallang & Østensjø, 2009)(Minke & Scott, 1995). It would appear that some of the factors reported in the literature that hinder the collaborative process are the attitude of the therapist providing the programmes and whether they truly believe that parents should be making decisions about their child's therapy goals (Missiuna et al., 2006). This attitude has been reported to be prevalent amongst professionals providing special needs services, including occupational therapists (Missiuna et al., 2006), and this may also be the view of therapists providing home programmes to the children of participants in the current study. These therapists may still feel, as suggested by Missiuna et al. (2006), that they should have the final say about the therapy goals to be addressed and that time spent collaborating with parents is not 'real work'.

South African medical aid schemes usually cover a limited number of sessions, depending on the individuals specific medical benefits plan. This limits the number of sessions that therapists get paid for and this could also contribute to South African therapists being reluctant to engage in multiple sessions with parents as opposed to contact sessions with the child/children. Therapists may decide that contact sessions with children best serves the child's needs as consultation sessions with caregivers and parents are paid for only once.

According to over 95% of the participants therapists did explain that the purpose of the home programme was directed at achieving therapy goals. Involving the

parents, in this study, in the process of goal setting could have further ensured that their needs were met and that they were motivated to then achieve those goals, thus facilitating implementation of the home programme. Failure to actively include parents in the goal setting process may be one of the reasons why they could not report on the benefits of the home programme. Also that the goals were not written down and frequently reviewed with parents as suggested by Hanna and Rodger (2002), allowing them to see the goals of the home programme reflected in aspects of the programme provided on a regular basis.

Therapists should also consider including the Goal Attainment Scaling (GAS), which is now frequently reported in occupational therapy research, to measure/evaluate progress. Occupational therapists have been reported to use this strategy to promote parent–therapist collaboration when planning home programmes for children (Cusick & Ottenbacher, 1994; Lannin, 2003). This allowed the focus of therapy to be occupation based and provided criteria for measurable outcomes. Parents can be encouraged to decide on outcomes, observe and also understand their role in achieving these outcomes (Mitchel & Cusick, 1998).

Failure to set overt goals with the parents for the home programme, may also account for why less than a third of the participants reported that the activities in the home programme included sibling involvement. Thompson (1998) reported that mothers experienced that the high support/attention needs of the child requiring the home programme affects siblings. Thus, mothers valued programmes that allow siblings to become involved highly. This promotes a sense of inclusion and bolsters family relationships. Considering that 59 participants (75%) had more than one child, but less than a third reported activities in the home programme including sibling involvement. it would be challenging to keep all siblings entertained while implementing the home programme with just one of their children. Involving siblings should therefore routinely be considered in activities in home programmes by therapists.

All of the factors discussed above can impact on compliance with implementing the home programme and need to be considered when developing a home

programme for each child so that the appropriate content is provided for the family context.

5.3.4 Content of home programmes

The nature of the programme content was reported by participants to be a facilitator for themselves as well as their children, if activities were limited to those that were short, fun and easy to implement. Participants also reported that incorporation of the home programme activities into daily tasks and routine would assist them in implementing the home program. Only four participants (5%) reported the inclusion of occupationally-embedded activities into the daily routines of the parents, such as personal management. By not requiring mothers to complete unfolded activities specific to a home programme every day, in a separate 30 minute session, skills can be practised in an enfolded activity where fine motor skills and dressing or perceptual skills using observation in other activities (Segal, 2000). Occupation based activities may support more frequent implementation of the home programme, with specific sessions reduced to three or four times a week, and fit better with time constrains reported as well as address other limitations of the child's motivation and fatigue which is discussed later.

Less than half of the participants reported that their home programme included general ideas. This indicates that the majority of therapists are prescribing specific activities and exercises for home programmes. However, the general ideas may mean that other therapists are using standard hand-outs provided for each aim of treatment which are prepared in advance and handed to parents as a one activity fits all prescription (Bazyk, 1989).

