INFLUENCE OF CHILD LIFE SUPPORT PROGRAM ON RECOVERY OF PEDIATRIC PATIENTS AT MOI TEACHING AND REFERRAL HOSPITAL, ELDORET, KENYA

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A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER IN ARTS IN PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI

2013
DECLARATION
This research Project is my original work and has not been presented to any other university for award of any degree.

Sign: ______________________  ______________________

ERNEST KIMUTAI KIRUI DATE
L.50/84131/2012

This research project has been submitted with my approval as the university Supervisor.

Signature_________________________  ______________________

PETER K. HARRY DATE
LECTURER, UNIVERSITY OF NAIROBI
DEDICATION

I wish to dedicate this work to my parents William and Milka Kirui, my brother Alfrick, and my sisters Angeline, Emily, Veronica and Jane. Thank you all for understanding, patience, encouragement and support while pursuing this course.
ACKNOWLEDGEMENT

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# TABLE OF CONTENTS

DECLARATION........................................................................................................... ii
DEDICATION............................................................................................................... iii
ACKNOWLEDGEMENT................................................................................................. iv
TABLE OF CONTENTS ............................................................................................... v
LIST OF TABLES .......................................................................................................... viii
ABSTRACT ..................................................................................................................... x

## CHAPTER ONE

INTRODUCTION ............................................................................................................ 1
1.1 Background of the study ...................................................................................... 1
1.2 Statement of the problem .................................................................................... 3
1.3 Purpose of the study ............................................................................................ 4
1.4 Objectives of the study ....................................................................................... 5
1.5 Research questions ............................................................................................. 5
1.6 Significance of the study .................................................................................... 6
1.7.1 Limitation of the study .................................................................................. 6
1.7.2 Delimitation of the study ............................................................................... 7
1.8 Assumptions of the study ................................................................................... 7
1.9 Definition of significant terms .......................................................................... 7
1.10 Organization of the study .................................................................................. 8

## CHAPTER TWO

LITERATURE REVIEW ................................................................................................. 9
2.0 INTRODUCTION .................................................................................................... 9
2.1 Concept of child life support and cost of treatment reduction ......................... 9
2.2 Hospital friendly settings ................................................................................... 11
2.3 Knowledge about child life ............................................................................... 11
2.4 Parental involvement on child support program ............................................... 13
2.5 Theoretical review ............................................................................................ 14
2.6 Conceptual framework ....................................................................................... 18
CHAPTER THREE
RESEARCH METHODOLOGY ............................................................................................................. 20
3.1 INTRODUCTION .......................................................................................................................... 20
3.2 Study design .................................................................................................................................. 20
3.3 Target population .......................................................................................................................... 20
3.4.1 Sampling technique .................................................................................................................. 21
3.5. Data collection instruments ........................................................................................................ 21
3.5.1 Data collection procedure ....................................................................................................... 23
3.6 Validity of research instruments .................................................................................................. 23
3.7 Reliability of research instruments .............................................................................................. 24
3.8 Data analysis .................................................................................................................................. 24
3.9 Ethical consideration of the study ............................................................................................... 25

CHAPTER FOUR
DATA PRESENTATION, ANALYSIS AND INTERPRETATION .............................................................. 26
4.1 INTRODUCTION .......................................................................................................................... 26
4.2 Questionnaire return rate ............................................................................................................. 26
4.3 Demographic profile of the respondents ...................................................................................... 26
4.3.1 Age of the respondents ........................................................................................................... 27
4.3.2 Gender of the respondents ...................................................................................................... 28
4.3.3 Education level of respondents .............................................................................................. 28
4.4 Analysis of objective 1: effect of child life on stress and anxiety .................................................. 29
4.4.1 Accompany of child to procedure room by child life staff ...................................................... 29
4.4.2 Activity of accompanied child during procedure ..................................................................... 30
4.4.3 Child life support ..................................................................................................................... 31
4.4.4 Psychological/ counselling services .......................................................................................... 32
4.4.5 Information on surgery/ medical procedure ........................................................................... 33
4.5 Analysis of objective 2: child life support and cost of treatment .................................................. 34
4.5.1 Duration for hospitalization .................................................................................................... 34
4.5.2 Preventive health maintenance activities .................................................................................. 35
4.5.3 Pain medication after or before a procedure .......................................................................... 36
4.6 Analysis of objective 3: hospital environment .......................................................... 37
4.6.1 Child friendly colours ............................................................................................ 37
4.6.2 Scared of medical staff ....................................................................................... 38
4.7 Analysis of objective 4: parental involvement ......................................................... 39
4.7.1 Information concerning child’s health ................................................................. 39
4.7.2 Opportunity to play with child ............................................................................ 40
4.7.3 Accompany the child to the procedure room ..................................................... 41
4.7.4 Child’s health ........................................................................................................ 42

