



CHAPTER SEVEN

GENERAL SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

Autism is a challenging and ever-increasing disorder. According to Indystar.com (2005) autism is a “disorder that prevents children from interacting normally with other people and affects almost every aspect of their social and psychological development”. The Autism Primer (2002) states further that “individuals with autism have to painstakingly learn normal patterns of speech and communication, and appropriate ways to relate to people, objects, and events, in a similar manner to those who have had a stroke”.

Autism is a neurological disorder that is normally evident by the age of three, and affects a child’s “ability to communicate, understand language, play, and relate to others” (Autism and Pervasive Developmental Disorder Fact Sheet, 2002).

The researcher understands autism as being a dysfunction of the brain, which leads to the inability to interact on a social level, both through verbal and non-verbal communication. Again, social interaction is a behaviour that drives the human race and this is a situation that is not known to an autistic individual.

Autism Western Cape (2005) considers the following behaviour to be signs and symptoms of autism:

Displays indifference; resistance to change in routine; no fear of real danger; inappropriate laughing or giggling; lack of eye contact; inappropriate attachment to objects; destructive and



aggressive at times; aloof; and difficulty with social relationships, verbal communication and non-verbal communication.

According to Autism Western Cape (2005) “autism affects 1 in 158 South African children under the age of six years, with it being four times more prevalent in boys than in girls”. According to the Autism Society of America (2005) “autism is the most common of the Pervasive Developmental Disorders, affecting an estimated 1 in 166 births”. Science News (2005) gives the same statistics, stating that “1 in every 166 people is affected with autism the rate of people being diagnosed with autism has increased substantially over the past two decades”.

In order to provide assistance and support for individuals affected by autism, the researcher developed the following research goal:

To develop and evaluate the effectiveness of a play technique programme to enhance the social behaviour of autistic children between the ages of six and 12 years.

In order to achieve this goal, the researcher formulated the following specific objectives, to be achieved through completing the study:

- ***To theoretically conceptualize autism as a phenomenon in middle childhood and the impact thereof on the family as well as play techniques in the context of autism.***
- ***To explore the nature, on a national and international level, of existing play technique programmes for autistic children.***
- ***To develop a play technique programme for autistic children.***
- ***To implement the play technique programme.***
- ***To evaluate the effectiveness of the play technique programme.***



- ***To come to conclusions and make recommendations to enhance the effectiveness of the play technique programme for autistic children.***

Against the background of these objectives, the researcher formulated the following hypothesis and sub-hypotheses:

If autistic children are involved in the play technique programme, then their social behaviour will improve.

- *If autistic children are involved in the play technique programme then their verbal communication skills will improve.*
- *If autistic children are involved in a play technique programme then their non-verbal communication skills will improve.*
- *If autistic children are involved in a play technique programme then their social interaction skills will improve.*
- *If autistic children are involved in a play technique programme then their challenging behaviours will decrease.*

In this chapter, the final chapter of this study, the researcher will present an overview of the entire study, through focusing on the various chapters, and by giving summaries, conclusions and recommendations for each one.

The focus will initially be on the literature study, which was covered by Chapter 2 through Chapter 5. These chapters focused on autism as a phenomenon; autism in middle childhood and the impact on the family; play techniques; and the newly developed play technique programme. The focus will then shift to the empirical research findings, which were dealt with in Chapter 6.



Through giving summaries, conclusions and recommendations the researcher aims to achieve the final objective of this study, namely: ***To come to conclusions and make recommendations in order to enhance the effectiveness of the newly developed play technique programme for autistic children.***

7.2. LITERATURE STUDY

7.2.1. General Introduction to the study

7.2.1.1 Summary

Autism is a neurological disorder that is normally evident by the age of three, and affects a child's "ability to communicate, understand language, play, and relate to others" (Autism and Pervasive Developmental Disorder Fact Sheet, 2002).

However, according to Botha (2005) children above the age of three years are now being diagnosed with autism, with her son being one of the first in South Africa. This and various other cases suggest that the number of individuals being diagnosed with autism appears to be increasing. This was verified by Gous (2005), who stated that the statistics on autism in South Africa at present are that the incidence ratio is 1:158.

Gous (2005) stated that there is limited support for both teachers and parents, and the parents are often unable to afford the limited support that is offered. The parents also often show a high level of denial, owing to a lack of understanding, and are therefore not interested in receiving the required support or education.

