A PROGRAM TO PREPARE CHILDREN FOR GROMMET INSERTION AND ADENOIDECTOMY: A GESTALT THERAPY APPROACH

by

JEANNETTE DOROTHY BIRKENSTOCK

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SUMMARY

The aim of this study was to develop a Gestalt play therapy based hospital preparation program for children undergoing the surgical procedures of grommet insertion, or grommet insertion and adenoidectomy, at Tygerberg Hospital. Literature was reviewed according to relevant topics, namely otitis media in children, Gestalt play therapy, theories of child development, and children's experience of illness and hospitalisation. Semi-structured interviews were conducted with four subject groups and the data obtained was qualitatively analysed.

Research findings were discussed and integrated with reference to the literature. This information was applied in the development of the proposed program. The aim, underlying principles, objectives and components of the program were discussed and guidelines for implementation were provided. The program was implemented and evaluated in a single subject pilot study, which yielded a positive response. Recommendations for both practical implementation in a therapeutic context and further study in a research context were made.

Key terms:

Gestalt; play therapy; hospital preparation program; children; medical settings; child development; otitis media; grommet insertion; adenoidectomy; day surgery.

OPSOMMING

Die doel van hierdie studie was om ‘n Gestalt spelterapie-gebaseerde hospitaalvoorbereidingsprogram te ontwikkel vir kinders wat die chirurgiese prosedures van ventilasiebuis-plasing of ventilasiebuis-plasing en adenoïdektomie by Tygerberg-hospitaal ondergaan. ‘n Literatuurstudie is uitgevoer rakende relevante onderwerpe; naamlik, otitis media in kinders, Gestalt spelterapie, kinderontwikkelingsteorieë, en kinders se ervaring van siekte en hospitalisasie. Semi-gestruktureerde onderhoude is met vier subjekgroepe uitgevoer en die data wat verkry is, is kwalitatief geanaliseer.

Navorsingsbevindinge is bespreek en geïntegreer met verwysing na die literatuur. Hierdie inligting is toegepas in die ontwikkeling van die voorgestelde program. Die doel, onderliggende beginsels, doelstellings en komponente van die program is bespreek en riglyne vir die implementering daarvan is verskaf. Die program is geïmplimenteer en geëvalueer in ‘n enkelsubjek loodsstudie, waar ‘n positiewe respons verkry is. Aanbevelings vir beide praktiese implementering in ‘n terapeutiese konteks en verdere studie binne navorsingskonteks is gemaak.

Sleutelterme:
Gestalt; spelterapie; hospitalvoorbereidingsprogram; kinders; mediese kontekste; kinderontwikkeling; otitis media; ventilasie-buisplasing; adenoïdektomie; dagchirurgie.

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CHAPTER 1: RESEARCH PROPOSAL

1.1 Introduction

In 1989, the United Nations Convention on the Rights of the Child advocated amongst its key principles that children have a right to be heard regarding any decision affecting their life, and to have their views taken into account in the decision-making process. The vision to enhance children's rights in contemporary society has been made manifest in a variety of domains traditionally seen as the province of their parents. Decisions pertaining to medical treatment and care delivery represent a pertinent example (Rushforth, 1999: 686). Paediatric health care staff should take time to give explanations and prepare children for medical procedures they are to undergo, using language which is appropriate to their development. This is particularly true for invasive, uncomfortable or frightening procedures (Presslee, May, Eastman & Grier, 1997: 948).

A key barrier to the implementation of such preparation has been the widespread belief that it is very difficult to communicate aspects of care to young children who have limited levels of cognition. All too often it is the views of parents and professionals on what *they believe* children think, feel and understand, which health care workers use as tools to guide their practice. It is important that we also find ways to hear the voices of the children themselves, and to respond accordingly to their needs (Rushforth, 1999: 683; 690).

Play therapy is recognised as a means of preparing children for medical procedures and offers some solutions to the obstacles and barriers discussed above. The work of childhood is play, and play is a primary form of communication for young children. It has been established that, as well as being important for the healthy development of children, play has a major role in helping children adjust to and cope with stressful conditions, such as in hospital. The hospital play therapist has only recently been recognised as a professional allied to medicine, whose role is to help make a child's visit or

stay in hospital less traumatic and to help them cope with any potentially unpleasant procedures that may be necessary (Presslee, *et al.*1997: 945). The Gestalt perspective may be viewed as an appropriate theoretical framework for play therapy aimed at the preparation of children for hospital and medical procedures.

In conducting the proposed study, the researcher wished to develop a Gestalt play therapy hospital preparation program for a specific patient group; namely, children who are admitted to the day surgery unit of Tygerberg Hospital, either for the single procedure of grommet insertion or for the combined procedures of grommet insertion plus adenoidectomy. There is consensus that chronic otitis media, or infection of the middle ear, is the most common of childhood diseases and one of the most frequent reasons for a child to require medical attention (Roark & Berman, 1996: 127; Northern & Downs, 2002:65; Jackson, 2001: 194). When this condition does not resolve despite medical therapy, and when the development of further middle ear complications is imminent, a surgical procedure involving the insertion of grommets is indicated (Potsic, Cotton & Handler, 1997: 7). Grommet insertion is one of the most common surgical procedures in children (Jackson, 2001: 1940) and is frequently performed together with adenoidectomy. Grommets are small plastic tubes which are inserted in the tympanic membrane of the ear through an incision, for the purpose of treating recurrent ear infection by allowing drainage of the infected liquid material. Adenoidectomy refers to the surgical removal of enlarged adenoids which may obstruct the Eustachian tube of the middle ear and contribute to the occurrence of ear infection (Hall, 1999: 113; 116).

At Tygerberg Hospital, where the current research was conducted, the procedure of grommet insertion was performed on 92 children between the ages of 8 months and 13 years over a 12 month period (February 2003 to January 2004). The combined procedures of grommet insertion and adenoidectomy were performed on 47 children between the ages of 1 year and 15 years during the same time period. Patients are routinely admitted to the day surgery ward of Tygerberg Hospital on the morning of the scheduled procedure, the surgical procedure is conducted under general anaesthesia,

and patients are subsequently monitored and discharged after clearance by the nursing sister on duty. In the light of the abovementioned statistics, the relevance of the current research is evident.

1.2 Motivation for Choice of Topic

The motivation for the above choice of topic was based on various literature reviews as well as on practical knowledge and professional experience, as discussed below:

A major influence on the psychological well-being of patients and clients in recent years has been the recognition of their need for information regarding their illness, hospitalisation, and pending procedures. There have been clear links between information giving and reduction in fear, stress and post-operative pain. While such principles are widely recognised in the field of adult care, within paediatrics, however, such recognition has been somewhat longer in influencing practice (Rushforth, 1999: 683). Even in well–resourced countries, advances in medical and surgical knowledge have not always been accompanied by commensurate attention to the child's well-being in terms of broader physical and psychosocial needs. There can be a tendency to focus on the systems of the body while ignoring the effects of treatment and associated experiences on the child's physical and emotional well-being (Southall, Burr, Smith, Bull, Radford, Williams & Nicholson, 2000: 1055). In 1986, the WHO Regional Director for Europe in the foreword to the Report of the WHO commissioned study of "Care of Children in Hospital" stated:

> " The care of children in hospital ranges from the very good to the horrifying…There is a clear lack of awareness in a surprisingly large number of hospitals of the special need, not only to cater for children's technical, medical, and nursing needs, but also to minimise the adverse effects of being separated from their families and exposed to frightening experiences that are all too often magnified by the child's lack of forewarning" (Asvall in Southall*, et al.* 2000: 1056).

Recent studies focusing on the preparation of children for surgery or specific medical procedures affirm the value and positive outcomes of such preparation. Ear, Nose and Throat procedures account for the greatest number of paediatric surgery cases and are most frequently performed as ambulatory or day surgery procedures (Hall, 1999:111). A study was performed by Hatava, Olsson and Lagerkranser (2000: 447), which compared two methods of preparation for children undergoing Ear, Nose and Throat surgery (The abbreviation ENT will be used to refer to Ear, Nose and Throat throughout this research). Results indicated that a program focusing on psychological preparation, which included role play, was more effective with regard to information giving and alleviation of pre-operative fear and anxiety in young children than the conventional method of verbal information giving by a nurse.

Parents also reported more satisfaction and less anxiety after having received specific information and preparation pre-operatively. A study performed by Li and Lam (2003: 882) on the impact of paediatric day surgery on children and their parents indicated that this was a stressful and threatening experience for both parties, and relatively high pre-operative anxiety levels for both parents and children were noted. High pre-operative anxiety levels in the children were associated with lower levels of cooperation during induction and post-operative periods. Parents' high anxiety levels were also associated with their children's high anxiety. A study by Presslee, *et al* (1997: 945-948) describes the effective use of play therapy in the preparation of children undergoing magnetic resonance imaging.

The specific surgical procedures defined by the study, namely grommet insertion and adenoidectomy, were selected for the following reasons: Firstly, the procedures are frequently performed and affect a large paediatric patient population. Secondly, despite being uncomplicated procedures which do not routinely require overnight hospitalisation, specific stressors such as hospital admission, general anaesthetic and exposure to the operating theatre, exist. Thirdly, the procedures require management by the Ear, Nose and Throat Department rather than the Paediatrics Department, which has implications

regarding the extent to which child-friendly measures are in place. The researcher's personal motivation for conducting the study stemmed from the fact that, within the context of her current professional practice as a Speech Therapist and Audiologist at Tygerberg Hospital, she frequently works with children who have undergone, or who are scheduled to undergo, the above procedures, as well as their parents, and has noted the nature of their reactions and perceptions regarding adenoidectomy and the insertion of grommets.

Play therapy, based on the Gestalt approach, is proposed as an appropriate means of preparing children for hospital and medical procedures. Play provides an effective method for the presentation and exploration of medical concepts while providing insight into the child's understanding of the situation, areas of misconception, fear and anxiety, and level of coping (LeRoy, Elixson, O' Brien, Tong, Turpin & Uzark, 2003:12). Therapeutic play provides a means for expression of feelings, release of energy, and relaxation. The Gestalt approach places emphasis on dialogical relationship, awareness, the here-and now, and self-regulation and responsibility, all of which are integral to the above context. Being rooted in the phenomenological perspective, Gestalt therapy treats what is "subjectively" felt in the present, as well as what is "objectively" observed, as real and important data.

The goal of Gestalt phenomenological exploration is awareness, or insight (Yontef, 1993:1). Gestalt therapy relies on an accepting therapeutic relationship and techniques such as dialogue, confluence and experimentation to achieve this goal. There is also a strong focus on sensory perception. Through awareness of and experimentation with bodily sensations, as well as emotional responses, desires and cognitive assumptions, the clients' range of choices about how they live their lives, especially how they engage with others and themselves, will be enhanced (Kirchner, 2000:10). According to Oaklander (in Blom, 2004: 2), the philosophy, theory and practice of Gestalt therapy can be used with slight adaptation in therapy with children. It is the researcher's opinion that these principles, goals and techniques of Gestalt therapy are relevant to and may be

effectively applied in the therapeutic process of preparing children for the surgical procedures described above.

1.3 Problem Formulation

At present, there is no program in place at Tygerberg Hospital which prepares the child for adenoidectomy and/or the insertion of grommets by providing developmentally appropriate information and emotional support. The absence of, and need for, a hospital preparation program, which targets children in general who attend Tygerberg Hospital for in- or out-patient treatment or procedures, has recently been identified by the TygerBear Social Work Unit for Traumatised Children at Tygerberg Hospital. The planning and development of such a hospital preparation program for children is in its initial stages and this study is in line with this initiative.

On the basis of personal experience of the researcher, as well as feedback from various hospital professionals, it appears that the majority of children who are either scheduled for or have already gone adenoidectomy and/or grommet insertion, as well as their parents, are poorly informed and are/were not adequately prepared for the procedures. This is apparent in the nature of the questions raised and obvious misconceptions about the procedures. There are also subjective reports by the medical personnel involved regarding the varying levels of anxiety and cooperation from many children immediately before and after the surgery, as well as during medical examination on their follow-up visit after the surgery. On the basis of the above, the researcher selected the current topic for her proposed research, with the vision of developing a program of preparation for the patient group described above.

1.4 Goal Setting

1.4.1 Aim of the Research

The primary focus of this study was to formulate an aim, according to the problem statement, that is, to develop a developmentally appropriate Gestalt

play therapy program for the preparation of children undergoing grommet insertion, or grommet insertion and adenoidectomy, in the day surgery context.

1.4.2 Objectives of the Research

The following objectives were set:

- To review relevant literature relating to the research topic, including aspects such as existing programs for hospital preparation, day surgery, otitis media, grommet insertion, adenoidectomy, Gestalt play therapy, and child development theory.
- To identify a target population, to gather relevant information from this population, and to analyse and assimilate this information so that it may be applied in the process of designing the proposed program.
- To design a Gestalt play therapy program for the preparation of children undergoing grommet insertion, or grommet insertion and adenoidectomy, in the day surgery context.
- To implement the above program in the context of a pilot study
- To make recommendations for the testing and refining of the program based on the findings of the pilot study, in order to determine its potential value and usefulness in the clinical therapeutic context.

1.5 Research Question

According to Blaikie (2001), research questions can be grouped into three types: “what” questions, which are directed towards discovering and describing the characteristics of a phenomenon; “why” questions, which ask for the causes of or reasons for the characteristics of a phenomenon; and “how” questions, which are concerned with bringing about change, with practical outcomes and intervention. The research question for this study may be regarded as an example of a “how” question, and was formulated as follows:

Could children be prepared for the day surgery procedures of grommet insertion and adenoidectomy by means of a developmentally appropriate play therapy program based on Gestalt concepts?

This question is affirmed in the discussion in Chapter 6.

1.6 Research Approach

The research followed a qualitative approach, which is discussed in detail in Chapter 5. According to McRoy, in Fouche and Delport (2002: 79), a qualitative study is concerned with understanding rather than explanation, naturalistic observation rather than controlled measurement, non-statistical methods, and the subjective exploration of reality. The following characteristics of the qualitative approach may also be added: the researcher attempts to gain a first-hand, holistic understanding of phenomena of interest by means of a flexible strategy of problem formulation and data collection; this takes shape as the investigation proceeds; methods such as participant observation, semi-structured and unstructured interviewing are used to acquire an in-depth knowledge used to guide further study; and qualitative methodology rests on the assumption that valid understanding can be gained through accumulated knowledge acquired at first hand by a single researcher (Reid and Smith, in Fouche and Delport, 2002: 80). The above description and characteristics of qualitative research are applicable to this study. The researcher obtained data by means of naturalistic methods of observation and interviewing, used this data to gain knowledge and understanding of relevant phenomena, and applied this information directly to the process of designing the hospital preparation program.

1.7 Type of Research

The goals for this research as previously described are regarded as applied rather than basic. Applied research is focused on solving problems in practice and helping practitioners accomplish tasks (Fouche, 2002a: 108- 109). According to Hart (1998: 46), the aim of applied research is to take theoretical

insights and apply these in real-world situations, in order to produce recommendations or solutions to some problem faced by a specific group of people in a situation.

A blend of exploratory and descriptive research may be identified as the type of applied research for this study. Exploratory research is conducted in order to gain insight into a situation, phenomenon, community or individual (Bless & Higson-Smith in Fouche, 2002a: 109). According to Fouche (2002a: 109), "The need for such a study may arise out of a lack of basic information on a new area of interest, or in order to become acquainted with a situation so as to formulate a problem or develop a hypothesis." Exploratory research may be used to examine the feasibility of further study by indicating what might be relevant to study in more depth (Hart, 1998: 47). Descriptive research presents a picture of the specific details of a situation, social setting or relationship, and focuses on "how" and "why" questions (Newman, in Fouche, 2002a: 109). It refers to a more intensive examination of phenomena and their deeper meanings, thus leading to a thicker description than in the case of exploratory research (Rubin & Babie, in Fouche, 2002a: 109).

This research may be regarded as exploratory in that it represents an initial attempt to design a specific hospital preparation program for a specific context, as described in Chapter 6. The research is also descriptive as it involves the in-depth study and analysis of existing extensive research in broader related fields including otitis media, hospital preparation in children and Gestalt play therapy. These topics are discussed in chapters 2, 3 and 4 respectively and the relevant information is applied in chapters 5 and 6 in the process of developing the hospital preparation program.

1.8 Research Strategy and Work Procedure

The intrinsic case study is presented as the research strategy for this study, as discussed further in Chapter 5. According to Cresswell (in Fouche, 2002b: 275), a case study can be regarded as an exploration or in-depth analysis of a "bounded system" (bounded by time and/or place) or case. The case being

studied can refer to a process, activity, event, program, individual, or multiple individuals. Case study researchers seek to enter the field with knowledge of the relevant literature before conducting the field research. The exploration and description of the case takes place through detailed, in-depth data collection methods, involving multiple sources of information that are rich in context. These can include interviews, documents, observations or archival records. The researcher needs access to, and the confidence of, participants. While the researcher situates the case within its larger context, the intrinsic case study is solely focused on the aim of gaining a better understanding of the individual case, rather than on understanding a broader social issue (Fouche, 2002b: 275-276). For this study, the case to be researched may be identified as the child undergoing grommet insertion or grommet insertion and adenoidectomy. The purpose of this case study was to develop a program to prepare a specific population for specific surgical procedures by using a Gestalt play therapy approach.

The work procedure for the study is discussed in Chapter 5 and was based on the first three phases of the six- phase process of intervention research (design and development model) described by De Vos (2002: 396-418):

Phase 1: Problem analysis and project planning

Step 1: Identifying and involving clients

- Theatre lists of patients booked for day surgery were reviewed.
- Subjects who met the sampling criteria were identified.
- Subjects/parents of these subjects were contacted to explain the purpose of the study and obtain written consent for their participation in the study.

Step 2: Gaining entry to and cooperation from settings

- Permission to conduct the study was obtained from the Medical Superintendent of Tygerberg Hospital and the Head of the Department of Otorhinolaryngology.
- The researcher collaborated with medical and nursing staff in order to gain their cooperation and support regarding the implementation of the research project.

Step 3: Identifying and analysing concerns of the population

- Semi-structured interviews were conducted with children and parents of children who had already undergone or were scheduled to undergo day surgery procedures.
- Semi-structured interviews were conducted with medical and nursing staff dealing with children and parents in the day surgery context.
- The researcher considered the type of problem(s) reported, who was affected by the problem(s), why the problem(s) exist(ed), and how the problem(s) could be solved.

Phase 2: Information gathering and synthesis

Step 1: Using existing information sources

- The researcher consulted with medical staff of the Department of Otorhinolaryngology at Tygerberg Hospital to obtain information about paediatric day surgery procedures.
- The researcher consulted with nursing staff at the day surgery clinic of Tygerberg Hospital to obtain information about the running of the clinic.
- Past records and statistics of the day surgery clinic at Tygerberg Hospital were reviewed to obtain information regarding the number of paediatric patients that received treatment, their ages, and the nature of the surgical procedures performed.

Step 2: Studying natural samples

- The researcher visited the day surgery clinic at a time when paediatric patients were scheduled for grommet insertion and adenoidectomy and "shadowed " a patient from the time of arrival in order to personally experience and gain insight into the routine course of events.

Step 3: Identifying functional elements of successful models

- The researcher consulted with staff of the Department of Social Work at Tygerberg Hospital to obtain information about existing hospital preparation programs for children.

Phase 3: Design and development

Step 1: Designing an observational system

- Aspects pertaining to the target population which needed to be studied prior to compiling the specified program were identified, including child characteristics, eg. developmental level relative to chronological age, level of play, language level, exposure to toys, exposure to children's books, understanding of specific medical procedures, emotional state prior to surgery, and experience of the day hospital event; as well as caregiver characteristics, eg. educational level, understanding of specific medical procedures, manner of preparing the child for day surgery, emotional state prior to child's surgery and experience of the day hospital event.
- The researcher identified and developed suitable methods of observation for the above, including questionnaires and semi-structured interviews. In a semi-structured interview, a predetermined set of open-ended questions exists on an interview schedule, but the interview is guided by the schedule rather than dictated by it. The participant shares more closely in the direction the interview takes, and can introduce an issue the researcher had not thought of (Greeff, 2002: 302).

Step 2: Implementing the above observational system

- The researcher obtained information regarding aspects of the target population by using a suitable method of observation for each individual aspect.

Step 3: Analysing and synthesising the information obtained

- Information was reviewed and interpreted with reference to the opinions of experts, as well as literature regarding child development theory, play therapy and the Gestalt approach.

Step 4: Designing a preliminary program

The above information was used to design a program to prepare children for day surgery procedures based on the Gestalt play therapy approach and developmental information, using biblio-play and dramatised play:

- Biblio-play: a children's story was compiled which relates specifically to the procedures of PE tube insertion and adenoidectomy. The story was

illustrated in the format of a colouring book and translated into English and Afrikaans.

- Dramatised play: a kit was assembled, consisting of medical toys, puppets, dolls, and selected real life medical items, eg. masks, gloves, grommets, empty syringes, swabs, theatre clothes and bandages. Guidelines as to how this kit may be used to facilitate role-play, sensory experience, awareness and experimentation within the Gestalt play therapy context were compiled.

Step 5: Apply the program to individual cases

- The researcher met with a parent and child who met the inclusion criteria, on the day of the outpatient visit to the Otorhinolaryngology Department when the decision was made for grommet insertion with or without adenoidectomy. The parent and child were provided with the story book, encouraged to read the story together, and the child was asked to colour in the pictures and bring the book along on the day of the day surgery. A semi-structured interview was conducted with the parent in order to assess her understanding of the surgical procedure(s), to give explanations and information, to clarify misconceptions and to answer any questions pertaining to the day-surgery. Visual representations were used to aid explanations.
- A Gestalt play therapy session was conducted with the child prior to surgery, in an allocated room in the day surgery clinic. The kit described above was used and aspects on the child's foreground were addressed.

Step 6: Refining the program

- Adjustments to the program were proposed, based on qualitative descriptive findings subsequent to its trial implementation with an individual case.

Step 7: Making recommendations

- Recommendations for the implementation and evaluation of the program were made.
- The need for further study in this field was evaluated.

1.9 Viability

The viability of this research was motivated on the basis of the proposed literature study, consultation with experts, and description of the universe, population, and sampling method involved:

1.9.1 Literature Study

Literature relevant to the proposed study was obtained from books, journal articles and internet web sites. Recent literature sources of not older than 10 years were consulted, except when it was necessary to refer to classical theorists, for example, Piaget, Vygotsky, and Oaklander. The content of the literature which was studied was divided into three chapters which include the following categories:

Chapter 2: OTITIS MEDIA IN CHILDREN

- Medical aspects; including otitis media, hearing loss, adenoidectomy, grommet insertion and day surgery procedures

Chapter 3: CHILDREN IN MEDICAL SETTINGS: A DEVELOPMENTAL PERSPECTIVE

- Theories of child development; including the theories of Piaget, Erikson and Vygotsky
- Children's experience of hospitalisation from a developmental perspective
- Various perspectives on preparing children for hospitalisation and medical procedures

Chapter 4: GESTALT PLAY THERAPY

- Theory, process and techniques of Gestalt play therapy

1.9.2 Consultation with Experts

The study required that information be gathered and integrated from a variety of diverse professional sources. Individuals representing four relevant areas of

professional expertise and with more than five years of experience in their respective fields, namely paediatric social work, otorhinolaryngology, day surgery nursing, and Gestalt play therapy, were consulted:

Mrs M. de Jager - Paediatric Social Worker, Head of Department: Social Work, Tygerberg Hospital.
Mrs H. Louw - Chief Social Worker, TygerBear Social Work Unit for Traumatised Children, Tygerberg Hospital.
Prof. J. Loock – Ear, Nose and Throat Specialist, Head of Department: Otorhinolaryngology, Tygerberg Hospital.
Dr. K. Lehmann and Dr. R. Attwood - Ear, Nose and Throat Specialists, Department of Otorhinolaringology, Tygerberg Hospital.
Sr. October - Senior Nursing Sister, Day Surgery Clinic, Tygerberg Hospital.
Mrs S. Dhansay - Gestalt Play Therapist and Social Worker, TygerBear Social Work Unit for Traumatised Children, Tygerberg Hospital.

1.9.3 Description of Universe, Sample and Sampling Methods

According to Arkava and Lane (in Strydom and Venter, 2002: 198), *universe* refers to all potential subjects who possess the attributes in which the researcher is interested, while *population* refers to individuals in the universe who possess specific characteristics. According to Bless and Higson-Smith (in Strydom and Venter, 2002: 198-199), a *population* is the set of elements that the researcher focuses on and to which the obtained results should be generalised.

In the context of this study, *universe* refers to all children who are scheduled for the day surgery procedures of grommet insertion or grommet insertion and adenoidectomy at a clinic or hospital, their parents/caregivers, and all nursing staff and doctors involved in their treatment. *Population* refers to children between the ages of four and ten years who are scheduled for the day surgery procedures of grommet insertion or grommet insertion and adenoidectomy at Tygerberg Hospital, their parents/caregivers, all consultants or registrars

employed in the Otorhinolaryngology Department and all nursing staff of the day surgery unit of Tygerberg Hospital.

According to Arkava & Lane (in Strydom & Venter, 2002: 199), a sample comprises the elements of the population considered for actual inclusion in the study. In the current study, a sample was identified according to the following criteria:

Children:

- Children who are between 4 and 10 years of age.
- Children who are English or Afrikaans speaking.
- Children who are scheduled for the procedure(s) of grommet insertion, or grommet insertion and adenoidectomy, at the day-surgery clinic of Tygerberg Hospital.

Parents/Caregivers:

- Parents/caregivers of children selected according to the above criteria.
- Parents who accompany their child to hospital for the procedure.

Doctors:

- Doctors who are employed as consultants or registrars in the Otorhinolaryngology Department of Tygerberg Hospital

Nurses:

- Nurses who are employed in the Day Surgery Unit of Tygerberg Hospital.
- Nurses who are responsible for patients undergoing grommet insertion and/or adenoidectomy.

The sampling method selected for this study was non-probability, purposive sampling. Non-probability sampling is the method utilised in qualitative studies (Strydom & Delport, 2002:334). According to Strydom and Delport (2002: 334), "In purposive sampling the researcher must first think critically about the parameters of the population and then choose the sample case accordingly. Clear identification and formulation of criteria for the selection of respondents are, therefore, of cardinal importance." For this study, cases which met the above sampling criteria were selected based on their availability and applicability. A sample of eight children, eight parents/caregivers, four doctors and two nurses was used to develop the program.

1.10 Ethical Aspects

The study was approved by the Research Ethics Committee of Tygerberg Hospital. The following ethical issues, as highlighted by Strydom (2002: 64), were considered:

Harm to experimental subjects

Subjects were protected from exposure to any physical or emotional harm in the study. Subjects were informed beforehand about the purpose of the study and the nature of their involvement and its possible consequences, and were given the opportunity to withdraw from the study if they wished. Children were not be separated from their caregivers against their wishes, the researcher selected therapy materials which were developmentally appropriate and safe for use by children, and all interactions with subjects took place in a professional therapeutic context.

Informed consent

Participation was on a voluntary basis subsequent to the provision of accurate and complete information to subjects regarding the nature and purpose of the study. Subjects were requested to sign a written statement of consent.

Deception of subjects

Subjects were not deliberately deceived in any way during the course of the study and were given sufficient information in order to make an informed decision regarding their participation.

Violation of privacy

The privacy of subjects was respected, their identity was safeguarded and the information obtained was handled in a confidential manner. All interviews and therapeutic contacts with subjects took place in privacy and subject names were excluded from any verbal or written discussion of data.

Actions and competence of the researcher

The research project, including the therapeutic component of the preparation program, was conducted by a Master of Diaconiologiae (Direction: play therapy) student, under the supervision of a qualified and experienced play therapist.

1.11 Definitions of Key Concepts

Preparation

According to Webster's Third New International Dictionary (1988: 1790), preparation may be defined as "the action or process of making something ready for use or service, or the action or process of getting ready for some occasion, test, or duty" or "a preliminary measure or plan: an action taken to expedite or prepare the way for something." Similarly, the Collins Cobuild Essential English dictionary (1989: 618) defines preparation as "the activity of getting something ready."

In the context of this study, preparation involved, firstly, the provision and clarification of information for the child regarding specific day surgery procedures described, and secondly, emotional support within a therapeutic context for the child undergoing day surgery

Day surgery

Day surgery refers to elective outpatient surgery for patients with uncomplicated conditions, offering the advantage of lower cost, reduced incidence of nosocomial infection, and recuperation at home in familiar surroundings (Leifer, 1993: 518). Outpatient day facilities have evolved in an effort to keep children out of the hospital unless absolutely necessary. The facility may be part of a hospital, or it may be freestanding. The child arrives in the morning, undergoes a procedure, test or surgery, and goes home by the evening (McKinney, Ashwill, Murray, James, Gorrie & Droskie, 2000: 903).

For the purpose of this study, day surgery referred specifically to the procedures of grommet insertion, or grommet insertion and adenoidectomy, performed on children at the day surgery clinic within Tygerberg Hospital.

Grommet insertion

Grommets, also known as pressure equalisation tubes or ventilation tubes, are inserted through an incision (myringotomy) in the tympanic membrane to treat chronic or recurrent otitis media when antibiotics are no longer effective. The grommets allow drainage of the infected liquid material when the normal drainage passage of the middle ear, the eustachian tube, is blocked. This facilitates the equalisation of pressure in the middle ear (Hall, 1999: 113). If the reflux of nasopharyngeal organisms is contributing to infection of the middle ear, as is often the case in chronic otitis media, the combined operation of grommet insertion with adenoidectomy is indicated (Northern & Downs, 2002: 73).

For the purpose of the study, grommet insertion both with and without adenoidectomy was considered.

Adenoidectomy

Adeniodectomy refers to the surgical removal of the adenoids, which consist of lymphoid tissue located in the nasopharynx. Adenoidal enlargement or inflammation can obstruct the Eustachian tubes, which are responsible for drainage of fluid from the middle ear (Hall, 1999: 116). Adenoidectomy is indicated for the relief of nasal obstruction, sleep apnoea, recurrence of chronic infection, or as part of the surgical therapy of chronic ear disease (Potsic*, et al.*1997: 234).

For the purpose of this study, only adenoidectomy performed in combination with grommet insertion was considered.

Otitis media

Otitis media is defined as an inflammation or infection of the middle ear (Roark & Berman, 1996: 127). Otitis media is characterised by the presence

of negative middle ear pressure and possible effusion (fluid) in the middle ear space, and may exist without obvious clinical signs or symptoms of infection. Otitis media creates a mild to moderate degree of conductive hearing loss by compromising the traditional air-conduction sound pathway. The clinical variations of otitis media form a continuum of the disease process; that is, the simple initial phases of otitis media, if left untreated, may lead to more complex and severe disease processes (Northern & Downs, 2002: 65).

For the purpose of this study, otitis media with effusion was identified as the primary pre-existing condition in children scheduled for grommet insertion, or grommet insertion and adenoidectomy.

Play

Play is defined by Landreth (2001: 4) as "an activity that is intrinsically motivating, bringing pleasure and gratification simply for the joy of doing it." Play is integral part of childhood, a unique medium that facilitates the development of expressive language, communication skills, emotional development, social skills, decision-making skills, and cognitive development in children. Play is also a medium for exploration and discovery of interpersonal relationships, experimentation with adult roles, and understanding of one's own feelings. Play is the most complete form of self-expression developed by the human organism (Landreth, 2001: 4). Play is the purposeful activity of childhood (Landreth, 2001: 73) and the child's primary and most natural medium of communication (Axline, 1993: 16; LeRoy, *et al.* 2003:12).

In the context of this study, play was the medium chosen through which to communicate with the child and to allow the child to express him/herself.

Gestalt play therapy

Gestalt play therapy can be considered a psychotherapeutic technique which uses the principles and techniques of Gestalt therapy during play therapy with the child (Blom, 2004: 5). Play therapy is defined by Axline (1993:16) as an opportunity which is given to the child to "play out" his feelings and problems

just as, in certain types of adult therapy, an individual “talks out” his difficulties. Gestalt therapy is a holistic, process-oriented, dialogical, phenomenological, existential, and field-theoretical approach to human change with the centrality of contact, awareness, the here-and-now, and personal responsiveness and responsibility. Primacy is given to the uniqueness of the individual. The person is never reduced to parts and structural entities but viewed as an integrated whole with innate potential for growth and mature self-expression (Kirchner, 2000:1–2).

In the context of this study, the Gestalt play therapy approach forms the framework for the design and implementation of a program aimed at preparing children for day surgery procedures by focusing on their immediate here-and-now experience, fears and needs, and by working with each child as an integrated whole.

1.12 Conclusion

The aim of this chapter was to present a research proposal for the current study. A discussion of the choice of topic, problem formulation, goals and objectives of the research were included. The research question, research approach, type of research, research strategy and work procedure were outlined. Finally, the viability of the research and ethical aspects were discussed and key concepts were defined. A literature study pertaining to the topic of otitis media in children is presented in the chapter which follows.

CHAPTER 2: OTITIS MEDIA IN CHILDREN

2.1 Introduction

Otitis media, or infection of the middle ("media") ear ("oto"), is the most common childhood infection and one of the most frequent reasons for concerned parents to seek medical services for their child. The disorder is characterised by the presence of fluid in the middle ear space, which compromises the sound pathway to the cochlea and creates a degree of hearing loss. (Northern & Downs, 2002: 65; Roark & Berman, 1996: 127). There is widespread recognition that the prevalence and incidence of otitis media has grown over the years. In a study of preschool children by Casselbrant, Brosthoff, Cantekin, *et al*., as referred to in Northern and Downs (2002: 68), nearly 60% of children aged two to six years, who were examined monthly for twenty-four months, had documented otitis media episodes that averaged two months in duration. Although otitis media may resolve spontaneously without treatment in most children, the disorder may recur with a higher recurrence rate in some children (Northern & Downs, 2002: 69).

Nearly every aspect of otitis media raises controversy and debate among professionals. While recurrent otitis media is a commonly recognised medical problem in children, the treatment and management of this disorder has been the focus of numerous research efforts and international conferences (compare Northern & Downs, 2002: 66 and Roark & Berman, 1996: 127 – 128). Management of otitis media is constantly evolving, based on this research from various medical subspecialties. It is incumbent on the otorhinolaryngologist and primary care providers treating otitis media to keep pace and synthesize these findings into their treatment approach (Darrow, Dash & Derkay, 2003: 216). Otitis media is also particularly difficult for parents to deal with because the symptoms are so variable, and because young preverbal children are unable to localise and describe the sources of their pain (Northern & Downs, 2002: 65).

The aim of this chapter is to discuss the nature and treatment of otitis media in children with reference to the following aspects of the disorder: causes; risk factors; classification and symptoms; associated hearing loss and communication disorders; as well as multidisciplinary management. This discussion is relevant to the current research, which focuses specifically on the preparation of children undergoing surgery for the treatment of otitis media.