With regards to the activities, some participants reported that they would prefer the therapist providing specific hand-outs as well as explaining and demonstrating the activities. Some parents even suggested taking a video of the therapist performing the activity with the child. Nearly 90% of the participants reported that their home programmes included specific activities and exercises, which assisted them in the implementation of home programmes. Thus, therapists must initially select the therapeutic activities and exercises that parents use in their home programmes with a focus on the goals that were set and must guide parents in the use of these

activities and exercises (Novak, Cusick & Lannin, 2009). This provides the parents with structure initially, but as Piggot, Hocking & Paterson (2003) indicated, parents can become increasingly effective at choosing and structuring activities that are suited to meet the goals and positive outcomes for their children. Therefore, when other participants reported that they preferred informal activities that can be spread throughout the day; this may indicate that the participants may differ in their confidence and the manner in which they prefer to be guided in the home programme as they have already had more experience in implementing the home programme. This suggests that preferences are very individual (Gallagher, Rhodes & Darling, 2004) to each family, and therapists need to tailor the home programmes they suggest to suit the specific family in order to secure the greatest likelihood of implementation. Since different families prefer different types of home programmes therapists may also need to include more variety in the activities within the home programme. Therapists must encourage the parent to be flexible and effective at using the activities in a way that best fits their parenting style and family (Piggot, Hocking & Paterson, 2003).

More than 90% of the participants reported that they had received the necessary instructions in a written format, regarding the exercises and activities for the home programme, and that these instructions were easy to follow. This was supported by Hinojosa et al. (2002) who found that therapists reported spending up to 13% of therapy time reviewing instruction for home programmes. Since this facilitates implementation of the home programme, this is a practice that SA therapists should adopt or advocate for and it may be a cost driver they could factor into their rate for home programmes.

Just over 60% of the participants received a list of necessary equipment (e.g. balls/craft supplies) but since therapists did not always enquire about the resources in the home, it could affect parents not implementing the home programme as instructed. Ensuring that parents receive a list of equipment would help them to plan better and be more organized as well as save time, all of which the participants reported would assist them in implementing their home programmes. Five percent of participants n=4 indicated that they did not have the necessary resources at home, which was a barrier to implementing the

programme. This could have been avoided had the therapist made enquiries as to the resources in the home.

One of the factors that participants reported as motivational in terms of implementing a home programme was when the content of the home programme increased their level of understanding of their child, how the condition affected their child's functioning and how they could affect this (Thompson, 1998). It is thus of concern that only just over a third of the participants reported that their home programme included parent education. It appears that most therapists do not see this as part of their role when presenting a home programme. Helping parents by equipping them with tools to cope and interact with their children at home will make a difference in making family life comfortable and this is an important part of therapy as it targets the home environment.

The lack of education reported by participants appeared to be linked to the just under 20% of participants who reported that their home programme included environmental adaptations. If home programmes did not include education on the child's condition and handling, they were not likely to include adaptations to the environment which would benefit the child's performance. This type of adaptation which may not require a home visit or structural changes to the home, but discussion with the parent to provide, for example, different sensory inputs and structuring of activities to avoid distractions. It would therefore be beneficial if therapists were able to incorporate more environmental adaptations that could assist the child's performance and that are easy for the parents to implement.

Few participants were asked to keep a log of the exercises in the home programme. This could help to make the improvement more tangible and thus motivate the parents to implement the programme if weekly goals were written down as well as providing evidence of the child's progress. However the value of log books in home programmes as a therapeutic strategy has not been described in the literature but rather as a measure of compliance in research to assess the effectiveness of home programmes (Law & King, 1993). However, log books may actually add to the time required, add to parents' stress and affect the trust between the therapist and the parent (Law et al., 2005).

5.3.5 Support from the therapist

Literature also shows that parents are more willing to buy-in into a home programme when there is assurance of the long-term sustainability (Langley et al., 2013). This is supported by the progress the parents see as a result of the home programme (Piggot, Hocking & Paterson, 2003). Over 90% of the participants also reported that the therapist monitored progress made in the home programme regularly and that participant's had a means of giving feedback to the therapist. This should allow parents to communicate effectively with their therapist if they have any questions or concerns and when things were not going well. Thus, support from the therapist increases the likelihood and quality of home programme implementation (Piggot, Hocking & Paterson, 2003).

However, just over half of the participants reported that they were supported in terms of receiving training, which in the context of this study has been linked to achieving progress by the correct implementation of the exercises/activities in the home programme (Law & King, 1993). Parent training which is considered within support from the therapist aims at informing and teaching parents skills in order to supplement or augment current strategies and regardless of the technique used, the training should allow more effective implementation of activities with their child within the implementation of their home programme.