For this reason, the focus of this study was on developing a play technique programme that could be adapted for parents and/or professionals who are dealing with autistic children. This aims to empower the parents and/or



professionals to help the child to become more aware and make contact with his/her environment and to stimulate the child in reaching some of his/her developmental tasks. The programme was adapted in order to allow parents and /or professionals who may not have had prior play therapy training to use it. It will be practical and useful in managing the stresses of everyday life, through improving their child's social behaviour.

In the context of a quantitative study the researcher utilized the quasi-experimental one-group pre-test–post-test design. The type of research conducted was applied research, more specifically intervention research. The data collection instrument used, within structured observation, was a self-constructed measuring instrument/scale which was implemented before (pre-test) and after (post-test) the play technique programme (intervention) was introduced.

The goal of the study was to develop and evaluate the effectiveness of the play technique programme to enhance the social behaviour of autistic children between the ages of six and 12 years.

7.2.1.2 Conclusions

The following conclusions were drawn from the introduction to this study:

- There seems to be an ever-increasing number of children who are being diagnosed with autism and this is causing concern, both to society and to the individuals affected by it.
- Autism remains a relatively unknown disorder and this is having an impact on the quality of life of those individuals who are diagnosed with autism.



- It can be understood that autism is a disorder that poses many challenges, with autistic children demanding individual attention and guidance at all times. This leads to a greater need for specialized education and improved quality of life for these individuals.
- It seems that the quantitative approach was applicable to this study because the focus of the study was on the development and evaluation of the effectiveness of a play technique programme in enhancing the social behaviour of autistic children.
- Applied research, more specifically intervention research, was considered appropriate for this study because the study aimed to impact on and benefit autistic individuals as a population, by providing a practical outcome to impact the social behaviour of autistic children.
- In order to evaluate the effectiveness of the play technique programme, the one-group pre-test–post-test design (i.e. quasi-experimental/ associative design) was applicable to this particular study.
- It was necessary for the researcher to develop, in the context of structured observation, a self-constructed measuring instrument, because a standardized measuring instrument was not available to collect data. This instrument seemed appropriate for the purposes of this study.

7.2.1.3 Recommendations

The following recommendations are made in light of these conclusions:

- Autism is an area of concern in our society. Societies as a whole and particularly the professionals concerned, such as teachers, therapists and carers, need to be informed about the disorder. This can be done through workshops, seminars and written documents. Through access to the



- information, one can strive to develop a better quality of life for children who are diagnosed with autism.
- Increased focus needs to be placed on research studies of this nature, focusing on treatment of the disorder in order to provide further support for those affected by the disorder.
 - Greater time needs to be spent on developing and testing treatment plans within the educational, therapeutic and home environment, for individuals with autism, in order to improve their quality of life.
 - Collaboration between professionals, carers and support staff in institutions needs to be encouraged in order to ensure that autistic individuals are receiving comprehensive and appropriate treatment.
 - The outcomes of this particular study should be taken further in order to become practical and available to those in need, with regard to living with and treating autistic individuals, through workshops and seminars held with the significant parties, such as parents and/or teachers involved with autistic children.

7.2.2 Autism as a social phenomenon

7.2.2.1 Summary

Baron-Cohen and Bolton (2002: 1) define autism as “a condition that affects some children from either birth or infancy and leaves them unable to form normal social relationships or to develop normal communication. As a result, the child may become isolated from human contact and absorbed in a world of repetitive, obsessional activities and interests”.

Autism is a disorder that is being diagnosed and recognized in more and more children in today’s society. Aarons and Gittens (1996: 1) comment on this in the following statement: “Until quite recently, autism, with its paradoxical signs and symptoms, was considered to be a rare condition. It had an aura of fascination –



to such an extent that the majority of the population had a viewpoint about it without necessarily having had any direct experience of the condition”.

The Autism and Pervasive Developmental Disorder Fact Sheet (2006) states that “communication problems (such as using and understanding language); difficulty in relating to people, objects, and events; unusual play with toys and other objects; difficulty with changes in routine or familiar surroundings; and repetitive body movements or behaviour patterns”, can be considered some or all the characteristics observed in mild to severe forms of autism.

There are various symptoms identified in the behaviour of an autistic child. According to Williams (1996: 8–9), these symptoms include the following:

- An impairment in the ability to interact socially;
- Lack of communication, both verbally and non-verbally;
- Certain ‘bizarre’ behaviour/s;
- ‘Bizarre’ responses to sensory stimuli; and
- Impairment in the use of imaginary play.