CHAPTER FIVE
SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS .... 44
5.1 INTRODUCTION ........................................................................................................ 44
5.2 Summary of the study findings .............................................................................. 44
5.2.1 The effect of child life support on stress and anxiety on pediatric patients ... 44
5.2.2 Effect of child life program on cost of treatment among pediatric patients ... 44
5.2.3 The effect of hospital environment on recovery of pediatric patients .......... 45
5.2.4 The effect of parental involvement on recovery of pediatric patients ......... 45
5.3 CONCLUSION ........................................................................................................ 46
5.4 RECOMMENDATIONS ............................................................................................. 47
5.6 Suggestion for further studies. ................................................................................ 47
REFERENCES .............................................................................................................. 48
APPENDICES .............................................................................................................. 52
Appendix i letter of permission from irec ................................................................... 52
APPENDIX II: CONSENT FORM ................................................................................. 53
APPENDIX III QUESTIONNAIRES ........................................................................... 55
Questionnaire for parents/guardians ........................................................................ 55
APPENDIX IV QUESTIONNAIRES ........................................................................... 58
QUESTIONNAIRE FOR STAFF .................................................................................. 58
LIST OF TABLES

Table 3.1 target population ........................................................................................................... 21

TABLE 3.2 SAMPLE SIZE ........................................................................................................... 22

Table 4.1: age of the respondents ................................................................................................ 27

Table 4.2 gender of the respondents ............................................................................................ 28

Table 4.3 education level of respondents ....................................................................................... 29

Table 4.4 accompany of child to procedure room by child life staff ....................................... 30

Table 4.5 activity of accompanied child during a procedure ...................................................... 31

Table 4.6 child support program provided .................................................................................... 32

Table 4.7 psychological/ counseling services ............................................................................... 33

Table 4.8 information on surgery/ medical procedure ................................................................. 34

Table 4.9 duration for hospitalization .......................................................................................... 35

Table 4.10 preventive health maintenance activities ................................................................. 36

Table 4.11 pain medication before, during or after a procedure ............................................... 37

Table 4.12 child friendly colours ................................................................................................. 38

Table 4.13 scared of medical staff ............................................................................................... 39

Table 4.14 information concerning child’s health ...................................................................... 40

Table 4.15 opportunity to play with child .................................................................................... 41

Table 4.16 accompany the child to the procedure room .............................................................. 41

TABLE 4.17 CHILD’S HEALTH ................................................................................................. 42
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>CBO</td>
<td>Community Based Organization</td>
</tr>
<tr>
<td>CLC</td>
<td>Child Life Council</td>
</tr>
<tr>
<td>FBO</td>
<td>Faith Based Organization</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>HOD</td>
<td>Head of Department</td>
</tr>
<tr>
<td>HR</td>
<td>Human Resource</td>
</tr>
<tr>
<td>ICU</td>
<td>Intensive Care Unit</td>
</tr>
<tr>
<td>IREC</td>
<td>Institutional Research and Ethics Committee</td>
</tr>
<tr>
<td>MTRH</td>
<td>Moi Teaching and Referral Hospital</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organization</td>
</tr>
<tr>
<td>UN</td>
<td>United Nation</td>
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<td>USAID</td>
<td>United States Agency In Development</td>
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ABSTRACT.

This study sought to investigate the influence of Child life support program on recovery of pediatric patients at Moi Teaching and Referral Hospital, Eldoret, Kenya. Child Life support is the provision of comprehensive psychosocial, developmental, and information services to children and families in order to normalize the hospital environment and cope up with treatment stress, pain and trauma that accompanies hospitalization. The specific objectives of this study were to investigate the effect of Child Life support program on recovery of pediatric patients at Moi Teaching and Referral Hospital; to establish the effect of Child Life program on cost of treatment among pediatric patients at Moi Teaching and Referral Hospital; to establish the effect of hospital environment on recovery of pediatric patients at Moi Teaching and Referral Hospital and to determine how parental involvement affects recovery of pediatric patients at Moi Teaching and Referral Hospital. These variables are guided by the following theories; attachment theory, psychoanalytic theory of play, Erik Erikson’s psychological stages of development, ecological systems theory, and sociological family stress theory. The study adopted a Cross sectional descriptive study research design; as such it is an intensive descriptive and holistic analysis of Moi Teaching and Referral Hospital, Eldoret, Kenya. The target population was the staff (nurses) and their parents/guardians of the patients who were present at the hospital during the study period. The study adopted Cross sectional descriptive study research design sampling method to select a sample frame. Descriptive statistics was used in data analysis by use of Statistical Package for Social Scientists (SPSS) version 17.0. The study therefore concluded that the guidelines provide opportunities for children of all ages to master the healthcare experience by preparing and supporting them through medical procedures. More so, if the child’s social and emotional health is compromised, it can create significant challenges for children leading to failure in school, inability to make and sustain friendships, and negative feelings about themselves. The study recommends that hospital management should identify activities that can be carried out in response to the child life support program guideline and discuss any challenges that might exist for the implementation of each guideline and what can be done to address those challenges. The management self-assesses to help them understand where they are in terms of complying with these guidelines. Through this it will identify any guidelines the organization is not following and activities they will carry out to address the issue.
CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Child Life concept was first introduced in the 1920’s with the goal of improving the experiences children had in health care settings by providing preparation for procedures, education programs and play opportunities. Many children faced long hospitalizations for chronic illnesses. Early observations also indicated that children were in distress, lonely and lacked stimulation within the pediatric population (Child Life Council, 2013).