Knowing how to perform certain exercises/activities increases the likelihood of parents implementing it correctly, especially if the activity or exercise is difficult and where demonstration and the opportunity to practice assists parents (Booth, Gallagher & Keenan, 2018). Parents are often unable comprehend and internalise the numerous messages that the therapist is stressing as important in a once of demonstration and therefore it is suggested that in conjunction with training, coaching is used with parents in terms of their home programme. This method allows therapists to work with parents over time and help them to find solutions to problems they may be experiencing (Novak, 2014). This could include setting goals, providing emotional support, when imparting information, exploring, planning or /implementing various solutions, reflecting on the effectiveness of the solution and finally generalizing the solution (Graham, Rodger & Ziviani, 2010). A study on reciprocal imitation training showed that if parents of children with Autism

were appropriately trained and coached they were able to reliably implement the programme with the result of improved targeted outcomes in the children (Penney & Schwartz, 2019).

Receiving feedback on the home programme and the therapist's monitoring the child's progress was reported by over 90% of the participants. This is seen as important in motivating parents to continue with the home programme (Johnson & Hastings, 2002) and is clearly an aspect routinely carried out by the therapists who provided home programmes in the current study.

All the participants reported that their therapist was friendly and approachable. In other studies mothers reported that a friendly and relaxed relationship with the therapist resulted in receiving support which they valued (Piggot, Hocking & Paterson, 2003). Thompson (1998) also found that mothers' level of involvement in therapy services was directly linked to how approachable and friendly the mother found the therapist and this is consistent with participants in the study as they were all actively involved in providing home programmes for their children even although time was an issue. It is likely that these parents did received good support from the therapists and it has been noted that therapists are more likely to give support to parents they perceive as being "on board" with a commitment to therapy, who acknowledge the importance of the therapists' role and who are willing to work with the therapist towards a common goal (Piggot, Hocking & Paterson, 2003).

5.4 Barriers and facilitators to the implementation of home programmes

Barriers to the implementation of home programmes in the current study could be grouped into two categories. The first category related to limitations of the parents, which include time and motivation, inadequate collaboration in goal setting and resources as discussed above. Other personal and family constraints such as ill health of one parent, not prioritising the programme and therefore forgetting to do the programme were also mentioned. The second category related directly to the child, which included time, health, fatigue, motivation and overstimulation.

As discussed above, over 90% of participants did report that the benefits of the home programme for the child were explained to them and over 80% of

participants reported that the benefits of each activity or exercise were also explained. However, the participants' inability or reluctance to indicate what these specific benefits were is of concern and may affect their prioritisation of the home programme for their child. This may also be related to a lack of collaborative goal setting by some therapists reported by participants in the current study and the lack of the use of a family-centred intervention model suggested as best evidence in the literature. While the participants perception of the therapists experience was not explored in this study, other studies have suggested that therapists with more experience have better skill in the understanding of individual family situations, and communicating this understanding to parents (Humphry, 1995).

Over 20% of participants mentioned the child's motivation and fatigue as barriers to implementing the home programme. This is more than the 6% of parents who referred to the children themselves as a barrier in the study by Johnson and Hastings (2002). In the current study this may be due to the lack of collaborative goal setting with parents resulting in general activities and exercises being prescribed, not of interest to, or at the correct level for the children. This may also have resulted in the overstimulation of the child reported by one participant. The timing of the home programme sessions due to mothers working may also be late in the day when children's concentration is low and they are fatigued and this not an appropriate time for young children. These are aspects that therapists should consider and interrogate when asking for feedback on the implementation of the home programme.

Poor health, either of the parent or child is understandably a barrier to the implementation of a home programme. This may slow progress and should be accommodated by the therapists (Taylor et al., 2004).

Facilitators to the implementation of home programmes in the current study were related to the programme itself as well as personal factors related to the participants' family situations. Over 40% of participants found the goal setting for the home programme clear, even if this was not collaborative. Having incentives or rewards for the child within the home programme was also reported as a facilitator.

Although reported by a small number of participants (under 20%), when specific activities and exercises were correctly selected for their child, enjoyable, easy to manage, and well explained with written hand-outs, this was viewed as a facilitators. The fact that such a small number reported this, shows that this is a barrier to home programme implementation.