On an international level the statistics on autism have changed or increased dramatically over the past few years. According to the Autism Society of America (2006) “autism is the most common of the Pervasive Developmental Disorders, affecting an estimated 1 in 166 births”. Exhorn (2005: 75) concurs with this statement, writing that “the overall ratio of boys with ASDs (Autism Spectrum Disorders) to girls with ASDs is 4:1. On a national level there has also been a large increase in the number of children diagnosed with autism. According to Autism Western Cape (2005) “autism affects 1 in 158 South African children under the age of six years”.



As regards the causes of autism, the various authors give varied opinions of the source or beginnings of the disorder. The causes noted include genetics; pregnancy/birth, parenting; infection/medical conditions and neurological causes (Baron-Cohen & Bolton: 2002; Aarons & Gittens: 1996; The National Alliance for Autism Research: 2006; Attwood: 1995; Robledo & Ham-Kucharski: 2005; Frith: 1989; Autism.net: 2006).

Many treatment plans and programmes have been developed, particularly over the past few years, to treat/manage autism. Exhorn (2005) commented on the following methods of treatment (refer to Chapter 2, page 79–81): Applied Behavioural Analysis (ABA); Floortime; Medication; Occupational Therapy (OT); Physical Therapy; Sensory Integration Therapy; Social Skills Training; Speech and Language Therapy; and TEACCH (Treatment and Education of Autistic and Related Communication Handicapped Children). Baron-Cohen and Bolton (2002: 67) mention many of the same treatments, but also include the following: Music therapy; and Holding therapy. Robledo and Ham-Kucharski (2005: 76–77) add the following to the list of treatments: Auditory Integration Therapy; and Hippotherapy.

7.2.2.2 Conclusions

The following conclusions were drawn from this chapter:

- Autism can be understood as a complex and challenging disorder, with a great deal of investigation and research still needed to be done in order to improve our understanding of the disorder.
- There are various characteristics and symptoms associated with autism, covering a wide spectrum of behaviours and circumstances.



- It has been shown on an international and national level that the number of individuals being diagnosed on the autism spectrum is on the increase.
- There are various causes of autism, which should all be considered when working with/educating individuals affected by autism.
- Each individual diagnosed with autism is unique in the manner in which he/she is affected and impacted by the disorder and therefore there are various treatment options available.
- Owing to his/her disorder, the individual diagnosed with autism places great strain and difficulty on the social lives of all his/her significant caregivers.

7.2.2.3 Recommendations

The following recommendations are made in light of these conclusions:

- Society as a whole needs to become more aware of autism and the effects on the individuals living with autism through a greater drive to educate society through seminars, workshops, publications (such as books and web articles) and true life stories.
- Individuals diagnosed with autism should be treated separately, and not as a group, as each individual diagnosed with autism is unique.
- Given the great challenges faced by autistic individuals as well as the increasing number of individuals being diagnosed on the autism spectrum, further studies of this nature, focusing on treatment and management of the disorder, should be encouraged.
- Further research and investigation, focusing on the individual needs and difficulties being faced by autistic individuals, needs to be done on an urgent basis in order to ensure more appropriate and varied treatment options for autistic individuals.



- Steps need to be taken in order to provide more consistent and comprehensive support for the significant others of autistic individuals. This needs to occur on a governmental level within South Africa, providing financial and emotional support for the significant others through education and support groups or organizations; on an educational level, through providing the necessary information and links to support provided; and on a professional level, within the social work and psychology fields, providing the necessary therapeutic support for the significant others of autistic individuals.
- Professionals and/or carers working with autistic individuals need to ensure that they are well educated and informed with regard to the disorder, through educating themselves through literature, interacting with other professionals in the field and attending workshops and seminars focusing on the disorder, in order to ensure that they are providing the correct treatment/care for the specific individual.

7.2.3 Autism in Middle Childhood and the Impact on the family

7.2.3.1 Summary

Human development can be defined as “the changes over time in the structure, thought, or behaviour of a person as a result of both biological and environmental influences (Craig, 1995: 5). Humans experience seven life stages, namely infancy; preschool childhood; middle childhood; adolescence; early adulthood; middle adulthood and late adulthood (Craig, 1995: 6).

Middle childhood can be defined as “a time when children are beginning to assume a larger share of responsibility for their own behaviour in relationship to their parents, peers and others” (Child & Family Canada, 2006). The Future of Children (2006) comments that “during middle childhood, children begin to



navigate their own ways through societal structures, forming ideas about their individual talents and aspirations for the future”.