2.2 Causes of Otitis Media

Otitis media with effusion (fluid in the middle ear space) is nearly always caused by poor Eustachian tube function. The Eustachian tube can be considered to be a valve that connects the middle ear cleft to the nasopharynx (Todd, Stool & Jafek, 2001: 60). The healthy functioning of the Eustachian tube ensures protection of the middle ear from invading microbes, clearance of middle ear secretions, and equalisation of pressure between the middle ear space and the nasopharynx. The most important function of the Eustachian tube is ventilation of the middle ear space. When the Eustachian tube malfunctions, from either a mechanical or functional cause, the air trapped in the middle ear cavity is absorbed by the mucosal lining of the middle ear, creating negative middle ear pressure and accumulation of fluid in the cavity. The child's Eustachian tube is short, horizontal and composed of relatively flaccid cartilage, whereas the adult Eustachian tube lies in a more vertical position which provides more effective protection for the middle ear. The nearly horizontal position of the child's Eustachian tube more easily permits the retrograde reflux of bacteria from the nasopharynx into the middle ear. As the young child matures, the inclination of the Eustachian tube increases to about a 45 degree angle. Thus otitis media is most common during the first two years of a child's life, and then decreases as the child grows older (Northern & Downs, 2002: 65; 68; 71).

The tonsils and adenoids have traditionally been implicated in the pathophysiology of otitis media, although current medical research questions this assumption. Tonsils and adenoids are part of a ring of glandular tissue

encircling the back of the throat. Chronic infections of the tonsils and adenoids can affect nearby structures, and their swelling may create blockage around the base, or opening, of the Eustachian tubes. This may lead to mechanical blockage or interference in the function of the Eustachian tube (Northern & Downs, 2002: 70; 71).

2.3 Risk Factors

The incidence of otitis media has been found to be a function of age, gender (more common in boys), race, genetic factors, socio-economic status, season and climate (Northern & Downs, 2002: 68). According to Darrow, *et al.* (2003: 417), the most significant risk factors include attendance at group daycare, sibling history of recurrent otitis media, early occurrence of initial otitis media, and lack of breastfeeding. According to Bluestone, as well as Teele, Klein and Rosner, as referred to in Northern and Downs (2002: 68), other risk factors include certain socio-economic factors such as overcrowding with poor sanitation, inadequate diet and the absence of routine health care; secondary cigarette smoke exposure; and feeding position. Infants who are bottle-fed in the supine position are more at risk for otitis media than infants who are fed while being held upright.

The presence of otitis media in children also shows strong seasonal variation associated with the occurrence of upper respiratory tract infections. Otitis media is more common during the winter months when respiratory syncytial virus and other viruses are present in the community. These upper respiratory tract infections adversely affect Eustachian tube function and predispose the child to middle ear inflammation (Roark & Berman, 1996: 129). Otitis media is also common among patients with allergies (Northern & Downs, 2002: 69).

The concept of the “otitis-prone” child described initially by Howie, Ploussard and Sloyer, as referred to in Northern and Downs (2002: 69), is of particular importance. An otitis-prone child is one who has the condition six or more times before the age of six years, or whose initial episode of otitis media was

due to bacteria and occurred before the age of one year. The otitis-prone child is destined to have recurrent and continuous bouts of otitis media throughout childhood and requires careful monitoring and management. Other special populations with a predisposition for otitis media include children with Down, Crouzon, Turner, or Apert syndromes; or any craniofacial malformation which may have an associated abnormality that results in Eustachian tube dysfunction (Northern & Downs, 2002: 69).

2.4 Classification and Symptoms of Otitis Media

According to Roark and Berman (1996: 128), an array of terms are used by various medical specialist groups to describe various types of otitis media, and little agreement exists about the standardisation of terms or diagnostic entities. General categories of otitis media include: otitis media without effusion (acute otitis media); otitis media with effusion; and otitis media with perforation of the tympanic membrane (Roark & Berman, 1996: 128). Further categories identified and discussed by Roark and Berman (1996: 129 – 135) include: acute otitis media; unresponsive otitis media, residual middle ear effusions, persistent middle ear effusions, chronic otitis media and recurrent otitis media. The latter will be discussed in more detail below.

2.4.1 Acute Otitis Media

Acute otitis media typically presents with sudden onset of ear pain with symptoms of upper respiratory tract infection such as rhinorrhea, blocked nose, cough, or conjunctivitis. Although older children may complain of pain, younger children demonstrate pain through crying, increased irritability, and difficulty in feeding and sleeping. Tugging at ears is a nonspecific symptom that is often present without otitis media. During otoscopy, the tympanic membrane appears either red or yellow, depending on the degree of inflammation and the amount of purulent material in the middle ear space. Tympanic membrane mobility is absent or diminished with pneumatic otoscopy or tympanometry. If the tympanic membrane has spontaneously ruptured, pain diminishes immediately, and discharge may be present in the

external ear canal. Ear wax that has melted with high fever or tears can cause confusion in the accurate observation of middle ear discharge. The "red' tympanic membrane is one of the keystones of the accurate diagnosis of chronic otitis media. However, injected blood vessels at the tympanic membrane periphery and along the malleus are frequently overdiagnosed as early otitis media. The reddish tympanic membrane can occur as a result of crying, fever, or cleaning of the ear canal. While such a membrane may be red, it will be mobile and not require medical treatment.

2.4.2 Unresponsive Otitis Media

Symptoms and otoscopic findings of tympanic membrane inflammation that persist after 48 hours of initial antibiotic therapy suggest unresponsive otitis media. This occurs more frequently in children with a history of recurrent otitis media and / or infection in the winter months and suggests a resistant organism, usually when there has been recent antibiotic use. Eradication of a middle ear pathogen with antibiotic therapy is less likely after two to four days when a virus and bacteria are both isolated from a middle ear aspirate than when bacteria are isolated alone.

2.4.3 Residual Middle Ear Effusion

Residual middle ear effusion following antibiotic therapy for acute otitis media occurs in approximately 40 % of children and clears spontaneously within six weeks in 75 – 85 % of cases. Residual otitis media results when the eustachian tube fails to clear the effusion present in the middle ear space following antibiotic treatment for acute otitis media. The tympanic membrane may appear mildly infected or dull or may have a normal appearance, although mobility will be absent or diminished. Children with residual otitis media are usually asymptomatic and may have a mild hearing loss of 15 – 20 dBHL (decibel hearing level). Patients may complain of fullness in the ear or describe their own voice as sounding hollow. In the preverbal child, hearing loss should be suspected if irritability, inattentiveness, or increased behaviour problems are noted.

2.4.4 Persistent Middle Ear Effusion

Persistent middle ear effusion may be diagnosed in children with middle ear effusions that fail to resolve with antibiotic therapy during a six-week period. Approximately 50 % of these cases resolve spontaneously during the next three months, while in about 5 % of ears the effusion will persist longer than one year. Half of children with persistent middle ear effusion have a hearing loss of 25dBHL or higher.

2.4.5 Recurrent Otitis Media

During the first two years of life, 15 – 20 % of children experience recurrent otitis media, defined as three or more episodes of acute otitis media in six months.

2.4.6 Chronic Otitis Media

Chronic otitis media is an appropriate diagnosis when irreversible damage to the middle ear structures has occurred. Damage includes retraction pockets, atrophy or perforation of the tympanic membrane, cholesteotoma, or erosion of ossicles. The term chronic otitis media is applied to this process even though no active inflammation is present.

2.5 Hearing Loss and Communication Disorders associated with Otitis Media

Hearing loss associated with otitis media with effusion can vary from nearly normal hearing to a moderate hearing loss of as much as 50dBHL. The hearing loss is conductive in nature and the audiological configuration is either flat or slightly rising from the low frequencies, with the best hearing at 2000 Hertz. Since otitis media does not involve the inner ear, bone conduction thresholds are usually within normal limits (Northern & Downs, 2002: 66).

According to Gravel and Ellis, as referred to in Northern and Downs (2000: 66), the hearing of children with otitis media can differ substantially by both degree and symmetry between the two ears. Recurrent otitis media is associated with fluctuating hearing levels, with a deterioration in hearing loss during an ear infection and an improvement in hearing status between infections (Roark & Berman, 1996: 135). Children often present with complaints of difficulty hearing the telephone or television, or with teacher concerns of inattentiveness in class. Data suggests that otitis media is associated with reduced speech recognition in competing noise (Darrow, *et al*., 2003: 420).

The role of otitis media with effusion relative to children's development of cognitive and linguistic functions has divided the involved professionals into two opposing points of view. One viewpoint is that otitis media has no effect on speech and language development in children because the hearing loss is only slight and short-term and the child's hearing returns to normal between the recurring episodes of middle ear effusion. The other viewpoint is that persistent otitis media does have a detrimental effect on speech and language acquisition because of the fluctuating hearing loss during the early years of life and that this inconsistent auditory-receptive status creates problems with language development for some children with mild to moderate hearing loss. The child receives partial or inconsistent auditory input, making speech more difficult to detect. This may impair the discrimination and central processing of speech and thus cause the child to encode information inefficiently, incompletely or inaccurately into the database from which language develops (compare Roarke & Berman, 1996: 135 – 136 and Northern & Downs, 2002: 80).

A plethora of research studies have been conducted over the past decade to substantiate one or the other of the viewpoints highlighted above. The overall picture is that linguistic, cognitive and behavioural effects can be documented as real sequelae of otitis media with effusion. In a classic study reported by Holm and Kunze, as referred to in Northern and Downs (2002: 81), an experimental group of 5 year old children was identified who had had no other

medical problems except middle ear disease with onset before the age of 2 years. Hearing levels had fluctuated from normal to greater than 25dBHL. A well- matched control group of children with no history of middle ear disease was used for comparison. Each group was given a battery of tests, including speech, language and visual tests. The otitis media group achieved significantly lower scores in all tests requiring the receiving or processing of auditory stimuli or the production of a verbal response. No differences between the groups were found in tests requiring visual skills, but all language skills were lower in the experimental group. A study by Friel-Patti and Finitzo, as referred to in Northern and Downs (2002: 82), followed a cohort of more than 450 middle-class, normally developing children with concurrent and repeated measures of hearing, middle ear effusion and language development. Significant correlations for hearing and days of effusion were found over the same period. These measures were then related to the emerging language patterns at 12, 18 and 24 months of age and were found to show significant negative correlations, beginning with receptive language at 12 months. By 18 and 24 months, receptive and expressive scores were significantly related to hearing thresholds. Both receptive and expressive language performance was higher for children at age 2 years who had better hearing between age 6 and 18 months of age. These findings confirm a causal relationship between otitis media and language performance based on hearing levels rather than on the number of otitis media infections.

Questions have existed relative to the fact that perceptual deficits associated with otitis media with effusion are subtle and may not persist throug h school age. In a study by Needleman, as referred to in Northern and Downs (2002: 81), children aged 3-8 years with recurrent serous otitis media scored significantly lower in tests which targeted the comprehension and production aspects of the phonologic system. Needleman pointed out that the phonological skills which were deficient were necessary for reading skills and this fact may account for the educational Difficulties? (retardation) of the children who have had early otitis media with effusion. A study by Mody, Schwartz, Gravel and Ruben, as referred to in Northern and Downs (2002: 82), compared the phonological processing skills of 9 year olds with and wit

hout early histories of otitis media. Children with a strong first-year history of otitis media tended to have long-lasting, subtle deficits in speech perception that may be linked to their early, transient, mild conductive hearing losses. The authors hypothesized that weak phonological coding abilities may result in poor lexical organization, which might later manifest in word retrieval and semantic processing difficulties. The above studies suggest that the effects of early hearing deficits, even if they are transient, might have far-reaching perceptual and academic consequences.

Critics claim it is premature to reach conclusions about the impact of otitis media with effusion on children's development, but to wait for a definitive answer while the suspicion remains is an untenable position for those who advocate for optimal child development. After reviewing more than 140 research studies, Downs, as referred to in Northern and Downs (2002: 83), developed a risk profile to identify those children who may develop language delays after suffering recurrent otitis media in infancy. Downs acknowledged that it may be impossible to resolve the controversy over the extent of language delay caused by recurrent otitis media, because of the influence of family disposition to language disorder and the inability of any test to determine the maximal potential function of any child at a point in time that is not corrupted by other influences.

Nevertheless, factors to be given emphasis in a high-risk model should include the following: (1) hearing loss greater than 20 dBHL due to otitis media, (2) infants with three or more episodes of otitis media during the first year of life, (3) middle socioeconomic status, (4) quality of home environment, (5) maternal caregiving, and (6) quality and environment of day care when applicable. On the basis of her professional experience as a speech-language therapist and audiologist at Tygerberg Hospital, the researcher is in agreement with Downs regarding the above risk factors and supports the viewpoint that hearing loss caused by recurrent otitis media with effusion is associated with delayed speech and language development in children.

2.6 Multidisciplinary Management of Otitis Media

The management of recurrent otitis media in young children may involve services from a variety of professionals, including paediatricians, otorhinolaryngologists, audiologists, speech-language therapists and educators. Although decisions made by these various individuals may be in the best interest of the child, the outcomes may not be consistent with each other, thereby disrupting the continuity of the child's care. It is important that these professionals communicate regularly in order to discuss management and provide a consensus of recommendations for the child's caregivers (Northern & Downs, 2002: 87). In the opinion of the researcher, play therapists may play a valuable role in the preparation of children for surgery or other medical procedures and should form part of this management team. This aspect will be further discussed in chapter 3 of this research.

2.6.1 Medical Intervention

Medical treatment is the first line of defense in otitis media, although the treatment regimen may vary considerably among physicians. The treatment of acute otitis media in children usually involves a ten day dose of the antibiotic amoxicillin. Antibiotic eardrops may be a useful adjunctive therapy in the child with a perforated tympanic membrane and pus in the external ear canal. Because symptoms of acute otitis media in infancy are frequently asymptomatic, high-risk infant with an initial episode during the first three months of life require close monitoring and monthly follow-up. Prophylaxis with a low dose of penicillin should be started during resolution of the third acute otitis media episode within a six-month period. Failure to prevent a second new infection by giving continuous prophylaxis during a three month period or a third infection during a four-to-six-month period are indications for referral to an otorhinolaryngologist for insertion of grommets (Roark & Berman, 1996: 131; 134 – 135).

When residual otitis media is present three weeks after initial antibiotic therapy for acute otitis media, the patient should be followed up for further treatment. Following failure of unresponsive otitis media to resolve following a third course of antibiotics, and when a bilateral effusion with hearing loss persists twelve weeks or longer despite medical management, the otitis media can be considered persistent and referral to an otorhinolaryngologist should be made for the insertion of grommets (Roark & Berman, 1996: 132 – 133).

Regarding children aged one to three years, a federal panel of health experts in the United States recommended that physicians should opt for a period of "watchful waiting" rather than drug therapy when dealing with most cases of non-infectious otitis media. This was based on the fact that the condition usually resolves spontaneously after three to six months, with few children experiencing hearing loss as a result of the condition. Furthermore, antibiotics can cause rashes, diarrhea, and a build-up of the child's immunity to the drugs. The guidelines recommend hearing tests and antibiotics only if the symptoms of otitis media persist after three months, and surgery if they are present for more than six months. The guidelines apply only to otitis media with effusion, not to acute otitis media (United States Department of Health and Human Services, as referred to in Roarke & Berman, 1996: 136-137). In accordance with the above, Todd, *et al.* (2001: 63), also recommend watchful waiting, control of environmental risk factors, and antimicrobial therapy for the medical management of otitis media with effusion.

2.6.2 Surgical Intervention

The goal of surgical intervention in the management of persistent effusions, is to obtain improvement in hearing. According to Roark and Berman (1996: 135), other reasons for surgical intervention include reducing the number of painful episodes for the child, physician and emergency room visits, days of lost work, and family anxiety levels. It is important, however, to bear in mind that medical and surgical therapies for otitis media are sequential, not alternative, treatments. According to Gares, as referred to in Roark and Berman (1996: 73), surgical treatment is recommended only when medical

treatment fails. Appropriate surgical interventions include myringotomy with grommet insertion, adenoidectomy, or a combination of the two. According to Potsic*, et al.* (1997: 7), myringotomy and grommet insertion is indicated (1) when fluid has been present for 8 to 10 weeks, despite medical therapy, causing a significant conductive hearing loss; (2) when recurrent acute otitis is debilitating by its frequency and severity; or (3) when atelectasis (tympanic membrane retraction) with fibrous adhesion, ossicular erosion, or cholesteotoma formation is imminent. Grommets, also known as ventilation tubes or pressure equalisation tubes, are inserted through an incision (myringotomy) in the tympanic membrane in order to allow drainage of fluid, aeration of the middle ear space, and, desirably, improved hearing. Grommets are inserted with the child under general anaesthetic by mask. Although the procedure lasts only 5 to 10 minutes, an intravenous infusion is routinely started at training institutions to allow rapid administration of drugs if the airway is lost. Grommets usually fall out spontaneously within a few months after insertion. In rare, isolated cases, they may require surgical removal and restoration of the tympanic membrane by grafting gelatin film or fascia from behind the ear (Hall, 1999: 113 – 114).

Several common myths exist about grommets. Rosenfeld, as referred to in Northern & Downs (2002: 73), dispels these as follows:

Grommets do not cause significant scarring of the tympanic membrane, and the small mark that may form when the tube falls out does not affect hearing.

A properly placed grommet cannot fall into the ear. Instead, the tube is naturally pushed into the external ear canal after 6 to 18 months.

Water precautions are typically unnecessary for most children with grommets. The routine use of earplugs during normal bathing or swimming have shown no benefit; although water precautions may be necessary for children who spend a considerable amount of time totally immersed underwater.

The grommet does not cure the ear infection; it simply controls the infection by temporarily ventilating the middle ear. By the time the grommet falls out naturally, approximately 80% of children will have outgrown their tendency for middle ear problems.

In young children, the Eustachian tubes can be blocked by enlarged or enflamed adenoids, since the adenoids are in the nasopharynx, very near to the opening to the Eustachian tube (Hall, 1997: 116). Infection of the adenoids that is not responsive to medical treatment may be treated surgically with adenoidectomy, which involves the removal of the adenoid tissue and is commonly performed as an outpatient procedure (Richter & Murrow, 2001: 439). Adenoidectomy and grommet insertion may be performed as a combined procedure. According to Todd, *et al*. (2001: 62), adenoidectomy decreases the morbidity of otitis media in children 4 years of age or older. Adenoidectomies in children younger than 4 years have not been demonstrated to control otitis media and are generally not recommended. Similarly, Roark and Berman (1996: 133), also note that adenoidectomy should be considered in children older than four years who have required multiple grommet insertions. Unfortunately it is difficult to predict who will obtain the most benefit from adenoidectomy, as neither adenoid size nor symptoms of obstruction are useful predictors. Therefore, guidelines for surgical management should be individualized and should consider parent and patient preferences.

2.6.3 Audiology and Speech-Language therapy

The American Academy of Audiology issued a position statement in 1992 recommending audiological guidelines in an effort to decrease the number of children who will be burdened with persistent communicative and learning deficits related to undetected and/or untreated otitis media. This position statement provided guidelines regarding the processes of identification, assessment and management. The identification process should include screening of hearing, middle ear function and communication development, particularly in "at-risk" populations. Such groups would include: infants who develop otitis media at or before six months of age; children who have had middle ear effusion that persists for more than 3 months despite medical treatment; infants and young children cared for in multi-child day care centres; and those with known congenital risk factors. Children who fail any of these

screening procedures should be referred for complete assessment with in-depth testing.

The assessment process should include complete audiological evaluation to characterize the configuration and degree of hearing loss in each ear using air- and bone-conduction testing. Additional tests include acoustic immitance assessment and speech audiometry testing. Children who fail a formal screening of receptive and expressive language abilities should be referred to a speech-language therapist for a formal comprehensive evaluation and to determine the need for therapeutic intervention. The management process should include routine audiometric monitoring of hearing sensitivity. Children with documented histories of otitis media and accompanying hearing loss should receive periodic hearing evaluations even when they appear to be symptom-free. Hearing assessment should be completed at the onset of the school year, particularly in preschool and the early grades, and at least once during the winter months. Management must further include caregiver and teacher awareness of the implications of hearing loss on the communication process (Northern & Downs, 2002: 88). In extreme cases of persistent conductive hearing loss, the use of a mild hearing aid may be considered. It must be noted, however, that it is difficult to convince parents of the necessity for such a device, and that there are problems in keeping such an instrument on an infant or toddler. Hearing aid fitting is a feasible procedure only if the parents are highly motivated, there is continual guidance by an audiologist or speech-language therapist, a multidisciplinary support system is in place, and a trial period with a loan hearing aid is initiated to judge the effectiveness of the aid (Northern & Downs, 2002: 87).

2.6.4 Educational Intervention

During the past decade, the areas of early development, education, and especially infant intervention have been ever-expanding fields for intervention and research. According to Weiner and Koppelman, in referred to in Northern and Downs (2002: 85), early intervention with infants, in whom problems are identified and treated as early as possible, can make significant differences in

their later physical, cognitive and social abilities and can minimize the effects of potential or present handicaps. Whereas many programs focus on parents being given advice, educational activities and therapeutic tasks to do at home, others are beginning to develop systems that recognise parents and professionals as equal partners. On such programs, professionals serve as partners to families, helping them to determine the goals and activities they want for their child. In the case of the otitis media-prone child, an initial step may be the instigation of a simple program to improve parent-infant interaction and communication (Northern & Downs, 2002: 86). Such a program exists at the Carel du Toit Centre for Hearing Impaired Children at Tygerberg Hospital. Once diagnosed with a hearing loss of a sensorineural or longstanding conductive nature, infants and preschool children may begin a program involving regular parent guidance sessions, which involve the child, caregiver and guidance teacher. These children may later attend the preschool on the premises, which caters for the special needs of hearing impaired children.

The following useful list of suggestions for parents of children with middle ear problems was developed by Matkin, as referred to in Northern and Downs (2002: 86 – 87):

- *The Importance of Talking.* Talking to a child is necessary for his or her language development. Because children usually imitate what they hear, how much parents talk to their child, what they say, and how they say it will affect how well the child talks.
- *Look.* Parent's should look directly at their child's face and wait until they have his or her attention before talking.
- *Control Distance.* Parents should be close to the child when they talk. The younger the child, the more important it is to be close.
- *Loudness.* Parents should talk slightly louder than normal. Background noise (e.g. household appliances) should be reduced.
- *Parents should be Good Speech Models.* Describe daily activities as they occur, expand on what the child says, add new information, build vocabulary and repeat the child's words using adult pronunciation.
- *Play and Talk.* Every day, some time should be set aside for play

involving just the parent and child. The parent should talk to the child during the play activities, keeping the conversation at his or her level.

- *Read.* Parents should begin reading to their child at a young age (before age 12 months). Reading can be a calming activity that promotes closeness between parent and child and provides opportunities to teach and review words and ideas.
- *Don't Wait.* A child should have the following skills by the ages listed below:

  18 months: vocabulary of 3 words.

  2 years: vocabulary of 25 to 30 words and several 2-word sentences.

  2.5 years: at least a 50-word vocabulary and consistent 2-word sentences

  If a child does not have these skills, a referral to an audiologist and speech-language therapist may be indicated.

2.7 Conclusion

Otitis media in children has been the topic of discussion in this chapter, which has focused on both the nature of the illness and its management from a medical, therapeutic and educational perspective. This information is directly applicable to the proposed research, which aims to develop a preparation program for children undergoing surgery for the treatment of otitis media.

CHAPTER 3: CHILDREN IN MEDICAL SETTINGS: A DEVELOPMENTAL PERSPECTIVE

3.1 Introduction

Children who are ill and are undergoing medical treatment find themselves in a potentially stressful context which may be unfamiliar, unpleasant and fear-provoking, as they experience their own bodily sensations of pain or unwellness, as well as environmental changes and loss of control. At a time when children are most in need of their parents and the security of their home and routine, they may be separated from familiar caregivers, placed in a new environment in the hands of strangers, and exposed to an array of medical procedures. Each child reacts differently to illness, medical contexts and hospitalisation, and this reaction depends on many factors such as age, developmental level, preparation, previous experiences, parental response, and the child's emotional health and coping skills (compare Leifer, 1993: 519 and McKinney, *et al.*, 2000: 909).

There is a growing recognition amongst child health care professionals of children's rights to be informed about their condition and treatment, and to be actively involved in decisions pertaining to their care. In order to facilitate such understanding, it is necessary to explore the ways in which such concepts can best be communicated, especially to younger children whose conceptual ability may be regarded as limited (Rushforth, 1999: 683). The aim of this chapter is to discuss, from a developmental perspective, children's understanding of health and illness, as well as their experience of hospitalisation. Reference will be made to the child development theories of Piaget, Vygotsky and Erikson. This forms the basis for exploring developmentally appropriate ways of preparing children for medical procedures and hospitalisation.

3.2 Children's Understanding of Health and Illness

The cognitive developmental theory of Piaget was prominent in early research that investigated children's understanding of health, illness and their internal bodies. Authors' accounts of children's conceptual ability were dominated by evidence of cognitive immaturity and invariably focused on describing the limitations of children's ability to understand health and illness concepts. More contemporary theorists refute such beliefs and suggest that children may have far more potential to understand complex illness concepts than they have previously been given credit for (Rushforth, 1999: 683; 684) There is agreement among various authors cited by Rushforth (1999: 685) that the work of Vygotsky offers perhaps the most appropriate developmental theory to underpin explanation-giving to children about their illness experience. The key principles of the theories of Piaget and Vygotsky will be summarised below and applied to the discussion of children's understanding of health and illness.

3.2.1 Piaget's Theory of Cognitive Development

According to Piaget, the purpose of all behaviour or all thought is to enable the organism, in this case, the child, to adapt to the environment in ever more satisfactory ways. Piaget used the term *schemes* to refer to techniques of adaptation. A scheme or technique of adjustment can be biological or mental or both, and always includes accompanying feeling tones. Within the first year of life, identifiable intellectual schemes evolve and multiply greatly over the following years. Child development may thus be conceptualised as the child's acquiring ever greater quantities of schemes that become interlinked in ever more sophisticated patterns (Thomas, 2000: 249–251).

One of the traditional issues in the field of child development is whether growth proceeds continuously – by imperceptibly small increments – or advances by stages. Piaget recognised that from day to day, growth is continuous, but also distinguished breaks in the process which mark the completion of one phase of development and engagement in a further one.

As described in Thomas (2000: 256–267), Piaget's developmental theory encompasses four major levels or periods, each divided into sub-periods designated as stages. Although age designations are attached to each of the four periods, they should be regarded only as approximations. Piaget noted that the ages can vary from one society to another, and that it is the constant order of succession that should be emphasised. The various levels and stages of development identified by Piaget and described in Thomas (2000: 256-267) are summarised below. Those which apply specifically to children aged 4 to 10 years, as is relevant to this study, will be discussed in greater detail

Level 1: The Sensorimotor Period (Birth to Age Two)

During the first two years of life, development proceeds more rapidly than at any other stage. Infants explore the external world through the senses and through motor actions as opposed to internal representations of the world. All the child's learning derives from his experience, and every experience is new. The infant attends to and stores in memory the quality and intensity of the experience. By age 8 to 12 months, the infant develops awareness that people and things continue to exist even when out of sight (object permanence). The infant also begins to comprehend cause and effect and displays truly intentional behaviour by envisioning goals or desired ends and then employing existing schemes as a means for achieving the ends. By age 12 to 18 months, children focus on how new objects or events are different from their present mental constructs, and they are able to construct new, more suitable schemes. By age 18 to 24 months, the child is mentally inventive. He no longer has to experiment with objects themselves to solve problems, but can represent them mentally and can cognitively combine and manipulate them

Level 2: The Preoperational Thought Period (Age Two to Seven)

Operations, in Piaget's system, are ways of manipulating objects in relation to each other, such as arranging them according to size or colour. To be

classified as operations, actions must be internalizable, reversible, and coordinated into systems that have laws applying to the entire system and not just to the single operation. As the term preoperational thought indicates, the mental activities of most children under the age of seven do not yet qualify as operational. Two stages may be identified during the preoperational period:

Stage 1: Egocentric speech (age two to four years)

During this stage children learn an increasing variety of words. While some of their talking is social communication, a far larger portion is egocentric speech - a running commentary that accompanies what the child is doing at the moment and is not intended to communicate anything to anyone else. While children's growing language skills aid their mental development, this does not free their reasoning abilities from the influence of immediate perception. What they see and hear directly dominates their conclusions, not what they conceive about an object based on memories of its permanent characteristics. Piaget refers to this limitation in reasoning as *centration*. Presented with a visual stimulus, the child centres on one aspect and believes that this aspect completely characterises the stimulus. The child cannot consider two dimensions, such as height and width, at the same time.

Stage 2: Intuitive thought (age five to seven years)

This stage marks a movement toward greater *decentration* and is a transition between depending solely on perception and depending on truly logical thinking. Children become less self-centred and realise that objects have an existence and permanence of their own that does not depend on the child's wishes or actions. The child is better able to see that more than one factor at a time influences an event. By age seven, egocentric speech decreases and language is used as a tool for communicating with others and for helping to think aloud.

Level Three: The Concrete-Operations Period (Age Seven to Eleven years)

Children become capable of performing operations that are directly related to objects. The term *concrete* does not mean that the child must see or touch actual objects as they work through a problem, but means that problems involve identifiable objects that are either directly perceived or imagined. Children gradually discover more of the properties of objects and transformations and master mental operations that can be applied to their concrete world. Whereas the preoperational child focused on the static beginning state and final state of an object in a transformation, the concrete-operations child can comprehend the transformation as a process. For example, preoperational children think there is more clay in five small balls than in the original large ball from which the five were made. The concrete operations child understands that the quantity remains the same in the change from one to five balls and back again. The egocentrism that caused younger children to see things only from their own viewpoint changes as older children mature cognitively and attain a more objective view of the universe.

Level 4: The Formal-Operations Period (Ages Eleven to Fifteen Years)

Children approach adolescence with increased skill in accounting for the cause of physical events and a readiness to solve not only problems that involve objects, but also problems concerning hypotheses and propositions about relationships. By age fifteen, the type of abstract thought of which the adult is capable, are now all within the youth's repertoire of mental functions. The framework of thought is complete, and the outline is ready to be filled with additional, more complex schemes or greater knowledge as the adolescent enters adulthood.

3.2.2 Vygotsky's Cognitive Development Theory

The basic assumptions of Vygotsky's developmental theory have their roots in Marxist social philosophy; namely that activity generates thought, and development results from dialectical exchanges in historical-cultural contexts

(Thomas, 2000: 292). Vygotsky's theory concerns the development of thought, the development of language, and the connection between them. He concluded that the child's thought and speech begin as separate functions with no necessary connection between them. They are like two circles that do not touch. One circle represents nonverbal thought, the other nonconceptual speech. As the child matures, the circles meet and overlap. The juncture of the two represents *verbal thought*, meaning that the child has now begun to acquire concepts that bear word labels. A *concept* here means an abstraction, an idea that does not represent a particular object but rather some characteristic shared by - or some relationship among - diverse objects. The two circles never completely overlap. Even though the common portion becomes more prominent as the child develops, particularly in a highly literate cultural setting, there always remains some nonverbal thought (eg. an adult's skillful use of tools) and some nonconceptual speech (eg. an adult repeating a memorised telephone number).

Vygotsky disagreed with theorists who said that children, as a result of internal maturation, can achieve skill in advanced conceptual thought on their own, distinct from what they are taught. While admitting the necessary role of internal maturation in development, Vygotsky believed that children's informal and formal education through the medium of language, in the context of culture, strongly influences the level of conceptual thinking they reach. If the language climate in which children grow up is dominated by simplistic or "primitive' language, then children will think only primitively or simplistically. But if the language environment contains complex and varied concepts, children will learn to think in varied and complex ways, given that their initial biological equipment is intact (Thomas, 2000: 296-297).

Vygotsky identified four stages in the development of conceptual thought; although unlike Piaget, he did not associate the stage with particular age groups. The three major steps in children's intellectually organising perceived phenomena are described as follows in Thomas (2000: 301-303):

Stage 1: Thinking in unorganised heaps

During this period, the child puts things in groups (and may assign the group a label) on the basis of what are only chance links in the child's perception.

Stage 2: Thinking in complexes

Individual objects are united in the child's mind not only by subjective impressions, but also by bonds that actually exist among the objects. This is a step away from egocentric thinking and in the direction of objectivity. In a complex, the bonds between components are concrete and factual to some degree rather than abstract and logical.

Stage 3: Thinking in concepts

The thought processes of synthesizing and analyzing converge to make conceptual thinking possible. The main function involved in the previous stage of thinking in complexes was the drawing together or synthesizing of phenomena that share common aspects. The second path leading to conceptual thinking is the process of separating or analyzing phenomena by abstracting elements from them. The child now identifies a single characteristic by which to group objects. The child then takes the final step into conceptual thinking when she makes a new synthesis of accurately abstracted traits, and this synthesis becomes the main instrument of thought.

Throughout the process of mental development described above, language has served as a significant tool or mediator for thinking activity. Vygotsky identified four stages in the development of speech, as the circles of language and thought progressively overlap. These stages are described as follows in Thomas (2000: 299-300):

Stage 1: The Primitive or Natural Stage

This period represents the time before the circle of language overlaps with the circle of conscious thought and lasts from birth until about age two years. The stage is characterised by three nonintellectual speech functions. First are sounds representing *emotional release*, such as crying with pain and babbling with contentment. Next, these emotional noises are joined by sounds that can be interpreted as *social reactions* to people's voices or appearance. The third type of thoughtless speech consists of the child's first words, which are *substitutes for objects and desires.*

Stage 2: Naïve Psychology

Children discover that words can have a symbolic function, and they display this discovery by frequently asking what things are called. They no longer are simply conditioned by others to label objects and actions, but actively seek this information themselves. Their vocabulary increases rapidly and the circles of language and thought begin to merge. Children start using objects as means to accomplish desired ends and gain experience in using language in relation to these objects. Their language is considered naïve because they use grammatical structures without understanding the underlying functions they serve.

Stage 3: Egocentric Speech

Language use takes the form of a running monologue that accompanies the child's activities, whether the child works alone or alongside others. While Piaget viewed this monologue as an accompaniment that merely parallels children's thought and activity as they play, Vygotsky saw egocentric speech as an important new tool of thought. Not only do children think to speak, but what they say to themselves influences what they then will think, so the two interact to produce together conceptual or verbal thought.

Stage 4: The Ingrowth Stage

The onset of this stage is marked by the decline of egocentric speech around age 7 years. Children learn to manipulate language in their heads in the form of soundless speech, thinking by means of logical memory that employs inner signs for solving problems. Throughout the rest of their lives, individuals will use both inner and outer speech as tools in conceptual or verbal thought.