Progress in the child's performance was also seen as a facilitator by a low number of participants (4%) as compared to 26% in another study (Johnson & Hastings, 2002). In the current study this may be as a result of more child-directed home programmes where the participants were rarely involved in goal setting and could not identify the benefits of the programme and activities.

The support of family and extended family was reported as a facilitator in home programmes by 21% of participants in a study by Johnson and Hastings (2002). This was similar to the participants in the current study who found that having siblings and both parents involved enabled the implementation of the home programme. Giving direction to parents and positive feelings in terms of valuing the programme were seen as facilitators in both the current study and that of Johnson and Hastings (2002).

In both studies less than half the participants could identify facilitators for the implementation of home programmes, compared to 60% who identified barriers, particularly time barriers.

Therapists need to be cognizant of the factors parent identify as barriers and facilitators so they can reduce factors seen as barriers and attempt to maximise on those seen as facilitators.

5.5 Suggestions for therapists

The suggestions from participants for improving the implementation of home programmes covered the actual programme as well as some aspects related to therapists and parents. Requirements for activities that were within the capabilities of the parents and enjoyable for them as well as the children, were relatively quick but linked to the goals of therapy were what 21% of participants suggested would assist them in implementing a home programme. This can be a challenge for the therapist since participants suggest that activities also fit into the family's daily

routine. Designing a home programme for each child could therefore become a challenge and perhaps having a library of suggested activities with written instructions, which parents could choose from (once they have set goals in collaboration with the therapist), may make it easier to customise home programmes. Parents may also have suggestions of activities that they feel could be beneficial. Activities selected should address client factors in everyday activities that the child is involved in with hand-outs that are child friendly, have step-by-step instructions as well as a list of resources needed for the programme, as this was indicated as another solution to improving implementation of home programmes. The presentation of these activities via online technology was also suggested as a solution for better implementation of the home programme with resources for other aspects such as flash cards loaned to the family. A variety of activities that provide incentives for the child are also suggested.

Although participants reported the home programme and its benefits were explained by the therapists, it was suggested that these are reinforced, possibly on each activity card. Therapists also need to ensure that parents understand how to do the activities and that instructions are clear, online examples are suggested for this aspect. Technology could also be used to remind parents to do the programme at certain agreed times, so a schedule is maintained. Parents suggested that if the therapists themselves were enthusiastic about the home programme this would motivate them to prioritise the programme.

Parents also suggested that they organise their own reminders and structure their routine so the programme is implemented. Nine percent of participants also recommended more family involvement by training another family member and including siblings in the home programme while 2% felt that videoing the session at home would be useful. This could be used to get feedback from the therapists.

5.6 Strengths and Limitations of the study

This study is unique as there has not been research on home programmes for children with learning disabilities, in mainstream schools who attend occupational therapy. This study provided an opportunity for a South African sample of parents to give first-hand information with regards to the barriers and facilitators that they

experience in implementing home programmes within the context of private occupational therapy services offered in Gauteng.

The study was limited to one province in South Africa and therefore there is scope for research to be done within the other provinces in order to gauge whether the results of the current study could be generalizable to all of South Africa.

As the participants in the study showed to be in the middle to upper economic group, the results of the study are limited. Being a developing country, there is a large percentage of the population that could benefit from occupational therapy home programmes but do not necessarily have access to these services or have a different set of barriers and facilitators. For instance, unemployed parents may not have time as a barrier but may find that access to resources for the home programme might be the greatest barrier.

The study was also limited to children attending mainstream schools. There is also scope for research in the more disabled population of children attending schools of learners with special needs as these parents might have other barriers to home programme implementation. Since a survey questionnaire was used to collect data, it is possible that the sample reflects the views of parents who are motivated to carry out home programmes with their children.

CHAPTER 6: CONCLUSION

The participants in this study were mostly working mothers between the age of 30 and 40 years old, who were implementing their child's home programme to address learning difficulties themselves. Most of the participants were assumed to come from middle to high socio-economic backgrounds as they were able to afford private occupational therapy services. Most of the children of the participants were between Grade 0 and Grade 1, which is considered foundation phase schooling, indicating a possible lack of early intervention before 5 years of age.

Barriers to home programme implementation included parent limitations (time, motivation, health, resources and lack of family-centred intervention) and children's limitations (time, health, fatigue, motivation and overstimulation).