According to The Source (2006), autism is “a life-long developmental disability which impairs various aspects of typical development and lasts a lifetime”. Therefore, when focusing on autism in middle childhood it is vital to focus on the differences in the life experiences of autistic children during the period of middle childhood.

On a physical level, the differences between a neurotypical child and an autistic child are not that marked. Exhorn (2005: 7) comments that “you can’t tell that a child has autism simply by looking at a picture of him or her ... a two-year-old with autism can be the same height and weight and be just as adorable as a ‘typical’ two year old”. This can be accredited to the fact that autism “is a neurological disorder” (Robledo & Ham-Kucharski, 2005: 1).

On an intellectual level a great many differences between neurotypical and autistic children may be observed. However, these differences cannot always be attributed to autism, but at times to the co-morbid disabilities associated with the diagnosis of autism.

The literature review demonstrates that the area that will show the biggest differences between neurotypical and autistic children is the social and/or emotional development of children in middle childhood.

The impact of autism on families who have an autistic child is enormous. Exhorn (2005: 191) comments that “adjusting to your new life (with a child with autism) will take some time, especially since it was completely unplanned”. In this regard, Stacey (2002), a parent with an autistic child, writes that:



Living with an autistic child is exceptionally hard. It does put a damper on your life. We are always tense as such when Michael (the autistic child) is around. Even when he is being good. You are tense because you don't know what is going to happen next. Everything you do has to be planned, and thought through carefully, as to accommodate Michael.

A family undergoes a great deal of changes when a child is experiencing or is diagnosed with autism. Each aspect, depending on the individual child, will vary in severity, and may even lead to the family avoiding social events/situations at all costs. The researcher is of the opinion that, in cases where there are other siblings, the constant attention that is required by the autistic child and his/her routine could severely affect the sibling/s.

7.2.3.2 Conclusions

The following conclusions were drawn from this chapter:

- It seems as if autism is a lifelong developmental disorder, which affects an individual for his/her lifetime and therefore has an impact on the developmental stage of middle childhood. It can be understood that on a physical level the differences between a neurotypical child and an autistic child are not that marked.
- On an intellectual level there are significant differences between neurotypical and autistic children.
- It is the area of the social and/or emotional development of children in middle childhood that will show the biggest differences between neurotypical and autistic children and these differences place a great deal of pressure on the family unit and/or significant others of the autistic individual.



- The impact of autism on the family is enormous: the challenges that an autistic child experiences during middle childhood place a great deal of strain on the family unit on a daily basis and within all areas of their functioning.

7.2.3.3 Recommendations

The following recommendations are made in light of these conclusions:

- Any individual working/living with an autistic child in middle childhood needs to be aware of the physical, intellectual, emotional and social differences that the autistic child may experience because of his/her disabilities. This awareness can be achieved through educating oneself through literature and available resources; meeting with other professionals and/or parents/carers who are dealing with the disorder on a daily basis; and attending any workshops/seminars focusing on the topic.
- It is again important to note that each individual child will be unique and therefore one cannot generalize about the challenges that the autistic child may be experiencing. Each child must be treated individually according to his/her unique characteristics.
- The differences and difficulties that the autistic individual is experiencing, such as an inability to interact socially, negative behaviours such as aggression or self-injurious behaviour, and/or inappropriate behaviour, have a direct impact on the family and its functioning and therefore it is vital that the family gets appropriate and professional support. This support should be given in the education field, by the state (through appropriate services in our society) as well as in the professional environment, particularly from the fields of social work and psychology.



7.2.4 Play Techniques

7.2.4.1 Summary

According to the article Play Therapy (2006a) “play is the method that children use to communicate and process their world”. Play is thus an essential part of a child’s world due to the fact that it is the means by which the child learns and copes within his/her environment. What is Play Therapy? (2006a) defines play therapy as therapy that “helps children work through emotional and behavioural issues and helps address a type of mental health or developmental intervention which is designed to help children grow up as happy and well adjusted as possible”. Schoeman and Van der Merwe (1996: 3–5) consider play therapy to be the use of play to assist children, in therapy, in dealing with their particular problem/s.