3.2.3 Discussion of Piaget and Vygotsky's Theories

Both Piaget and Vygotsky's systems qualify as stage theories by virtue of their picturing the child as passing from one distinctive phase of cognitive and language development into another (Thomas, 2000: 244). The researcher is of the opinion that the sequence of normal development is a foundational concept when considering any aspect of childhood and agrees with Rushforth (1999: 684) that it is important to recognize the potential of stage theories in describing the progression of a child's logical interpretation and understanding of a given health or illness concept. The theories of Piaget and Vygotsky described above place emphasis on aspects of sensory perception as well as language development. These are particularly relevant to the current research, as the temporary impairment of hearing, and often associated language delay, found in young children with recurrent otitis media have implications for the design of a developmentally appropriate program of preparation for these children who are to undergo ear surgery.

The key criticism of stage theories, as described by Rushforth (1999: 684), is that they consistently appear to seek to identify what the child is *unable* to do, or to understand, rather than what he or she *can achieve.* From this viewpoint, misconceptions, confusion, and partial understanding of health and illness concepts are considered to be the inevitable consequences of cognitive immaturity, which can only be overcome by advancement in maturation and chronological age. Consequently, repeated assumptions are offered in the health and illness literature, which conclude that a child of a certain age is unable to understand a given concept, and therefore it is

deemed inappropriate that he should be told. Such decisions are often justified on the grounds that misunderstanding, or partial information giving, may be more damaging than no understanding at all. However, such assumptions perhaps miss the reality that irrespective of whether they are given partial information, or no information, children will constantly seek to make sense of the world on the basis of what they know and experience. Thus it can be argued that only through enabling the child to come to a point of "correct" understanding of a situation, can misconceptions be effectively eradicated.

A number of studies, such as those of Doyle, Gaudion, Longsdon and Yoos, as referred to in Rushforth (1999: 684), have reinforced the belief that even very young children have the ability to achieve a sophisticated level of understanding of their illness experience. These studies challenge Piagetian perspectives and recognize that children's understanding can be significantly enhanced by appropriate information giving. These authors urge practitioners to recognize this perspective, and to offer children full, clear, and appropriate explanations which they are capable of understanding, and which thus have the potential to reduce their fear and mitigate against the potentially harmful effects of illness and hospitalisation.

The work of Vygotsky is well received in contemporary literature on children's understanding of health and illness. Vygotsky's view of development was comparable to that of Piaget, in that he recognized fully that at a given point in time there is a limit to what a child can understand. But unlike Piaget, he placed great value on the notion of "able instruction". Vygotsky proposed that two developmental levels were important for determining whether a child was capable of a given form of learning. The first and lower level, which he called the *actual developmental level*, showed the stage of development that had already been completed. Vygotsky contended that this level was not a good indicator of how well a child can learn new material.

Besides the development that has been completed, there is a development that is currently evolving, and is revealed by the process of observing how the

child's intellect functions in relation to leading questions or suggestions from a sensitive instructor who provides "able instruction''. Thus Vygotsky identified a second developmental level that extends beyond the actual level and called this the *zone of proximal development*. While the actual developmental level characterises mental development retrospectively, the zone of proximal development characterises mental development prospectively (Thomas, 2000: 308-309). It is this critical difference between the actual and potential functioning of each child, which practitioners can use to enable far greater understanding of their illness experience than they have previously been granted. Within Vygotsky's zone of proximal development, the teacher may be seen to work as a "scaffolder" to aid the building of understanding. This is best achieved in a one-on-one situation, such as that which is also afforded health practitioners in most client encounters (Rushforth, 1999: 685).

The researcher is of the opinion that the concept of the zone of proximal development may be effectively applied in the design and implementation of hospital preparation programs such as the one proposed in this study. Furthermore, the researcher values Vygotsky's emphasis on the role of culture and language, and the child's experiences in that culture, as being crucial in determining the direction and extent of intellectual growth. In preparing children for hospital and medical procedures, one should not only take developmental aspects into account, but should also consider and accommodate the particular culture and any cultural linguistic variations of the target population.

3.3 Children's Experience of Hospitalisation

When children are hospitalised or undergo medical procedures, the whole family is affected. Child adjustment problems have been linked with stressful hospital experiences since the early 1950s, with published reports of anger, aggression, panic, apathy, anxiety, regression, eating disturbances, sleep disturbances and separation anxiety during hospitalisation that persist with hospital discharge (compare O' Conner-Von, 2000: 1 and LeRoy, *et al.*, 2003: 2550). The factors which influence a child's response to hospitalisation and

illness, as well as the major stressors experienced by children in this context, will be discussed below.

3.3.1 Factors Affecting a Child's Response to Illness and Hospitalisation

Each child responds to illness or hospitalisation differently. The following factors affecting a child's response have been identified by McKinney, *et al*. (2000: 909 – 911):

3.3.1.1 Age and cognitive development

As discussed in the preceding section, children's developmental level affects their understanding of health and illness, and therefore also their reactions to illness, hospitalisation and medical procedures. This, in turn, affects the content, time frame, setting and method of preparing children for these events. Developmental aspects affecting children's reactions will be discussed in more detail in the discussion around major stressors in hospital and medical contexts.

3.3.1.2 Previous experience

If a child has had a previous illness or operation, how that event unfolded and the child's response to it, will greatly affect the child's view of future occurrences. Children with chronic diseases who experience multiple hospitalisations have a different perception of illness than those who have an occasional minor illness.

3.3.1.3 Parental response to illness or hospitalisation

Children have sharp observation skills and know when their parents are anxious and upset. This anxiety is transferred to the child, and the child's anxiety then increases. The child wants to believe that someone is in control and that the person can be trusted. Some parents cannot be honest with their children because of their own fears and insecurities. According to Leifer

(1999: 523), parents may feel they are to blame for the child's illness; they may feel they should have recognized the symptoms earlier or that they could have prevented them. These feelings can cause a sense of guilt, helplessness, and anxiety.

According to LeRoy, *et al.* (2003: 2551), stressors that heighten parents' anxiety and may interfere with their ability to support their child include:

- Concern about the possibility of physical harm or bodily injury resulting in discomfort, pain, mutilation or death to the child
- Alterations in the parenting role
- Lack of information
- The intensive care unit
- Postoperative changes in the child's behaviour, appearance, or emotional responses

3.3.1.4 Preparation of the child and family

The depth and method of preparation varies between children and is based on an understanding of the child's individual needs. Variables to consider include the child's developmental level, family involvement, timing, setting, sociocultural factors, and the child's physiologic and psychological status. During preparation, the child's and parent's perceptions of the event can be explored. Previous experiences that might affect the impending hospitalisation and the use of previous coping strategies can be identified and discussed. Trust, honesty and age-appropriate language are imperative. When possible, all of the child's senses should be involved. Where possible, children should be allowed to see, touch and handle equipment such as masks, gloves and blood pressure cuffs. The preparation of children for medical procedures and hospitalisation will be discussed in greater detail later in this chapter.

3.3.1.5 Coping skills of the child and family

Coping is the process of contending with difficulties in an effort to overcome or work through them. It refers to the set of cognitive, emotional and behavioural

responses used to manage a stressful situation. An individual's coping style is dependent on a number of interacting factors, including problem-solving skills, social skills, social support, health and energy, beliefs, material resources, temperament, developmental level and familial coping patterns. Successful coping is not indicated by the absence of distress, but rather by the child's and/or parent's perception that the event, though unpleasant, is manageable. Emotion-focused coping uses strategies aimed at regulating emotional responses to stress, whereas problem-focused coping strategies seek to alter the stressor or external circumstances.

Although both children and adolescents use a variety of coping strategies, there is usually a dominant pattern characterised by either approach behaviours (these individuals are classified as sensitisers) or avoidance behaviours (these individuals are classified as repressors). Sensitisers seek health and/or procedure-related information, may demonstrate anxious behaviour before hospitalisation, and generally exhibit positive adjustments after the experience. Repressors avoid health-related information, deny stress, prefer to focus on items unrelated to medical proceedings, and are more likely to exhibit anxious behaviour after the event. Nevertheless, research suggests that there is not a definite one-to-one correspondence between coping style and child adjustments. The critical dimension may be the extent to which children or adolescents have a "plan" for dealing with a procedure. Behaviours associated with positive adjustments include active information seeking and exploration of medical equipment and toys, but might also include deliberate avoidance or refocusing (distraction). Although inconclusive, some data suggest that interventions congruent with an individuals coping style are more efficacious (LeRoy, *et al.,* 2003: 2551-2552).

3.3.2 Stressors associated with Illness and Hospitalisation

Stress occurs when the relationship between a person and his/her environment is seen as taxing or threatens personal well-being. The effects of stress are multifaceted, resulting in physiological, emotional, cognitive, behavioural, and interpersonal changes. Hospitalisation puts all children at

high risk for fears related to their unfamiliarity with the people, surroundings, and events. Several studies document frequent and persistent severe distress reactions for children after aversive hospital experiences (LeRoy, *et al.*, 2003: 2251). Several categories of stressors have been identified by Mckinney, *et al.* (2000: 905) as well as LeRoy, *et al.* (2003: 2551) and Leifer (1999: 520). These include:

- Physical harm or bodily injury
- Separation from parents and dealing with strangers in the absence of a familiar, trusted adult
- Fear of the unknown
- Uncertainty about limits and acceptable behaviour
- Loss of control, autonomy and competence

A developmental perspective on the stressors associated with illness and hospitalisation, based on the psychosocial stages of Erikson's theory of human development is provided by both Leifer (1999: 527 – 532) and McKinney, *et al.* (2000: 905 – 909). Stressors associated with ill or hospitalised children are categorised according to developmental stage and are discussed below with reference to the preschooler and school-aged child. It is assumed that children between the ages of four and ten years, as is relevant for this study, are included in these two stages.

3.3.2.1 The preschooler

Separation anxiety

Separation anxiety occurs among preschoolers, but is less intense than in toddlers. Preschool children are distressed when their parents leave them, but unlike toddlers, they can understand time relationships through activities and daily routines. Because children of this age operate with concrete thinking, they can understand more and be better prepared for hospitalisation. Explanations must be given in realistic terms, as preschoolers cannot understand abstract explanations.

Fear of injury and pain

The preschool child is afraid of bodily harm, especially invasive procedures. Because of their literal, concrete interpretation of words and their vivid imagination, they often imagine treatments to be much worse than they are. Fantasizing the unknown can be frightening to a young child, and it is important for adults to give clear, truthful explanations, to listen and answer questions and to correct any misinterpretations. Preschoolers relieve tension through role-playing, and hospital materials such as bandages and tongue depressors may be relished and used by children in their play.

Loss of control

The preschooler has attained some independence in self-care and has been given more independence at home, in preschool or day care. Children may expect to maintain their independence in the hospital and may not respond well to being restricted to a bed or room. Like the toddler, a preschooler feels safe with familiar routines and rituals and may show some regression if not allowed to maintain some areas of choice and control.

Guilt and shame

According to Erikson, preschool children in the fourth and fifth years of life face the psychosocial crisis of initiative versus guilt. Because their thinking is egocentric and magical, preschoolers may believe that their illness is somehow related to a thought or deed of their own. This belief can lead to feelings of guilt, shame, and increased stress at a time when the child has to cope with several other stressors. Because the child does not typically share these feelings with adults, therapeutic intervention such as play therapy may assist the child in relating his perceptions of what is happening and identifying any unfounded fears and beliefs. Anxiety may be greatly reduced by the identification of a perceived punishment and the reassurance that nothing the child did could cause the illness.

3.3.2.2 The school-aged child

Separation anxiety

This age group can endure separation from their parents if it is not prolonged. Older children may be more concerned about missing school and the fear that their friends will forget them. Children who have been cherished from birth can tolerate brief interruptions in their lives more easily than those who have been denied a secure environment. However, the need to adjust to an unfamiliar hospital environment and the regression seen in ill children, increases the likelihood that some separation anxiety will take place.

Fear of injury and pain

The school-aged child is concerned with body disability and death and may ask many relevant questions about the illness and want to know the reasons for procedures and tests. Because school-aged children understand cause and effect, they can relate actions to becoming ill. It is common for this age group to appear to be "brave", showing little, if any, fear in situations that upset them a great deal. Observations of body language may provide some clues to their emotional state. As in the case of preschoolers, school-aged children may benefit greatly from play therapy to explore their emotions and perceptions around their experience of illness.

Loss of control

According to Erikson's theory, school-aged children are in the stage of industry and independence and face the psychosocial crisis of industry versus inferiority. Together with their peers, they pursue various activities worthy of their attention and the recognition of others. They control their self-care, make choices about meals and activities, and gain satisfaction by persevering and completing work. In the hospital context, physical limitations and forced dependency can result in a feeling of loss of control and loss of security. Hospitalised school-aged children may be encouraged to select their own menus, assist with some treatments, socialise with peers and perform simple tasks relating to self-care. Education and scholastic work should also continue as far as possible. With these opportunities for independence,

children retain a sense of control, enhance their self-esteem, and continue to work toward a sense of industry.

3.4 Preparing Children for Medical Procedures and Hospitalisation

Numerous positive changes in child health care over the past 30 years are noted by O' Conner-Von (2000: 1). These include a more child-friendly health care environment, increased opportunities for family member visitation and care, better efforts to prepare children and families, and the inclusion of child life specialists in the health care team. The following expected outcomes for hospital-based pre-procedure preparation programs for children are listed by LeRoy, *et al.* (2003: 2553):

- Reduced anxiety for patients and family members / caretakers
- Improved patient cooperation and adjustments during and between medical procedures
- Enhanced post-procedure recovery
- Increased sense of mastery and self-control for patients and caregivers
- Enhanced trust between patients and caregivers, and health care providers
- Improved long-term emotional and behavioural adjustments in patients and caregivers.

3.4.1 Key Factors Affecting the Preparation Process

Key factors affecting the preparation process include the child's cognitive developmental level, previous hospital experiences, timing of the preparation process, and the child's temperament and coping style. These are discussed below:

3.4.1.1 Cognitive abilities

As previously discussed, the child's cognitive abilities influence his/her perceptions of health-related events, as well as his/her information selection and processing abilities. This has implications for the method of, and

approach to, preparation which is chosen for each individual child (Leroy, *et al*., 2003: 2554).

3.4.1.2 Previous hospital experiences

Studies suggest that naïve children demonstrate decreased anxiety after viewing hospital-relevant audiovisual materials, while children with previous hospital experiences may have increased anxiety or remain unaffected. Experienced children may benefit most from preparation that includes not only procedural information but also instruction about coping techniques (Leroy, *et al*., 2003: 2557).

3.4.1.3 Timing

In the case of children undergoing surgery, anxiety levels in younger children (age 3 to 5 years) are managed most effectively with preparation the night before, whereas older children (age 5 to 12 years) respond optimally when information is presented one week before surgery. According to Kain, Mayes and Caramico, as referred to in Leroy, *et al*. (2003: 2557), preprocedure interventions attempted within 24 hours of surgery may actually increase school-aged children's anxiety. Regarding optimum timing for preparing parents before child hospitalisation, Ferguson, as referred to in Leroy, *et al*. (2003: 2557), found that a preadmission home visit decreased maternal anxiety and increased satisfaction with care. Also, preparatory materials sent to the home (i.e. written information for families and medical play items such as surgical masks) were as effective as in-hospital preparation by nurses in decreasing parents' and children's stress reactions.

3.4.1.4 Temperament and coping style

Child temperament refers to relatively stable qualities of reactivity and self-regulation in response to environmental stimuli that are assumed to have a constitutional basis. Considerable overlap exists between temperament and children's coping styles, particularly with regard to categorisation of children's

tendencies toward approach or avoidance in response to aversive medical procedures. Self-regulation has particular relevance for guiding the pre-procedure preparation process and is also a key concept in the Gestalt approach to therapy discussed in the next chapter. The child's ability to self-regulate his behaviour reflects processes that modulate (increase or decrease) reactivity via attention focusing and inhibitory control. This characteristic can be observed as early as 10 to 12 months of age, with ongoing development and refinement seen throughout childhood. Self-regulation is associated with decreased fear, positive affect, and reduced frustration levels in young children and with effective coping during medical procedures. Further work on the interaction between child temperament and coping offers much promise for guiding the development of individualised pre-procedure preparation interventions (Leroy, *et al*., 2003: 2558).

Hospital-based pre-procedure programs aimed at enhancing children's ability to cope with medical procedures continue to be affected by changes in health care delivery models and economic constraints that impact resource availability (Leroy, *et al*. (2003: 2551). The discussion which follows will highlight various issues relevant to the process of preparing children for medical procedures and hospitalisation, including children's rights, individual and group programs, the multidiciplinary team, partnership with parents, programs for day surgery and outpatient procedures, and various approaches to pre-procedure and hospital preparation for children.

3.4.2 Children's Rights

The United Nations Convention on the Rights of the Child (1989), as described by Southall, *et al.* (2000: 1063), enshrines the principle that decisions affecting children should be made in the best interests of the child. This principle should be applied by healthcare institutions and their staff in all of their interactions with children. The Child-Friendly Healthcare Initiative (CFHI) is described by Southall *et al.* (2000: 1054). The aim of this program is to develop, in accordance with the United Nations Convention on the Rights of the Child, a system of care that will focus on the physical, psychological, and

emotional well-being of children attending health-care facilities, particularly as in-patients. In consultation with local health care professionals and international organisations, the working party of the CFHI has provisionally proposed 12 globally applicable standards that will help to ensure that practices in hospitals and health centres everywhere respect children's rights, not only to survival and avoidance of morbidity, but also to their protection from unnecessary suffering and their informed participation in treatment. Standard 5 and Standard 8 are particularly relevant to the present discussion regarding the preparation of children for hospitalisation and medical procedures and are quoted below:

Standard 5 of the CFHI, in Southall, *et al*. (2000: 1060), states that:
All staff should approach children as individual people with their own needs and rights to privacy and dignity, involving them in decisions affecting their care. The standard of care and treatment provided should be in the best interest of the child, without discrimination based on gender, ethnicity, religion, or otherwise.

The criteria suggested to support this standard include:

- Systems to explain to children the care being given in a way appropriate for age, understanding and language.
- Policies to seek the child's views on, and to confirm their understanding of, the care given in a language and manner that they understand.

Standard 8 of the CFHI, in Southall, *et al*. (2000: 1061), states that:
Children should be able to play and learn while in hospital or other health institutions.

The criteria suggested to support this standard include:

- Provision of basic, clean, culturally acceptable play materials for children of all developmental levels, including play materials to mimic hospital activities
- A trained play leader attached to the health facility
- Specific play activities to prepare individual children for procedures

- Play preparation ideas for parents to introduce at home before admission.

3.4.3 Individual and Group Programs

There has been a vast growth in the development of hospital-based pre-admission programs in the United States, often led by play specialists or paediatric nurses, giving children and families the opportunity to visit the hospital, receive a talk, slide, film, or puppet show, and have the opportunity for therapeutic play. Although such programs are well evaluated by children and parents, it is important that their value is not overestimated, and seen as a substitute for individual preparation. Only a minority of planned admissions attend such programs, and children admitted for emergency procedures are excluded. Furthermore, the need for individual treatment based on existing knowledge, previous experience, and the specific treatment required, can seldom be achieved in a group consisting of various ages, cultures, background and developmental levels. It is critical that the baseline knowledge of each child in respect of their diagnosis, treatment, and care, is established so that information can then be given with clear recognition of the child's existing level of understanding. The potential value of this individual approach in facilitating recovery has been under-utilised in practice and under-explored in contemporary research studies, in contrast with the widespread literature and practice pertaining to pre-admission group programs (Rushforth, 1999: 686 – 687).

The researcher supports the above argument which emphasises the value of an individualised approach, but also acknowledges that time, manpower and cost constraints may influence the viability of this approach, particularly in the South African health care context where resources are limited. However, it may be argued that a child who receives individualised treatment for his/her physical condition should also be entitled to individualised emotional and psychological care.

3.4.4 A Multidisciplinary Team Approach

The multidisciplinary team has a shared responsibility for ensuring that children are as fully informed and prepared as possible for hospitalisation and specific experiences relating to investigations, treatment, or surgery. It is vital that nursing staff, medical staff, and other practitioners coordinate the care that children receive to minimize reduplication. All too often such explanations occur in parallel, with various practitioners undertaking independent, and thus potentially confusing, attempts to explain to children what is going on. Alternatively, each practitioner thinks another is responsible, and no explanation is given at all. In particular it is important for nursing and medical staff not to assume that all information will be conveyed by play specialists. Although play specialists take an important role in preparing children, they have limited medical knowledge, and need to work collaboratively within a multidisciplinary team. It is probably preferable that nursing staff, who have the most consistent contact with the child and family, coordinate the information-giving process, liasing with medical staff, play specialists and other practitioners when appropriate. It is equally important, though, that all practitioners involved in a child's care are informed regarding any explanation the child and / or family has received (Rushforth, 1999: 687).

If members of the multidisciplinary team are to be motivated, they must see the perceived benefits to the patient and perceive that the process for preparation will work. This may be quite difficult given social, structural, organisational, and environmental constraints, all of which pose resistance and barriers to change. Introducing change in existing structures calls for examination of resource issues. Although this is a potential constraint, there are a number of opportunities, such as improved quality of care and patient/family satisfaction, conduction of a more normal routine, less absenteeism from school, improved nutrition and increased socialisation. Cost benefit advantages may also emerge in minimizing the use of sedation or anaesthesia, reducing medication costs, and less time spent in hospital. The benefits can therefore be measured in both qualitative and quantitative terms. However, patients will need adequate support, requiring more time in

the preparation stage, and staff would need appropriate training. It is therefore necessary to monitor outcomes to provide an evidence base for improved services, and to ensure that limited resources are used appropriately (Cancer Resource, 2001: 5–6).

3.4.5 Partnership with Parents

It is important to realise that parents, who usually know their children best of all, may sometimes be the most appropriate people to give explanations to children. However, their willingness to do this and their own level of knowledge should never be assumed (Rushforth, 1999: 686). Parental participation begins with parental agreement to their child's involvement, followed by an assessment of the children's and parents' current level of understanding and emotional response to the planned procedure. Children's adjustments reflect a mutual and rich dynamic interplay of child-parental factors over time. Therefore, goals for procedure preparation include addressing parental concerns and needs so that parents can be more emotionally available to their children. Parents need a clear understanding of the situation before they can effectively convey it to their children. Interventions aimed at parental coping are anticipated to be of particular importance to younger preschool children because of their limited ability to use internal coping strategies (Leroy, *et al*., 2003: 2558).

Engaging parents in the preparation process offers practical benefits that are particularly important given the limitations of available preparation resources. A multifaceted approach with families and professionals working together towards the same goals can be a powerful force of change and is in harmony with the essential elements of clinical and resource management (Southall, *et al*., 2000: 1056).

Key areas to assess and explore with families are identified by Leroy, *et al.* (2003: 2554) and are listed below. According to the researcher, all of these aspects are relevant when compiling a preparation program for children which is also appropriate for the family as a whole:

- The child's developmental level and coping style
- The child's and caregiver's understanding of the medical condition and planned procedure
- Previous hospital experiences, especially adverse ones
- Current emotional, cognitive and physical symptoms and perceived health of the patient
- General and procedure-specific fears
- Family composition, including language, cultural and religious factors
- Method in which information is best processed by patient and caregivers (ie. verbal, visual, written, sensory)
- Other family stressors, eg. finance, transport, social and other health issues
- Family / caretaker coping styles and modes of decision making.

3.4.6 Preparation for Outpatient Procedures and Day Surgery

According to McKinney, *et al*. (2000: 903) and O' Connor-Von (2000: 1), there is an increasing trend towards using outpatient surgery in an effort to keep children out of the hospital unless absolutely necessary. The outpatient facility may be part of a hospital, or it may be free standing. The child arrives in the morning, undergoes a procedure, and goes home by the evening. Common procedures performed during such admissions include grommet placement, hernia repair, adenoidectomy, tonsillectomy, cystoscopy, and bronchoscopy. This mode of care has three advantages: 1) it minimises separation of the child from the family; 2) it decreases the risk of infection; and 3) it decreases cost. However, preparation for surgery is still needed, as various factors contributing to the negative effects on child health care still remain. Children arriving for outpatient surgery have little time to adapt to the health care environment and health care providers have limited time to adequately prepare children and family for the experience. Although the procedure may be short, preparing and empowering the child and the parent is as important as in the acute care setting.

3.4.7 Approaches to Preparing Children for Hospitalisation and Medical Procedures

Various approaches to preparing children for hospitalisation and medical procedures have been identified by Leroy, *et al*. (2000: 2559 – 2564) and O' Conner-Von (2000: 2). These approaches focus on decreasing anxiety and increasing knowledge, and include information giving (procedural and sensory), cognitive behavioural interventions, biofeedback, refocusing techniques, play therapy, peer modelling and peer counselling, as well as pharmacological therapy. Research is still needed to evaluate the effectiveness of preparation, to determine the appropriate match between children and preparation techniques, and to identify gaps in the studies. According to Leroy, *et al*. (2000: 2554), existing research regarding the efficacy of procedure preparation generally indicates that outcomes are enhanced by:

- Active participation by children and family / caregivers
- Personal interaction with health professional (rather than only watching a videotape or reading a pamphlet)
- Developmentally appropriate timing and content
- Comprehensive stress management programs that provide information, supportive counselling and coping skills training.

Information giving and *play therapy* are two key approaches to preparing children for medical procedures and hospitalisation. These are discussed in various literature sources (compare Leroy, *et al*., 2000: 2259, 2261-2262; Cancer Resource, 2001; 2-4; Hatava, *et al*., 2000: 447; McKinney, *et al*., 2000: 911). These approaches, which may be effectively combined, are discussed below:

3.4.7.1 Information giving

Early studies document the efficacy of providing information about anticipated medical procedures, and this continues to provide the foundation for most hospital preparation programs. The information giving approach is supported

by the argument that increasing knowledge and experience rather than changes in cognitive structure due to maturity drives the system to higher levels of reasoning and understanding (Yoos, as referred to in Cancer Resource, 2001: 7). The goals of information giving are to promote a sense of mastery by enabling the child/ parent to anticipate events, to facilitate child and parent understanding of the meaning / purpose of these events, and to correct misinformation. Information giving is congruent with information seeking as a dominant coping strategy for both children and adults and is enhanced by the provision of sensory descriptions.

Information can be provided by a variety of methods, including verbal discussions with the various health care team members, videotapes of a hospitalisation or procedure, written information or picture books, preoperative classes, hospital tours, structured play sessions, puppet shows, and via computer or the Internet. Verbal information should be simple, realistic and honest. When communicating with children, it is necessary to provide concrete information using child-sensitive language and avoid words that can be threatening or misinterpreted. Written materials can be adult or child-directed and are generally enhanced by visual images or diagrams. Although many families now use the Internet for medical information, the information may be inaccurate, so health providers need to guide families toward reputable sites (Leroy, *et al*., 2000: 2564-2565). For effective learning, children must perceive the information as meaningful and relevant, and the educational strategies must be structured to their needs and developmental level in order to capture and hold their attention. It is important to highlight potential barriers alongside enabling factors (Cancer resource, 2001: 4).

In a study by Hatava, *et al.* (2000: 447), a psychological preparation program was developed for outpatient Ear, Nose and Throat (ENT) surgery in children. The aim of the study was to determine if the preparation program could increase retrieval of information and reduce anxiety prior to ENT surgery. A control group received conventional verbal information from an ENT nurse, while the experimental group received specific information, including role play, from a nurse anaesthetist at a preadmission visit. Children's and parents'

experience of pre-medication, operation theatre, intravenous needle insertion and induction of anaesthesia were evaluated from a self-rating questionnaire, which included ratings for anxiety and satisfaction with information and care. Results indicated that the program was useful for all ages with regard to information, while alleviation of fear and anxiety was seen mainly among the younger children (below age 5 years) with previous experience of anaesthesia. Preoperative anxiety overall was a smaller problem among older children. Parents reported more satisfaction and less anxiety after having received specific information and preparation pre-operatively.

3.4.7.2 Play therapy

Play is a primary form of communication for young children and provides an effective method for the presentation and exploration of medical concepts while providing insight into the child's understanding of the situation, areas of misconceptions and level of coping. Play can be spontaneous or recreational, expressive or therapeutic. Spontaneous or recreational play is play activity in which the child chooses the items and activities, which can provide distraction from stressful circumstances. Expressive play provides a means for expression of feelings, release of energy, and relaxation. Therapeutic play differs from normal play in its design and intent. Members of the health team guide it, and activities are planned to meet the physical and psychological needs of the child. It can provide an emotional outlet, instruct, or improve physiologic abilities.

Medical play combines spontaneous and therapeutic play to prepare children for medical or nursing procedures through the use of hospital-related "props" such as syringes, masks, and dolls with intravenous lines, incisions, etc. These items are used to convey information and give children opportunities for "hands-on" learning. During the play session, concrete simple explanations can be offered, and misconceptions can be corrected. Medical play using a beloved doll or stuffed animal works well, because it allows the child to be in a position of control as the doctor/nurse and play/act accordingly (Leroy, *et al*., 2000: 2561-2562; McKinney, et al., 2000: 911). The Gestalt approach to play

therapy, which forms the basis of the preparation program proposed in this study, has been described by Schoeman and Van der Merwe (1996), Oaklander (1988), and Blom (2004). This approach will be discussed in detail the following chapter.

The use of an educational, play therapy–based approach to preparing preschool children for radiotherapy treatment is described in Cancer Resource (2001: 1-2). Although a relatively non-invasive treatment, radiotherapy can present with a number of adverse features, particularly when an immobilisation device is required. This can be distressing and requires cooperation and trust. Fear and anxiety may be amplified by an unfamiliar, threatening, noisy environment, and strange people. An additional source of distress is that parents are unable to stay with their child during the delivery of radiotherapy, often resulting in separation anxiety. These factors may contribute to uncooperative behaviour, subsequently resulting in many radiotherapy centres routinely sedating / anaesthetising young children to improve compliance. The author argues that this can be minimized by an effective preparation program which aims to use individual play to ease fears, anxieties and misconceptions, thus enabling a better understanding of illness and treatment. Literature on play therapy suggests the majority of young children respond to new situations given time and space to become familiar, and the opportunity to play to encourage and develop their confidence, which also serves to decrease stress and anxiety (compare Vessey & Mahon; Doverty; Collier & Mackinlay, as referred to in Cancer Resource, 2001: 2).

3.5 Conclusion

Various issues pertinent to the topic of children in medical settings have been highlighted in this chapter. A developmental perspective on children's understanding of health and illness has shown that, while the normal sequence of maturation places an important role, children have the potential to develop a greater level of insight than adults may assume. The child's experience of illness, hospitalisation and medical procedures is affected by a myriad of interacting factors, both constitutional and environmental. The

manner in which the child is guided and supported through this experience by both family and medical personnel has significant implications for his/ her level of self-regulation, coping and emotional adjustment. A play therapy approach which includes information giving, emotional expression and empowerment is presented as an appropriate means of preparing children for hospitalisation and medical procedures. The Gestalt approach to play therapy forms the basis of this research and is discussed in the next chapter.

CHAPTER 4: GESTALT PLAY THERAPY

4.1 Introduction

Play therapy is a psychotherapeutic technique whereby the therapist attempts to give the child the opportunity to express his or her feelings verbally and non-verbally by using the child's natural form of communication, which is play. It is assumed that the child will play out his or her problems in a symbolic manner, will learn to know and will channel his or her emotions more effectively, will learn to enter into a relationship of trust with another person and that problematic behaviour will be resolved (Blom, 2004: 5).

Gestalt play therapy uses the principles and techniques of Gestalt therapy during play therapy with the child. The primary focus is on helping children to attain increased awareness of their process, rather than on their symptomatic behaviour. The Gestalt therapy process begins with the building of a therapeutic relationship as prerequisite, followed by making contact and affirming the child's sense of self. This leads on to emotional expression, self-nurturing, addressing the inappropriate process and, finally, termination. Various forms and techniques of play are used during the different stages (Blom, 2004: 5).

This chapter begins by defining the concepts of play and play therapy. Theoretical aspects of the Gestalt approach are reviewed prior to a discussion which integrates the topics of play therapy, the Gestalt approach and children in medical settings. Gestalt play therapy is then discussed in more detail, with reference to its aim, objectives, process and techniques. The relevance of the above to therapeutic work with children who are ill or in hospital is emphasised throughout. The applicability of the Gestalt play therapy approach to the topic of this research, namely the preparation of children for grommet insertion and adenoidectomy, is highlighted.

4.2 Defining Play and Play Therapy

No single, comprehensive definition of the term *play* has been developed. The most often quoted definition was developed by Erikson, as quoted by O' Conner (2000: 3): "play is a function of the ego, an attempt to synchronize the bodily and social processes with the self… it is free from compulsions of a conscience and from impulsions of irrationality". According to Hughes, as referred to in O' Conner (2000: 3), play is also defined as (1) intrinsically motivated, (2) freely chosen, (3) non-literal, (4) actively engaged in, and (5) pleasurable.

A critical difference between the play behaviour of normal children and those seen in the therapeutic context, is that normal children experience play as pleasurable and fun, while the play behaviour of disturbed children is far from fun. It is compulsive, impulsive and irrational, the opposite of everything Erikson said it should be (O' Conner, 2000: 3).

It is important to differentiate between *therapeutic play* and *play therapy*. Therapeutic play involves creating an environment that maximises the natural therapeutic benefits of play. Play therapy is distinct from therapeutic play in its reliance on a given theoretical orientation in directing the thinking and behaviour of the play therapist. From this perspective, the following definition is provided by O' Conner (2000: 7):

> "Play therapy consists of a cluster of treatment modalities that involve the systematic use of a theoretical model to establish an interpersonal process wherein trained play therapists use the therapeutic powers of play to help clients prevent or resolve psychosocial difficulties and achieve optimal growth and development and the re-establishment of the child's ability to engage in play behaviour as it is classically defined."

In terms of the above definition, the play therapist seeks to maximize the child's ability to engage in behaviour that is fun and intrinsically complete. Play therapy should represent an integration of the therapist's specific

theoretical orientation, personality, and background with the child's needs in working towards this goal. (O' Conner, 2000: 7). For the purpose of this research, Gestalt therapy is presented as the theoretical orientation which underlies the play therapy program for preparing children for grommet insertion and adenoidectomy.

4.3 The Gestalt Approach: Theoretical Background

4.3.1 Definition and Description

Gestalt therapy is a holistic, process-oriented, dialogical, phenomenological, existential, and field theoretical approach to human change which emphasises contact, awareness, and personal responsiveness and responsibility. The person is never reduced to parts and structural entities, but is viewed as an integrated whole ("gestalt") that strives towards higher levels of potentiality, actualisation and mature self-expression. Of crucial importance is the interplay between biological maturation, environmental influences, interaction of the individual with the environment, and creative adjustment (Kirchner, 2000: 1-2). According to Clarkson, as referred to in Blom (2000: 2), Gestalt theory emphasises right-hemisphere, non-linear thought and is characterised by the use of metaphors, fantasy, figurative language, body posture and movement, and full expression of emotion by using the entire body in action.