Facilitators to home programme implementation relate to the programmes (including clear goal-setting, specific activities and exercises, and tangible progress), the parents (support from the family, valuing the programme and being organized and setting reminders) and the therapists (reinforcing the benefits of the programme, practicing family-centred intervention, parent training & coaching and being friendly & approachable).

Most participants valued their home programmes but could not report the specific benefits of the programme. Participants did feel that if they understood the importance of the programme they would be more motivated to help, therefore therapists could facilitate implementation by being more informative regarding the programme and reinforce this, not just initially, but throughout the course of programme implementation.

Time was reported as the greatest factor affecting home programme implementation and participants reported that they are willing to spend 15 minutes or less, a few times a week on their children's home programmes. Most participants used their home programme in addition to regular therapy and thus,

may perceive it as an added extra. Research shows that active parent participation in goal setting and home programme structuring could counter this.

Most participants reported that the therapist did not make a home visit but this may not be necessary in the context of this study. However, only half the participants reported that the therapist enquired about the resources available at home, suggesting that the home programme may not be designed for each child's context. This could be a barrier to home programme implementation.

Less than half the participants were involved in setting therapy goals which may be a limitation to home programme implementation. Research shows that family-centred therapy with parent involvement in goal setting is effective. Less than a third of the participants reported that their home programmes included sibling involvement even though most of the participants reported having more than one child. This may serve as a barrier to implementation as research shows that involving the family is important. Participants reported that activities that are short, fun and easy to implement were a facilitator in home programme implementation. They also reported that the incorporation of activities into daily tasks/routine would assist in implementation; however only 5% of participants had home programmes that included occupationally embedded activities. Most participants reported that their home programme included specific exercises and activities, which they felt were positive, a few however reported to prefer informal activities, spread throughout the day. This shows that preferences are individual and programmes must be tailored to each family. Research shows that while parents may initially prefer structure, they may benefit from less structure as they become more experienced. Most participants reported receiving written instructions that were easy to follow. Therapists should continue to practice this as it facilitates programme implementation.

Just over a third of the participants reported that their home programme included parent education. Research indicates that not being well informed about the child's condition could serve as a barrier to implementation. Lack of education will also affect environmental adaptation which could assist the child in activity participation. Few participants were asked to keep a log of progress but research shows that keeping a log may add to the time demands and stress of home

programme implementation. This practice should be recommended with caution and in collaboration with the parents.

Most participants reported that therapists monitored progress made and that they had a means of giving feedback. This supports programme implementation. However, only half the participants reported to have received training. Research shows that parent training and coaching facilitates home programme implementation. All of the participants reported their therapists to be friendly and approachable and this supported home programme implementation as parents felt free to ask for more information or support.

6.1 Recommendations for clinical practice

The following recommendations for therapists providing home programmes were compiled from suggestions made by parents in this study as well as literature.

- As part of the home programme, therapists should include parent education with regards to the child's condition as well as the impact of the environment and the importance of the home programme. This should be reinforced at the beginning as well as during the implementation of the programme in order to ensure that the benefits are clear at all times.
- Parents should be actively involved in goal setting to ensure that they are motivated to achieve therapy goals and thus implement the home programme.
- Therapists must include activities in the programme that are short, fun and easy to implement, ensuring that the parents can implement it and motivating the children to participate as well.
- Home programmes should be implemented a few times a week for 15 minutes or less, if possible, per sitting.
- Both parents should be involved in home programme implementation and there should be a sharing of the responsibility between parents, if possible.
- Therapists should include sibling involvement in home programme activities, where possible, so that parents can involve their other children and thus give the programme full attention without distraction.

- Therapists should enquire as to the most suitable style of activities for each family. Some families reported to prefer formal exercises and others reported to prefer informal activities that could be incorporated into daily routine. Structuring the programme to individuals will ensure motivation to implement the programme.

- Parent training is important and specific exercises should be presented in the form of a written hand-out, and also include an explanation and demonstration so that parents know exactly how to implement the exercise.
- Regular feedback with the therapist and a log of progress will ensure that therapy goals are achieved and will also serve as motivation for parents and their children to continue implementing the programme.
- The therapist should either make a home visit or enquire about the resources available in the home before structuring the home programme, to ensure that the contents of the programme are feasible within each family's context.
- Therapists should always be friendly and approachable so that parents are able to ask questions and make queries with regards to their home programme.