Play therapy uses a variety of play and creative techniques to alleviate chronic, mild and moderate psychological and emotional conditions in children that are causing behavioural problems and/or are preventing children from realizing their potential (Play Therapy UK, 2006). The play material may include the following (Play Therapy, 2006b):

- Manipulatives (e.g. clay, crayons, painting supplies)
- Water and sand play containers
- Toy kitchen appliances, utensils, and pans
- Baby items (e.g. bottles, bibs, rattles)
- Toy guns, rubber knives
- Toy cars, boats, soldiers, and animals
- Blocks, erector sets
- Stuffed animals



Play therapy can be used to "address specific problems and to facilitate positive developmental progress" (Why Play Therapy? 2003b). This article went on to say that play therapy is helpful for children who have experienced/are experiencing the following:

- Dealing with parental conflict, separation or divorce;
- Have been traumatized (sexual, physical or emotional abuse);
- Have been adopted or are in foster care;
- Dealing with issues of loss, such as illness or death of a loved one;
- Have been hospitalized;
- Have witnessed domestic violence;
- Suffering from a disability of some kind, either physical or emotional;
- Diagnosed with Attention Deficit Disorder (ADD/ADHD) ; and/or
- Have experienced serious accidents or disasters.

Play Therapy (2006c) lists the following as benefits of play therapy:

- Reduces anxiety about traumatic events in the child's life;
- Facilitates a child's expression of feeling;
- Promotes self-confidence and a sense of competence;
- Develops a sense of trust in self and others;
- Defines healthy and comfortable boundaries;
- Creates or enhances bonding in relationships; and
- Enhances creativity and playfulness.

Within play therapy there are various approaches that can be focused on. In this study the approach used was the gestalt approach. The gestalt approach refers to the concept of gestalt, which is defined by Thompson and Rudolph (2000: 163) as "a form, a configuration or a totality that has, as a unified whole, properties



that cannot be derived by summation from the parts and their relationship. It may refer to physical structures, to physiological and psychological functions, or to symbolic units". The goal of gestalt is defined as "to know who they (clients) really are by clarifying those parts of themselves that they have carefully hidden from awareness. To become aware of what they are doing, how they are doing it and how they can change themselves and to learn to accept and value themselves" (Thompson & Rudolph, 2000: 163).

As previously mentioned, the goal of this study was to develop a play *technique* programme, as opposed to a play *therapy* programme for autistic children in middle childhood. The reasoning for this is that the researcher aimed to develop a programme that can be used widely within the autism field, and not only by qualified play therapists. It is therefore necessary to focus on appropriate play techniques, rather than play therapy as the means of attempting to assist autistic children. Play techniques can be considered the mechanisms or methods used within the field of play therapy, in order to assist a child within the therapy process (Oaklander, 1988: 10). The play techniques include the following:

- Fantasy play
- Relaxation play
- Drawing and fantasy
- Biblio-play
- Making things
- Storytelling, poetry and puppets
- Sensory experience
- Enactment
- The sand tray



The appropriate techniques, according to the researcher, were utilized within the six phases held with the respondents (refer to Chapter 5).

7.2.4.2 Conclusions

The following conclusions were drawn from this chapter:

- Play therapy can be understood as an intervention using play as the main medium of therapy to assist individuals in dealing with physical, social or emotional problems.
- The researcher is of the opinion that play therapy can be considered vital therapy for children who have experienced any traumatic episodes or are struggling with an emotional problem.
- Play therapy can be beneficial for various situations and circumstances, as mentioned in the summary, and was considered an appropriate approach to guide this study.
- Although the play technique programme was developed within the theoretical framework of Gestalt Therapy, the focus was on a *play technique programme* as opposed to a *play therapy programme*, in order to make the programme more accessible to the general public and not only to qualified play therapists and thereby making the impact of the programme more significant with regard to the amount of autistic individuals reached.

7.2.4.3 Recommendations

The following recommendations are made in light of these conclusions:



- The constructive use of play techniques should be considered a valuable treatment method for autistic children and should be included in the treatments being offered to autistic individuals in our society. This could be included within the school environment as well as part of the professions services outside of the school. Other approaches of play therapy also needed to be focused on, such as Filial play therapy and Adlerian play therapy.
- Further studies within the fields of social work and psychology, focusing on the treatment and management of autism, should be done in order to gain a better understanding of the benefits of using play techniques with autistic children.
- Scientifically tested play technique programmes should become available, to professionals, such as teachers and therapists, and/or parents of autistic individuals, in order to provide them with greater assistance. This can be done through workshops and/or seminars as well as through written publications and journals.

7.2.5 Development of Play Technique Programme

7.2.5.1 Summary

As has been previously mentioned, the aim of the study was to develop a play technique programme for autistic children in middle childhood. The programme included six phases, with the phases focusing on various techniques and skills.