4.3.2 Key Concepts

Key concepts of Gestalt theory are described by Blom (2004: 9-40) include: holism, organismic self-regulation, contact and contact boundary disturbances, polarities and the structure of the personality. These are summarised below.

4.3.2.1 Holism

Holism in Gestalt theory implies that the individual is more than the sum of his or her various components and that each individual moves towards an entity

in which body, emotional and spiritual aspects, language, thought and behaviour are inseparable.

4.3.2.2 Organismic self-regulation

Organismic self-regulation, also known as homeostasis, is the process during which an organism maintains its balance under different circumstances by taking action in order to satisfy needs. The healthy organism uses resources within himself (internal self-regulation) or in the environment (external self-regulation) to identify and satisfy needs.

4.3.2.3 Contact and contact boundary disturbances

Contact takes place as soon as the organism uses the environment to satisfy its needs. The environmental field is differentiated by boundaries. The contact boundary can be regarded as the point where the individual experiences the "I" in relation to that which is "not I"; in other words, that which is part of in relation to that which is outside the individual. The contact boundary has two functions: it connects the individual with the environment, which includes other people, but also maintains a separation between the individual and the environment. A contact boundary disturbance occurs when an individual is no longer able to form a sound balance between the self and the world. The boundary may, for example, become too rigid, resulting in isolation, or too permeable, resulting in confluence. The individual's integrated, holistic functioning of the senses, body, emotions and intellect is fragmented by the contact boundary disturbances, resulting in reduced awareness of needs. This negatively affects the natural process of organismic self-regulation.

4.3.2.4 Polarities

The personality is viewed as consisting of polarities, which may be considered as opposites that complement or oppose each other. Polarities exist in respect of emotions, traits of the self, or traits of others. From the Gestalt perspective,

both aspects of the polarity are considered valid and both can be relevant in specific situations. For example, both love and hate are valid emotions and can exist within the self-structure of the personality. Organismic self-regulation leads to the integration of polarities, where differences are accepted and integrated. Polarisation occurs when individuals identify mainly with one set of opposite traits and spend increasingly more energy to maintain the pole with which they have identified. This leads to fragmentation of the individual's holistic entity. During the Gestalt play therapy process, children may be guided to an increased awareness of polarities in their life, which in turn may promote balance and integration.

4.4 Play Therapy, Gestalt Theory and Children in Medical settings: An Integration

The philosophy, theory and practice of Gestalt therapy can be used with slight adjustments in therapeutic work with children. According to Blom, (2004: 2), Violet Oaklander is considered to be the founder of Gestalt play therapy. According to Oaklander, as referred to in Blom (2004: 5), a number of theoretical principles of Gestalt therapy such as relationship, organismic self-regulation, contact boundary disturbances, awareness, experience and resistance are directly related and have an effect during therapeutic work with children. The researcher is in agreement with Oaklander that Gestalt principles may be effectively applied in the play therapy context, and in particular when working with children who are exposed to medical procedures and hospitalisation.

The concept of holism is directly applicable to children in medical settings. The child's physical ailment represents only one aspect of his or her gestalt. The child in a hospital or medical context is affected as a holistic entity, including physical, emotional, cognitive and behavioural aspects. Holism is also important when integrating developmental aspects. According to O' Conner (2000: 129), the play therapist must consider the gestalt of the child's development; that is, the child's global developmental level, but should also note any unevenness of the child's development across the areas assessed.

While global developmental delays or apparent pseudomaturity are often signs of significant psychopathology, uneven development is often an underlying cause of even greater disturbance. For example, a 10 year old child with an above-average intelligence quotient, but with the language skills of a 6 year old, will be frustrated by his inability to communicate in a manner consistent with the complexity of his inner world, and may manifest significant emotional and behavioural sequelae. Hearing impairment and language delay are possible areas of deficit which impact children undergoing grommet insertion and adenoidectomy. In the opinion of the researcher, these factors should be taken into account when compiling a Gestalt-based preparation program for this population.

The concept of self-regulation was discussed in the previous chapter with reference to temperament and coping skills and was identified as a key factor affecting children's response to the preparation process. According to the researcher, the child who is in hospital may find himself without familiar environmental resources to facilitate external self-regulation and may benefit from therapeutic support in strengthening his internal self-regulatory abilities.

Children in hospital may be experiencing many new and confusing polarities, which should be addressed in the therapeutic process of hospital preparation. For example, they may long for an absent parent, but at the same time feel anger toward the parent for seemingly deserting them. The child may be told by an adult that having an injection will help him feel better, when in fact it causes him to experience pain and fear. Children of six years and under have difficulty in understanding the simultaneous experience of conflicting emotions. Polarities can thus cause feelings of confusion in the child, which in turn contribute to a fragmented existence. This fragmentation should be addressed in Gestalt play therapy, in order to effect integration of these polarities (Blom, 2000: 34).

4.5 Aim and Objectives of Gestalt Play Therapy

4.5.1 Aim

The goal of all Gestalt-based therapy is awareness**.** According to Yontef (1993: 144), full awareness is the process of being in vigilant contact with the most important events in the individual/environment field with full sensorimotor, emotional, cognitive and energetic support. It involves not only self-knowledge, but a direct knowing of the current situation and how the self is in that situation. Awareness is accompanied by *owning*, that is, the process of knowing one's control over, choice of, and responsibility for one's own behaviour and feelings. Awareness leads to natural change.

The aim of Gestalt play therapy with children is to make them aware of their own process. Oaklander, as referred to in Blom (2004: 50), defines the child's process as "who they are, what they feel, what they like and do not like, what they need, what they want, what they do and how they do it". Awareness of their own process in the here and now leads to the discovery that choices can be made pertaining to emotional expression, satisfaction of needs and exploration of new behaviour (Blom, 2004; 50).

4.5.2 Objectives

Three objectives of Gestalt play therapy are identified and discussed by Blom (2004: 50-53). These are: to promote self-supporting behaviour in children, to promote awareness of their own process, and to promote personal integration. These aspects are addressed simultaneously during the therapeutic process.

4.5.2.1 Promoting self-supporting behaviour

Self-support implies that children are guided to take more responsibility for themselves and for satisfying their own needs, as well as making relevant choices in respect of satisfying their own needs. This does not mean that children must be self-supporting on the same level as an adult person –

children, especially younger ones, still depend greatly on the environment, such as their parents, for satisfying their needs. According to Yontef (1993: 26), self-support includes both self-knowledge and self-acceptance. During Gestalt play therapy, children should be guided to know, understand and accept themselves and their needs in order to exercise responsible choices when satisfying their needs according to their age.

4.5.2.2 Promoting awareness of their own process

Awareness of their own process is considered a primary objective in Gestalt play therapy. Promoting children's awareness implies that children are placed in full contact with themselves on cognitive, sensory and affective levels. As children become more aware of themselves in the therapeutic process, they also become more aware of the fact that they can exercise choices regarding the expression of emotions, the ways in which they satisfy their needs, and the exploration of new behaviour. The concept of awareness, responsibility, choices and freedom are interdependent within the Gestalt play therapy process.

4.5.2.3 Promoting integration

Integration as an objective of Gestalt play therapy requires that children, as holistic entities, must be helped to integrate their cognition, emotions, body and senses in order to complete unfinished business on their foreground. The Gestalt approach is not concerned with symptoms and analysis, but rather with the individual's total existence. Integration and maturity are continuous processes that are directly related to awareness in the here and now. If children's functioning is integrated, their needs can be satisfied more easily.

The researcher is of the opinion that the aim and objectives described above are relevant and applicable to the process of compiling a hospital preparation program for children, and specifically for those scheduled for grommet insertion and adenoidectomy. Within the context of a Gestalt-based preparation program, children may be given the opportunity to explore their

own experiences of their illness and the hospital setting at a physical, sensory, emotional and cognitive level. In doing so, they can achieve increased awareness, self-support and integration, as well as freedom and responsibility in making appropriate choices in response to their current condition.

4.6 The Gestalt Play Therapy Process

According to Oaklander (1997: 292) the Gestalt play therapy process is congruent with the philosophy, theory and practice of Gestalt therapy. She describes the process in terms of various phases. The process begins with the therapeutic relationship, contact functions and the building of self-support. This lays the foundations for emotional expression, self-nurturing, dealing with inappropriate processes and, finally, termination. These various phases are discussed below:

4.6.1 The Therapeutic Relationship

The therapeutic relationship is considered to be the most fundamental aspect of the therapeutic process, and a prerequisite for further therapeutic work with the child. Oaklander (1997: 293) states that nothing happens without the thread of a relationship. Building the therapeutic relationship starts with what the child sees and observes in the therapist and depends on the therapist's sensitivity toward that which the child experiences at a specific moment.

The I-Thou relationship is central to the Gestalt approach and implies that the therapist and the child, irrespective of aspects such as age and status, are considered on an equal level (Blom, 2004: 54). When working with children who have been exposed to medical procedures and hospitals, one should be aware that, to the child, the therapist may initially appear as another member of the medical fraternity who inflicts pain and instils fear under the apparent guise of providing help and relief. Children who are separated from the security of their home and parents may also have difficulty in establishing a relationship of trust with a new person in a strange environment. This calls for patience and empathy on the part of the therapist. In the context of the

proposed research, the therapist should also be sensitive to cultural and linguistic variations and accommodate these in the therapist-child relationship.

4.6.2 Contact

Contact involves the ability to be fully present at a given moment as regards all aspects of the child's being, including body, senses, emotions and intellect. Contact facilitates the I-Thou relationship and is a prerequisite for self-support. Contact-making may manifest through body posture and movement, language and sensory experiences. Traumatised children may lose some of their sensory and bodily awareness. As there is an important link between the body and emotion, with the emotion manifesting at a physical locus point, these children also experience problems with emotional contact-making. By focusing on sensory and bodily aspects in the therapeutic context, these children can be made more aware of the emotions they experience at a given moment (Blom, 2004: 97-100).

Children undergoing medical treatment may have heightened sensory experiences such as unpleasant tactile intrusions and unfamiliar sights, smells and noises; for example, medicines, injections, drips and other medical apparatus. Sick children also experience physical pain, discomfort and fatigue, which influence their contact making at the level of their bodies. Children with hearing loss due to middle ear infection, and possibly poor language skills, may have difficulties with contact-making through auditory and verbal modalities. Aspect such as these are important considerations for the hospital preparation program proposed in this research.

4.6.3 Self-support

Self-support is achieved by strengthening the child's sense of self, with reference to the need to feel both loveable and capable (Blom, 2004: 114). Within the therapeutic context, children are presented with opportunities to make self-statements, to possess their projections, to make choices and to experience mastery and control. Boundaries and limitations, an atmosphere

of playfulness and humour, as well as opportunities to fantasise are further important aspects when strengthening children's sense of self (Oaklander, 1997: 298-303). Children who are ill or in hospital may experience a loss of autonomy and control over their life and thus reveal a weak sense of self. Building self-support should thus be regarded as an important component in preparation programs such as the one proposed in this research.

4 6.4 Emotional Expression

Once children are able to use their contact functions effectively and have a strong sense of self, the focus of the therapeutic process moves to emotional expression. Oaklander (1997: 307) distinguishes between the expression of aggressive energy and the expression of emotion, and defines aggressive energy as "marked by driving forceful energy or initiative". This energy gives children the self-support to enable them to take action and is a prerequisite for healthy emotional expression. Children who have a poor sense of self lack aggressive energy and this may manifest in the form of contact boundary disturbances. For example, a hospitalised child who is experiencing fear and lack of control may turn this energy inwards (retroflection), resulting is psychosomatic symptoms, or may deflect this energy by becoming withdrawn and unresponsive, even toward family members.

According to Blom (2004: 134), after children have come into contact with their aggressive energy, they are much more comfortable when coming into contact with their unexpressed emotions. Children tend to suppress negative emotions; however, their emotional pain and unfinished business is often reflected by their behaviour and the nature of their process. Children must be given support so that they can talk about emotions in general, about the body's reaction to different emotions, and must be given the opportunity to experience, project, own, express and manage emotions by means of play therapy techniques and activities (Blom, 2004: 138-139).

4.6.5 Self-nurturing

According to Oaklander (1997: 311), many children have taken in negative introjects about themselves in response to traumatic experiences, causing them to inhibit aspects of the self. During the self-nurturing phase, children are taught to accept those parts of themselves which they dislike, to integrate the polarities in their lives, and to treat themselves well (Blom, 2004: 174). Children who are ill and have to undergo medical procedures may take in faulty messages or introjects regarding their condition. Young children may feel than their illness is the result of bad behaviour and that they are to blame for it. Past experiences in hospital settings, as well as the responses of parents, other adults and children to their illness may also result in introjections and fragmentation of the self. These aspects should be addressed in hospital preparation programs.

4.6.6 Addressing the Inappropriate Process

As children progress through the therapeutic process, the symptomatic behaviours which the child initially displayed generally disappear as the child begins to develop a deep sense of self and finds healthier ways of interacting. If the inappropriate process persists, emphasis is placed on enhancing children's awareness of their own process and behaviour, so that they can take responsibility for this and begin experimenting with new behaviour (Blom, 2004: 180).

4.6.7 Termination

Special attention needs to be given to termination in Gestalt play therapy so that the child does not see this as a form of loss or rejection (Blom & Dhansay, 2004: 260). According to the researcher, this is particularly relevant to sick or hospitalised children who may have associated a sense of loss, abandonment or rejection with their illness experience.

4.7 Techniques and Methods of Gestalt Play Therapy

According to Yontef (1993: 59), Gestalt therapy is selectively and differentially practiced according to the personality and needs of the therapist, the patients and the setting. It is possible to intervene at many points and from many angles and the immediate results may generalise to the rest of the field. The Gestalt therapist uses many aspects of the here-and–now situation to create growth opportunities, contact, and awareness. Despite the flexibility of this approach, the "how" of Gestalt therapy can be made more concrete by discussing specific techniques or activities used in therapy. While some of these are applicable to Gestalt therapy in general, others are specifically focused on the child within the Gestalt play therapy context.

The techniques of Gestalt therapy are experimental tasks. They are the means of expanding experience (Yontef, 1993: 153). Projective techniques used with children in play therapy include Oaklander's model, the rosebush technique, monster work, dream work, the empty chair, incomplete sentences, role-play and fantasy. Therapeutic play may take various forms, and make use of various mediums. Forms of play include dramatised play, creative play and biblio- play. Mediums for dramatised play include dance, movement, dolls, puppets, and toy items representing the child's real or imaginary world. During creative play, mediums such as drawing, painting, clay, and sand may be used. Biblio-play implies the creative use of the written word and involves mediums such as stories, autobiographies, lifebooks, comics and poems.

Specific guidelines for therapy with children with HIV/Aids are given by Blom and Dhansay (2004: 254-260). The discussion which follows will focus on techniques and activities which are particularly relevant to children in medical settings, and which may be incorporated in a hospital preparation program.

4.7.1 Techniques and Activities for Relationship Building

In order to establish an I-Thou relationship, it is important that the therapist identifies with the child on his / her level and this is best accomplished through

the child's natural form of communication, which is play. According to Reid, as referred to in Blom and Dhansay (2004: 254), the following play materials are suggested for relationship building with children in medical settings: a sand-tray, a medical kit, scotch tape, tissues and band-aid. Music, clay, puzzles and drawing are also helpful.

4.7.2 Techniques and Activities for Sensory and Bodily Contact Making

Activities which involve breathing, moving, tasting, smelling, touching, looking and hearing are important for contact-making. Useful mediums include music dancing, clay work, ball throwing, finger-painting, balloon-blowing, as well as peeling and eating a fruit (Blom & Dhansay, 2004: 255) . Children who are sick or in hospital may experience or anticipate negative bodily and/or sensory experiences which should be brought into the level of awareness. According to the researcher, the technique of working with polarities, with emphasis on both positive and negative body and sensory experience, may be applicable in this regard.

4.7.3 Techniques and Activities for Strengthening Self-Support

Gaining self-support by expressing aggressive energy or by mastery and having choices can assist the sick or hospitalised child in gaining and regaining a stronger sense of self (Blom & Dhansay, 2004: 256). Activities for the expression of aggressive energy may include running jumping, bouncing a ball, hitting cushions, or throwing clay. This energy gives children the self-support needed to take further action or to express hidden emotions. Puzzles, lego blocks, drawing and clay work, where the child is able to make his/her own choices regarding how he/she will use the medium, are valuable in facilitating a sense of mastery and control. The use of the projective techniques of the rosebush fantasy and the safe place fantasy may be appropriate for children in medical settings who may be feeling unsafe and insecure in the hospital environment. Children's ownership of their projections may contribute to a stronger sense of self.

4.7.4 Techniques and Activities for Emotional Expression

In order to unlock buried emotions and teach children ways of expressing emotions, Oaklander (1997), as referred to in Blom and Dhansay (2004: 256), proposes the use of drawings, collages, clay, fantasy, imagery, drama, music, movement, story-telling, metaphors and games. These techniques give children the opportunity for powerful projections of the self that can evoke strong emotions. Children are encouraged to come into contact with these emotions, that is, to own the emotions. They can then be helped to learn coping strategies and skills for managing emotions, and can be assisted in experimenting with new behaviour in the safety of the therapeutic context (Blom, 2004: 146).

4.7.5 Techniques and Activities for Self-nurturing

Children can be helped to become more nurturing toward themselves by using projective techniques such as the empty chair technique, clay work, or even a nurturing bear to talk to, in order to help them become more accepting of themselves. Children who are in hospital or are undergoing medical procedures can have a soft toy which they can talk to. By imagining that this toy is their hurt or physically ill self, they can nurture this part of themselves. Children may also be encouraged to treat themselves well by doing something positive or pleasant for themselves each day (Blom & Dhansay, 2004:259).

4.7.6 Techniques and Activities for Addressing the Inappropriate Process

Although inappropriate behaviour often subsides after children have expressed their emotions and learned new strategies for managing them, the therapist can make use of techniques such as story-telling, puppetry, and metaphors to increase children's awareness of their process during this phase. It is important that children are able to identify with the story or characters, to project their own emotions and to learn about healthier ways in which they can express their emotions and satisfy their needs. The use of

stories and dramatised play is recommended by the researcher in the proposed hospital preparation program, and these techniques are discussed in more detail below.

4.7.7 Techniques and Activities for Terminating Therapy

Special attention needs to be given to termination and activities such reviewing previous activities, playing favourite games, making good-bye cards and talking about mixed emotions around termination, are helpful (Blom & Dhansay, 2004: 260).

4.8 Specific Forms of Play Therapy

4.8.1 Dramatised Play

Creative dramatics is a natural tool to help children find and give expression to lost and hidden parts of themselves, and to build strength and selfhood. By giving them permission to go outside of themselves, children can develop a total awareness of self, including the body, the senses and the imagination. In order to experience and interpret the world around them and to convey ideas, action, feelings, and expressions, they call on all the resources within themselves; senses, facial expression, body movement, fantasy, imagination and intellect (Oaklander, 1988: 137;139). Play is the young child's form of improvisational dramatics, and his means of formulating and assimilating what he experiences. By acting out his experiences, he comes into contact with reality.

Dramatised play creates a distance between the child and his problems and gives him the opportunity for emotional release in a context where he feels less threatened and exposed (Van der Merwe, 1996: 128). Using tools such as role play, dolls, and puppets, the therapist may encourage the child to conduct a dialogue, or ask the child to identify with any of the people, animals or objects; for example, " You be that rabbit. What does he feel? What does he say?" The therapist may sometimes set up a structured situation with toys

for the child to play out, selecting various items to fit some circumstance in the child's life (Oaklander, 1988: 163). Medical play is an example of this type of structured situation, where the child is provided with medical toys such as bandages, stethoscopes, syringes, etc. and is given an opportunity to express feelings and experiences around his illness and/or hospitalisation. According to Oaklander (1988: 163), very young children, especially, do not want to, or need to, verbalise their discoveries and awareness, or own what is expressed through play. Just by bringing those feelings, situations, and anxieties into the open, a degree of integration occurs. The researcher will include the use of dramatised play in the proposed hospital preparation program for children undergoing grommet insertion and adenoidectomy.

4.8.2 Bibliotherapy

Bibliotherapy, as discussed in Ginns-Gruenberg and Zacks (1999: 455-456), involves the use of literature by a therapist to help children resolve problems. Within this definition, a triangle is formed between the therapist, child and literature, which facilitates dialogue and expression of issues. The therapist must have a strong knowledge of the literary content, the child's developmental level, and the child's psychological needs. An existing story may be used, a story may be created by the therapist or both the child and therapist, and characters may be depicted using puppets, clay or toy figures. It is not the reading itself that facilitates healing in the client; rather, it is the therapeutic discussion or expression of feelings following the reading that leads to resolution for the client.

The use of "situation books" to prepare young children for specific changes or events in their lives is discussed by Tucker (1981: 52), who, in support of the above, also notes that the potential appeal and effect of this literature will be indivisible from the way it is introduced to children, and the state of their own feelings beforehand. In addition, Tucker (1981: 46) states that for young children aged 3 to 7 years, the story should be short, focusing on one main character, told in a minimum of language, allowing repetition and including plenty of pictures. Tucker (1981: 52) notes that very young children are more

successful in inferring the emotions of characters in a visually presented story than when the same situation is presented to them verbally. The above factors are applicable to this study and are important considerations for the compilation of an illustrated story book which is included in the hospital preparation program. This is discussed further in Chapter 6.

Bibliotherapy, as a form of play therapy, is included in the hospital preparation program for two reasons. Firstly, the therapeutic goals of bibliotherapy include increased self-understanding, increased awareness of interpersonal relationships and improved reality orientation. These goals are congruent with the Gestalt therapy principles. According to Van der Merwe (1996: 110), biblio-play, which is a form of play using books and other forms of the written word, is therapeutic in the sense that it corrects misinterpretations, generalises and educates. Secondly, it is a structured form of play which speeds up the therapeutic pace. As such, it is cost-effective as it directs the conversation towards the problem. This is of relevance to the South African context, as well as to hospital preparation programs for children, where constraints regarding time and resources are likely to exist.

4.9 Conclusion

A Gestalt approach to play therapy with children has been described with reference to theory, goals, process and techniques. Emphasis was placed on the use of this approach in compiling a Gestalt-based play therapy program to prepare children for grommet insertion and adenoidectomy.

CHAPTER 5: RESEARCH METHODOLOGY

5.1 Purpose of the Study

5.1.1 Aim

The aim this study was to develop a developmentally appropriate Gestalt play therapy program for the preparation of children undergoing grommet insertion, or grommet insertion and adenoidectomy, in the day-surgery context.

5.1.2 Objectives

The following objectives were set:

- To review relevant literature relating to the research topic, including aspects such as existing programs for hospital preparation, day surgery, otitis media, grommet insertion, adenoidectomy, Gestalt play therapy, and child development theory.
- To identify a target population, to gather relevant information from this population, and to analyse and assimilate this information so that it may be applied in the process of designing the proposed program.
- To design a Gestalt play therapy program for the preparation of children undergoing grommet insertion, or grommet insertion and adenoidectomy, in the day-surgery context.
- To implement the program in the context of a pilot study
- To make recommendations for the testing and refining of the program, based on information obtained from the pilot study, in order to determine its potential value and usefulness in the clinical therapeutic context.

5.2 Research Approach and Design

The research followed a qualitative approach of a descriptive and exploratory nature. It involved an intrinsic case study design. These aspects were discussed in chapter 1: 1.6 – 1.8.

5.3 Description of Sampling Criteria, Sampling Method and Sample Size

5.3.1 Sampling Criteria

A sample was identified according to the following criteria:

Children:

- Children who were between 4 and 10 years of age.
- Children who were English or Afrikaans speaking.
- Children who were scheduled for the procedure(s) of grommet insertion, or grommet insertion and adenoidectomy, at the Day Surgery Unit of Tygerberg Hospital.

Parents / Caregivers:

- Parents / caregivers of children selected according to the above criteria.
- Parents / caregivers who accompany their child to the hospital for the above procedure.

Doctors:

- Doctors employed as consultants or registrars in the Otorhinolaryngology Department of Tygerberg Hospital.

Nurses:

- Nursing staff employed in the Day Surgery Unit of Tygerberg Hospital.
- Nursing staff responsible for patients undergoing grommet insertion, or grommet insertion and adenoidectomy.

5.3.2 Sampling Method

The sampling method selected for the study was non-probability, purposive sampling, as described in chapter 1: 1.9.3.

5.3.3 Sample Size

Number of children: 8
Number of parents / caregivers: 8
Number of doctors: 4
Number of nurses: 2

5.4 Description of Subjects

5.4.1 Children

Three male and five female subjects were included in the study. Ages ranged between 5 years 2 months and 10 years 9 months, with an average age of 8 years 5 months. Two subjects were English speaking and six subjects were Afrikaans speaking. Five subjects were scheduled for grommet insertion only and three subjects were scheduled for grommet insertion and adenoidectomy. For 5 of the subjects, hearing tests were performed at Tygerberg Hospital within 6 months prior to surgery and indicated a mild or moderate hearing loss in each case. For 2 of the subjects, hearing tests were performed elsewhere and results were not available. One subject did not have a hearing test prior to surgery.

5.4.2 Parents / Caregivers

Eight female parent / caregiver subjects were included in the study. All were the biological mothers of the children included in the study. One subject was English speaking and seven subjects were Afrikaans speaking. For further feedback purposes, these subjects will be referred to as parents.

5.4.3 Doctors

Subjects included three consultants and one registrar from the Department of Otorhinolaryngology at Tygerberg Hospital. Three subjects were male and one subject was female.

5.4.4 Nurses

Subjects included one nursing sister and one nursing assistant from the Day Surgery Unit at Tygerberg Hospital. Both subjects were female.

5.5 Research Procedure

5.5.1 Measuring Instrument

A measuring instrument was designed by the researcher for the purpose of this study. The measuring instrument comprised four questionnaires which formed the basis of semi-structured interviews conducted with the four subject groups included in the study; namely, children, parents, doctors and nurses. These questionnaires are included in Appendices I, II, III and IV respectively.

The questionnaires were based on topics and aspects pertaining to the target population, which were identified by the researcher as relevant to the compilation of the specified preparation program. The questionnaires were compiled in order to obtain information for analysis within various themes, which are listed under heading 5.5.4.

5.5.2 Consent

The researcher obtained permission for conducting the study from the Ethics Research Committee as well as the Head of the Otorhinolaryngology Department of Tygerberg Hospital. Prior to their participation in the study, all subjects gave written consent of their willingness to do so. The consent form which was used is included in Appendix V.

5.5.3 Data Collection

Data was obtained by the application of the measuring instrument described above. Semi-structured interviews were conducted with the four subject groups included in the study. All interviews were recorded on audio tape. In addition, interviews with children were also recorded on video tape.

5.5.3.1 Interviews with children

Subjects who met the sampling criteria for children described above were identified by the researcher by a review of the theatre lists for patients of the Otorhinolaryngology Department who were booked for grommet insertion, or grommet insertion and adenoidectomy, at the Day Surgery Unit of Tygerberg Hospital. The computerized hospital records of potential subjects, as well as the results of their most recent hearing test where applicable, were also reviewed for additional information.

Subjects were interviewed at the Day Surgery Unit of Tygerberg Hospital on the morning of the scheduled surgery, subsequent to admission to the unit and prior to surgery. Semi-structured interviews were conducted in the context of an informal structured play session and took place in the playroom of the Day Surgery Unit. The researcher made use of hand puppets as well as written and pictorial stimuli as aides in encouraging responses from the subjects. The pictorial stimuli which were used are included in Appendix VI. Specific items in the questionnaire were rephrased, repeated or omitted at the discretion of the researcher, in response to the child's apparent developmental level, attention span, and level of understanding.

Interviews were initiated with 10 subjects and data from 8 of these subjects was included in the study. One subject was excluded because the child was required to go to theatre and the interview could not be completed. The second subject was excluded because the child was not cooperative and no verbal responses could be elicited. Parents were present during the

interviews with the children for 7 of the 8 subjects included in the study. For one subject, the parent preferred to leave the room as she felt that the child would be more responsive toward the researcher in her absence.

5.5.3.2 Interviews with parents

Subjects who met the sampling criteria for parents described above were identified by the researcher on their arrival at the Day Surgery Unit of Tygerberg Hospital on the morning of the child's scheduled surgery. Semi-structured interviews were conducted in a conversational context and took place in the playroom of the Day Surgery Unit. Interviews were initiated subsequent to the child's admission to the unit and prior to the surgery. Interviews were conducted with 9 subjects and data from 8 of these subjects were included in the study. Data from the parent of the child subject described above whose interview could not be completed, was excluded from the study. For 2 of the 8 subjects included, it was necessary to interrupt the interview as the mother was required to accompany her child into the operating theatre. For these 2 subjects, the interviews were completed once the parent returned from the theatre and while the surgery was taking place. For the other 6 subjects, the interviews were completed prior to the surgery.

5.5.3.3 Interviews with doctors

Subjects who met the sampling criteria for doctors described above were identified by the researcher in the Otorhinolaryngology Department of Tygerberg Hospital. Semi-structured interviews were conducted in a conversational context with 4 subjects. The interviews took place in an office in the Speech and Hearing Clinic of Tygerberg Hospital at a time convenient for the subjects and the researcher.

5.5.3.4 Interviews with nurses

Subjects who met the sampling criteria for nurses described above were identified by the researcher in the Day Surgery Unit of Tygerberg Hospital.

Semi-structured interviews were conducted in a conversational context with 2 subjects. The interviews took place in the playroom of the Day Surgery Unit at a time convenient for the subjects and the researcher.

5.5.4 Data Analysis

Data obtained during the interviews conducted with subjects in the study was qualitatively analysed according to various themes, as presented below:

5.5.4.1 Information obtained from interviews with children

- The child's understanding and perceptions of illness, hospitalisation and surgery
- The child's response to medical procedures and hospitalisation
- The child's previous experiences in medical settings

5.5.4.2 Information obtained from interviews with parents

- Background information pertaining to the child and the parent, including birth history, medical history, developmental milestones and scholastic/day care details and progress
- Otitis media, grommet insertion and adenoidectomy:
  The parent's knowledge, understanding and perceptions
- The child's hearing status:
  The parent's knowledge, understanding and perceptions
- The child's speech and language development:
  The parent's knowledge, understanding and perceptions
- The child's level of play and exposure to specific toys and books
- The child's preparation for hospitalisation
- The parent's perception of the child's response to hospitalisation
- The parent's response to the child's hospitalisation
- The parent's perception of the child's previous experiences in medical settings.

5.5.4.3 Information obtained from interviews with doctors and nurses

- Approach to discussing the child's illness and surgery with parent
- Approach to preparing the parent for the child's surgery and hospitalization
- Time spent discussing the child's illness and operation with the parent and preparing the parent for the child's surgery and hospitalization
- Manner in which the child's illness and operation is discussed with the parent and the parent is prepared for the child's surgery and hospitalization
- Approach to discussing the child's illness and surgery with the child
- Approach to preparing the child for surgery and hospitalization
- Time spent discussing the child's illness and operation with the child and preparing the child for surgery and hospitalization
- Manner in which the child's illness and operation is discussed with the child and the child is prepared for surgery and hospitalisation
- Opinion regarding most effective way of discussing the child's illness and operation with the child and preparing the child for surgery and hospitalization
- Typical questions asked by parents regarding the illness, surgery and hospitalisation
- Typical questions asked by children regarding their illness, surgery and hospitalisation
- Typical misconceptions held by parents regarding the illness, surgery and hospitalisation
- Typical misconceptions held by children regarding their illness, surgery and hospitalisation
- Opinion regarding the adequacy of parents' understanding of the child's illness and forthcoming surgery and hospitalisation
- Opinion regarding the adequacy of children's understanding of their illness and forthcoming surgery and hospitalisation

- Opinion regarding the adequacy of emotional support offered to parents with regard to the child's illness and forthcoming surgery and hospitalisation
- Opinion regarding adequacy of emotional support offered to children with regard to their illness and forthcoming surgery and hospitalisation
- Additional comments / recommendations regarding the preparation of children for day surgery, and specifically grommets and adenoidectomy
- Description of the procedure / routine from the time of the child's arrival at the Day Surgery Unit until discharge (*nurses only*)
- Description of the nurse's role in preparing the child for hospitalization and surgery (*nurses only*)

5.5.5 Development of the Proposed Hospital Preparation Program

A developmentally appropriate hospital preparation program for young children undergoing the surgical procedures of grommet insertion or grommet insertion and adenoidectomy at Tygerberg Hospital was compiled. This program was based on the qualitative analysis of information obtained from the subjects of the study, as well as on the underlying principles of Gestalt therapy and various play therapy techniques. The program was piloted on a single subject who met the inclusion criteria for the study.

5.6 Summary

This chapter has provided a description of the research methodology used in the study. The purpose of the study, including its aim and objectives, was highlighted, as well as the research approach and design. This was followed by a description of the sampling criteria, sampling method and sample size used in the study. The research procedure was then discussed with reference to instrumentation, consent, data collection and data analysis. Finally, the procedure which was followed in the development of the proposed hospital preparation program, was outlined. In the following chapter, the results of the study are presented. This includes a qualitative analysis of the data obtained,

as well as a discussion of the results with reference to the literature. Limitations of the data collection procedures are also included. The information obtained is then integrated and applied in the development of the proposed hospital preparation program.

CHAPTER 6: RESULTS OF THE STUDY AND PROPOSED PROGRAM

6.1 Results of Interviews with Subjects

The data obtained from interviews conducted with subjects prior to the compilation of the proposed program was qualitatively analysed according to various themes, as outlined in Chapter 5: 5.6. This analysis of data is presented in tabular form and is included in Appendix VII.

6.2 Discussion and Interpretation of Results of Interviews with Subjects

6.2.1 Background information: Parent and child

Various factors which have implications for child development and therefore for the compilation of the proposed program were identified among child subjects. These include birth complications (3 subjects), delayed developmental milestones (4 subjects) and previous medical conditions requiring hospital admission (6 subjects). Significant learning difficulties reported for 3 subjects may be related to the above. The effect of children's developmental and cognitive level on their understanding and experience of health, illness, hospitalisation and medical procedures, is discussed in Chapter 3: 2.3.3, 3.3.1.1 and 3.4.1.1.

Children's responses during the interviews were generally limited in terms of factual and emotive content as well as linguistic complexity. Various possible reasons for this may be identified: 1) lack of information regarding the topics under discussion, 2) delayed language development affecting comprehension of questions and formulation of responses, or 3) inhibition due to the nature and unfamiliarity of the context of the interviews. Considering the timing of the interviews, which took place immediately before admission to theatre for surgery, it is probable that children's stress levels were high. Stressors associated with illness and hospitalisation in children are discussed in detail in Chapter 3: 3.3.2.