6.2 Recommendations for further research

There is scope for further research to be done in the other provinces of South Africa as well as within the lower socio-economic populations.

Research on the effectiveness of home programme needs to be implemented for children with learning difficulties as this has not previously been reported on. This should include research on which factors most impact on effectiveness.

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APPENDIX A

RESEARCH QUESTIONNAIRE - DEMOGRAPHICS

By checking this box you are confirming that you are aware that your participation is voluntary and anonymous and that the information generated by the questionnaire will be used for research purposes. ☐

1. Age
    a. Under 20years ☐
    b. 21years – 30years ☐
    c. 31years – 40years ☐
    d. 41years – 50years ☐
    e. 51years – 60years ☐
    f. Over 60years ☐

2. Gender
    a. Female ☐
    b. Male ☐

3. Highest level of education
    a. None ☐
    b. Primary School ☐
    c. High School ☐
    d. Tertiary education ☐

4. Employment status
    a. Part-time ☐
    b. Full-time ☐
    c. Student ☐
    d. Not employed ☐

5. Do you have someone in your home to help with child care?
    a. Yes ☐
    b. No ☐

If yes – who?

_____

6. Marital status
    a. Married ☐
    b. Separated ☐
    c. Single ☐
    d. Co-habiting ☐

7. How many children are there in the home? _____
8. How many of the children in the home attend occupational therapy? _____

DEMOGRAPHICS – CHILD

9. How old is your child who is currently attending occupational therapy? _____
10. What grade is the above child currently completing?_____
11. How long has your child been attending occupational therapy? _____
12. Does your child have any diagnosed medical conditions?
    a. Yes ☐
    b. No ☐
    If yes please specify:_____
13. Does your child attend any other therapies?
    a. Yes ☐
    b. No ☐
    If yes please specify:_____
14. Does your child have home programmes from any of the above mentioned therapies?
    a. Yes ☐
    b. No ☐
    c. Not applicable ☐
    If yes please specify:_____

APPENDIX B

QUESTIONNAIRE IMPLEMENTING HOME PROGRAMMES FROM OCCUPATIONAL THERAPY.

Importance of home programme for your child

1. How much value would you ascribe to your current home programme?
    a. None ☐
    b. Minimal ☐
    c. Moderate ☐
    d. Maximal ☐

2. What do you think are the greatest benefits of your child's home programme?

    _____

    _____

    _____

    _____

Time for home programme

3. How often were you advised to implement the activities/ exercises in the home programme?
    a. Daily ☐
    b. A few times a week ☐
    c. Once a week ☐
    d. Twice a month ☐
    e. Once a month ☐

4. How often are you willing to implement the activities/ exercises in the home programme?
    a. Daily ☐
    b. A few times a week ☐
    c. Once a week ☐
    d. Twice a month ☐
    e. Once a month ☐
    f. Never ☐

5. How much time, per day, were you requested to spend on the home programme?
    a. Less than 15mins ☐
    b. 15mins – 30mins ☐
    c. 30min – 45mins ☐
    d. 45mins – 60mins ☐
    e. More than 60mins ☐

6. How much time, per day, are you able to spend on the home programme?
    a. Less than 15mins ☐
    b. 15mins – 30mins ☐
    c. 30min – 45mins ☐
    d. 45mins – 60mins ☐
    e. More than 60mins ☐

Implementation of home programme

7. Do you use the home programme:
    a. In addition to a regular therapy programme ☐
    b. Exclusively ☐

    If exclusively, why?

    _____

    _____

    _____

    _____

8. Who does the home programme with your child?

    _____

    _____

9. Are you able to implement your child's home programme for the amount of time as the therapist has suggested?
    c. Yes ☐
    d. No ☐

If no, why not?

_____

_____

_____

_____

If yes what assists you with being able to implement the programme?

_____

_____

_____

_____

10. Are you able to implement your child's home programme as frequently as the therapist has suggested?
    e. Yes ☐
    f. No ☐

If no, why not?

_____

_____

_____

_____

If yes what assists you with being able to implement the programme?