The six phases focused on and included the following:

- **Phase one:** This was the introductory phase. The goal of the phase was to begin developing a relationship between the respondent and the researcher, in order to facilitate a positive working environment. The play



- activities included puzzles, games, books, and a CD player and CDs to play background music.
- **Phase two:** The goal of this phase was to expose the respondent to sensory experiences in order to increase his/her sensory awareness. The play techniques included in this phase included the sand tray and plastic animals; water and plastic toys; and clay/play dough.
 - **Phase three:** The goal of this phase was to encourage the respondent to express him/herself more adequately. The play techniques used in this phases included drawing, play dough, as well as puppets and dolls.
 - **Phase four:** The goal of this phase was to deepen the child's level of expression, through play techniques such as painting, puppets and dolls as well as sand tray and plastic animals.
 - **Phase five:** The goal of this phase was to further deepen the child's level of expression. The play techniques focused on in this phase included biblio-therapy (books), drawing and play dough.
 - **Phase six:** The goal of this phase was to terminate the programme with the respondent. The play activities included puzzles, games, books, and a CD player and CDs to play background music. (Refer to Chapter 5 to see the full play technique programme.)

7.2.5.2 Conclusions

The following conclusions were drawn from this chapter:

- Phases of no longer than 30 minutes each were considered appropriate for the respondents, given that autistic children can battle with concentration.



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- A total of six phases were held with 12 respondents, as the researcher considered this a sufficient amount for this study to be considered significant.
 - Various play techniques were considered appropriate for use within the play techniques phases, such as biblio-therapy, painting, drawing, sand tray, play dough, puppets and games. The researcher considered these techniques appropriate as a result of her experience with the particular techniques and understanding of autism.
 - Through developing the play technique programme and implementing the programme with autistic children, their social behaviour has been improved and therefore the programme can be considered for further use within the field of autism.
 - The improvements that took place once the programme was implemented clearly indicate that the play technique programme should be utilized on a larger scale in order to ensure that a larger number of individuals who are impacted by autism are reached and that more meaningful outcomes are achieved.

7.2.5.3 Recommendations

The following recommendations are made in light of these conclusions:

- The play technique programme developed for this study should be made available to professionals and more specifically parents/carers of autistic children through a workshop and/or group training.



- The doctors who diagnosed children with autism in South Africa should be made aware of this programme so that they can provide the parents with direction and support right from the diagnosis.
- Given the improvement in autistic children's social behaviour in this study, it should be ensured that more autistic children are exposed to this programme. This could be done through contacting the schools/treatment facilities that are dealing with autism and offering a workshop or training day in order to educate the people involved.
- This specific programme should also be added to the current repertoire of therapies available to autistic children.
- Play therapy and play techniques should become a widely used form of treatment for autistic children. In order to encourage this, the benefits of play therapy and play techniques need to be explained and acknowledged, as this will facilitate a greater desire for this form of treatment. This can be done through workshops and seminars as well as through various forms of literature.

7.3 EMPIRICAL RESEARCH FINDINGS

7.3.1 Quantitative Research Findings

7.3.1.1 Summary

The research approach selected was quantitative in nature. Intervention research was the most appropriate type of research for this particular study. The researcher utilized the one-group pre-test–post-test design (i.e. quasi-experimental/associative design). The 12 respondents were selected through probability sampling, more specifically stratified and systematic sampling. A self-constructed measuring instrument was used to evaluate the respondents' changes in social behaviour.



The main purpose of the chapter was to display, analyze and interpret the quantitative data collected by means of structured observations using a self-constructed measuring instrument. Tables, bar and column graphs and pie charts were used for the presentation of the data.

The biographical factors, namely the respondents' age, gender, race and home language, were discussed. Thereafter the social behaviour developments in the autistic children's' behaviour were documented, and the pre- and post-tests conducted. These focused on verbal communication, non-verbal communication, social interaction and challenging behaviours.

7.3.1.2 Conclusions

The following conclusions, focusing on the biographical details and the social behaviour measures of the respondents, were drawn from this chapter:

a. Biographical details

The respondents' biographical details were documented and the following conclusions were drawn:

- It was decided that the focus of this study would be autistic children in middle childhood (between the ages of six and 12 years) and therefore all the respondents were within this developmental stage.
- It was mentioned earlier in the study that the ratio difference of autistic children is quite marked, with The Autism and Pervasive Developmental Disorder Fact Sheet (2006) postulating that autism is "four times more common in boys than in girls". This study



confirmed this ratio, with 10 of the respondents being male and only 2 of the respondents being female.