The high rate of previous hospital admissions for the children included in this study must be noted, as this has implications for the interpretation of responses obtained from both children and parents. The effect of previous experiences in hospitals or medical settings on children's responses to illness and hospitalisation are noted in Chapter 3: 3.3.1.2 and 3.4.1.2.

Regarding parent subjects, a range of variation with regard to educational level was identified, with all parents being literate. Information obtained from parents regarding their child's level of play and exposure to specific toys and books revealed trends which may be interpreted with reference to cultural aspects and socio-economic status. As noted in the discussion of Vygotsky's theory in Chapter 3: 3.2.3, socio-cultural aspects should be considered when preparing children for hospital and medical procedures. For more than half of the subjects, gross motor activities were identified among the child's favourite play activities and involved the use of basic toys or none at all, for example, riding bikes, running, wrestling, or playing with sand and water. The toys most frequently available at home included crayons / khokis (8 subjects), balls (7 subjects) and soft toys (7 subjects). Story books were available in the homes of 4 subjects and 4 parents reported that they read books with their child. Of these four parents, three reported that their child was interested in books. The above information has implications for the choice of media selected for use in the proposed hospital preparation program.

6.2.2 Children's understanding and perceptions of illness, hospitalisation and surgery

During interviews with children, five of the subjects acknowledged that an adult had discussed their illness and hospitalisation with them, and in most cases, the mother was identified in this role. In contrast, during interviews with parents, 7 subjects reported that they discussed this with the child. While 7 of the 8 child subjects were able to identify their presenting problem as relating to their ears, none were able to provide a cohesive description of the problem or how it would be managed. Difficulty with hearing was the most

frequently reported complaint from the children, while only one child reported pain relating to the ears. This is congruent with literature on the relationship between otitis media and hearing loss, as discussed with reference to Northern and Downs (2002: 66) in Chapter 2:2.5. Knowledge of the operation was generally limited, with 2 subjects reporting that grommets or tubes would be inserted in the ears. Half of the children were misinformed or uncertain as to whether or not they would spend the night at the hospital. Interviews with parents indicated that information reportedly given to the child focused primarily on the surgical procedure rather than the child's illness or the hospitalisation process. Half of the parents interviewed felt that their child had a good understanding of their illness, surgery and the hospitalisation process.

6.2.3 Children's response to medical procedures and hospitalisation, including previous experiences

A general paucity in the children's capacity to express their emotive state, as well as to comprehend verbal descriptions of basic emotive states (happy / sad / angry / scared / calm), was noted. The large majority of children (7 subjects) expressed or identified a positive current emotive state on the morning before surgery. Two subjects were able to reflect on their own behaviour at the time, and reported positive behavioural changes. All children expressed positive or neutral emotional and behavioural responses when asked about previous experiences when visiting a doctor. Two child subjects described negative responses, including fear, sadness and pain, when previously being examined by a nurse. Three child subjects made comments relating to the finger prick received from a nurse just prior to the interview. As noted in Chapter 3: 3.3.2.1 and 3.3.2.2, fear of injury and pain are common stressors associated with illness and hospitalisation for preschool and school-aged children, although school-age children may appear to be "brave" and may not acknowledge their fears.

Interviews with parents indicated that their perceptions of the child's response to medical procedures and hospitalisation, including previous experiences,

were generally congruent with the information given by the child, as described above.

Two parents gave negative descriptions of their child's current emotional status, and three parents identified a change in their child's behaviour on the day of surgery. This change, however, was described in positive or neutral terms in each case. One parent identified a negative reaction from her child during a previous visit to a medical professional. It is significant that three parents reported that their child asked questions regarding their forthcoming hospitalisation in the week prior to the surgery, suggesting that the children had a need for further clarification and processing of information or emotions in this regard.

6.2.4 Parent's knowledge, understanding, and perceptions of the child's illness, surgery, hearing status and speech and language development

All parents acknowledged that the child's illness and surgery had been explained to them by the doctor and/or audiologist. However, on the basis of their fragmented and incomplete descriptions, parents' knowledge and understanding of their child's illness and surgery appeared limited and incomplete, rather than inaccurate, in most cases. A misconception regarding the nature of the illness was identified for two parents, who described the problem as being wax in the ears. Three parents provided accurate information regarding the possible cause of the problem, while five parents reported that they did not know the cause. Descriptions of the nature and goal of surgery were more detailed than those of the illness itself, suggesting that parents may have received or internalised more information in this regard. A misconception, namely that the goal of surgery was to remove wax from the ear, was identified for one parent. According to Rushforth (1999:686), as discussed in Chapter 3: 3.4.5, parents' own level of knowledge should never be assumed. Parents' understanding of and emotional response to the medical procedure should be carefully assessed prior to their involvement in the preparation process.

All parents believed that surgery was necessary for their child, with two parents emphasizing that this was based on the doctor's decision. Parents were poorly informed regarding the expected course of events of the Day Surgery Unit and seven parents reported that they received no explanation in this regard. Half of the parents reported that they did not know what to expect and half of them were not aware that they and the child could go home after the surgery. The latter is congruent with information obtained from child subjects in this regard, as reported above. The majority of parents did not know who would be discharging the child from hospital. According to Rushforth (1999:686), as discussed in Chapter 3: 3.4.5, parents need a clear understanding of the situation before they can effectively convey it to their children. The findings reported above indicate that this was not the case for most parents in this study.

Regarding the child's hearing status, seven parents reported this to be unsatisfactory. One parent inaccurately reported that the child had not had a hearing test when in fact this had been done at Tygerberg Hospital. Five of the six parents of children said to have had hearing tests reported that they received an explanation of the test results, but were unable to give details regarding the nature or degree of their child's hearing loss. Six parents were unable to describe possible factors relating to their child's hearing loss, while two parents accurately identified ear infection as a possible factor.

Regarding their child's speech and language development, half of parents identified this as an area of concern, while two of these also noted that concern was expressed by family members or other health professionals. This finding is in agreement with the viewpoint discussed in chapter 2:2.5; namely, that hearing loss caused by recurrent otitis media is associated with delayed speech and language development in children. According to Presslee, *et al.* (1997: 948), as noted in Chapter 1: 1.1, as well as Southall *et al.* (2000:1060), as noted in Chapter 4: 4.4.2, children should be given explanations and be prepared for medical procedures in language which is appropriate for their development. This information is thus relevant to the

process of compiling a developmentally appropriate hospital preparation program, through the language of play, and in the form of a story.

6.2.5 Parent's description of preparing the child for hospitalisation and parent's response to the child's hospitalisation

All parents except one reported having prepared their child for the forthcoming hospitalisation by means of talking, explaining or asking the child questions regarding the topic. The content of information reportedly given to the child by the parent appeared limited and in one case was inaccurate, and possibly reflecting the parent's own limited knowledge as discussed above. All parents acknowledged the necessity of preparing a child for hospitalisation. Reasons for this included facilitation of the child's knowledge and understanding of the event (1 subject) and addressing the child's emotional response (4 subjects). The majority of parents acknowledged the mother or parent's role in preparing children for hospitalisation, while two parents felt that medical personnel had a role to play. The involvement of parents is congruent with the comment by Rushforth (1999: 686), in Chapter 3: 3.4.5, that parents, may sometimes be the most appropriate people to give explanations to children.

Responses regarding the most appropriate timing for the preparation process varied from a few days to a few weeks / month before surgery. Issues relating to timing are discussed in Chapter 3: 3.4.1.3, where it is noted that children aged 5 to 12 years respond optimally when information is presented one week before surgery.

The majority of parents (6 subjects) gave a positive description of their own emotional state on the day of surgery, while two parents reported feelings of worry or anxiety regarding the surgery itself, which related to the perceived possibility of accidental bodily injury or death to the child. By comparison, the study by Li and Lam (2003: 882), as discussed in Chapter 1:1.2, indicated that paediatric day surgery caused relatively high pre-operative anxiety levels for both parents and children. Three parents acknowledged that they had questions or uncertainties regarding their child's illness, surgery or

hospitalisation and half of the parents felt that the information they had received was not adequate. The majority of parents reported that they had received adequate emotional support from family and friends (4 subjects) and nursing staff (2 subjects). The parental responses to the hospitalization of a child described above may be interpreted with reference to the discussion in Chapter 3: 3.3.1.3. The latter includes a list of stressors that heighten parents' anxiety and may interfere with their ability to support their child (LeRoy, *et al.* 2003:2551).

6.2.6 Medical staff's approach to discussing the child's illness and surgery with the parent and preparing the parent for the child's surgery and hospitalisation

There was some variation in opinion among doctors regarding the necessity of discussing specific aspects of the child's illness, surgery and hospitalisation with the parent. Some doctors regarded such discussion as helpful, but not essential. All doctors reported that they addressed the child's illness and surgery in detail with the parents and that this task was primarily the responsibility of the doctor. Both nurses were in agreement with the latter. Half of the doctors acknowledged the benefits of having information repeated and reinforced by another health care professional. All doctors and nurses acknowledged that the explanation of the hospitalisation process was primarily the responsibility of the nursing staff and both nurses reportedly addressed this aspect with parents. The above findings support the multidisciplinary team approach discussed in Chapter 3: 3.4.4.

While the above data is congruent with parents' report of the sources of explanations received, incongruencies are apparent between the information reportedly conveyed to parents by medical staff and the parents' reporting of the content thereof. While parents acknowledged that explanations were given by medical staff, this was not reflected in their own understanding and description of the issues at hand. This suggests a discrepancy between the level of information conveyed to parents by medical staff and the level of information understood and internalised by parents. Discrepancies are also

apparent regarding questions and uncertainties reported by parents on the day of surgery and medical staff's report on allowing opportunity for questions or expression of concern by parents prior to surgery.

Regarding the amount of time devoted by medical staff to the discussion of the above aspects with parents, significant variation among subjects was noted, with the majority spending 10 minutes or less on this task. It is possible that parents may be unable to take in large amounts of new and unfamiliar information within a short space of time. While all doctors reportedly reinforced their verbal explanations to parents by using objects or diagrams, nursing staff reportedly gave verbal explanations only.

6.2.7 Medical staff's approach to discussing the child's illness and surgery with the child and preparing the child for surgery and hospitalisation

Responses from medical staff indicated that discussions with children regarding the above were minimal for the majority of doctors and nurses, who identified the parent as the person primarily responsible for addressing these aspects with the child. The general opinion (3 doctors and 1 nurse) was that explanations need only be given in the case of an older child or if the child asks a question. This finding is congruent with the comment by Rushforth (1999: 683), as noted in Chapter 1: 1.1; namely, that hospital preparation for children is hindered by a widespread belief that it is very difficult to communicate aspects of care to very young children. However, it must be noted that during the interviews, additional comments made by medical staff, and particularly doctors, suggest that simply raising the topic of including children in discussions may have created increased awareness and challenged existing thought patterns in this regard amongst medical professionals. This confirms that the need exists to prepare the child thoroughly for surgery and hospitalisation.

6.2.8 Medical staff's report of parents' and children's questions and misconceptions

Medical staff listed a significant number of questions asked by parents regarding their child's illness, surgery and hospitalisation. A total of 36 different questions, which covered a broad range of relevant topics, but focused primarily on the surgery itself, were recorded during interviews with doctors and nurses. Various misconceptions held by parents were also identified. As previously discussed, parents also had unanswered questions when arriving at the hospital on the day of surgery. All of the above suggests that parents are in need of, and are actively seeking out, information and support.

In contrast to the above, medical staff reported a limited number of questions asked by children, with a total of 7 different questions recorded. Half of the doctors and both nurses reported that children seldom ask questions. This apparent tendency for children not to ask questions may be interpreted in various ways: children may be shy and need a more child-friendly approach, they may not have need for the same level of information and support as their parents, they may have received information and support from other sources such as their parents, or they may not be given ample opportunity to receive this or to ask questions. In view of the data obtained regarding parents' and children's own level of understanding of the child's medical condition and its management, as well as medical staff's views regarding the inclusion and preparation of children in this regard, the researcher is of the opinion that inadequate opportunity for receiving information and support may be a plausible explanation in at least some cases.

6.2.9 Medical staff's opinion regarding parents' and children's understanding of the child's illness, surgery and hospitalisation

The majority of medical staff reported that parents' level of understanding was variable and dependent on various factors. Nursing staff assumed that parents have a good understanding, based on the fact that parents usually

say they understand when asked. Most doctors expressed uncertainty regarding parents' level of understanding despite their affirmation of the latter. The tendency for patients to accept the doctor's decision without question or adequate insight in some cases was recognized. The majority of medical staff regarded children's level of understanding of their illness, surgery and hospitalisation as being inadequate, or influenced by factors such as age or parents' understanding. These findings suggest the need for a preparation program which facilitates increased understanding for both parents and children.

6.2.10 Medical staff's opinion regarding emotional support offered to parents and children with regard to the child's illness, surgery and hospitalisation

While nurses were of the opinion that adequate emotional support was offered to both parents and children, most doctors reported that this was inadequate. There was some acknowledgement that the emotional impact of a child's medical condition and management on the parent may be underestimated by medical staff. Parental response to the illness or hospitalisation of a child is discussed in Chapter 3: 3.3.1.3. The role of parents in providing emotional support to the child was emphasized by nurses and doctors and is congruent with the opinion of Rushforth (1999:686), as discussed above in 6.1.5.

6.2.11 Nurses' description of routine procedures and their role in preparing children for surgery and hospitalisation

Nurses' description of the routine procedures followed with children scheduled for grommets and / or adenoidectomy at the Day Surgery Unit indicated that this was a busy, fast-moving morning clinic and not the ideal context for the preparation of the child or parents for the procedures to follow. This is congruent with the researcher's own experience and observations while conducting research in the Day Surgery Unit. Nurses emphasized their role in informing the child and parent in advance regarding hospital procedures, as well as providing support and reassurance. It is important to note that the

patients' and parents' contact with nursing staff in this context is significantly greater than their contact with the doctor involved. The above findings suggest that nursing staff may play a significant role in preparing children for hospital, but that aspects relating to timing and work load are important considerations in the planning and implementation of such a program. This is congruent with the opinion of Rushforth (1999: 687), as discussed in Chapter 3: 3.4.4, that nurses, who have the most consistent contact with the child and family, should coordinate the information-giving process. However, various social, structural, organizational and environmental constraints may pose resistance and barriers to effective program implementation.

6.2.12 Additional comments and recommendations from medical staff

There was agreement among the majority of medical staff that the implementation of a hospital preparation program for children scheduled for grommets and/or adenoidectomy would be beneficial. However, limitations pertaining to time, facilities and human resources were pointed out. As noted in Chapter 3: 3.4.4, if members of the multidisciplinary team are to be motivated, they must see the perceived benefits to the patient and perceive that the preparation process will work.

Suggestions and recommendations from medical staff included the following:

- A group work session one week prior to surgery
- A tour of the Day Surgery Unit for parents and children
- A specifically appointed individual to run the program rather than increasing the responsibility of existing staff
- Active involvement of the parent in the preparation process
- The use of objects and diagrams to facilitate understanding
- The creation of a more child friendly physical environment in the children's ward of the Day Surgery Unit

6.2.13 Limitations of data collection procedures

Data collection procedures with child and parent subjects were negatively influenced by a number of organizational and timing aspects. Patients seldom arrived timeously for their admission to the Day Surgery Unit on the morning of the scheduled surgery. Furthermore, because of the brief surgery time required for the procedures performed, there was a rapid turnover of patients between the ward and the theatre. The researcher thus had limited time available for conducting interviews parents and children. As mentioned above, the interviews were sometimes interrupted or not completed because the child was called to theatre. These time restraints and pressures had a particularly negative effect on the process of interviewing children, since there was insufficient opportunity to create a relaxed atmosphere and establish a relationship with the child before beginning the interview. It is the researcher's opinion that these factors may have affected the nature of responses obtained from child subjects. In the case of the two parent subjects whose interviews were interrupted and completed subsequent to their children's admission to theatre, it is possible that the nature of these parents' responses may also have been influenced by timing aspects.

6.3 Proposed Hospital Preparation Program

6.3.1 Aim of the Program

The aim of the proposed program is the effective preparation of young children (aged 4 to 10 years) for the surgical procedures of grommet insertion or grommet insertion and adenoidectomy at Tygerberg Hospital by means of the application of Gestalt play therapy principles and techniques in a developmentally appropriate context.

6.3.2 Underlying principles

The program is based on the underlying principles of Gestalt therapy, which are discussed in detail in Chapter 4: 4.3.2, 4.5.1 and 4.6.1. These are summarized as follows:

Holism

The integrated, holistic functioning of a child, which includes physical, emotional, cognitive and behavioural aspects, is emphasized (Blom, 2004: 10). The child is viewed in the broader context of his or her existence and aspects such as family, culture and immediate environment are taken into account.

Awareness

The facilitation of awareness and contact making on a sensory, emotional and cognitive level, facilitates spontaneous change and increased capacity for personal choice, responsibility and self-regulation (Yontef, 1993: 144).

The here-and -now

Direct experience and awareness in the present takes preference over aspects pertaining to the past or future (Blom, 2004: 58).

Experimentation

The child is given the opportunity to discover and explore his or her own emotions and experiences and to reformulate responses within the safety of the therapeutic environment (Blom, 2004: 60).

The therapeutic relationship

The facilitation of an I-Thou relationship where both therapist and child are fully present and are considered on an equal level, is central to the Gestalt approach (Blom, 2004: 54).

6.3.3 Objectives of the Program

The objectives of the program, as stated below, are based on the principles referred to above as well as the information obtained from children, parents and medical staff in this research:

- To facilitate awareness and contact making in the child with regard to his present experience of illness, forthcoming surgery and hospitalisation, by addressing all levels of his Gestalt. This includes sensory and physical aspects, emotional aspects, cognitive aspects and behavioural aspects, as referred to in Chapter 4: 4.3.2.1. According to LeRoy, *et al.* (2003: 2251), as noted in Chapter 3: 3.3.2, the effects of stress, such as that associated with hospitalisation, are multifaceted, resulting in physiological, emotional, cognitive, behavioural and interpersonal changes.

Sensory and physical aspects

To explore physical aspects such as pain, discomfort and compromised hearing, as well as unfamiliar and potentially frightening sensory experiences in the hospital environment. As noted in Chapter 4: 4.7.2, children who are sick or in hospital may experience or anticipate negative bodily and/or sensory experiences, which should be brought into awareness.

Emotional aspects

To support children in the process of recognizing, identifying, expressing and owning their present emotions at a level appropriate to their development.

Emotional responses relating to developmental level, such as separation anxiety, guilt, shame and fear, are discussed in Chapter 3: 3.2.1 and 3.2.2 with reference to Erikson's theory.

Cognitive aspects

To provide children with factual information regarding their illness, surgery and hospitalisation, at a level appropriate to their development, and to facilitate their understanding and processing of this information. As discussed with reference to Rushforth (1993: 683) in Chapter 1: 1.2, there are clear links between information giving and reduction in fear, stress and post-operative pain.

Behavioural aspects

To give children the space to explore their own behavioural responses to the above aspects and offer support during their experimentation with new responses. According to Blom (2004; 180), as noted in Chapter 4:4.6.6, by enhancing children's awareness of their own process and behaviour, they are encouraged to take responsibility and begin experimenting with new behaviours.

- To involve the caregiver in the process of facilitating awareness and offering support to the child regarding the aspects above by means of information giving and emotional support. According to Southall, *et al.* (2000: 1056), as noted in Chapter 3: 3.4.5, engaging parents in the preparation process offers practical benefits that are important given the limitations of available preparation resources.

Information giving

To facilitate understanding and processing of factual information pertaining to the child's illness, surgery and hospitalisation by offering explanations using multisensory modalities, encouraging questions and repeating information.

This is motivated by findings by Hatava *et al,* (2000:447), as discussed in Chapter 1: 1.2. According to this study, parents who received specific information and preparation before their children had ENT surgery, reported more satisfaction and less anxiety.

Emotional support

To allow opportunity for the caregiver to verbalise positive or negative emotional responses relating to the child's illness, surgery and hospitalization and to offer acknowledgement and support in this regard. According to Leroy, *et al*., ((2003: 2558), as noted in Chapter 3: 3.4.5, goals for preparation should include addressing parental concerns and needs so that parents can be more emotionally available to their children.

- To guide children, by means of play, toward personal integration of all levels of functioning and subsequent self-supporting behaviour in the context of their illness, forthcoming surgery and hospitalisation. Vygotsky's concept of the zone of proximal development , as discussed in Chapter 3: 3.2.3, with reference to Thomas (2000: 308–309) , may be applied in this process.

6.3.4 Components of the Program

Two methods of play therapy are incorporated into the program, namely biblio-play and dramatized play. Biblioplay was discussed with reference to Ginns-Gruenberg and Zacks (1999: 455-456), Tucker (1981: 46;52) and Van der Merwe (1996: 110) in Chapter 4: 4.8.2. Dramatised play was discussed with reference to Oaklander (1988: 137;139;163) and Van der Merwe (1996: 128) in Chapter 4: 4.8.1. The use of these methods is motivated below with reference to the following unique characteristics of the population group as revealed in the results of the study:

- Hearing loss
- Poor speech and language development, particularly regarding abstract concepts

- Delayed developmental milestones and below average scholastic performance
- Limited exposure to toys and books

In addition, a component which focuses on providing the parent or caregiver with information and support is included in the study. This component is based on findings in this study that parents are expected to play an important role in preparation of the child, which not necessarily receiving adequate information and support themselves.

6.3.4.1 Biblio-play

A children's story, entitled "Hopsy Rabbit goes to Hospital" was written by the researcher and illustrated in the form of a colouring book using simple line drawings (see Appendix VII). The content incorporates factual information considered relevant to the child regarding his or her illness, surgery and hospitalisation, and is based on the procedures followed at Tygerberg Hospital. The story also addresses basic emotional responses relating to the above. Two written versions of the story exist, namely one for children scheduled for grommet insertion only and another for children who are also scheduled for adenoidectomy. Illustrations remain the same for both versions. Both versions are available in English and Afrikaans.

In compiling the story book, the researcher considered various factors highlighted by Tucker (1981: 46;52), as discussed in Chapter 4: 4.8.2. These factors are regarded by the researcher as relevant to the population under study, particularly with regard to the unique characteristics identified above, and have been applied in the story which is included in the program. The use of an animal character, namely a rabbit, in the story is supported by Tucker's (1981: 64-65) comments that animals are easy to identify with, since they transcend social class, skin colour and age. Like children, humanized animal characters are also generally at the mercy of adult humans. The rabbit character was selected to emphasise the ears, which are central to the topic.

By presenting the story in a colouring book, the researcher aims to facilitate sensory contact making in the child by allowing auditory, visual and tactile channels of experience. The above is relevant when considering the poor language skills and difficulties identifying emotional responses which were found in the population under study. Further sensory emphasis on a concrete, operational level is also achieved by means of portraying characters in the story in the form of stuffed soft toys, which may be manipulated by the children in a structured context or in free play. This may facilitate the expression of emotions by means of projection, as will be discussed in more detail in the discussion of dramatized play which follows.

The use of the story colouring book also aims to directly involve the parent in the process of preparing the child for medical treatment. The provision of a book which can be taken home before the scheduled surgery provides a reference source for information for both parent and child. Repeated reading of the story, as well as discussion while, for example, the child is engaged in the various colouring tasks allows for reinforcement and processing of information. The mutual reading of the story also facilitates improved parent-child interaction and sets the context for the child to ask questions and verbalise feelings.

6.3.4.2 Dramatised Play

Children scheduled for grommet insertion or grommet insertion and adenoidectomy will attend a play therapy session incorporating dramatized play approximately one week prior to the surgery. The story described above will be used to create a thematic context for the session. As noted by Hatava, *et al.* (2000: 447), in Chapter 1: 1.2, a program which included role play was more effective than conventional verbal information giving in alleviating pre-operative fear and anxiety in young children. The session should be conducted by a trained health professional, such as a play therapist, social worker, speech language therapist, occupational therapist or psychologist. Specific basic training in the Gestalt play therapy approach, such as attendance at a short introductory course, is recommended.

6.3.4.3 Caregiver Information and Support

In addition to preparing the child for surgery and hospitalisation, the story technique described above also indirectly aims to improve basic knowledge and insight in the caregiver regarding the child's illness, surgery and hospitalisation. A section at the back of the book is intended primarily for the parent and includes a basic diagram of the ear, an accompanying explanation of the problem and the proposed surgery, and a short list of the most commonly asked questions from caregivers as well as answers to these questions. Caregivers will also be given time to engage in dialogue with a trained professional and be encouraged to verbalise their own emotional responses to the child's illness and medical treatment within a supportive and non-judgmental therapeutic context. Opportunity will also be given to answer caregivers' questions, clarify misconceptions and repeat information where necessary.

6.3.5 Guidelines for Practical Implementation

The proposed program should be implemented over two sessions. The first session involves individual contact with the caregiver and child. The second session maybe conducted in an individual or group context. Guidelines for the content and proposed course of these sessions are outlined in tabular form as follows:

First Session

Timing

- The day on which the decision is made for grommet insertion or grommet insertion and adenoidectomy, and subsequent to the consultation by the doctor concerned

Goals

- Contact making between therapist and child
- Information giving and emotional support for the caregiver
- Equipping of caregiver to begin process of hospital preparation with the child at home.

Materials

- Story colouring book (appropriate version and language)
- Crayons / khokis

Content

- Explain aims of the hospital preparation and aims of the session to the caregiver.
- Make contact with the child, give simple explanation of purpose of visit and provide child with his or her own colouring book.
- Encourage the child to begin colouring while conversing further with the caregiver.
- Encourage parent to ask questions, express concerns and verbalise emotional responses regarding child's illness, surgery and hospitalisation.
- Reinforce knowledge and provide further explanations where necessary using visual illustrations included in the story colouring book.
- Encourage parent to prepare child for hospitalization by using the story and pictures in the colouring book as a reference for interaction and discussion.
- Encourage caregiver and child to attend the next preparation session and to bring the story colouring book with them.
- Optional: Provide child with a few crayons if there are none available at home.

Second session

Timing

- Approximately one week prior to the scheduled surgery

Goals

- Reinforce child(ren)'s understanding through information giving
- Encourage child(ren)'s sensory contact making and emotional expression through play
- Orientate child and caregiver to the day surgery unit

Materials

- Story picture book (as above)
- Soft toy animals representing story characters:
  Hopsy rabbit, mother rabbit, doctor rabbit and nurse rabbit
- Medical toy kit:
  Toy syringes, bandages, otoscope, stethoscope, thermometer, and blood pressure monitor
- Real life medical items:
  A selection of real life medical items which are safe for use with children in a supervised play context, such as disposable masks, theatre clothes, plasters, bandages and tongue depressors. It is also recommended that a grommet is shown to the child along with an appropriate explanation of how it will be used by the doctor.
- Additional toys:
  Toy bed, blanket, chair, plastic cup and plastic food

Content

- Read story to child(ren) to facilitate recall and establish a thematic context for play
- Introduce soft toy animals as they appear in the story
- Encourage child(ren) to re-enact the story or parts thereof using animals and other toys
- Ask questions pertaining to the story, focusing on both factual and emotional content

- Encourage child(ren) to relate aspects of the story to own personal experience
- Allow spontaneous play to facilitate:
  - ❖ increased sensory awareness and contact making
  - ❖ projection of own emotions and experiences
  - ❖ experimentation with new responses
- Optional: provide each child with a small knitted rabbit made and donated by volunteers from charity organizations
- Take child(ren and caregiver(s) on a brief tour on the day surgery unit and introduce staff
- Encourage child(ren) to bring book and knitted rabbit along to next visit.

6.4 Conclusion

The aim of this chapter was to present the results of the study, provide a detailed discussion and interpretation of these results, and apply these findings in the development of a hospital preparation program for children undergoing the surgical procedures of grommet insertion or grommet insertion and adenoidectomy. Background information relevant to the parent and child, as well as responses obtained from three subject groups, namely, children, parents and medical staff, were discussed and interpreted. This was followed by a detailed description of the proposed hospital preparation program, with reference to its aims, underlying principles, objectives and components. Guidelines for the practical implementation of the program were provided. The final chapter focuses on the evaluation of the program means of a pilot study. Recommendations with regard to practical implementation and further research are included.

CHAPTER 7: EVALUATION, RECOMMENDATIONS AND CONCLUSION

7.1 Evaluation: Piloting of the Program

The program was evaluated in a pilot study on a single subject; namely, a six year old English speaking girl. The subject met all the inclusion criteria for the study, with the exception that she was not scheduled for the day surgery theatre list at Tygerberg Hospital. Due to long waiting lists for the day surgery, and limitations in the time frame available for the completion of the study, the subject selected was scheduled for the insertion of grommets on a general theatre list of the Ear, Nose and Throat Department of Tygerberg Hospital. It was thus necessary for the subject to be admitted to the Ear, Nose and Throat ward on the day before surgery and to stay overnight at the hospital. The content of the hospital preparation program was thus adapted accordingly.

7.1.1 First Session

The researcher initially made contact with the subject and her mother one week prior to the day of the scheduled surgery. The first session took place subsequent to the subject's appointment at the Ear, Nose and Throat Out-patient Clinic, where the decision regarding the insertion of grommets was made. The therapist introduced herself to the child, provided her with her own colouring book and encouraged her to colour the pictures. The child made contact easily with the researcher and enthusiastically proceeded with the colouring task. The therapist engaged in conversation with the mother, which involved the following:

- Explaining the purpose of the hospital preparation program
- Explaining the nature of the child's illness and the nature of the proposed surgery, using the diagram of the ear included in the story colouring book
- Showing a set of grommets to the mother and explaining their placement and functioning in the ear
- Answering questions raised by the mother and clarifying uncertainties
- Offering emotional support to the mother

The parent presented with limited knowledge of the child's illness and the proposed surgery, since the doctor concerned had indicated that these aspects would be discussed with her in detail at the time of hospital admission, on the day prior to surgery. Specific questions raised by the parent pertained to the size of the grommets, how long they would remain in the ears, the length of the child's stay in hospital and whether or not the child would experience pain or discomfort. These aspects were clarified by the researcher as far as possible. The parent did not express any negative emotion or feelings of anxiety or worry with regard to the scheduled surgery and placed a greater emphasis on the need for accurate factual information.

The parent was encouraged to prepare the child for hospitalisation by using the story and pictures in the colouring book as a reference for interaction and discussion. It was advised that the parent adapt the story to suit the child's unique situation, particularly with regard to the fact that she would be staying overnight in the hospital. An appointment for the second session was made and the child was encouraged to continue colouring in her book and to bring her book along to the following session.

7.1.2 Second Session

The second session was conducted four days after the first session, and four days prior to the child's admission to hospital. The child brought her story colouring book to the session. She was eager to interact with the therapist and show her the coloured pictures. The therapist acknowledged her efforts and encouraged her to continue colouring while she spoke to her mother. The mother indicated that she had read the book to the child and used it to prepare the child for hospitalisation. She described her child as being very responsive to the process and noted that the child had also taken the book to her pre-school and asked the teacher to read it to her classmates. The mother described the book as being very helpful in preparing the child for what to expect at the hospital. She felt that the child subsequently had a good understanding of the process. The child had indicated to her that she felt

scared of sleeping overnight in the hospital. She had also asked to see what a grommet looked like.

The researcher conducted a play therapy session alone with the child while the parent waited outside the room. A video recording of the session was made. Materials used in the session included the child's picture story book, soft toy animals representing the story characters, a medical toy kit and real life medical items. The therapist began by introducing the soft toy animals and encouraging sensory awareness by emphasizing their various textures and scents. The child responded positively to this and spontaneously emphasized other sensory aspects in her play and conversation with the therapist; for example, she focused on the doctor character's toy stethoscope and described the sound of the heartbeat.

The child's own picture story book was used as a basis for retelling and role playing the story using the toys provided. During this activity, the therapist asked various questions pertaining to the content of the story, and in particular, the main character; namely, Hopsy. This was done in order to assess the child's level of understanding and to determine aspects relevant to the child's own experience. Opportunity for further self-expression and projection through the medium of play, well as further clarification by the therapist, was provided with reference to these aspects. The child described Hopsy's illness as being a hearing problem, and identified strongly with this by describing her own difficulties with hearing her mother and teacher talking to her at times. When asked how Hopsy's problem was addressed, the child verbalised that the doctor would "put something inside his ears and make him feel better". The therapist showed the child a set of grommets, emphasized the correct terminology (i.e. *grommets*) and allowed the child to manipulate them.

With regard to emotional aspects, the child described Hopsy as feeling "scared because he thought they were going to hurt him." She was able to identify the change in Hopsy's emotional state and described him as "happy" after the doctor had explained the operation to him. At this point, she

identified with Hopsy being given a colouring book by the doctor, describing the book as being “like mine”.

Subsequent to retelling the story, the therapist directed the conversation to a discussion of the child’s own illness and her forthcoming hospitalisation and surgery. Emphasis was placed on the aspect of staying overnight in hospital, since this was identified by the parent as an area of concern for the child. With the aid of pictorial stimuli, the child described her emotions in this regard as being ”scared “ and “a little bit shy”. These emotions were acknowledged by the therapist and possibilities for making the hospital visit easier were identified and discussed. These included bringing a familiar toy to accompany her, wearing her favourite pajamas and visiting the ward beforehand.

Subsequent to the play therapy session, the researcher accompanied the child and her mother to the ward where she was to be admitted. The child was introduced to the nursing staff and the children’s room was shown to the child and parent. Arrangements were made for the therapist to meet the child and her parent in the ward on the day of the scheduled surgery.

7.1.3 Third Session

The outcome of the pilot implementation of the program as described above was evaluated informally and qualitatively in a follow-up session with the child and parent on the day of hospital admission. Brief interviews were conducted with the parent and child, during which specific questions were asked by the researcher. The questions which were used are included in Appendix X and were based on sections of the interviews conducted with parents and children in the initial phase of the study.

The interview with the subject’s mother focused on two aspects; namely, the child’s response to hospitalisation and the parent’s response to the child’s hospitalisation. Regarding the child’s current emotional state, the mother described her as “fine, “not scared” and “so relaxed”. She emphasized the value and benefit of the story book and previous play therapy session and

reported a change in the child's emotional and behavioural response from one of fear and unwillingness to come to hospital to one of excitement and enthusiasm. The child was eager to return to the hospital and willingly packed her own overnight bag with toys of her choice. According to the mother, the child had a good understanding of the forthcoming procedure, mentioning that she "knows what to expect" and "knows exactly what is going to happen". The mother reported that the child was able to tell family and friends when she was going to hospital and what the doctor was going to do. She also explained the size and colour of the grommet to them and requested that they visit her in the hospital.