According to McCarthy (2008), Child Life support is the provision of comprehensive psychosocial, developmental, and informational services to children and families in order to normalize the hospital environment and cope up with treatment stress, pain and trauma that accompanies it. This definition fits this context because the study is more oriented on paediatric patient’s treatment outcome (McCarthy, 2008).

Child Life support is characterised by effective coping skills through play, preparation, education, and self-expression activities. It provide emotional support for the children and their families and encourage optimum development of children facing a broad range of challenging experiences, particularly those related to healthcare and hospitalization. Child life specialists promote effective coping through play, preparation, education, information and self expression activities. They also provide emotional support to families and encourage optimum development of children facing challenging experiences especially those hospitalized (CLC, 2013). Child specialists are trained
professionals with expertise in helping children and their families to navigate life’s most challenging experiences.

From a global perspective, The American Academy of Pediatrics (2009) believes that the medical care of infants, children, and adolescents ideally should be accessible, continuous, comprehensive, and family-centered, coordinated, compassionate, and culturally effective. Trained physicians provide primary care and help to manage and facilitate essentially all aspects of pediatric care (American Academy of Pediatrics, 2009). According to Taylor 2007, the physician should be known to the child and family and should be able to develop a partnership of mutual responsibility and trust with them (Taylor, 2007). In other developed states like Australia, there are developed institutions that are specialized in paediatrics (Robinson, 2007).

In Africa, although important advances in prevention are being made, advanced child life support management in children in developing countries is often incomplete because of limited resources, (Thompson and Lindsey, et al. 2007). Turner and Chew-Graham, 2010 argues that the existing advanced child life support management guideline for children in limited-resource settings is mainly empirical and not evidence-based. It is written for the hospital setting, often not standardized with a systematic approach to patient assessment and categorization of illness. It is taught in pediatric advanced child life support trainings courses from the perspective of full-resource settings (Turner & Chew-Graham, 2010). In this review, Stevens (2010) focus on extension of higher quality emergency and critical care services to children in developing countries. When integrated into existing primary care programmes, simple
inexpensive advanced child life support management can improve child survival in the third world countries.

In a study done in Lebanon (1998), Children who participated in puppet show before surgery showed less anxiety, more cooperation, lower blood pressure and lower pulse rate during injection. They also voided bladders more quickly after surgery and had lower scores on a post-hospitalization behavioral questionnaire (Zahr, 1998). This study showed the effectiveness of Child Life support programs through therapeutic play on reducing anxiety and stressful responses for children undergoing surgery and hospitalization.

In Kenya, there is an increase in chronic diseases such as diabetes, cancer and neurological disorders among children. This has increased proportion of children being hospitalized every year. This has necessitated the need for child-life support program to enable children to attain high quality care during hospitalizations. However, child Life support is a new profession in Kenya. MTRH is the only known hospital in Kenya that has child life support program.

This study therefore seeks to assess the child life support program with the view of improving it. It was a model program for introduction in other Kenyan pediatric healthcare settings.

1.2 Statement of the problem

Illness and hospitalization can have negative impact on children’s normal healthy growth and development. Hospitalization in general affects normal routines that
children undergo in life. Such routines include play, interaction with other children, being with family and siblings and also attending school.

Children’s negative responses to hospitalization and medical procedures are well documented (CLC, 2013). Hospitalization can bring negative impact on the normal development in a child. This includes regression, speech and delayed development for infants. Hospitalization also brings stress, anxiety and pain to children. All these are because of the daily painful procedures that they undergo. Many children faced long hospitalizations for chronic illnesses. Early observations also indicated that children were in distress, lonely and lacked stimulation within the pediatric population (Child Life Council, 2013).

Many families still live below one dollar a day. Sickness of children brings in another burden in their already difficult situation. Studies have shown that inclusion of Child Life support can help contain costs (Child Life Council, 2013). When Child Life support is used, some procedures can be done without the use of painkillers. Overall length is hospitalization is also reduced as children cope better. All these will lead to parents/guardians paying less in hospital bills.

1.3 Purpose of the study.

The purpose of the study was to investigate the influence of Child Life support program on recovery of pediatric patients at Moi Teaching and Referral Hospital, Eldoret, Kenya.
1.4 Objectives of the study
The objectives of this study were;

1. To investigate the effect of Child Life support on stress and anxiety of pediatric patients at Moi Teaching and Referral Hospital
2. To establish the effect of Child Life program on cost of treatment among pediatric patients at Moi Teaching and Referral Hospital
3. To establish the effect of hospital environment on recovery of pediatric patients at Moi Teaching and Referral Hospital
4. To investigate the effect of parental involvement on recovery of pediatric patients at Moi Teaching and Referral Hospital

1.5 Research questions
This research answered the following questions;

1. What is the effect of Child Life support on stress and anxiety reduction of pediatric patients at Moi Teaching and Referral Hospital?
2. What is the effect of Child Life program on cost of treatment among pediatric patients at Moi Teaching and Referral Hospital?
3. What is the effect of hospital environment on recovery of pediatric patients at Moi Teaching and Referral Hospital?
4. How does parental involvement affect recovery of pediatric patients at Moi Teaching and Referral Hospital?
1.6 Significance of the study

The findings of this study may be important in several ways:

   The Government of Kenya through the Ministry of Health (MOH) will use the study findings in preparation of policies that will help in promoting family centered care to hospitalized children and their families. Child life support programs will be used as a quality requirement in the management and running of pediatric hospitals in Kenya. Pediatric hospitals in Kenya will also begin to employ Child Life Specialists as part of improving the quality care of pediatric patients. This will promote better treatment responses of pediatric patients in hospitals.