_____

_____

_____

_____

11. Where you involved in the structuring of the home programme?
    a. Yes ☐
    b. No ☐

12. Did the therapist make a home visit?
    a. Yes ☐

b. No ☐

13. Did the therapist make enquiries as to the resources available in the home?
    a. Yes ☐
    b. No ☐

14. Are the exercises/activities in the home programme directed at achieving therapy goals?
    a. Yes ☐
    b. No ☐

15. If yes, were you involved in the setting of these goals?
    a. Yes ☐
    b. No ☐

16. Do any of the activities in the home programme include sibling involvement?
    a. Yes ☐
    b. No ☐

Content of Home programme

17. What does your home programme include? (more than one option may be selected)
    a. Specific exercises ☐
    b. General ideas ☐
    c. Environmental adaptations ☐
    d. Parent education ☐

18. Do you have the necessary written information regarding the exercises/activities in the home programme?
    a. Yes ☐
    b. No ☐

19. Do the exercises/activities in the home programme have a list of equipment necessary?
    a. Yes ☐
    b. No ☐

20. Do you keep a log when doing the exercises?
    a. Yes ☐
    b. No ☐

Support from therapist for home programme

21. Did the therapist discuss the benefits/importance of a home program?
    a. Yes ☐
    b. No ☐

22. Did the therapist explain the specific benefit/importance of the exercises/activities in the home programme?
    a. Yes ☐
    b. No ☐

23. Were the exercises/activities in the home programme explained adequately?
    a. Yes ☐
    b. No ☐

24. Did you receive any training from the therapist regarding the exercises in the home programme?
    a. Yes ☐
    b. No ☐

25. Did you receive any written information from the therapist regarding the exercises in the home programme?
    a. Yes ☐
    b. No ☐

26. Do you have a means of giving feedback regarding your child's home programme?
    a. Yes ☐
    b. No ☐

27. Does the therapist monitor progress regularly?
    a. Yes ☐
    b. No ☐

28. Do you perceive the therapist to be friendly and approachable?
    a. Yes ☐
    b. No ☐

29. What are the barriers which prevent you from carrying out the home programme with your child?

_____

_____

_____

_____

30. What helps you most in carrying out the home programme with your child?

_____

_____

_____

_____

_____

31. What suggestions do you have that would improve your implementation of your child's home programme?

_____

_____

_____

_____

_____

APPENDIX C

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Department of Occupational Therapy
Wits Education Campus

School of Therapeutic Sciences, Faculty of Health Sciences, 7 York Road, Parktown, 2193, South Africa
Tel: +27 11 717 3701 | Fax: +27 717 3709 | Email: leilane.bogoshi@wits.ac.za | **www.wits.ac.za**

Permission Letter Occupational Therapy Practice Owners

Title : **Barriers and facilitators to implementing occupational therapy home programmes experienced by parents of children with learning disabilities in Gauteng.**

Dear Occupational Therapist,

My name is Shruti Joshi. I am an occupational therapist registered for a Master's programme (MSc Occupational Therapy) at the University of Witwatersrand. Part of the qualification requirements to complete this degree, is to conduct a research study.

Being an occupational therapist in a private practice setting, my client base is primarily comprised of children who attend mainstream schools and have learning difficulties. Many South African occupational therapists, including myself, prescribe home programmes as they are considered an essential technique in assisting with achieving the desired therapy outcomes. However, the view of parents about the implementation of prescribed occupational therapy home programmes is unknown. The topic of my research is so determine what factors parents of children who are currently attending a mainstream school and occupational therapy in a private practice setting would consider as barriers or facilitators to the implementation of home programmes.

Information from the study would give the profession insight into a South African parents' perception of barriers and facilitators to their implementation of home

programmes. Awareness of these barriers and facilitators would allow occupational therapists to better structure and understand the parents' concerns about home programmes so that they can be implemented. Better home programme implementation may result in increased support of therapy outcomes and ultimately benefit the children attending therapy.

I am requesting permission to carry out the research through your practice and ask that you to avail your client base to participate in the research project. Parents of the children you are treating would be required to complete a questionnaire which should take approximately 15 minutes. The questionnaires can be distributed by the administrative assistant at the private practices in hard copy or via e-mail, with an information sheet depending on what suits the parents best. I will either provide hard copies or send the email link to the questionnaire. Completion of the questionnaire will be assumed as informed consent.

Participation will be voluntary and refusal to complete the questionnaire will have no consequences. No names will be required and confidentiality will be ensured. You will have access to the results of the study on request.