With regard to the parent's response to the child's hospitalisation, the mother reported that she felt "fine" and that "she (the child) is making it very easy for me … I don't have to calm her down or explain anything to her". The mother indicated that the information she had received regarding the child's illness, surgery and hospitalisation was adequate and that she had no further questions in this regard. She also felt that she had received adequate emotional support throughout the process. At the conclusion of the interview, the mother emphasized the overall positive effect of the hospital preparation program. She had no further suggestions or recommendations for its implementation.

The interview with the subject focused on two aspects; namely, her understanding and perceptions of her illness, hospitalisation and surgery, and her response to medical procedures and hospitalisation. The child was able to give a basic, accurate description of the nature of her illness ("I can't hear properly"), the reason for her hospitalisation ("put grommets in my ears to make me feel better") and the nature of the surgical procedure ("They going to make me to sleep and then they going to put it in"). She did not expect the procedure to be painful ("because I'll be sleeping") and was aware that she would be spending the night in the hospital prior to the surgery. She was uncertain about whether or not her mother would be with her immediately before and after the surgery, and these aspects were clarified by the researcher.

When asked about how she was currently feeling, the child responded that "I'm feeling better, but I can't hear". Picture stimuli were used to further probe for information regarding the child's emotional state and the reason for this. She indicated that she was feeling "very happy" because "my mommy is with me". The researcher ended the interview by giving the child an opportunity to ask the toy rabbit any questions if she wished. Her questions were: "How are you feeling, Hopsy?" and " How is your mommy feeling?" The researcher allowed the rabbit character to respond in a reassuring manner, which mirrored the previous responses given by the child and the parent during the interviews. The child appeared to be cheerful, enthusiastic and at ease throughout the interview, which was congruent with her mother's and her own reports.

7.1.4 Additional Comments

The outcome of the piloting of the hospital preparation program which was developed during this research suggests that the aim and objectives of the program, as outlined in the previous chapter, were achieved for the single subject. For the child, increased awareness and positive change was reported and observed at various levels of the Gestalt, including sensory, cognitive, emotional and behavioural aspects. The child's positive emotional state on the day before surgery, her capacity to verbally describe her understanding of the relevant topics and her positive behavioural response suggest that she benefited significantly from the hospital preparation program.

The objective of caregiver involvement by means of information giving and emotional support was also achieved. The mother was given adequate opportunity to raise questions and voice concerns, and these were resolved during the course of the program. The child's positive impact on the mother's emotional well-being and coping, as evident from the mother's comment cited above ("she is making it very easy for me … I don't have to calm her down or explain any thing to her"), is of particular relevance. This is evidence of the

child's self-supporting behaviour and suggests that the third objective of the program, namely to guide the child, through play, toward integration and self support at all levels of functioning, was achieved.

7.2 Recommendations

7.2.1 Recommendations for Clinical Practice

The following recommendations are made for the improvement and refining of the practical implementation of hospital preparation program which was developed in this research:

Implementation of the hospital program in a group context

Considering staffing, budget and time constraints in state hospitals, it is recommended that the hospital preparation program be implemented in a small group context.

Translation of the program into Xhosa

In order to accommodate the majority of language groups represented by the patient population of Tygerberg Hospital, it is recommended that the picture story book as well as guidelines for the implementation of the program be translated into Xhosa.

Training programs for health professionals and volunteers

The implementation of a Gestalt play therapy based hospital preparation program is dependent on the availability of suitably trained health professionals or volunteers. It is recommended that staff or volunteers attend a basic course in Gestalt play therapy and that they also receive specific training in the implementation of hospital preparation programs.

7.2.2 Recommendations for Further Research

The following recommendations pertaining to further research are made:

Implementation and testing of the existing program at Tygerberg Hospital

Subsequent to the pilot study which was conducted as a component of this research, it is recommended that the efficacy of the program be evaluated by means of a formal research procedure which involves a comparison of pre- and post- program measures and incorporates an adequate sample of subjects.

Modification, implementation and testing of the existing program in other contexts

The program may be modified in order to be implemented and evaluated in broader contexts such as other state hospitals and private hospitals.

Development of a general paediatric hospital preparation program

The current research focused on the development of a hospital preparation for a specific population of paediatric patients, namely, those scheduled for grommet insertion or grommet insertion and adenoidectomy. However, there is a need for a general hospital preparation program which can be adapted to suit the needs of a large variety of paediatric patients who are admitted to Tygerberg Hospital. Further research in this regard is recommended.

Hospital preparation for children: Opinions of medical staff

Interviews with doctors and nurses during the current research yielded varied opinions regarding the need for hospital preparation in children and the manner in which it may be conducted. This has implications for the implementation of hospital preparation programs and further research in this area is thus recommended.

Hospital preparation for children and training programs

It is recommended that suitable training programs which equip health professionals and volunteers to implement a Gestalt play therapy based hospital program, be developed, implemented and evaluated.

Identification of specific stressors for parents and children prior to a first hospital visit

In the current study, a significant number of the subjects used in the initial interviews had prior experiences of hospital admission, which may have biased the nature of the information obtained. It is recommended that further research be conducted to investigate the nature of stressors affecting children who have no previous experience of hospitalisation, as well as the stressors affecting their parents.

Verbal and other expression of emotion in children and parents

A general paucity in the emotive content of children's verbal responses, as well as responses to pictorial stimuli depicting emotion, was noted during this research. The vocabulary used by parents to express emotions was also observed to be limited. Further research into this aspect will provide valuable insight which maybe applied in the refining and expanding of hospital preparation programs for use with this population group.

7.3 Conclusion

This research involved the development of a hospital preparation program for children undergoing the surgical procedures of grommet insertion, or grommet insertion and adenoidectomy, at Tygerberg Hospital. The principles and techniques of Gestalt play therapy were applied and incorporated into the program. Information used for the compilation of the program was obtained from two sources: literature reviews and semi-structured interviews. Literature

was reviewed according to relevant topics, namely otitis media in children, Gestalt play therapy, theories of child development, and children's experience of illness and hospitalisation. Semi-structured interviews were conducted with four subject groups; namely, children, parents, doctors and nurses. The data obtained was qualitatively analysed according to various themes. Research findings were integrated and this information was applied in the development of the proposed program. The aim, underlying principles, objectives and components of the program were discussed and guidelines for implementation were provided. The program was implemented and evaluated in a single subject pilot study, which yielded a positive response with regard to the aim and objectives of the program. Recommendations for both practical implementation in a clinical context and further study in research context were made.

REFERENCES

Axline, V. 1993. *Play therapy*. New York: Houghton Mifflin.

Blaikie, N. 2001. *Designing social research*. Cambridge: Polity Press.

Blom, R. 2004. *Handbook of Gestalt play therapy. Practical guidelines for child therapists.* Fichardtpark: Rinda Blom.

Blom, R. & Dhansay, S. 2004. Gestalt play therapy with HIV/Aids children in middle childhood years. In Blom, R. *Handbook of Gestalt play therapy. Practical guidelines for child therapists.* Fichardtpark: Rinda Blom.

Cancer Resource. "Improving the preparatory education for all children aged 3-5 years receiving radiotherapy treatment." http://www.cancerresource.co.uk/impoving.htm (22 Nov. 2001). P. 1 – 10.

Collins Cobuild essential English dictionary. 1989. Sinclair, J., Hanks, P. & Fox, G. (Eds.) London: William Collins Sons & Co Ltd.

Darrow, D.H., Dash, N. & Derkay, C.S. 2003. Otitis media: concepts and controversies. *Current opinion in otolaryngology & head and neck surgery,* (11), month unknown: 416 – 423.

De Vos, A.S. 2002. *Research at grass roots for the social sciences and human services professions.* 2nd ed. Pretoria: Van Schaik.

Fouche, C.B. 2002a. Problem formulation. In De Vos, A.S. (Ed.) *Research at grass roots for the social sciences and human services professions.* 2nd ed. Pretoria: Van Schaik.

Fouche, C.B. 2002b. Research strategies. In De Vos, A.S. (Ed.) *Research at grass roots for the social sciences and human services professions.* 2nd ed. Pretoria: Van Schaik.

Fouche, C.B. & Delport, C.S.L. 2002. Introduction to the research process. In De Vos, A.S. (Ed***.)*** *Research at grass roots for the social sciences and human services professions.* 2nd ed. Pretoria: Van Schaik.

Ginns-Gruenberg, D. & Zacks, A. 1999. Bibliotherapy: The use of children's literature as a therapeutic tool. In Schaefer, C. (Ed.) *Innovative psychotherapy techniques in child and adolescent therapy.* 2nd ed. New York: John Wiley & Sons.

Greeff, M. Information collection: interviewing. In De Vos, A.S. (Ed.) *Research at grass roots for the social sciences and human services professions.* 2nd ed. Pretoria: Van Schaik.

Hall, S.M. 1999. Anesthesia for pediatric ear, nose, throat, and maxillofacial surgery. In Zaglaniczny, K & Aker, J. (Eds.) *Clinical guide to pediatric anesthesia.* Philadelphia: W.B. Saunders.

Hart, C. 1998. *Doing a literature review: Releasing the social science research imagination.* London: Sage Publications.

Hatava, P., Olsson, G.L. & Lagerkranser, M.D. 2000. Preoperative psychological preparation for children undergoing ENT operations: A comparison of two methods. *Paediatric anaesthesia,* 10(5), September: 447-486.

Jackson, C.G. 2001. Management of the drainage pressure equalisation tube. In Pensak,M.L. (Ed.) *Controversies in otolaryngology.* New York: Thieme.

Kirchner, M. 2000. Gestalt therapy: An overview. *Gestalt!*, 4(3), Autumn: 1 – 18. http:// www.g-g.org/gej/4-3/theoryoverview.html (18 March 2003).

Landreth, G.L. 2001. *Innovations in play therapy: Issues, process and special populations.* New York: Brunner-Routledge.

Leifer, G. (Ed.) 1993. *Introduction to maternity and pediatric nursing.* 3rd ed. Philadelphia: W.B. Saunders Company.

Leifer, G. 1999. The child's experience of hospitalisation. In *Introduction to maternity and pediatric nursing.* 3rd ed. Philadelphia: W.B. Saunders Company.

Leroy, S., Elixson, M., O' Brien, P., Tong, E., Turpin, R.N. & Uzark, K. 2003. Recommendations for preparing children and adolescents for invasive cardiac procedures. A statement from the American heart association pediatric nursing subcommittee of the council on cardiovascular nursing in collaboration with the council on cardiovascular diseases of the young. *Circulation*, 108 (20), month unknown: 2550-2576. http://circ.ahajournals.org/cgi/content/full/108/20/2550. (3 Jan. 2004).

Li, H.C.W. & Lam, H.Y.A. 2003. Paediatric day surgery: impact on Hong Kong Chinese children and their parents. *Journal of clinical nursing*,12(6), month unknown: 882 – 887.

McKinney, E.S., Ashwill, J.W., Murray, S.S., James, S.R., Gorrie, T.M. & Droskie, S.C. 2000. *Maternal-child nursing.* Philadelphia: W.B. Saunders.

Northern, J.L. & Downs, M.P. 2002. *Hearing in children.* 5th ed. Philadelphia: Lippincott Williams & Wilkins.

Oaklander, V. 1988. *Windows to our children.* New York: Gestalt Journal Press.

Oaklander, V. 1997. The therapeutic process with children and adolescents. *Gestalt review*, 1 (4): 292-317.

O' Conner, K. J. 2000. *The play therapy primer*, 2nd ed. New York: John Wiley & Sons, Inc.

O' Conner-Von, S. 2000. Preparing children for surgery – an integrative research review. *AORN journal*, February. http://www.findarticles.com/cf_dls/m0FSL/2_71/61182519/p1/article.jhtml (3 Jan. 2004).

Potsic, W.P., Cotton, R.T. & Handler, S.D. 1997. *Surgical pediatric otolaryngology.* New York: Thieme.

Presslee, D., May, L., Eastman, E. & Grier, D. 1997. The use of play therapy in the preparation of children undergoing MR imaging. *Clinical radiology*, (52), month unknown: 945 – 947.

Richter, G. & Murrow, B.W. 2001. Tonsils and adenoids. In Jafek, B.W. & Murrow, B.W. (Eds.) *ENT secrets.* 2nd ed. Philadelphia: Hanley & Belfus.

Roark, R. & Berman, S. 1996. Otitis media. In Northern, J.L. (Ed.) *Hearing Disorders.* 3rd ed. Boston: Allyn and Bacon.

Rushforth, H. 1999. Practitioner review: Communicating with hospitalised children: review and application of research pertaining to children's understanding of health and illness. *Journal of child psychology and psychiatry*, 40(5), month unknown: 683 – 691.

Schoeman, J.P. & Van der Merwe, M. 1996***. Entering the child's world: a play therapy approach.*** Pretoria: Kagiso.

Southall, D.P., Burr, S., Smith, R.D., Bull, D.N., Radford, A., Williams, A. & Nicholson, S. 2000. The child-friendly healthcare initiative (CFHI):

Healthcare provision in accordance with the UN convention on the rights of the child. *Paediatrics*, 106(5), November: 1054 – 1064.

Strydom, H. 2002. Ethical aspects of research in the social sciences and human service professions. In De Vos, A.S. (Ed***.)*** *Research at grass roots for the social sciences and human services professions.* 2nd ed. Pretoria: Van Schaik.

Strydom, H. & Delport, C.S.L 2002. Sampling and pilot study in qualitative research. In De Vos, A.S. (Ed***.)*** *Research at grass roots for the social sciences and human services professions.* 2nd ed. Pretoria: Van Schaik.

Strydom, H. & Venter, L. 2002. Sampling and sampling methods. In De Vos, A.S. (Ed.) *Research at grass roots for the social sciences and human services professions.* 2nd ed. Pretoria: Van Schaik.

Thomas, R.M. 2000. *Comparing theories of child development.* Santa Barbara: Wadsworth.

Todd, D.H., Stool, S.E. & Jafek, B.W. 2001. Otitis media and associated complications. In Jafek, B.W. & Murrow, B.W. (Eds.) *ENT secrets.* 2nd ed. Philadelphia: Hanley & Belfus.

Tucker, N. 1981. *The child and the book. A psychological and literary exploration.* Cambridge: Cambridge University Press.

United Nations General Assembly. 1989. *Convention on the rights of the child.* New York, NY: United Nations.

Van der Merwe. M. 1996. Biblio-play. In Schoeman, J.P. & Van der Merwe, M. *Entering the child's world: a play therapy approach.* Pretoria: Kagiso.

Van der Merwe. M. 1996. Dramatic play. In Schoeman, J.P. & Van der Merwe, M. *Entering the child's world: a play therapy approach.* Pretoria: Kagiso.

Webster's third new international dictionary of the English language unabridged. 1988. Babcock Cove, P. (Ed.) Massachusetts: Merriam-Webster Inc.

Yontef, G. 1993. *Awareness, Dialogue and Process: Essays on Gestalt therapy.* New York: Gestalt Journal Press.

APPENDIX I:

QUESTIONNAIRE FOR INTERVIEWS WITH CHILDREN

QUESTIONNAIRE FOR INTERVIEWS WITH CHILDREN

1. *Understanding and perceptions of illness, hospitalisation and surgery*

1.1 Why have you come to the hospital today?
1.2 What is going to happen here today?
1.3 Did someone talk to you about coming to the hospital today?
1.4 If yes to 1.3, who was it?
1.5 If yes to 1.3, what did he / she tell you?
1.6 How does it feel inside your ears today?
1.7 How are your ears hearing today? Very well / all right / not well
(Use visual aid to assist with this question)
1.8 What will the doctor do to make you better?
1.9 Did someone talk to you about the sickness inside your body?
1.10 If yes to 1.9, who was it?
1.11 If yes to 1.9, what did he / she tell you?
1.12 Why were you not allowed to eat or drink anything this morning?
1.13 Will you be sleeping or awake when the doctor works inside your ears today?
1.14 Will ……. (parent) be with you when you fall asleep?
1.15 What will make you fall asleep?
1.16 Who will be with you when you wake up?
1.17 Will you feel pain while the doctor is working inside your ears?
1,18 Can you eat or drink anything when the doctor is finished working inside your ears?
1.19 Where are you going to sleep tonight - at home or here in the hospital?

2. *Response to medical procedures and hospitalisation*

2.1 How do you feel now?
2.2 Show me which of these is how you are feeling now.
(Let child choose from a range of emotions [happy/sad/afraid/angry/calm/nervous] which are presented in verbal, written and pictorial form)
2.3 What is it that makes you feel ……. [emotion(s) identified by child] ?
2.4 How big is that feeling of …… [emotion(s) identified by child] ? (use visual aid)
2.5 Do you think you are behaving differently today than on other days?
2.6 If yes to 2.5, how is your behaviour different?
2.7 If yes to 2.5, what do you think is making you behave differently?

3. Previous experiences in medical settings

3.1 Can you tell me about some other times when you had to go to the doctor?
3.2 What happened when you went to the doctor?
3.3 What did the doctor do?
3.4 What did you do?

3.5 How did you feel when you went to the doctor?
3.6 Show me which of these is how you were feeling that time when you went to the doctor.
(Let child choose from a range of emotions [happy/sad/afraid/angry/calm/nervous] which are presented in verbal, written and pictorial form)
3.7 What was it that made you feel …….. [emotion(s) identified by child] when you were at the ctor before ?
3.8 How big was that feeling of ……. [emotion(s) identified by child] when you were at the doctor before ? (use visual aid)
3.9 Can you tell me about some other times when you had to go to see a nurse?
3.10 What happened when you went to see the nurse?
3.11 What did the nurse do?
3.12 What did you do?
3.13 How did you feel when you went to see the nurse?
3.14 Show me which of these is how you were feeling that time when you went to see the nurse.
(Let child choose from a range of emotions [happy/sad/afraid/angry/calm/nervous] which are presented in verbal, written and pictorial form)
3.15 What was it that made you feel …….. [emotion(s) identified by child] when you were at the nurse before ?
3.16 How big was that feeling of ……. [emotion(s) identified by child] when you were at the nurse before ? (use visual aid)
3.17 We are nearly finished now. Do you want to ask me any questions about what we have talked about?
3.18 Do you want to tell me anything?

APPENDIX II:

QUESTIONNAIRE FOR INTERVIEWS WITH PARENTS

QUESTIONNAIRE FOR INTERVIEWS WITH PARENTS

1. Background Information (child and parent)

Birth history

1.1 Was your child born at term or prematurely?
1.2 If prematurely, at how many weeks gestation?
1.3 Were there any medical problems or complications before your child's birth?
1.4 If yes to 1.3, can you describe what these were?
1.5 Were there any medical problems or complications during your child's birth?
1.6 If yes to 1.5, can you describe what these were?
1.7 Were there any medical problems or complications after your child's birth?
1.8 If yes to 1.7, can you describe what these were?

Medical history

1.9 Does your child suffer from any illnesses or medical conditions at the moment?
1.10 If yes to 1.9, can you explain what they are and how they are treated?
1.11 Has your child previously suffered from any illnesses or medical conditions?
1.12 If yes to 1.11, can you explain what they were and how they were treated?
1.13 Has your child undergone any previous medical procedures?
1.14 If yes to 1.13, can you describe what they were?
1.15 How many times has your child visited a doctor in the past 2 years?
1 – 3 times / 4 – 6 times / 7 – 9 times / > 9 times

Developmental milestones

1.16 How old was your child when he / she crawled for the first time?
1.17 How old was your child when he / she walked for the first time?
1.18 How old was your child when he / she said his / her first word?
1.19 How old was your child when he / she spoke in sentences?

Scholastic details and progress / Day care details

1.20 Does your child attend school?
1.21 If yes to 1.20, in what grade is your child at school?
1.22 If yes to 1.20, has your child repeated any grades?
1.23 If yes to 1.22, which grade(s)?
1.24 If yes to 1.20, would you describe your child's scholastic progress as good, satisfactory, or poor?
1.25 Does your child attend a day care?
1.26 If yes to 1.25, for how long has he / she attended a day care?
1.27 If yes to 1.25, are you satisfied with the amount of stimulation your child receives at day care?

1.28 Are you satisfied with your child's development in comparison to his/her peers?
1.29 If no to 1.28, what are your concerns?

Other
1.30 Are you the child's primary caregiver?
1.31 If no to 1.30, who is the child's primary caregiver?
1.32 What is your highest educational level?

2. *Otitis media, grommet insertion and adenoidectomy*

Parent's knowledge, understanding and perceptions regarding the child's illness, its cause, nature, medical and surgical treatment and expected outcomes
2.1 What is your child's medical problem?
2.2 What is the cause of this?
2.3 How has the problem been treated previously?
2.4 Why is your child having an operation today?
2.5 What will be done during the operation?
2.6 Do you think the operation is necessary?
2.7 What is the operation intended to achieve?
2.8 What do you expect will be the course of events for you and your child here today?
2.9 Who expained your child's illness to you?
2.10 Who explained the operation to you?
2.11 Who explained to you the expected course of events here today?
2.12 How many different doctors has your child seen regarding his / her ear problem?
2.13 Do you know which doctor who will do the operation today?
2.14 Do you know which doctor will discharge your child?

3. Child's hearing status

Parent's knowledge, understanding and perceptions
3.1 How would you describe your child's hearing at the moment?
3.2 Has your child's hearing been tested?
3.3 If yes to 3.2, when was the last test done?
3.4 If yes to 3.2, were the results of the hearing test explained to you?
3.5 If yes to 3.4, what do you understand about the results of the hearing test?
3.6 What could have an effect on your child's hearing?

4. Child's speech and language development

Parent 's knowledge, understanding and perceptions
4.1 How is your child's speech and language development compared to that

of other children of the same age?
4.2 Do you have any specific concerns about your child's speech and language development?
4.3 If yes to 4.2, what are your concerns?
4.4 Has any one else made comments / expressed concern about your child's speech and language?
4.5 If yes to 4.4, who made comments / expressed concern?
4.6 If yes to 4.4, what were the comments / concerns?

5. Play and Books

Child's level of play, exposure to specific toys, availability and exposure to books

5.1 What are your child's 3 favourite toys / play activities?
5.2 Which of the following are available in your home?
soft toys, cars, dolls, bikes, balls, battery operated toys, puzzles, colouring books, crayons/ khokis, TV games, computer games, story picture books
5.3 Is your child interested in story books?
5.4 Do you read books with your child?

6. Child's preparation for hospitalisation

6.1 Did you talk to your child about what will happen when you bring him / her to the hospital today?
6.2 If yes to 6.1, *when* did you talk to him / her about this?
6.3 If yes to 6.1, *what* did you tell him / her?
6.4 Do you think that it is necessary for your child to be prepared for coming to the hospital?
6.5 If yes to 6.4, *Why?* / If no to 6,4, *why not?*
6.6 If yes to 6.4, *how* should your child be prepared?
6.7 If yes to 6.4 *who* should prepare him / her?
6.8 If yes to 6.4 *when* should do you think is the best time to prepare him / her?
6.9 Do you have any recommendations and suggestions about preparing children for coming to hospital?

7. Child's response to hospitalisation

Specific emotional and behavioural responses

7.1 How would you describe your child's emotional state *today*?
7.2 How would you describe your child's emotional state *over the past week*?
7.3 Have you noticed any change in your child's behaviour *today*?
7.4 If yes to 7.3, please describe this change in behaviour.
7.5 Have you noticed any change in your child's behaviour *over the past*

week?

7.6 If yes to 7.5, please describe this change in behaviour.

7.7 What do you think your child understands about: his / her illness?

7.8 What do you think your child understands about the operation?

7.9 What do you think your child understands about what to expect here today?

8. Parent's response to child's hospitalisation

Specific emotional and behavioural responses; need for additional information and / or emotional support

8.1 How do you feel about what will be happening here today?

8.2 Are you worried / anxious about any aspect(s)?

8.3 If yes to 8.2, which aspect(s)?

8.4 Are you uncertain or do you have any questions about any aspect(s) of *your child's illness?*

8.5 If yes to 8.4 , which aspects of the *illness*?

8.6 Are you uncertain or do you have any questions about any aspect(s) of *the operation* your child will have today?

8.7 If yes to 8.6, which aspects of the *operation*?

8.8 Are you uncertain or do you have any questions about what to expect here today?

8.9 If yes to 8.8, please specify.

8.10 Has the information you received about *your child's illness* been adequate, or would you like more information?

8.11 Has the information you received about *your child's operation* been adequate, or would you like more information?

8.12 Has the information you received about *what to expect here today* been adequate, or would you like more information?

8.13 Have you received adequate emotional support regarding your child's hospital experience today, or are you needing more support?.

8.14 If you are needing more support, *from whom* would you like to receive this support?

9*. Child's previous experiences in medical settings*:

Child's specific emotional and behavioural responses to doctors, nurses, medical examinations and procedures

9.1 How would you describe your child's previous *emotional responses* when he / she has been examined by a *doctor*?

9.2 How would you describe your child's previous *behaviour* when he / she has been examined or treated by a *doctor*?

9.3 How would you describe your child's previous *emotional responses* when he/she has been examined by a *nurse*?

9.4 How would you describe your child's previous *behaviour* when he / she has been examined or treated by a *nurse*?

APPENDIX III:

QUESTIONNAIRE FOR INTERVIEWS WITH DOCTORS

QUESTIONNAIRE FOR INTERVIEWS WITH DOCTORS

1. Discussion of child's illness with parent

1.1 Which of the following aspects do you address with the *parent / caregiver* when a diagnosis of otitis media is made?

- Nature of the illness
- Possible cause of the illness
- Effect on hearing status
- Treatment
- Opportunity for parent to ask questions
- Opportunity for parent to express concerns

1.2 If yes to any aspects in 1.1, how much time per consultation do you devote to addressing these aspects with the parent?

1.3 If yes to any aspects in 1.1, *how* do you address these aspects with the parent?
Verbal / written / pictorial / diagrammatic / other

1.4 Do you think it is necessary to address the aspects listed above with the parent when a diagnosis of otitis media is made? Please motivate your answer for each aspect.

1.5 Whose responsibility do you think it is to address the abovementioned aspects with the parent?

2. Discussion of child's illness with child

2.1 Which of the following aspects do you address with *the child* when a diagnosis of otitis media is made?

- Nature of the illness
- Possible cause of the illness
- Effect on hearing status
- Treatment
- Opportunity for child to ask questions
- Opportunity for child to express concerns

2.2 If yes to any aspects in 2.1, how much time per consultation do you devote to addressing these aspects with the child?

2.3 If yes to any aspects in 2.1, *how* do you address these aspects with the child?
Verbal / written / pictorial / diagrammatic / toys / objects / other

2.4 Do you think it is necessary to address the aspects listed above with the child when a diagnosis of otitis media is made? Please motivate your answer for each aspect.

2.5 Whose responsibility do you think it is to address the abovementioned aspects with the child?

2.6 What do you think will be the most appropriate and effective way of addressing the abovementioned aspects with the child?

3. *Approach to preparing parent for child's surgery and hospitalisation*

3.1 Which of the following aspects do you address with the *parent* when a decision for grommets / grommets plus adenoidectomy is made?

- Reason for surgery
- Nature of the surgery
- Expected outcome of surgery
- Course of events at the hospital on the day of surgery
- Opportunity for parent to ask questions
- Opportunity for parent to express concerns

3.2 If yes to any aspects in 3.1, how much time per consultation do you devote to addressing these aspects with the parent?

3.3 If yes to 3.1, *how* do you address these aspects with the parent?
Verbal / written / pictorial / diagrammatic / other

3.4 Do you think it is necessary to address the aspects listed above with the parent when a decision for grommets / grommets plus adenoidectomy is made? Please motivate your answer for each aspect.

3.5 Whose responsibility do you think it is to address the abovementioned aspects with the parent?

4. *Approach to preparing child for surgery and hospitalisation*

4.1 Which of the following aspects do you address with the *child* when a decision for grommets / grommets plus adenoidectomy is made?

- Reason for surgery
- Nature of the surgery
- Expected outcome of surgery
- Course of events at the hospital on the day of surgery
- Opportunity for child to ask questions
- Opportunity for child to express concerns

4.2 If yes to any aspects in 4.1, how much time per consultation do you devote to addressing these aspects with the child?

4.3 If yes to any aspects in 4.1, how do you address these aspects with the child?
Verbal / written / pictorial / diagrammatic / toys / objects / other

4.4 Do you think it is necessary to address the aspects listed above with the child when a decision for grommets / grommets plus adenoidectomy is made? Please motivate your answer for each aspect.

4.5 Whose responsibility do you think it is to address the abovementioned aspects with the child?

4.6 What do you think will be the most appropriate and effective way of addressing the abovementioned aspects with the child?

5. Typical questions asked by parents regarding the illness, surgery and hospitalisation

5.1 What are the typical questions asked by parents regarding the illness?
5.2 What are the typical questions asked by parents/ caregivers regarding the surgery?
5.3 What are the typical questions asked by parents regarding the hospitalisation process?

6. Typical questions asked by children regarding the illness, surgery and hospitalisation

6.1 What are the typical questions asked by children regarding the illness?
6.2 What are the typical questions asked by children regarding the surgery?
6.2 What are the typical questions asked by children regarding the hospitalisation process?

7. Typical misconceptions held by parents regarding the illness, surgery and hospitalisation

7.1 What are the typical misconceptions held by parents regarding the illness?
7.2 What are the typical misconceptions held by parents regarding the surgery?
7.3 What are the typical misconceptions held by parents regarding the hospitalisation process?

8. Typical misconceptions held by children regarding the illness, surgery and hospitalisation

8.1 What are the typical misconceptions held by children regarding the illness?
8.2 What are the typical misconceptions held by children regarding the surgery?
8.3 What are the typical misconceptions held by children regarding the hospitalisation process?

9. *Opinion regarding adequacy of parents' understanding of the child's illness and forthcoming surgery and hospitalisation*

9.1 Do you feel that the parent's level of understanding regarding the child's illness is adequate? Please motivate your answer.
9.2 Do you feel that the parent's level of understanding regarding the child's forthcoming surgery is adequate? Please motivate your answer.
9.3 Do you feel that the parent's level of understanding regarding the process of hospitalisation is adequate? Please motivate your answer.

10. Opinion regarding adequacy of children's understanding of their illness and forthcoming surgery and hospitalisation

10.1 Do you feel that the child's level of understanding regarding his/her illness is adequate? Please motivate your answer.

10.2 Do you feel that the child's level of understanding regarding his/her forthcoming surgery is adequate? Please motivate your answer.
10.3 Do you feel that the child's level of understanding regarding the process of hospitalisation is adequate? Please motivate your answer.

11. Opinion regarding adequacy of emotional support offered to parents with regard to the child's illness and forthcoming surgery and hospitalisation

11.1 Do you feel that adequate emotional support is offered to the parent with regard to the child's illness? Please motivate your answer.
11.2 Do you feel that adequate emotional support is offered to the parent with regard to the child's forthcoming surgery? Please motivate your answer.
11.3 Do you feel that adequate emotional support is offered to the parent with regard to the process of hospitalisation? Please motivate your answer.

12. Opinion regarding adequacy of emotional support offered to children with regard to the child's illness and forthcoming surgery and hospitalisation

12.1 Do you feel that adequate emotional support is offered to the child with regard to his / her illness? Please motivate your answer.
12.2 Do you feel that adequate emotional support is offered to the child with regard to his / her forthcoming surgery? Please motivate your answer.
12.3 Do you feel that adequate emotional support is offered to the child with regard to the process of hospitalisation? Please motivate your answer.

13. Additional comments / recommendations regarding the preparation of children for day surgery, and specifically grommets and adenoidectomy

13.1 Do you have any additional comments / recommendations regarding the preparation of children for day surgery, and specifically grommet insertion and adenoidectomy?

APPENDIX IV:

QUESTIONNAIRE FOR INTERVIEWS WITH NURSES

QUESTIONNAIRE FOR INTERVIEWS WITH NURSES

Note: The questionnaire for interviews with nurses is the same as that used for interviews with doctors, with the addition of the following:

1. Description of procedure / routine from time of child's arrival at the day surgery unit until discharge

1.1 What is the routine procedure which is followed with a child and parent from the time of their arrival at the day surgery unit until discharge?

2. Description of nurse's role in preparing the child for hospitalisation and day surgery

2.1 What is the nurse's role in preparing the child for hospitalisation and day surgery?

APPENDIX V:

INFORMATION AND INFORMED CONSENT DOCUMENT
(PARTS I AND II)

INFORMATION AND INFORMED CONSENT DOCUMENT (PART I)

TITLE OF THE RESEARCH PROJECT:

A PROGRAM TO PREPARE CHILDREN FOR GROMMET INSERTION AND ADENOIDECTOMY: A GESTALT PLAY THERAPY APPROACH

REFERENCE NUMBER: ……

PRINCIPLE INVESTIGATOR: Ms J.D. Birkenstock

Address: Speech and Hearing Clinic, 5th floor
Tygerberg Hospital
Private Bag X3
TYGERBERG 7505

DECLARATION BY OR ON BEHALF OF PARTICIPANT(S):

(delete paragraph where not applicable)

MEDICAL STAFF:

I, THE UNDERSIGNED,……..*(name)*

[ID. No. ……], the participant, of ……

……*(address)*

or

PARENT / GUARDIAN:

I, THE UNDERSIGNED,……..*(name)*

[ID. No. ……], the participant, of ……

……*(address)*

and in my capacity as …….. of the patient {ID No:], also a participant,

of …….
……. *(address)*

A. HERBY CONFIRM AS FOLLOWS:

(delete paragraph where not applicable)

1. MEDICAL STAFF:

I was invited to participate in the abovementioned research project which is being undertaken by a Masters student at the University of South Africa, and in the Department of Otorhinolaryngology, Tygerberg hospital.

or

1. PARENT / GUARDIAN:

My child (the patient) and I were invited to participate in the abovementioned research project which is being undertaken by a Masters student at the University of South Africa, and in the Department of Otorhinolaryngology, Tygerberg hospital.

2. The following aspects have been explained to me:

2.1 **Aim**:

The aim of the research project is to develop a program to prepare children for grommet insertion, or grommet insertion and adenoidectomy. The program will be based on a play therapy approach and will incorporate information giving and emotional support.

2.2 Procedures:

The investigator will conduct an individual interview with each participant in the project. It is expected that 8 children, their parents / guardians, 4 doctors and 2 nurses will participate. The interview will be conducted in order to obtain information which will be used in the process of compiling the program described above. Interviews with children and their parents / guardians will be conducted at the Day Surgery Unit of Tygerberg Hospital on the day of the scheduled surgery. Interviews with doctors and nurses will be conducted at Tygerberg Hospital at a time convenient for the participants and researcher. The duration of the interview

will be 30 to 45 minutes. An audio and/or video tape recording will be made of the interview.

2.3 Risks:

There are no risks to the participants in this research.