   The Government of Kenya through the Ministry of Education will use findings of this study to prepare policies that will include Child Life curriculum in colleges. This will help train Child Life personnel that will help in provision of Child Life services in pediatric hospitals in Kenya.

   Findings of this study will open more study areas to researchers who will want to do more research on Child Life in Kenya.

1.7.1 Limitation of the study

   Only the patients who were at the hospital during the study period were assessed. This, therefore, was difficult to generalize to the entire country/hospitals. Being a cross sectional study, it cannot determine the attrition of outcomes to the child life support program.
1.7.2 Delimitation of the study

The study confirmed its data with the hospital’s individual medical records to ensure accuracy and validity.

1.8 Assumptions of the study

The researcher assumed that the different socioeconomic backgrounds of the paediatric patients has not interfered with the influence of child life support program. The demographic characteristics such as age, sex and other biological and environmental factors have not played any significant role in outcomes of child life support.

1.9 Definition of significant terms

Child Life – is the provision of comprehensive psychosocial, developmental, and informational services to children and families in order to normalize the hospital environment and cope up with treatment stress, pain and trauma that accompanies it (McCarthy 2008).

Child Life Specialist - Child Life specialists is a trained pediatric health care professional who work with children and families in hospitals and other settings to help them cope with the challenges of hospitalization, illness and disability (Wikipedia).

Pediatric Patient - sick children undergoing treatment (Melen 2012).

Treatment outcome - progressive improvement of the achievement of specific acuity at the end of the treatment period. It is the success of bringing the pediatric patient to normalcy through provision of drugs, social and psychological support (Parry, Draper, and McKinney 2013).
Child - a minor person or in other words someone between infancy to 18 years of age (The Constitution of Kenya 2009).

1.10 Organization of the study

The first chapter contains the background which introduces the topic and touched on some of the issues with regards to assessment of pediatric Child life support program as applied in the global and regional arena. Chapter two has the literature review. It has been organized to have the objectives of the study, and theoretical framework and conceptual framework come towards the end of the chapter. The third chapter has the methodology that was used in gathering data. Chapter four contains the data analysis, presentation and discussion of the findings. Conclusion and recommendations form chapter five.
CHAPTER TWO: LITERATURE REVIEW

2.0 INTRODUCTION

In this chapter, a concrete review of the influence of child life support program on recovery of paediatric patients is presented. A further review of forms of child life support programmes and how they impact on paediatric and its outcomes has also been carried out. It ends with a theoretical review and critical analysis of the same.

2.1 Concept of Child Life Support and cost of treatment reduction

According to Pearson (2010), Child Life Support Program is the whole process of addressing the social, emotional and developmental needs of children dealing with the stress of illness and hospitalization and effects of such in consequential development stages of the child. Child life specialists provide opportunities for children of all ages to master the healthcare experience by preparing and supporting them through medical procedures. While the National Health Service of the United Kingdom (2013), defines Child Life Support Program as the process of giving all human beings a healthy start in life which will only provide a base for them to continue improving in future.

According to the American Academy of Pediatrics, Child life programs have become the standard in large pediatric hospitals to address psychological concerns that accompany hospitalization and other health care experiences. Child life programs facilitate coping and adjustment of children and families in 3 primary service areas:

1. Providing play experiences
2. Presenting developmentally appropriate information about events and procedures
3. Establishing therapeutic relationships with children and parents to support family involvement in each child’s care
Christopher, (2009) says that child support programmes has been providing support to infants and children, including children with special health care needs. It has been proven helpful and cost effective and therefore is worth investing on by any nation. This is because it has reduced the infant mortality and incidence of disabling conditions among children. While Roberts et al, (2006) says that the number of children appropriately immunized against disease go up in many countries as a result of introduction of the program.

In a study conducted by Royal College of Paediatrics and Child Health, (2010), it was found out that there is increase in the number of children in low-income households who receive assessments and follow-up diagnostic and treatment services. This service therefore provides an assurance of accessing a comprehensive prenatal care for women, comprehensive and preventative child care services which include long-term care services. As for children with special health care needs and rehabilitation services like the blind and physically handicapped children, it facilitate the development of comprehensive, family-centered, community-based, culturally competent, coordinated systems of care for children with special needs, (Parry et al., 2013)

According to American Academy of Pediatric (2010), Child life services make a difference in pediatric care. Research and practice have demonstrated that child life services, such as play and preparation, help to contain costs. When children are prepared for procedures, the overall length of procedure is reduced and also number of staff needed to participate during the procedure is reduced. It has also shown that reduced use of painkillers and anaesthesia for some procedures.
2.2 Hospital friendly settings

According to Kate (2008), children and adolescents seek to actively manage, negotiate and cope with their time in hospital. They value interactive, engaging and aesthetically pleasing environment and a friendly, caring welcome from the hospital community. The concept of person-environment fit for children in a hospital setting, which emerges from this study, is a dynamic interaction between patients and their environment which is influenced by the patient’s individual circumstances and the amount of time they spend in the environment. This study sought to identify attributes of the physical environment that were involved in children’s and adolescents’ feeling of wellbeing in a hospital environment. The three main design recommendations that resulted from this study include environmental aesthetics, spatial variety and the need for adaptability and flexibility in the environment.