- Race was not considered a pertinent factor in this study, the diagnosis of autism being more important.
- In this study language was not considered a vital factor given the fact that the main medium of communication was play.

b. Social behaviour development

The implementation of the play technique programme with the autistic children involved in the study allowed for the following conclusions about social behaviour development to be drawn:

- The following results on **verbal communication** were yielded by the Wilcoxon Signed-Rank Test for a Paired Experiment. The test statistic given was 0.0 and the p-value was 0.00195, therefore leading to the following conclusion:
 - 0.00195 was less than 0.01%, which was considered the level of significance;
 - Therefore the null hypothesis was rejected;
 - The alternative hypothesis was accepted;
 - This allowed the conclusion that the intervention (the play technique programme) had a highly significant effect on the verbal communication of the respondents.
- The following results on **non-verbal communication** were yielded by the Wilcoxon Signed-Rank Test for a Paired Experiment. The test statistic given was 0.0 and the p-value was 0.00025, therefore leading to the following conclusion:



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- 0.00025 was less than 0.01%, which was considered the level of significance;
 - Therefore the null hypothesis was rejected;
 - The alternative hypothesis was accepted;
 - This allowed the conclusion that the intervention (the play technique programme) had a highly significant effect on the non-verbal communication of the respondents.
- The following results on **social interaction** were yielded by the Wilcoxon Signed-Rank Test for a Paired Experiment. The test statistic given was 0.0 and the p-value was 0.00025, therefore leading to the following conclusion:
 - 0.00025 was less than 0.01%, which was considered the level of significance;
 - Therefore the null hypothesis was rejected;
 - The alternative hypothesis was accepted;
 - This allowed the conclusion that the intervention (the play technique programme) had a highly significant effect on the social interaction of the respondents.
- The following results on **challenging behaviour/s** were yielded by the Wilcoxon Signed-Rank Test for a Paired Experiment. The test statistic given was 0.0 and the p-value was 0.00025, therefore leading to the following conclusion:
 - 0.00025 was less than 0.01%, which was considered the level of significance;
 - Therefore the null hypothesis was rejected;
 - The alternative hypothesis was accepted;

- This allowed the conclusion that the intervention (the play technique programme) had a highly significant effect on the challenging behaviour/s of the respondents.
- Diagram 54 gives an indication of the pre- and post-test scores of each respondent individually, with regard to the overall impact of the play techniques. This has been done through combining all the scores that the respondents achieved, within all four areas of development. One is able to see the improvement that took place, with regard to the impact of/reaction to the play techniques, with 100% of the respondents achieving a higher rating in the post-test as compared to their pre-test.