2.4 Possible benefits:

This research project will be conducted for academic purposes only and there will be no benefit to participants

2.5 Confidentiality:

All interviews will take place in privacy and the information obtained will be treated as confidential. The results of the study will be included in a thesis and may appear in a publication. The identity of participants will not be disclosed.

2.6 Access to findings:

Participants may request the results of the research project in written form from the investigator subsequent to the completion of the project.

2.7 Voluntary participation / refusal / discontinuation:

Participation in the research project is voluntary and the participant is free to withdraw from the project at any stage. Withdrawal from the project will not prejudice the participant's present or future treatment at Tygerberg Hospital in any way. The researcher may withdraw a participant should she feel that it would be in the participant's best interest.

3. The information above was explained to me by …….. in English and I am in command of this language. I was given the opportunity to ask questions and all these questions were answered satisfactorily.

4. No pressure was exerted on me or on the patient *(delete where not applicable) t*o consent to participation and I understand that I and/or the patient *(delete where not applicable)* may withdraw at any stage without penalization.

5. Participation in this study will not result in any additional costs to myself or to the patient.

B. (delete paragraph where not applicable)

MEDICAL STAFF:

Hereby consent voluntarily to participate in the abovementioned project

Signed/confirmed at ……*(place*) on ……20…. *(date)*

…… ……..

Signature or right thumb print of participant *Signature of witness*

or

PARENT / GUARDIAN:

Hereby consent voluntarily to participate in the abovementioned project and consent that the patient may also participate in the study. I confirm that the patient has verbally and voluntarily consented to participate in the study following an appropriate explanation given to the patient by the researcher in my presence.

Signed/confirmed at ……*(place)* on ……20*….(date)*

…… ……..

Signature or right thumb print of participant *Signature of witness*

and parent / legal guardian of the patient, also a participant

PATIENT:

The information presented on the previous pages has been explained to me. I agree to participate in this study.

Signed/confirmed at *……(place)* on ……20*….(date)*

…… ……..

Signature or right thumb print of patient *Signature of witness*

STATEMENT BY INVESTIGATOR:

I, …… , declare that

- I explained the information given in this document to ……..
  ……. ;
- he/she/they were encouraged and given ample time to ask me any questions;
- this conversation was conducted in English and no translator was used.

Signed at ……*(place)* on ……20*….(date)*

…… ……..

Signature of investigator *Signature of witness*

INFORMATION AND INFORMED CONSENT DOCUMENT (PART II)

TITLE OF THE RESEARCH PROJECT:

A PROGRAM TO PREPARE CHILDREN FOR GROMMET INSERTION AND ADENOIDECTOMY: A GESTALT PLAY THERAPY APPROACH

REFERENCE NUMBER: ……

PRINCIPLE INVESTIGATOR: Ms J.D. Birkenstock

Address: Speech and Hearing Clinic, 5th floor
Tygerberg Hospital
Private Bag X3
TYGERBERG 7505

DECLARATION BY OR ON BEHALF OF PARTICIPANT(S):

PARENT / GUARDIAN:

I, THE UNDERSIGNED,……*(name)*
[ID. No. ……], the participant, of
……
……*(address)*
and in my capacity as …….. of the patient
{ID No:], also a participant,
of ……
…… *(address)*

A. HEREBY CONFIRM AS FOLLOWS:

1. PARENT / GUARDIAN:

My child (the patient) and I were invited to participate in the abovementioned research project which is being undertaken by a Masters student at the University of South Africa, and in the Department of Otorhinolaryngology, Tygerberg hospital.

2. The following aspects have been explained to me:

2.2 **Aim**:

The aim of the research project is to develop a program to prepare children for grommet insertion, or grommet insertion and adenoidectomy. The program will be based on a play therapy approach and will incorporate information giving and emotional support.

2.3 **Procedures**:

Participation in two sessions with the investigator is required:

First session:

The investigator will conduct a therapy session with the participant (patient) and his / her parent / guardian before the date of the patient's scheduled surgery for grommet insertion or grommet insertion and adenoidectomy at Tygerberg Hospital. The program described above will be implemented during the session. The session will take place at Tygerberg Hospital at a time convenient to the parties involved. The duration of the session will be 45 to 60 minutes. An audio and/or video tape recording will be made of the session.

Second session:

Informal interviews with the participant (patient) and his / her parent guardian will be conducted at Tygerberg Hospital on the day of the scheduled surgery.

The interviews will be conducted in order to obtain information regarding the outcome of the implementation of the program described above. The duration of the interview will be 30 to 45 minutes. An audio and / or video tape recording will be made of the interview.

2.5 Risks:

There are no risks to the participants in this research.

2.6 Possible benefits:

This research project will be conducted for academic purposes only and there will be no benefit to participants

2.5 Confidentiality:

All interviews will take place in privacy and the information obtained will be treated as confidential. The results of the study will be included in a thesis and may appear in a publication. The identity of participants will not be disclosed.

2.8 Access to findings:

Participants may request the results of the research project in written form from the investigator subsequent to the completion of the project.

2.9 Voluntary participation / refusal / discontinuation:

Participation in the research project is voluntary and the participant is free to withdraw from the project at any stage. Withdrawal from the project will not prejudice the participant's present or future treatment at Tygerberg Hospital in any way. The researcher may withdraw a participant should she feel that it would be in the participant's best interest.

3. The information above was explained to me by …….. in English and I am in command of this language. I was given the opportunity to ask questions and all these questions were answered satisfactorily.

4. No pressure was exerted on me or on the patient to consent to participation and understand that I and/or the patient may withdraw at any stage without penalization.

5. Participation in this study will not result in any additional costs to myself or to the patient.

C.

PARENT / GUARDIAN:

Hereby consent voluntarily to participate in the abovementioned project and consent that the patient may also participate in the study. I confirm that the patient has verbally and voluntarily consented to participate in the study following an appropriate explanation given to the patient by the researcher in my presence.

Signed/confirmed at ……*(place)* on ……20*….(date)*

…… ……..

Signature or right thumb print of participant and parent / legal guardian of the patient, also a participant

Signature of witness

PATIENT:

The information presented on the previous pages has been explained to me. I agree to participate in this study.

Signed/confirmed at ……*(place)* on ……20*….(date)*

…… ……..

Signature or right thumb print of patient

Signature of witness

STATEMENT BY INVESTIGATOR:

I, …… , declare that

- I explained the information given in this document to ……;
- he/she/they were encouraged and given ample time to ask me any questions;
- this conversation was conducted in English and no translator was used.

Signed at ……*(place)* on ……20*….(date)*

…… ……

Signature of investigator

Signature of witness

APPENDIX VI:

PICTORIAL STIMULI USED TO ELICIT RESPONSES FROM CHILDREN

Diagrams used to depict emotions during interviews with children

Gelukkig

Happy

Hartseer

Sad

Kwaad

Angry

Bang

Scared

Kalm

Calm

Diagrams used to depict the intensity of various emotions during interviews with children

APPENDIX VII:

ANALYSIS OF DATA

1. INTERVIEWS WITH CHILDREN

1.1 Child's understanding and perceptions of illness, hospitalization and surgery

Topic of Question	*Child's Response*
Reason for coming to hospital today	For ears: 6 subjects For hearing problem: 1 subject For grommets: 1 subject No response: 1 subject
Description of what will happen	I am going to take my fluid out: 1 subject The grommets will let me hear: 1 subject Put a tube in: 1 subject No response / shakes head: 5 subjects
Discussion with adult about coming to hospital	Yes: 5 subjects No: 2 subjects No response 1 subject
Person who discussed topic with child	Mother: 4 subjects No response: 1 subject
Content of discussion of topic	I must not eat: 1 subject I'm going to get grommets: 1 subject I am going to the hospital / coming here today: 2 subjects
Status of ears today	Better: 2 subjects Fine: 2 subjects Sore: 1 subject Not sore: 1 subject All right: 1 subject No response: 1 subject
Status of hearing today	Hearing badly / not nicely: 4 subjects Hearing a little bit good: 2 subjects Hearing very well: 1 subject No response: 1 subject
Actions expected from doctor today	Put grommet / tube in: 2 subjects Operation; look in ear: 2 subjects Don't know: 2 subjects No response: 2 subjects
Explanation of illness given by another person	Yes: 4 subjects No: 2 subjects No response: 2 subjects
Person who gave explanation of illness	Friend: 1 subject Mother: 3 subjects Grandmother: 1 subject

Content of explanation given about illness	I'm going to hospital to let the nurse look in my ears: 1 subject My ear is better: 1 subject I can't remember: 1 subject No response: 2 subjects
Reason for nil per mouth status	Mother said so: 3 subjects Doctor said so: 1 subject I'm going to the hospital: 1 subject They are going to do an operation: 1 subject I'm going to get grommets / tubes: 2 subjects I drank this morning: 1 subject No response: 1 subject
Asleep or awake during surgery	Asleep: 5 subjects Awake: 2 subjects No response: 1 subject
Presence of parent when child falls asleep	Yes: 3 subjects No: 2 subjects
Means by which child will fall asleep	Injection: 3 subjects No response: 2 subjects
Person who will be present when child wakes up	Mother: 5 subjects
Presence of pain while doctor performs procedure	Yes: 3 subjects No: 5 subjects
Permitted to have food / drink after procedure	Yes: 8 subjects
Sleeping at home or hospital this evening	Home: 4 subjects Hospital: 3 subjects Don't know: 1 subject

1.2 Child's response to medical procedures and hospitalisation

Topic of Question	*Child's Response*
Verbal description of feelings today	Fine: 5 subjects Nice: 1 subject Better: 1 subject All right: 1 subject No response: 1 subject
Identification of feelings using picture cards of faces expressing emotions (happy, sad, angry, scared, calm)	Happy: 7 subjects Calm: 2 subjects Sad: 1 subject (query comprehension) (See Appendix VI)
Intensity of emotions expressed above using picture cards expressing 3 intensities for each emotion	Very happy: 5 subjects Moderately happy: 1 subject Very calm: 1subject

	(See Appendix VI)
Reason for emotions expressed above	I am glad they are going to take my fluid out 1 subject Don't know: 1 subject No response: 3 subjects
Behaviour the same or different today compared to other days Manner in which behaviour is different	Different: 4 subjects No response: 1 subject Response reflecting poor understanding of question: 2 subjects I am being good: 1 subject I am being half-good and half-naughty: 1 subject No response: 2 subjects
Reason for behaviour being different	I am very calm: 1 subject I am getting my grommets: 1 subject Don't know: 2 subjects No response: 1 subject

1.3 Child's previous experiences in medical settings

Topic of Question	*Child's Response*
Description of previous visits to a doctor	Subject 1: It was nice….He took the dirt out of my ears and cleaned it…I sat on the thing, then he said I must lie there on the bed. When he was finished he said I could go home. Subject 2: Some doctors did look in my ear. Other doctors did look in my throat and they took out my tonsils… (I) just lay on the bed. Subject 3: They squirted water. Subject 4: They bought me suckers and chips – the doctor that rode with us. We played with toys. …They tested my ears…They looked in my ears… (The doctor) gave an injection in my ear. I had to sit, then I had to tap on the table. Subject 5: (The doctor) just look at my ears… (I was) just looking around. Subject 6: no response Subject 7: I got medicine, and pills, and everything… (I) ate and sat. Subject 8: They looked in my ears, looked in my throat. I sat there.
Verbal description of feelings during previous visits to a doctor	Nice: 4 subjects Happy: 1 subject Calm: 1 subject Not sore: 1 subject All right: 1 subject

Identification of feelings during previous visits to a doctor using picture cards of faces expressing emotions	Happy: 5 subjects Calm: 1 subject (See Appendix VI)
Intensity of emotions expressed above using picture cards expressing 3 intensities for each emotion	Very happy: 3 subjects Moderately happy: 1 subject Very calm: 1 subject Moderately calm: 1 subject (See Appendix VI)
Reason for emotions expressed above	Don't know: 1 subject No response: 2 subjects
Description of previous visits to a nurse	Subject 1: It was nice there… I sat there. Subject 2: (I was) scared…She put a thing here under my arm. She pricked my finger…I sat still. Subject 3: She squeezed the blood out. Subject 4: (She) gave an injection. I had to stand on that thing – how much I weigh. Then they gave me medicine. Subject 5: (She) look at my ears. Subject 6: At doctor (query comprehension) Subject 7: (I) can't remember. (She) made the bed… pricked me here (shows finger)… (I) sat. Subject 8: I was at the nurse already… (She) looked in my ears… I sat there.
Verbal description of feelings during previous visits to a nurse	Nice: 1 subject Scared: 1 subject Happy: 2 subjects Not nice: 1 subject Calm: 1 subject
Identification of feelings during previous visits to a nurse using picture cards of faces expressing emotions	Happy: 2 subjects Sad: 2 subjects Calm: 1 subject (See Appendix VI)
Intensity of emotions expressed above using picture cards expressing 3 intensities for each emotion	Very happy: 2 subjects Very sad: 2 subjects Very calm: 1 subject (See Appendix VI)
Reason for emotions expressed above	They hurt a person: 1 subject No response: 1 subject

2. INTERVIEWS WITH PARENTS

2.1 Background information pertaining to the child and parent:

Topic of Question	*Parent's Response*
Birth History	Normal birth history: 5 subjects Premature birth: 2 subjects Pre-, peri-, or post-natal complications: 3 subjects
Medical history	Previous hospital admission: 6 subjects Previous surgery: 4 subjects Previous grommet insertion: 2 subjects Previous adenoidectomy: 1 subject
Developmental milestones	Normal speech and motor milestones: 4 subjects Delayed speech and motor milestones: 2 subjects Delayed speech and normal motor milestones: 2 subjects
Scholastic details and progress	Attending mainstream school: 6 subjects Attending school for children with special learning needs: 1 subject Attending nursery school / day care: 1 subject Good scholastic progress: 1 subject Satisfactory scholastic progress; 4 subjects Poor scholastic progress: 2 subjects Previously repeated a grade: 2 subjects
Primary caregiver	Biological mother: 8 subjects
Educational level of parent	Grade 10 – Grade 12: 6 subjects Grade 3 - Grade 7: 2 subjects

2.2 Otitis media, grommet insertion and adenoidectomy: parent's knowledge, understanding and perceptions

Topic of Question	*Parent's Response*
Description of problem	Poor hearing: 5 subjects Ear infection: 5 subjects Fluid in the ears: 3 subjects Wax in the ears: 2 subjects Painful ears: 1 subject
Cause of problem:	Don't know: 5 subjects Fluid behind the eardrum: 1 subject: Sagging eardrum: 1 subject Frequent colds: 1 subject Normal growth and development: 1 subject
Previous treatment	Ears cleaned and syringed: 1 subject Antibiotics given: 2 subjects Eardrops given: 3 subjects

	Hearing tested: 2 subjects Grommets inserted: 2 subjects Adenoids removed and sinuses flushed: 1 subject
Reason for / goal of surgery	To improve hearing: 6 subjects To drain fluid from the ear: 4 subjects To reduce ear pain: 1 subject To improve school work: 2 subjects
Nature of surgery	Make an incision / small hole: 2 subjects Put in a small tube / grommet: 5 subjects Remove fluid: 3 subjects Remove wax: 1 subject Tube will gradually fall out: 1 subject Give anaesthetic: 1 subject
Necessity of surgery	Yes: 8 subjects Reasons: to improve hearing: 4 subjects to prevent hearing deterioration: 3 subjects to reduce ear pain; 1 subject doctor said so: 2 subjects
Expected course of events at Day Surgery	Don't know: 4 subjects Can go home afterwards: 4 subjects Parent accompanies child to theatre: 1 subject
Person who explained illness to parent	Doctor: 7 subjects Audiologist: 1 subject
Person who explained surgery to parent	Doctor: 8 subjects Anaesthetist: 1 subject
Person who explained course of events at Day Surgery Person discharging child from hospital	No-one explained: 7 subjects Nurse: 1 subject Don't know: 6 subjects Nurse: 2 subjects

2.3 Child's hearing status:
Parent's knowledge, understanding and perceptions

Topic of Question	*Parent's Response*
Description of child's hearing	Satisfactory: 1 subject Not satisfactory: 7 subjects Child irritable and inattentive: 1 subject
Hearing test done	Yes: 6 subjects No: 2 subjects
Parent's understanding of explanation of hearing test	Problem with one ear; surgery required: 1 subject Problem with one ear; child going deaf: 1 subject One ear not hearing 100 percent: 1 subject Fluid behind ear; child sensitive to high pitched sounds: 1 subject Child cannot hear because something in ear is not

	vibrating as it should: 1 subject No explanation was given: 1 subject
Possible factors influencing hearing	Fluid behind ears / ear infection: 2 subjects Don't know: 6 subjects

2.4 Child's speech and language development: Parent's knowledge, understanding and perceptions

Topic of Question	*Parent's Response*
Description of child's speech and language compares to peers	Poor: 4 subjects Adequate; no concerns: 4 subjects
Comments / concerns expressed by others	None: 6 subjects Family members: 1 subject Occupational therapist: 1 subject

2.5 Child's level of play and exposure to specific toys and books

Topic of Question	*Child's Response*
Child's favourite toys / play activities	Playing pool: 3 subjects Riding bike: 2 subjects Dolls: 2 subjects Sand and water, clay, spinning top, swords, guns, television, summersaults, wrestling, spinning top, running around: 1 subject for each
Toys available at home:	Crayons / khokis: 8 subjects Balls; soft toys: 7 subjects Cars, dolls, colouring books: 6 subjects Bikes: 5 subjects Story books: 4 subjects Puzzles: 3 subjects Battery operated toys: 2 subjects TV games; computer games: 1 subject each
Child interested in books	Yes: 3 subjects No: 3 subjects Don't know: 3 subjects
Parents read books with child	Yes: 4 subjects No: 4 subjects

2.6 Child's preparation for hospitalisation

Topic of Question	*Parent's Response*
Parent-child discussion regarding hospitalisation	Yes: 7 subjects No: 1 subject
Timing of discussion	Day before as well as morning before: 3 subjects Two days before: 1 subject

	One week before: 1 subject Three months before: 2 subjects
Information given to child by parent	Doctor will opera te; 3 subjects Put in grommets / tubes: 4 subjects Put in a small ball: 1 subject So that hearing improves: 4 subjects
Necessity of preparing child for hospitalisation	Yes: 8 subjects
Reasons why necessary to prepare child	Facilitate child's knowledge and understanding of event: 1 subject Address child's emotional response: 4 subjects
Way in which child should be prepared	Talking / explaining: 6 subjects Asking child questions about topic: 1 subject Don't know: 2 subjects
Person(s) who should prepare child	Mother / parent: 7 subjects Doctor / nurse: 2 subjects
Best time to prepare the child	A few days before surgery: 3 subjects A week before surgery: 1 subject: A few weeks / a month before surgery: 4 subjects
Recommendations / suggestions regarding child's preparation	Preparation of child is mother's role and should begin at home: 1 subject None: 7 subjects

2.7 Parent's perception of child's response to hospitalisation

Topic of Question	*Parent's Response*
Child's emotional state today	Happy: 3 subjects Scared: 1 subject Not scared: 2 subjects Nervous energy: 1 subject Confident: 1 subject Expectant: 1 subject Good: 1 subject Don't know: 1 subject
Change in child's behaviour today	Yes: 3 subjects No: 5 subjects
Nature of change in child's behaviour today	More cooperative / responsive toward researcher than expected: 1 subject More shy: 1 subject Very sleepy: 1 subject
Change in child's behaviour over past Week	Yes: 3 subjects No: 5 subjects
Nature of change in child's behaviour over past week	Asked questions about going to hospital: 3 subjects

Child's understanding about illness, operation and hospitalisation process	Good understanding: 4 subjects Limited understanding: 3 subjects Don't know: 1 subject

2.8 Parent's response to child's hospitalisation

Topic of Question	*Parent's Response*
Parent's description of own emotional response today	Satisfied and reassured: 1 subject Fine: 2 subjects Happy: 2 subjects Calm: 1 subject Worried / Anxious: 2 subjects
Reasons for feelings of worry / anxiety	Child may not wake up after surgery: 1 subject Doctors are working near the brain and may make a wrong cut: 1 subject
Questions/uncertainties about aspects of child's illness/surgery/hospitalisation	Yes: 3 subjects No: 5 subjects
Nature of questions / uncertainties	Exact procedure of surgery: 2 subjects When can child go home: 1 subject When can child go to school: 1 subject
Adequacy of information received	Adequate: 4 subjects Inadequate: 4 subjects
Areas of inadequacy of information received	All aspects: 1 subject Hospitalisation process: 2 subjects Cannot identify areas: 1 subject
Adequacy of emotional support received	Adequate: 7 subjects Inadequate: 1 subject
Sources of emotional support	Family / friends / church: 4 subjects Nurses: 2 subjects Don't know: 2 subjects

2.9 Parent's perception of child's previous experiences in medical settings

Topic of Question	*Parent's Response*
Child's previous emotional responses when examined by a doctor / nurse	Nervous: 2 subjects Fine: 3 subjects Happy: 1 subject Not scared: 3 subjects Calm: 1 subject
Child's previous behaviour when examined by a doctor / nurse	Calm and obedient: 1 subject Well behaved: 1 subject Normal: 1 subject Cooperative: 2 subjects Quiet: 1 subject

	Helpful: 1 subject Curious: 1 subject Crying: 1 subject

3. INTERVIEWS WITH DOCTORS AND NURSES

3.1 Approach to discussing child's illness and surgery with parent

Topic of Question	Doctor / Nurse's Response
Aspects addressed with parent / caregiver when otitis media is diagnosed	Nature, possible cause, treatment, effect on hearing and opportunity to ask questions / express concerns: 3 doctors; 0 nurses All of the above except cause – will only explained if asked: 1 doctor
Opinion regarding necessity of addressing above aspects with parent/caregiver when otitis media is diagnosed	Discussion of all of the above aspects is necessary: 2 doctors; 2 nurse Discussion of all of the above aspects except cause is necessary: 1 doctor Discussion of all of the above aspects is not absolutely necessary: 1 doctor
Person responsible for addressing above aspects with parent/ caregiver	Doctor's responsibility only: 2 doctors; 2 nurses Doctor's responsibility, but helpful if information can be paramedical professional, eg. nurse; audiologist. Reasons: such person may relate better to people; different people may focus on different aspects or focus from a differe nt angle.

3.2 Approach to preparing parent for child's surgery and hospitalization

Topic of Question	*Doctor / Nurse's Response*
Aspects addressed with parent/caregiver when a decision for grommets / grommets and adenoidectomy is made	Reason for, nature of and expected outcome of surgery: 4 doctors; 0 nurses Detailed explanation of course of events at hospital on day of surgery: O doctors; 2 nurses Opportunity for parent to ask questions and express concerns: 4 doctors; 4 nurses
Opinion regarding necessity of addressing above aspects with parent/caregiver when a decision for above surgery is made	Discussion of all of the above aspects is necessary: 3 doctors; 2 nurses Discussion of all if the above aspects except a Detailed explanation of events at hospital on day of surgery. The latter is helpful, but not essential: 1 doctor
Person responsible for addressing above	Doctor's responsibility to address reason for, nature of and expected outcome of surgery and to answer

aspects with parent/ caregiver	questions about this: 4 doctors; 2 nurses Nurse's responsibility to explain course of events at hospital: 4 doctors; 1 nurse Nurse or doctor's responsibility to explain course of events at hospital: 1 nurse
Additional information given to parent/ caregiver by doctor	Patient must be kept nil per mouth before surgery: 1 doctor Anaesthetist will see child before surgery: 1 doctor Parent /caregiver must stay with child before and after procedure: 2 doctors Parent / child can accompany child to theatre until he/she sleeps: 1 doctor Child can go home on same day: 2 doctors

3.3 Time spent discussing child's illness and operation with parent and preparing parent for child's surgery and hospitalization

Response to Question	Subject(s)
Less than 5 minutes	1 doctor
5 to 10 minutes	2 doctors; 1 nurse
10 to 30 minutes	1 doctor; 1 nurse

3.4 Manner in which child's illness and operation is discussed with parent and parent is prepared for child's surgery and hospitalisation

Response to Question	*Subject(s)*
Verbally only	2 nurses
Verbally and using objects, eg. cross-section of ear	1 doctor
Verbally and diagrammatically, eg. visual chart or hand drawing of middle ear system	3 doctors

3.5 Approach to discussing child's illness and surgery with child

Topic of Question	Doctor / Nurse's Response
Aspects addressed with child when otitis media is diagnosed	Nature, treatment, effect on hearing and opportunity to ask questions / express concerns: 1 doctor No aspects, unless child asks a question 1 doctor No aspects 2 doctors; 2 nurses
Opinion regarding necessity of addressing above aspects with child when otitis media is diagnosed	Necessary to discuss nature, treatment and effect on hearing and to allow questions / expression of concerns 1 doctor; 1 nurse Necessary to discuss nature, cause and treatment, but only in an older child, or if child asks: 1 doctor Necessary to discuss all of above aspects, but only with an older child above 8 years: 1 nurse Necessary to discuss reason for poor hearing and

	that this can be resolved while child is asleep: 1 doctor Not necessary to address above aspects 1 doctor
Additional comments regarding necessity of addressing above aspects with child when otitis media is diagnosed	Doctor: " I hadn't actually thought of it. I guess it might be important to explain in a slightly simpler way, but I haven't done it before…what we are hoping will happen is that when we explain it to the parents, they would then explain it to the children, but then it may or may not occur." Doctor: "One actually needs to communicate with the child….but I haven't done this. By default I've left the onus with the parent, but if they don't understand?" Nurse (regarding children under 8 years): " they are too young to understand" Nurse: " A child should know about his illness because he understands what is happening and parents cannot always take responsibility. It may also perhaps reduce the child's fear"
Person responsible for addressing above aspects with child	Parent: 2 doctors; 2 nurses Parent and doctor 1 doctor Parent and audiologist 1doctor
Additional comments regarding person responsible for addressing above aspects with child	Doctor: : "Whoever has got the knowledge and the child trusts and is comfortable with…different professionals can explain different parts…can repeat information…parents are not always well informed… the audiologist is often the first to diagnose the hearing problem and has more experience in dealing with hearing problems in children. Because the hearing test is done in the context of a play activity, the child may trust the audiologist more easily" Doctor: "(Parents) have more time. We explain to the parents and they explain everything to them."

3.6 Approach to preparing child for surgery and hospitalization

Topic of Question	*Doctor / Nurse's Response*
Aspects addressed with child when a decision for grommets / grommets and adenoidectomy is made	Reason for, nature of and expected outcome of surgery; opportunity for questions and expressing concerns: 1 doctor Detailed explanation of course of events at hospital on day of surgery and opportunity for questions and expressing concerns, but only for child over 8 years: 1 nurse All of the above, but only if child is old enough to understand 1 doctor; 1 nurse No aspects discussed; 2 doctors

Opinion regarding necessity of addressing above aspects with child when a decision for above surgery is made	Discussion of all of the above aspects is necessary: 1 doctor Discussion of all of the above aspects is necessary, but only for older child: 1 doctor; 1 nurse Necessary to discuss procedure and that hearing will improve afterwards: 1 doctor Necessary to discuss reason, nature and expected outcome of surgery: 1 doctor Not necessary to address above aspects: 1 nurse
Person responsible for addressing above aspects with child	Doctor's responsibility to address reason for, nature of and expected outcome of surgery and to answer questions about this: 4 doctors; 2 nurses Nurse's responsibility to explain course of events at hospital: 4 doctors; 1 nurse Nurse or doctor's responsibility to explain course of events at hospital: 1 nurse

3.7 Time spent discussing child's illness and operation with child and preparing child for surgery and hospitalization

Response to Question	*Subject(s)*
None	2 doctors
Up to 5 minutes	1 doctor; 1 nurse
Up to 30 minutes	1 doctor
Depends on what child wants to know	1 nurse

3.8 Manner in which child's illness and operation is discussed with child and child is prepared for surgery and hospitalisation

Response to Question	*Subject(s)*
Verbally only	2 nurses
Verbally, diagrammatically and using objects, eg. show child grommet; instruments used	2 doctors

3.9 Opinion regarding most effective way of discussing child's illness and operation with child and preparing child for surgery and hospitalization

Response to Question	*Subject(s)*
Use diagrams and objects	1 doctor; 1 nurse
Be honest	1 doctor
Be on child's level physically	1 doctor
Do not scare the child with unnecessary information	1 doctor
Avoid terms such as "cut", "incision", " a little bit of blood"	2 doctors

Remember children have a lively imagination	1 doctor
Give explanations	3 doctors
Give a tour of the day surgery unit	1 doctor
Parents should put the child at ease and talk to the child; otherwise child should be referred to someone else	1 nurse
Children want to know that 1) it will be quick, 2) parents will be with them, 3) they will feel better afterwards and 4) they can go home afterwards	1 doctor

3.10 Typical questions asked by parents regarding the illness, surgery and hospitalisation

Response to Question	*Subject(s)*
What is the cause of the illness?	1 doctor; 2 nurses
How does the problem develop?	1 nurse
Can the illness be prevented?	Doctor
What is the effect of exposure to smoking?	1 doctor
What is the effect of the child attending day care?	1 doctor
Why are antibiotics given if the infection is not acute?	1 doctor
Can the infection recur?	1 nurse
Can the problem be solved?	1 doctor
Is surgery really necessary?	1 doctor
What is the cost of the surgery?	1 doctor
Is this type of surgery successful?	1 nurse
Is it a very sensitive operation?	1 nurse
How long will the surgery take?	2 doctors
Is the surgery painful?	1 doctor
Will the child receive anaesthesia?	1 doctor
Are there any potential risks / complications?	2 doctors
Where will the cut be?	1 doctor; 1 nurse
Will the cut be in front of or behind the ear?	1 nurse
For how long must the stitches stay in the ear?	1 nurse
Why is the child getting grommets?	1 nurse
How do they put the grommets in?	1 nurse
What is the doctor going to do?	1 nurse
Can the child feel the grommet / does it cause pain?	1 doctor
Is the grommet permanent or does it come out?	1 doctor; 1 nurse
How do the grommets come out?	1 doctor
Will the child hear better after getting grommets?	1 doctor; 1 nurse
Can the operation cause deafness?	1 nurse
Is there a possibility of permanent hearing loss?	1 doctor
Can there be permanent damage to the eardrum?	1 doctor
How long must the child stay in hospital?	1 doctor
Will they go home on the same day?	2 doctors; 2 nurses

What can they expect when the child wakes up?	1 doctor
Can the child eat after the operation?	1 nurse
Is there a procedure to follow once the child is at home?	1 nurse
What if the child starts to bleed at home?	1 nurse
When can the child go back to school?	1 nurse

3.11 Typical questions asked by children regarding their illness, surgery and hospitalisation

Response to Question	*Subject(s)*
When can I go home?	1 doctor; 1 nurse
Why is my ear blocked?	1 doctor
Why can't I hear properly?	1 doctor
Will it be sore? / Why is it still sore?	1 doctor; 1 nurse
Will I get an injection?	1 doctor
(When) can I eat?	2 nurses
When can I see the doctor?	1 nurse
Comments that children seldom ask questions	2 doctors; 2 nurses

3.12 Typical misconceptions held by parents regarding the illness, surgery and hospitalisation

Response to Question	*Subject(s)*
Fluid in the ear comes from the outside, eg when swimming / bathing and the doctor must remove it surgically	2 doctors
Grommets have to be removed surgically	1 doctor
Grommets can damage the ear further	1 nurse
Children are "difficult", "stubborn" or "behind" rather than having an ear / hearing problem	2 doctors
Speech difficulties are not associated with hearing problems	1 doctor
Hearing loss may be permanent	1 doctor
Parent can stay in theatre during the surgery	1 doctor
Surgery will be performed even if child was not kept nil per mouth	1 nurse
Surgery will be performed even if child is ill on the day	1 nurse

3.13 Typical misconceptions held by children regarding their illness, surgery and hospitalisation

Response to Question	*Subject(s)*
They will be able to feel the grommet	1 doctor
No misconceptions identified	3 doctors; 2 nurses

3.14 Opinion regarding adequacy of parents understanding of the child's illness and forthcoming surgery and hospitalisation

Response to Question	*Subject(s)*
Variable – a wide range of understanding	4 doctors
Adequate	1 nurse
Inadequate for illness; adequate for surgery and hospitalisation	1 nurse
We do not have a measure of what parents understand	1 doctor
Majority follow doctor's advise without question	2 doctors
Parents often say they understand, but it may not be so	1 doctor
We know they understand because they say they do	2 nurses
Regarding hospitalization process, parents come and find out on the day	1 doctor

3.15 Opinion regarding adequacy of children's understanding of their illness and forthcoming surgery and hospitalisation

Response to Question	Subject(s)
Not adequate	2 doctors; 2 nurses
Not sure	1 doctor
It depends on the parent's understanding	1 doctor
Children are too young to have insight	1 doctor

3.16 Opinion regarding adequacy of emotional support offered to parents with regard to the child's illness and forthcoming surgery and hospitalisation

Response to Question	*Subject(s)*
Adequate	2 nurses
Inadequate	3 doctors
Not sure Need more support on the day of surgery	1 doctor 3 doctors
Parent sees doctor only briefly in theatre	2 doctors
We probably underestimated the amount of emotional support they need	1 doctor
It's a daunting experience – we often see a couple of tears (when mother brings child into theatre)	1 doctor
For the doctors, it's a minor procedure, but for patients, it's a much more major issue	1 doctor

3.17 Opinion regarding adequacy of emotional support offered to children with regard to their illness and forthcoming surgery and hospitalisation

Response to Question	*Subject(s)*
Adequate	2 nurses
Inadequate	3 doctors
Not sure	1 doctor
Parents play greater role than medical staff in providing emotional support	3 doctors
Children are experiencing a complete change of environment	1 doctor
Day surgery staff are adequate, but not specifically dedicated to handling children	1 doctor
Most children are crying and screaming when they go into theatre. The child feels he is being attacked by strange people in masks	1 doctor
Child is usually happy if he / she sees the parent trusts the doctor	1 doctor
After surgery, children respond positively if asked whether they feel happy	1 nurse

3.18 Additional comments / recommendations regarding the preparation of children for day surgery, and specifically grommets and adenoidectomy

Response to Question	*Subject(s)*
A program focusing on the child's perceptions will be valuable	1 doctor
The team has a responsibility, but not always the time or facility	1 doctor
Task should be performed by someone specifically appointed for this role – it could be anyone, a student or a nurse	1 doctor
Preparation session should take place a week before surgery, because there is insufficient time in the day surgery context	1 doctor
Preparation session in a group context will be beneficial, because parents and children can support each other	1 doctor
Xhosa speaking patients can be better informed by using an interpreter	1 nurse
The children's room at the Day Surgery Unit can be improved to make it more child friendly, eg. toys, pictures on the walls	1 nurse
Preparing the child / giving information ahead of time is not helpful / will not make a difference	1 doctor 1 nurse

3.19 Description of procedure / routine from time of child's arrival at the Day Surgery Unit until discharge (*nurses only*)

Response to Question	*Subject(s)*
Parents are informed beforehand at the outpatient clinic of procedure to be followed: child must be accompanied by an adult	2 nurses

and must be kept nil per mouth since the previous evening Any medication must be brought along	
When making an appointment at day surgery, parents are given an information brochure beforehand which explains the procedures at day surgery	1 nurse
The regular hospital admission and preoperative procedures are followed: a medical and social history is obtained from the parent, the anaesthetist is called if necessary, a premed is prescribed if necessary and the parent waits with the child Various observations are performed: weighing, temperature, pulse, breathing, blood sugar test and Hb (iron) test which requires a finger prick and makes children very scared and tearful	2 nurses 1 nurse
The consent form is discussed and signed	1 nurse
The parent accompanies the child into theatre until the child sleeps, and the parent then returns to the waiting area	2 nurses
The parent is called as soon as the child comes out of theatre and sits with the child until discharge	1 nurse
The child is woken up after 1 hour and offered a drink	2 nurses
The drip is removed if the child had one	1 nurse
Children are discharged after 1 hour for grommets and after four hours for adenoidectomy.	2 nurses
The nursing sister discharges the child	2 nurses
Doctors are called postoperatively if there are complications	1 nurse
Parents are advised to observe child for bleeding or complications	1 nurse

3.20 Description of nurse's role in preparing the child for hospitalization and surgery (*nurses only*)

Response to Question	*Subject(s)*
To inform the child and mother ahead of time regarding the procedures at the hospital	1 nurse
To tell the parent to keep the child nil per mouth	1 nurse
To support the parent by giving explanations, calming her, reassuring her and giving her a cup of tea	1 nurse
To support the child by talking and playing with him / her, letting him / her feel good, and creating an environment where he feels at home, as if he is just on an outing	1 nurse

APPENDIX VIII:

STORY COLOURING BOOK

HOPSY RABBIT GOES TO HOSPITAL

Hopsy Rabbit goes to Hospital

Jenny Birkenstock

Illustrated by Pieter Coetzee

Dear parent

Your child will soon be coming to hospital for a small operation. The hospital is a strange and unfamiliar place for most children and they rely on our support in this context.