There are many ways in which hospitals can promote child friendly settings. Hospital wards need to have enough space, comfortable and having colours which are child friendly. Comfort is understood to be comprised of physical, social and emotional considerations. Hospitals also need to create environments that maximises opportunities that include features indicating child friendliness. These include maximising the volume of age-appropriate activities in the environment, and providing a bright and colourful environment and a welcoming and friendly social environment.

2.3 Knowledge about Child Life

Despite the growth of the child life profession in North America, it is still relatively unknown in Kenya, having only been introduced in 2007 (Daisy’s Eye Cancer Fund annual report, 2007). Overall, few empirical research studies have examined the
perceptions of the child life professional in the health care setting. To be effective members of the health care team, it may be important for health care team members to have a shared understanding of one another’s roles. In general, however, there is little empirical data on health care professionals’ perceptions of one another’s’ roles and of power within the health care arena. Traditionally doctors have been the dominant profession over other health professionals, holding greater power and status than other professionals (Kenny & Adamson, 1992). The inequality in power may lead health care professionals to feel dissatisfied with their positions. For example one study’s findings indicated that many health care professionals believe their roles as health care team members are misunderstood and undervalued (Kenny & Adamson, 1992). Only two studies have examined perceptions of child life professionals (Gaynard, 1985; Cole., Diener, & Wright, 2001). Both these studies surveyed nurses, social workers, physicians and child life professionals in hospitals in the Northwestern United States of the role, status and power of child life specialists. Analyses of the questionnaire responses indicated that there were differences in child life specialist’s perceptions of other health care professional’s perceptions of the child life role. For example, in the Gaynard study, child life specialists frequently reported that a primary role of the profession is to be a member of the health care team. However, other members of the health care team (nurses and physicians) rarely mentioned this item as a primary role of child life specialists. Health care professionals mentioned amusing and entertaining children as a primary role of child life professionals, although child life specialists did not view themselves in this role. Gaynard suggested that one explanation for discrepancies in role perceptions is that when child life specialists are observed in patient support activities (e.g. therapeutic
play), other health professionals might misconstrue these support activities as mere entertainment. In addition, the discrepancies among perceptions may be due to health care professional’s lack of knowledge about the role of child life professionals. The low level of contact reported between child life professionals and the different disciplines may also explain these findings. This studies show that there is greater need to educate other health care professionals on the importance and the roles of child life specialists in the pediatric medical setting.

2.4 Parental Involvement on child support program

(Landsman, Groza, Tyler, & Malone, 2001) represents the only published research examining the effectiveness of a family-centered residential treatment model on permanency outcomes for children. The study included two groups from a single residential facility. The experimental group's intervention was designed to serve caregivers in addition to child residents and included skills training for parents, access to flexible funds, extended aftercare services, and active promotion of family involvement, decision making, and empowerment. The comparison group focused on the child as the primary recipient of the agency's standard residential treatment program, which included individual and group therapy; behavior management; and educational, psychiatric, medical, and recreational services. Results indicated that children in the family-centered experimental group had significantly shorter lengths of stay, and 49.0% were discharged home directly from residential treatment, compared with 19.0% of the comparison group.

Greater attention to attachment theory highlights the need to promote parent-child contact (Grigsby, 1994; McWey, 2000). Whereas in earlier years family reunification was viewed only as physical return of the child to parental care, now,
increasingly, reunification is seen on a continuum, with a recognition of the importance of family continuity regardless of whether the child returns home (Downs, Moore, McFadden, & Costin, 2000; Jivanjee, 1999). Parental visiting enables children in foster care to divert emotional energy from feelings of abandonment to mastery of developmental tasks (Davis & Ellis-McLeod, 1994).

In addition to theoretical support for maintaining contact, researchers have also found demonstrable benefits from maintaining contact in foster care and medical hospital settings, and these findings hold promise for informing the field of children's mental health. Although causal pathways are unclear, foster care studies have found parental visiting to be significantly associated with shorter length of stay in foster care (Benedict & White, 1991; Fanshel & Shinn, 1978; Mech, 1985; White, Alber, & Bitonti, 1996) and higher rates of family reunification (Davis, Landsverk, Newton, & Ganger, 1996). In one study, children in foster care who regularly received parental visits had lower total behavior problem scores and fewer internalizing behaviors, such as depression and anxiety, than those with no or irregular contact (Cantos, Gries, & Slis, 1997). Because face-to-face visits require parent and child to grapple with the reasons for the placement and their feelings about each other and their future relationship, such contact is seen as increasing the probability of reunification (Sanchirico & Jablonka, 2000).