Thank you for your consideration to potentially participate in this research study. Should you have any questions, please feel free to contact me:

Email: shrutiot@gmail.com

For any ethical concerns please contact the chairperson of the Human Research Ethics Committee at the University of Witwatersrand, Prof P Cleaton-Jones at peter.cleaton-jones@wits.ac.za Contact details for the administrative offices: Ms. Z Ndlovu/ Mr Rhulani Mkansi/ Mr Lebo Moeng, Tel: 011 717 2700/2656/1234/1252, or email: Zanele.ndlovu@wits.ac.za; Rhulani.mkansi@wits.ac.za; Lebo.moeng@wits.ac.za

Phone: 011 717 1234

Kindest regards,

Shruti Joshi

Occupational Therapist

APPENDIX D

Information Sheet Parents

Title: **Barriers and facilitators to implementing occupational therapy home programmes experienced by parents of children with learning disabilities in Gauteng.**

Dear Parent,

My name is Shruti Joshi. I am an occupational therapist registered for a Master's programme (MSc Occupational Therapy) at the University of Witwatersrand. Part of the qualification requirements to complete this degree, is to conduct a research study.

Being an occupational therapist in a private practice setting, my client base is primarily comprised of children who attend mainstream schools and have learning difficulties. Many South African occupational therapists, including myself, prescribe home programmes as they are considered an essential technique in assisting with achieving the desired therapy outcomes. However, the view of parents about the implementation of prescribed occupational therapy home programmes is unknown. The topic of my research is so determine what factors parents of children who are currently attending a mainstream school and occupational therapy in a private practice setting would consider as barriers or facilitators to the implementation of home programmes.

Information from the study would give the profession insight into a South African parents' perception of barriers and facilitators to their implementation of home programmes. Awareness of these barriers and facilitators would allow occupational therapists to better structure and understand the parents' concerns about home programmes so that they can be implemented. Better home programme implementation may result in increased support of therapy outcomes and ultimately benefit the children attending therapy.

I am inviting you to take part in the research project. You would be required to complete a questionnaire which should take approximately 15 minutes. The questionnaires will be distributed from the administrative assistant at the private practices in hard copy or via e-mail to you with an information sheet depending on what suits you best. Completion of the questionnaire will be assumed as informed consent.

Participation will be voluntary and refusal to complete the questionnaire or withdrawal while doing it will have no consequences in terms of their child's occupational therapy. No names will be required and confidentiality will be ensured.

You will have access to the results of the study on request.

Thank you for your consideration to potentially participate in this research study.

Should you have any questions, please feel free to contact me:

Email: shrutiot@gmail.com

For any ethical concerns please contact the chairperson of the Human Research Ethics Committee at the University of Witwatersrand, Prof P Cleaton-Jones at peter.cleaton-jones@wits.ac.za Contact details for the administrative offices: Ms. Z Ndlovu/ Mr Rhulani Mkansi/ Mr Lebo Moeng, Tel: 011 717 2700/2656/1234/1252, or email: Zanele.ndlovu@wits.ac.za; Rhulani.mkansi@wits.ac.za; Lebo.moeng@wits.ac.za

Phone: 011 717 1234

Kindest regards,

Shruti Joshi

Occupational Therapist

APPENDIX E

ETHICAL CLEARANCE

R14/49 Mrs Shruti Joshi

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M170821

NAME: (Principal Investigator)	Mrs Shruti Joshi
DEPARTMENT:	Occupational Therapy Private Practices in Gauteng
PROJECT TITLE:	Barriers and Facilitators to Implementing Occupational Therapy Home Programmes Experienced by Parents of Children with Learning Disabilities in Gauteng
DATE CONSIDERED:	25/08/2017
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Denise Franzsen
APPROVED BY:	Professor C. Penny, Co-Chairperson, HREC (Medical)
DATE OF APPROVAL:	22/09/2017

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary in Room 301, Third Floor, Faculty of Health Sciences, Phillip Tobias Building, 29 Princess of Wales Terrace, Parktown, 2193, University of the Witwatersrand. I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report**. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. In this case, the study was initially reviewed in August and will therefore be due in the month of August each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical).

Principal Investigator Signature Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

APPENDIX F

TURN IT IN REPORT