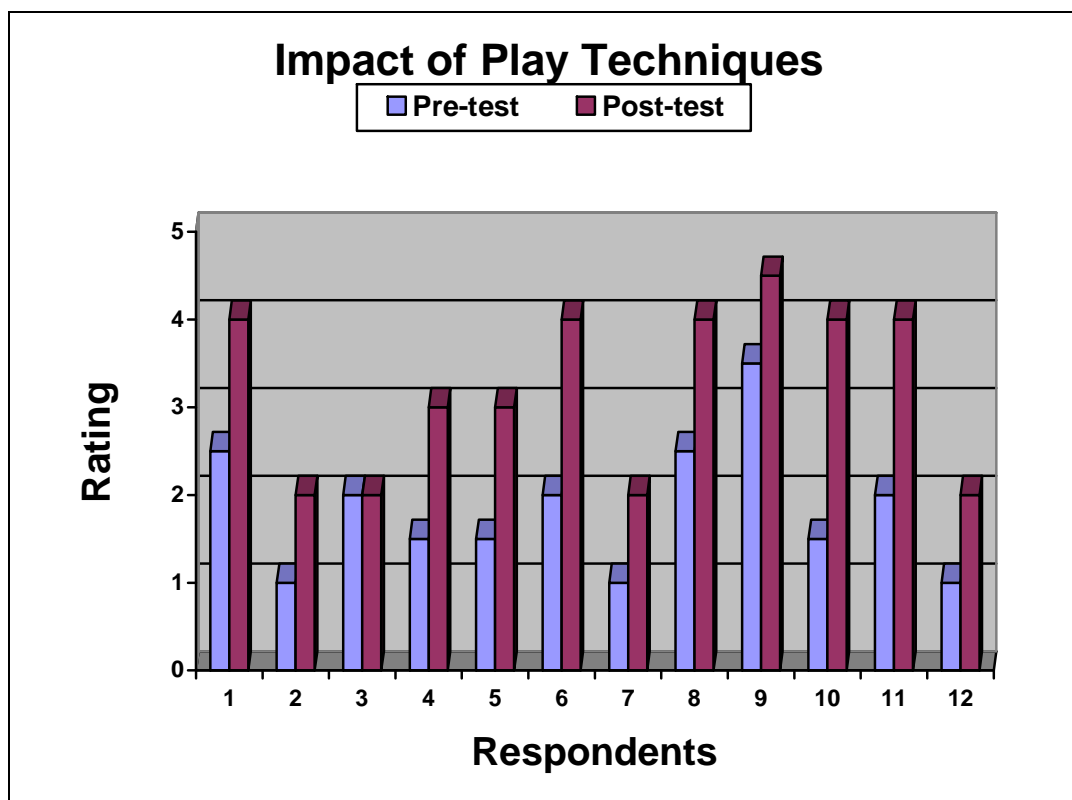


Diagram 55: Pre- and post-test scores for impact of play techniques



7.3.1.3 Recommendations

The following recommendations are made in light of these conclusions:

- Given the clear improvements that took place with regard to the social behaviour development of the autistic children involved in this study, the play technique programme should be made available to other professionals working with and/or parents of autistic individuals in order to improve the quality of life of these individuals.
- A study of this nature should be done over a longer period of time (a longitudinal study) in order to document the long-term benefits of such a play technique programme.
- The results of this study should be utilized by parents and professionals working with autistic individuals, in order to increase their ability to interact on a social level.
- A greater number of autistic children should be involved in such a programme in order for the results of the impact of the play technique programme on the social behaviour development, and hence the improvement of quality of life, of autistic children to be generalizable.
- A vigorous attempt should be made to make this specific play technique programme known to other professionals in the field of autism. This can be done through seminars, workshops and literature organized by the researcher.



7.4 AIM AND OBJECTIVES OF THE STUDY

7.4.1. Aim of the study

The aim of this study was to develop and evaluate the effectiveness of a play technique programme to enhance the social behaviour of autistic children between the ages of six and 12 years.

7.4.2. Research Objective Achievements

Table 20 below presents the specific objectives that were formulated in the study and the specific manner in which these objectives were achieved.

Table 20: Accomplishment of the study objectives

Nr.	Objective	Objective achievement
1	To theoretically conceptualize autism as a phenomenon in middle childhood and the impact thereof on the family, as well as play techniques in the context of autism.	This objective was achieved in completing Chapters 2, 3 and 4 of this study.
2	To explore the nature, on a national and international level, of existing play technique programmes for autistic children.	This objective was achieved by exploring all the existing play technique programmes available, with the researcher not able to identify any. This is commented on in Chapter 4.
3	To develop a play technique programme for autistic children.	This objective was achieved in completing Chapter 5 of this study.
4	To implement the play technique programme.	This objective was achieved at The Key School for Specialized Education, with the researcher implementing the play technique programme with 12 autistic children over a six-week period.



5	To evaluate the effectiveness of the play technique programme.	This objective was achieved in completing Chapter 6 of this study.
6	To come to conclusions and make recommendations to enhance the effectiveness of the play technique programme for autistic children.	This objective was achieved in completing Chapter 7 of this study.

7.5. CONCLUDING STATEMENT

The purpose of this final chapter was to summarize the study and provide conclusions and recommendations based on all the information given in the previous chapters. The intention was to offer a clear overview of the focus of this study and its outcome.

The researcher is of the opinion that this study will have a positive impact on the social work profession in general, particularly within the field of play therapy. It provides a better understanding of the phenomenon of autism and offers an alternative form of therapy to deal with autistic children. This, it is believed, will enhance the possibility of more appropriate social behaviour and thereby provide support for the families of autistic individuals.

This study has taken a great deal of time and effort, but has yielded a great deal of enjoyment and reward. It has been a challenge, as the field focused on can be considered a relatively new and unknown field to many people as well as to the researcher herself. Thus a great deal of learning and understanding on the researcher's part were required, which in turn led to a desire to continue the work with autistic children.

The researcher is now working with autistic children at The Key School for Specialized Education in Parktown West, treating autistic children through the method of play therapy. This is a direct consequence of this study, and arises



from the improvements that were noted with the autistic children in this study, when they were involved in the play technique programme. The researcher continues to see the benefits of play therapy, specifically with autistic children, and continues to reap many rewards in witnessing the improved social behaviour of these children.