2.5 Theoretical Review

According to Geoff Petty, (2006), Attachment theory is based upon the notion that an infant’s ability to form a strong emotional bond with their primary caregiver is a natural part of its development. The security of this bond, also known as attachment security, is largely determined by the parent’s ability to sensitively and
appropriately respond to their infant’s bids for attention. Programmes based upon attachment theory therefore aim to improve parental sensitivity by increasing parents’ understanding of their children’s needs and attachment related behaviours.

The model of human ecology assumes that children’s development is determined by his or her interaction within the nested environments of the individual, family, school, community and culture. Each of these environments contains elements which can either improve children’s life outcomes or place them at risk for adversity. Every family is unique in terms of the risk and protective factors influencing it. Programmes based upon the ecological model consider ways in which to strengthen protective factors in order to reduce or remove any ongoing risks.

This theory relates to this study because it gives the effects of physically, social, cognitive, and emotional effects on the Development of infants. Although the ages in parentheses should not be taken as fixed transition points, children's physical capacities, cognitive abilities, moral reasoning abilities, and social and emotional development undergo distinct transformations within each of these periods. There may be critical or sensitive periods in which children are more susceptible to certain stresses.

Psychoanalytic theory of play stresses on the importance of fantasy and symbolic play. Through play, a child acts out his wishes. Desires which cannot be satisfied because they are too threatening for the child himself to recognise, or desires which cannot be satisfied in reality are represented symbolically in play. The child is thus able to attain mastery over ego-threatening and painful experience as well as gain degree of satisfaction of unattainable goals. In psychoanalysis, play has important therapeutic
value because of its cathartic potential. Erikson supported this theories position that play has defensive and cathartic elements and added that play is a means by which the child learns to cope with the environment. Features of psychoanalytic thought on play are; play is a child’s natural mode of self-expression, children expresses feelings and problems through play, they gain satisfaction from exercising capabilities, mastering motor skills and finally children use symbolic games to resolve or master conflicts which are otherwise passively endured. This theory is relevant to this study because child life specialists use play to promote healing and communication in sick children.

According to the ecological systems theory of child development, children's development is the result of a complex interplay between the child's own natural endowment and characteristics and a variety of social systems and environmental influences that move from immediate influences such as the child's home to more distal influences such as the child's community (Bronfenbrenner, 1986). Those factors closest to the child will have the most direct and powerful influence on the child, especially when the child is young. In general, internal family processes, the psychological and physical health of the parents, and the relationship of the parents with each other and with the young child are more important than influences from outside the household, though factors external to the household will exert some influence through the effects they have on the household and on the dynamics among persons within the household. As children grow older and establish contacts outside the household, influences external to the household will gain in importance.

Ecological systems theory, however, explicitly acknowledges that children are influenced not only by direct interactions with others, but also by the interactions that
the others have with each other. The child benefits, for example, if the two parents have a harmonious relationship or if the parents have a strong connection to the child's school and teachers (Bronfenbrenner, 1986). Research supports this view: children thrive when their parents love one another as well as the child. One reason for this is that the climate of the household is more harmonious and the two parents can provide emotional and physical support to each other (Hetherington and Parke, 1993). Coleman's concept of social capital complements this perspective (Coleman, 1990). Social capital is embedded in the relations that exist among persons. The more connections that there are within a family and between members of the family and persons and institutions in a community, the greater the social capital, and the greater the ability to transfer human, financial, and other types of resources to individuals within the family.

Children also seem to benefit from continuity in their environment, predictable schedules, and consistent, firm (but not harsh) discipline (Miller, 1970; Crockenberg and Litman, 1990; Patterson, Reid, and Dishion, 1989). Structuring home routines, for example, is associated with higher achievement and reading scores in school (Miller, 1970). Reasonable and consistent discipline is associated with children who are more cooperative and who are more likely to internalize the standards of their parents and are less likely to exhibit behavior problems (Crockenberg and Litman, 1990; Patterson, Reid, and Dishion, 1989). All of these activities are more difficult in single parent households. Psychological research also suggests that children's sex-role development is enhanced by the presence of the same sex parent. Of particular concern are preschool boys who lose their fathers at a time when they are beginning the process of same sex identification.
These perspectives on child development carry implications for research on the consequences of marital disruption for children's lives. Factors that this research indicate should be important are age of the child at the time of disruption, other characteristics of the child including his or her experiences prior to the disruption, the psychological well-being of the primary caretaker, the dynamics between the two parents and between each parent and the child, and the extent to which continuity in the child's day-to-day

### 2.6 Conceptual Framework

**Independent variables**

- Stress and anxiety reduction
- Cost of hospitalization
- Child friendly hospital environments
- Parental involvement

**Moderating variable**

- Government policies
- NGOs

**Intervening variables**

- Child Life Support Program
  - Patients will heal faster and they will be discharged home sooner
  - Reduction in costs due less staff required and reduced use of analgesics

Hospitalization brings stress and anxiety to children. Psychological preparation of children for procedures, therapeutic play and parental presence are some
ways that can be used to reduce stress and anxiety that comes along with hospitalization in children.

Certain procedures require use of pain killers or sleep medication in children. When children are supported and prepared well, such pain killers and sleep medication can sometimes be avoided. This will reduce the cost burden that the parent/caregiver would have carried.