This story has been written with the aim of preparing children for coming to hospital and undergoing an operation. By helping children to understand their illness and to know what to expect at the hospital, we help them to cope better.

Read the story together with your child and allow him/her to colour in the pictures. Talk about the story and use it as a way of explaining to your child what will happen on the day when he/she comes to the hospital. Allow your child to ask questions and encourage him/her to talk about how he/she feels.

At the back of the book, you will find some information included for parents. There are answers to some questions parents often ask, as well as a picture of the ear and an explanation of your child's problem and how it will be treated.

Take some time to look at the world through the eyes of a child and enjoy the book together.

Note: If your child's surgery involves grommet insertion only and does not include the removal of the adenoids, please omit the text which is in italics when you read the story.

Hopsy Rabbit is not feeling well. His long rabbit ears feel sore again *and his nose feels blocked*.

Mommy Rabbit says, “ Hopsy, you and I must go to the doctor.”

“Huh? Where?” asks Hopsy. He cannot hear very well today.

Mommy stands closer and speaks a little louder. “ Hopsy, we must go to the doctor.”

Doctor Rabbit is always very friendly, but Hopsy feels scared. Mommy Rabbit holds his hand.

The doctor looks in Hopsy's ears, then in his nose, and then in his throat. Hopsy gets tired of sitting still.

"Hopsy," says the doctor, " I can see your eardrum. There is fluid behind your eardrum – it is almost like water that cannot come out. That is why you cannot hear well. *Your adenoids at the back of your nose have also grown too big. That is why you cannot breathe easily through your nose*."

Hopsy's bottom lip starts to shake and he feels like crying.

"Are you going to give me an injection, Doctor, or medicine that tastes bad?"

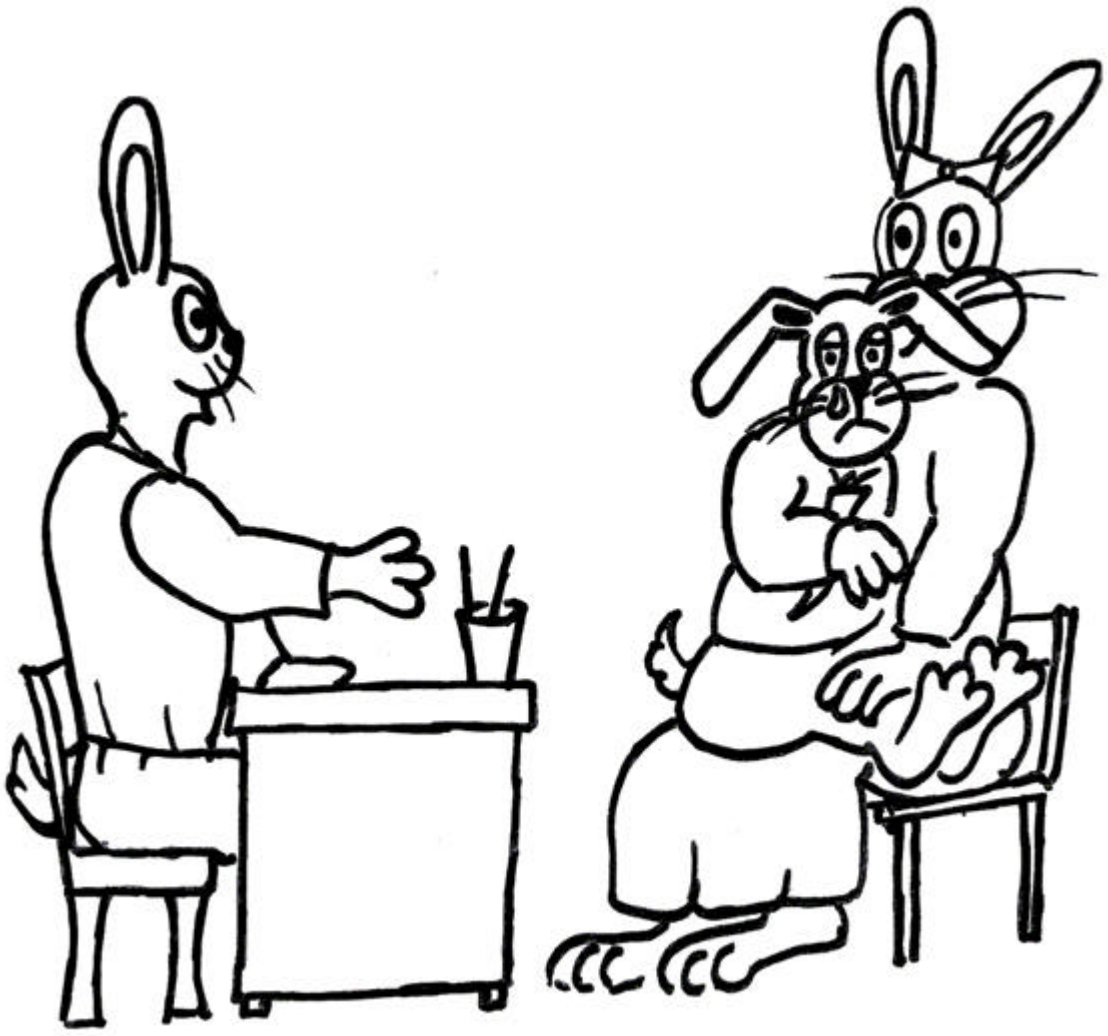
"No, Hopsy," says Doctor Rabbit, " but you will have to go to hospital for a small operation."

"An ear-peration? What is that?" asks Hopsy.

"No, an o-pe-ra-tion," says the doctor slowly.
"I must put small tubes called grommets in your eardrums. *I must also remove your adenoids*. You will be fast asleep while I do it, so you will not feel anything. Then you will get well again."

Now Hopsy starts to cry. " I don't want tubes in my ears! And I don't want to sleep in the hospital!" He is scared of the dark and doesn't want to be away from his mommy.

Doctor Rabbit explains further, " You will only have to sleep for a short time while I do the operation. It is almost like your afternoon nap. You will go home with Mommy before it gets dark."



Hopsy sniffs a few more times and then nods his head. Now he thinks of something else: “ Will the tubes hang out of my ears? My brothers and sisters will laugh at me.”

“ The tubes are very small and no-one will be able to see them. They will fall out when your ears get better, or I will remove them for you here.”

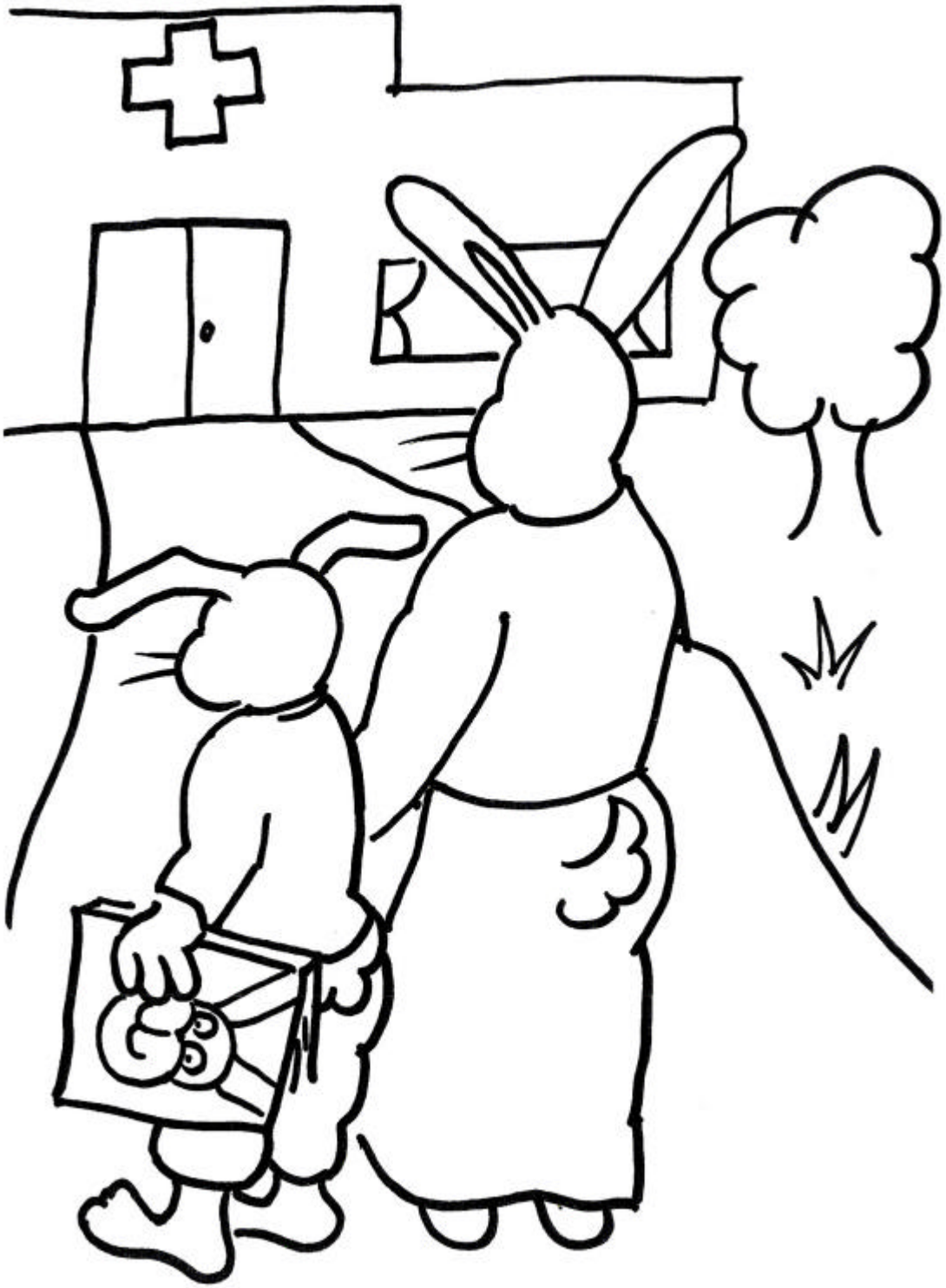
Hopsy does not feel so scared anymore. Doctor Rabbit gives him a special colouring book to take home. He must bring it along when he comes to the hospital for his operation.

Hopsy and his mother hop home.

Today is the big day for Hopsy's operation.

Hopsy and his mother wake up very early and hop to the hospital.

Hopsy is hungry, but he may not eat breakfast before the operation.



The nurse shows Hopsy where his bed is. Hopsy shows the nurse his colouring book.

“ You colour in very nicely, Hopsy,” says the nurse.

Hopsy must put on special pajamas. Then he starts to jump on the bed. Hop! Hop! Hop!

Mommy Rabbit frowns and says, “ Behave yourself in the hospital, Hopsy.”

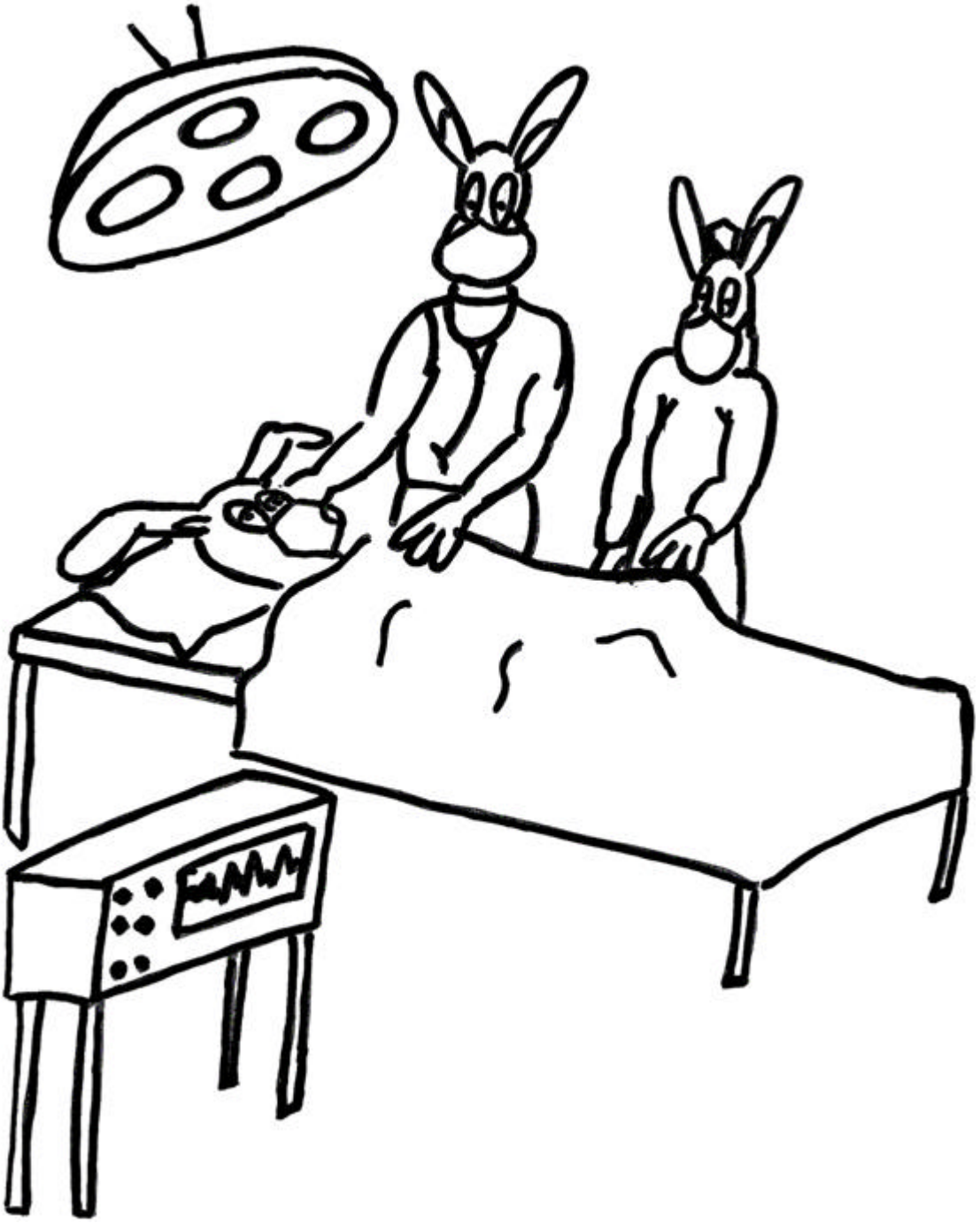
Now it is Hopsy's turn to go to the theatre. The theatre is the special room where doctors do operations. Everyone wears green clothes, masks and funny caps on their heads.

Mommy goes with Hopsy. She must also wear the funny clothes.

The doctor says, "Hopsy, it is time for you to go to sleep. He gives Hopsy a mask to put over his mouth. "Hold the mask and count to twenty."

Hopsy starts to count: "One, two, three, four, five..., six..., seven....."

He is already asleep.

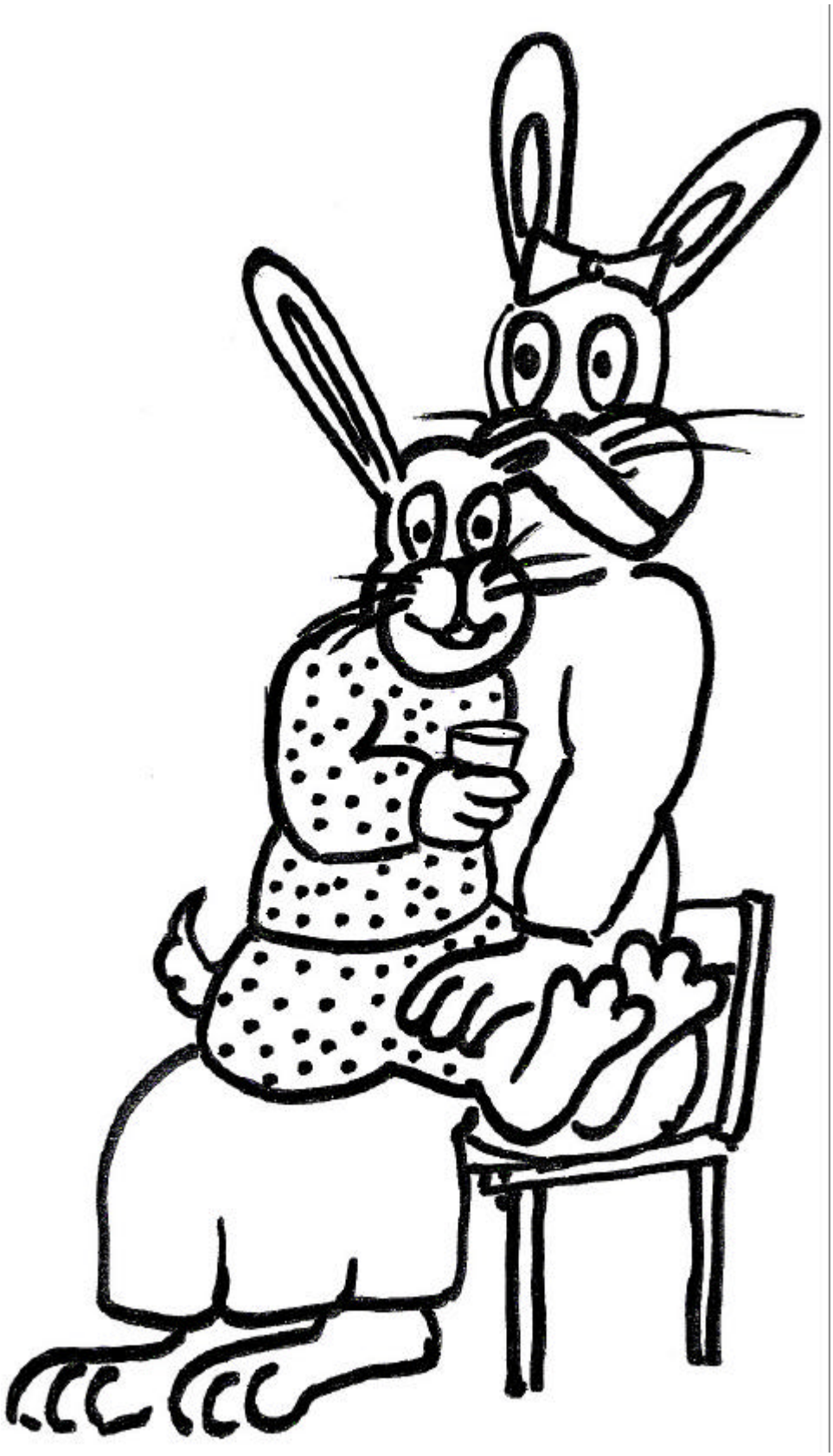


Hopsy wakes up. The operation is over! He is in the recovery room with the nurse. She takes him to his mommy.

“Hello, my Hopsy-child!” Mommy puts Hopsy on her lap and gives him a hug.

“Mommy, I am very thirsty,“ says Hopsy.

Mommy gives him a big glass of carrot juice. Ooh, it’s delicious!

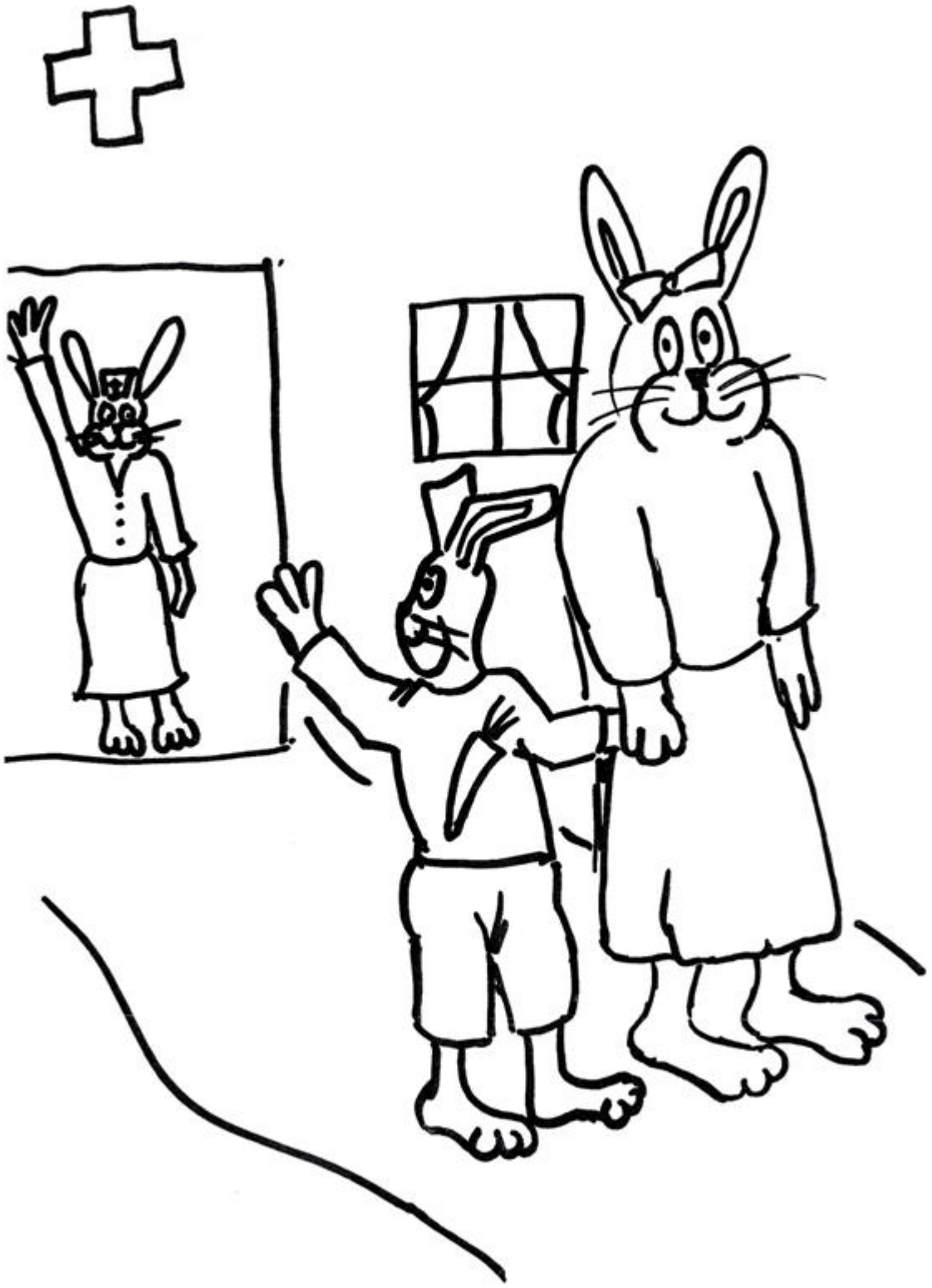


The nurse says, “Hopsy, you are a very brave little rabbit. You must go home now, before it gets dark. Remember to visit Doctor Rabbit again in two weeks time. Don’t worry if your ears feel a little bit wet. You will soon be well again.”

Hopsy hops off the bed and gets dressed in his own clothes. “Good-bye, everyone!” he says.

“Good-bye, Hopsy!”

Hopsy and his mother hop home.



Questions Parents Ask ..... And The Answers

Question: What is middle ear infection?

Answer: Middle ear infection is an infection in the space behind the eardrum, called the middle ear. In a healthy ear, this space is filled with air and is ventilated by a tube (the Eustachian tube) which opens at the back of the nose. If the ventilation tube is not working well, the middle ear is poorly ventilated. It becomes filled with fluid instead of air, and may cause an infection.

Question: What is the cause of my child's hearing problem?

Answer: The hearing problem is caused by the fluid in the middle ear. Fluid in the middle ear affects the movement of the eardrum and hinders sound from traveling through the ear. Your child will have difficulty hearing soft sounds, but will usually respond to loud sounds.

Question: What is a grommet?

Answer: A grommet is a very small plastic tube which is inserted in the eardrum. The grommet allows the ear to be ventilated from the outside, and helps to prevent the fluid from accumulating in the middle ear. The grommet will eventually fall out by itself, or the doctor will remove it.

5 Question: Where does the doctor make a cut in the ear?

Answer: A very small cut is made in the eardrum when the grommet is inserted. The cut cannot be seen from the outside.

Question: How long does the operation take?

Answer: If your child is only having grommets inserted, the operation takes only a few minutes. If you child's adenoids are also being removed, it may take about ten to fifteen minutes.

Question: How long will my child stay in hospital?

Answer: Unless there are unexpected complications, your child will go home on the same day as the operation. It is not usually necessary for your child to stay overnight in the hospital, except in some cases when the adenoids are removed.

Question: Can I stay with my child all the time?

Answer: You are expected to stay with your child at all times before and after the operation. You will accompany your child into the operating theatre. Once your child has received anaesthetic and fallen asleep, you will be asked to leave. You may wait in the ward or in the waiting room until the operation is over.

Question: May my child eat or drink before or after the operation?

Answer: Your child may not eat or drink anything after ten o' clock in the evening before the operation. Your child may have something to eat or drink once he/she has woken up after the operation.

Question: What will happen before and after the operation?

Answer: You are expected to report to the Day Surgery Unit very early on the morning of the operation. Your child will be admitted and the nursing sister will check to make sure that you have given consent for the operation. Your child will be prepared for the operation and the nurse will measure his/her temperature, blood pressure, pulse, breathing and weight. You and your child will wait until you are called to go to the theatre. After the operation, your child will be woken up and his/her condition will be monitored. Once everything is satisfactory, the nursing sister will discharge your child. You will be advised about how to care for your child at home after the operation.

Question: How will the operation affect my child's hearing?

Answer: It is expected that your child's hearing will improve after the grommets have been inserted. This can be determined by having your child's hearing tested by on audiologist on the day of his/her follow-up appointment at the hospital.

How The Ear Functions

The ear is made up of three parts: The Outer Ear, the Middle Ear and the Inner Ear, as can be seen in the picture.

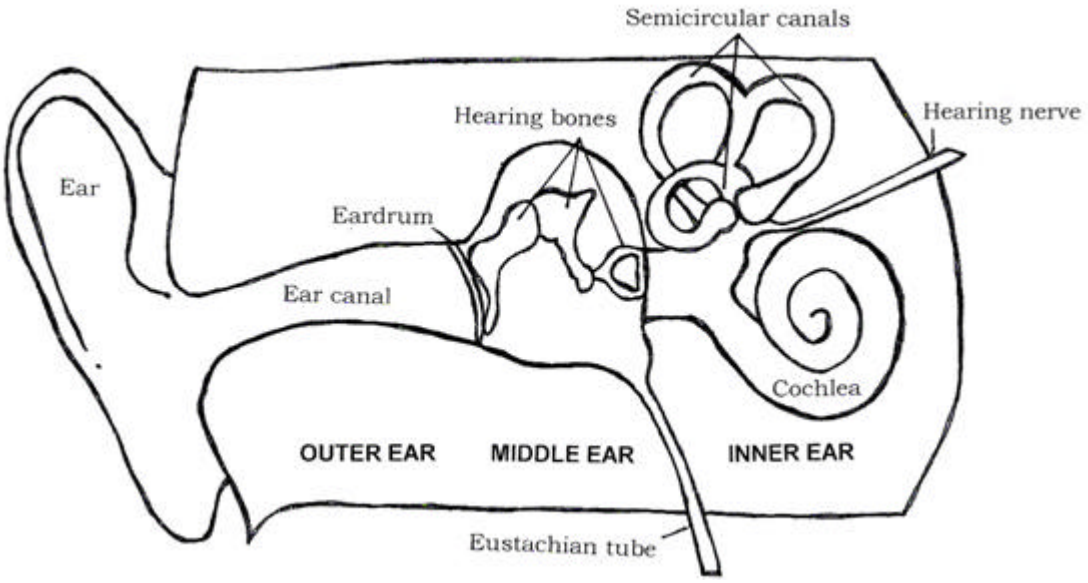
The Outer Ear consists of the ear flap as well as the ear canal. Sound travels from the outside, down the ear canal and to the eardrum.

The Middle Ear consists of the air-filled space behind the eardrum, as well as three small hearing bones. The Eustachian tube runs from the middle ear space to the back of the nose. Sound causes the eardrum and the hearing bones to vibrate, so that the sound is amplified.

If the Eustachian tube does not ventilate the middle ear effectively, the space may become filled with fluid, and may cause a middle ear infection. The fluid places pressure on the eardrum so that the eardrum and hearing bones cannot vibrate as they should. This prevents sound from traveling effectively through the middle ear. This condition can be treated with an antibiotic or by placing a grommet in the eardrum. The grommet allows the middle ear to be ventilated from the outside, so that the fluid can clear.

The Inner Ear consists of the semicircular canals and the cochlea, which is shaped like the shell of a snail. The inner ear is important for balance as well as hearing. Sound reaching the inner ear travels along the hearing nerve to the brain, where the sound is interpreted.

THE EAR


Semicircular canals
Hearing bones
Hearing nerve
Ear
Eardrum
Ear canal
Cochlea
OUTER EAR
MIDDLE EAR
INNER EAR
Eustachian tube

APPENDIX IX:

TOYS INCLUDED IN THE HOSPITAL PREPARATION PROGRAM


Diagnostician
BAND-AID

APPENDIX X:

QUESTIONS ASKED DURING THE EVALUATION OF THE PILOT IMPLEMENTATION OF THE HOSPITAL PREPARATION PROGRAM

QUESTIONS ASKED DURING THE EVALUATION OF THE PILOT IMPLEMENTATION OF THE HOSPITAL PREPARATION PROGRAM

1. Questions asked to the parent

1.1 Child's response to hospitalisation

1.1.1 How would you describe your child's emotional state *today*?

1.1.2 How would you describe your child's emotional state *over the past week*?

1.1.3 Have you noticed any change in your child's behaviour *today?*

1.1.4 If yes to 1.1.3, please describe this change in behaviour.

1.1.5 Have you noticed any change in your child's behaviour *over the past week*?

1.1.6 If yes to 1.1.5, please describe this change in behaviour.

1.1.7 What do you think your child understands about his/her illness?

1.1.8 What do you think your child understands about the operation?

1.1.9 What do you think your child understands about what to expect here today?

1.2 Parent's response to child's hospitalisation

1.2.1 How do you feel about what will be happening here today?

1.2.2 Are you worried / anxious about any aspect(s)?

1.2.3 If yes to 1.2.2, which aspect(s)?

1.2.4 Are you uncertain or do you have any questions about any aspect(s) of *your child's illness?*

1.2.5 If yes to 1.2.4 , which aspects of the *illness*?

1.2.6 Are you uncertain or do you have any questions about any aspect(s) of *the operation* your child will have today?

1.2.7 If yes to 1.2.6, which aspects of the *operation*?

1.2.8 Are you uncertain or do you have any questions about what to expect here today?

1.2.9 If yes to 1.2.8, please specify.

1.2.10 Has the information you received about *your child's illness* been adequate, or would you like more information?

1.2.11 Has the information you received about *your child's operation* been adequate, or would you like more information?

1.2.12 Has the information you received about *what to expect here today* been adequate, or would you like more information?

1.2.13 Have you received adequate emotional support regarding your child's hospital experience today, or are you needing more support?.

1.2.14 If you are needing more support, *from whom* would you like to receive this support?

1.2.15 Do you have any recommendations and suggestions about preparing children for coming to hospital?

1.2.16 Has the preparation program been helpful to you and your child? In what way?

2. Questions asked to the child

2.1 Understanding and perceptions of illness, hospitalisation and surgery

2.1.1 Why have you come to the hospital today?

2.1.2 What is going to happen here ?

2.1.3 What is wrong with your ears?

2.1.4 How are your ears hearing today? Very well / all right / not well

2.1.5 What will the doctor do to make you better?

2.1.6 Will you be sleeping or awake when the doctor works inside your ears tomorow?

2.1.7 Will ……. (parent) be with you when you fall asleep?

2.1.8 What will make you fall asleep?

2.1.9 Who will be with you when you wake up?

2.1.10 Will you feel pain while the doctor is working inside your ears?

2.1.11 Can you eat or drink anything when the doctor is finished working inside your ears?

2.1.12 Where are you going to sleep tonight - at home or here in the hospital?

2.2 Response to medical procedures and hospitalisation

2.2.1 How do you feel now?

2.2.2 Show me which of these is how you are feeling now.
(Let child choose from a range of emotions [happy/sad/afraid/angry] which are presented in verbal, written and pictorial form)

2.2.3 What is it that makes you feel ……. [emotion(s) identified by child]?

2.2.4 How big is that feeling of …… [emotion(s) identified by child]?
(use visual aid)

2.2.5 We are nearly finished now. Do you want to ask Hopsy any questions?