Environment can promote healing if it is child friendly. Ways that the environment can be made child friendly is using bright colours to paint hospital wards, staff attending children to put on clothing that is flowery and with bright and beautiful colours to a child’s eye. Medical staff should avoid white coats which are mostly associated with painful procedures.

Parents/caregivers should be made partners in the decision making and management of their sick children. Children stressful situations like hospitalization feel comfortable and have a sense of security when a family member is around them.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This study was carried out at the paediatric wards of Moi Teaching and Referral Hospital (MTRH), Eldoret, Kenya. MTRH is the second national referral in Kenya that serves a population of approximately 1.3 million mainly of Western Kenya and some parts of Eastern Uganda and Rwanda (MTRH medical records, 2012).

This chapter presents study design, target population, sampling technique, data collection instruments, data collection procedures, data analysis and ethical consideration of the study.

3.2 Study Design

A cross sectional descriptive study research design was used for this study. It involved collection of data once at a particular point in time. This study design is used mainly in showing associations and effects but not establishing causation. In the study, independent variables that might explain the mechanism of the observed occurrences shall be measured and these includes: parental presence during procedures; child friendly paintings throughout the paediatric hospital wards; child friendly uniforms for health workers; information provided to parents; psychological preparation for surgeries and procedures; provision of developmentally appropriate therapeutic play.

3.3 Target Population

The study population was sick children, parents/guardians of children admitted to the paediatric wards, Child Life program employees and management staff of Moi Teaching and referral hospital. According to 2012 MTRH records, 463 children were
admitted each month in that year. A child is admitted with a parent/caregiver, therefore there are 463 parents/caregivers.

The table below shows how the target population was drawn

**Table 3.1 Target population**

<table>
<thead>
<tr>
<th>Category</th>
<th>Target population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>463</td>
</tr>
<tr>
<td>Parent/guardians of patients</td>
<td>463</td>
</tr>
<tr>
<td>Employees of NGO</td>
<td>24</td>
</tr>
<tr>
<td>Hospital management</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
</tr>
</tbody>
</table>

**3.4.1 Sampling Technique**

This study applied stratified and simple random sampling techniques to select the sample of children and parents/guardians. The research adopted a stratified sampling technique where respondents were grouped in respect to their wards. The researcher therefore sought to collect data from the children and their parents/caregivers. After stratifying the respondents, the study then employed simple random sampling to identify participants. This sampling technique ensured that each member of the study population was given an equal chance of being selected to participate. The entire process of sampling was done in a single step with each subject selected independently of the other members of the population.

Simple random sampling was used to select 30% of the patient’s parents/caregiver, pediatric patients from different wards, employees of Child Life program and the hospital’s management (Mugenda and Mugenda 2009). Table 3.2 below illustrates
the sample size.

Table 3.2 Sample Size

<table>
<thead>
<tr>
<th>Respondent category</th>
<th>Target population</th>
<th>Procedures</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>463</td>
<td>463x30%</td>
<td>139</td>
</tr>
<tr>
<td>Parents/Guardians</td>
<td>463</td>
<td>463x30%</td>
<td>139</td>
</tr>
<tr>
<td>Employees of NGO</td>
<td>24</td>
<td>24x30%</td>
<td>7</td>
</tr>
<tr>
<td>Hospital management</td>
<td>50</td>
<td>50x30%</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>926</td>
<td></td>
<td>300</td>
</tr>
</tbody>
</table>

Source: MTRH Pediatric admissions Data, 2012

3.5. Data Collection Instruments

Questionnaires were developed from the objectives of the study and were administered on the respondents. They sought personal information of the respondents and that concerning the status of Child Life Support Program among Paediatric Patients at Moi Teaching and Referral Hospital. They were distributed to respondents by the researcher and research assistants giving respondents sufficient time to answer the questions. This method was appropriate for the respondents given that they were literate, the information needed could be provided in writing and it was easy to classify and analyze the data collected especially on closed ended questions. It also catered for the population since it was large in relation to the available time (Oso and Onen, 2005; Kasomo, 2007).
Questionnaires were therefore appropriate for this study since they enabled collection of data from a large sample of respondents and upheld confidentiality (Kombo and Tromp, 2006).

Interviews were also held with a sample of 139 pediatric patients from different wards. Information was obtained using the interview schedule in appendix iii. Unlike questionnaire-based interviewing, this approach probes more deeply and allows for explanations from respondents without necessarily jeopardizing the goal of the research (Veal, 1997). The interviews were to allow for detailed probing of respondents’ views and opinions and facilitate the elaboration of answers where necessary. This was to enable the expansion of the interviews into other areas that originally were not part of the interview schedule, but nonetheless may help towards addressing the aim of the study.

3.5.1 Data Collection procedure

This refers to the series of events to be followed during data collecting process. In this research study, the researcher requested for IREC approval and then wrote a letter to the hospital’s management for permission to conduct the study. The researcher was granted permission. Each day, the investigator randomly selected the study participants and this went on until the desired sample size was reached. The researcher then assembled all the collected information, appreciated respondents and asked for any questions from participants before leaving. The filled questionnaires were stored in a safe lock and key data cabinet.

3.6 Validity of research instruments

Validity refers to the extent to which an instrument can measure what it ought to measure. It therefore refers to the extent to which an instrument asks the right
questions in terms of accuracy (Paton, 2000). The content validity of the instrument was determined in two ways. The researcher discussed the items in the instrument with the supervisors, lecturers from the department and colleagues. Advice given by these professionals helped the researcher determine the validity of the research instruments. The advice included suggestions, clarifications and other inputs. These suggestions were used in making necessary changes for adoption in the final data collection instrument/questionnaire. Pilot study was not done because no other hospital offers child life support program services in Kenya.

3.7 **Reliability of research instruments**

The reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda, 2003). The Cronbach’s Coefficient Alpha was used to test the reliability of the questionnaires and was computed for each instrument in Likert scale. A reliability coefficient of 0.7 or over was assumed to reflect the internal reliability of the instrument.

3.8 **Data analysis**

Mugenda (2003) defined data analysis as the process of creating order, structure and meaning to the mass of information collected. The data collected was analyzed using computer SPSS (Statistical Package for social sciences) statistical software. Descriptive statistics was analyzed and presented in terms of tables. Dodge (2003) defined descriptive statistics as the discipline of quantitatively describing the main features of a collection of data, which provides simple summaries about the sample and about the observations that have been made. The descriptive statistics included frequencies and percentages which were used to analyze the findings from the study.
3.9 Ethical consideration of the study

Ethical committee (IREC) of Moi University and MTRH approved the study before it commences. Permission to carry out the investigations was obtained from the hospital management. Informed consent was obtained from every participant before being enrolled into the study. Privacy and confidentiality of the participants were assured. Consenting process took place in private consultation rooms restricted to access by unauthorised persons. Names of the respondents were not be indicated anywhere on the questionnaire. The identifiable information obtained from the respondents was only accessible to principal investigator and research assistant. Respondents were free to withdraw from the study at will if they wish to do so anytime. The researcher and a research assistant administer questionnaires. Enough time was given to each respondent to ensure adequate response to research questions and for any question that might arise.
CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the results of data analysis pertaining objectives of this study. The chapter begins with the demographic characteristics of the respondents which included age, gender and highest level of education. These were presented using cross tabulations.

4.2 Questionnaire Return Rate

The study sampled 300 parents/guardians of pediatric patients, pediatric patients and employees of NGO and hospital management. Out of which 161 respondents who were issued with the questionnaire chosen to participate in the study, a total of 107 questionnaires were returned, representing a 66% response rate. More so, 139 patients (children) were interviewed. This is adequate and matching Mugenda and Mugenda (1999) provision of more than 50% as adequate for analysis and reporting.

4.3 Demographic profile of the Respondents

The demographic features of the respondents were vital to this study. They provide a base for further analysis of the specific research objectives. Demographic analysis is crucial since demographical factors affect respondents’ social, economic, political behaviors hence they are useful tools in analysis of research objectives. This was done to avoid biasness. The demographic profiles of respondents were analyzed using five aspects namely the gender of the respondent, age, employment status, residence and education level.
4.3.1 Age of the respondents

The researcher found it important to collect data on the age of the respondents. Data on the findings was presented in table 4.1

Table 4.1: Age of the respondents

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25 years</td>
<td>15</td>
<td>14.0</td>
<td>14.0</td>
</tr>
<tr>
<td>26-33 years</td>
<td>16</td>
<td>15.0</td>
<td>29.0</td>
</tr>
<tr>
<td>34-40 years</td>
<td>40</td>
<td>37.4</td>
<td>66.4</td>
</tr>
<tr>
<td>41-48 years</td>
<td>20</td>
<td>18.7</td>
<td>85.0</td>
</tr>
<tr>
<td>Above 48 years</td>
<td>16</td>
<td>15.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Total 107 100.0

Source: Research study, 2013

The findings showed that majority respondents are between 34-40 years while minority respondents are between the ages 18-25 years. Based on the findings its evident that majority are between age 34-40 years this age group being youthful in nature
provides an opportunity to really understand the importance of child life support program.

4.3.2 Gender of the respondents

Data on gender was sought to give the researcher an insight analysis on whether both parents keep closer care of their child when they are hospitalized. The results of these items are indicated in table 4.2

Table 4.2 Gender of the respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>28</td>
<td>26.2</td>
<td>26.2</td>
</tr>
<tr>
<td>Female</td>
<td>79</td>
<td>73.8</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Total 107 100.0

Source: Research study, 2013

The results indicated majority of respondents (73.8%) were female and minority (26.2%) was male. The results indicate that female parents/caregivers take more responsibility in taking care of their sick child as compared to male parents/caregivers.

4.3.3 Education level of respondents

The research sought to establish the level of education of parents/caregivers respondents. The findings on the education qualification are presented in table 4.3 below:
Table 4.3 Education level of respondents

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>17</td>
<td>15.9</td>
<td>15.9</td>
</tr>
<tr>
<td>College</td>
<td>45</td>
<td>42.1</td>
<td>57.9</td>
</tr>
<tr>
<td>Secondary</td>
<td>26</td>
<td>24.3</td>
<td>82.2</td>
</tr>
<tr>
<td>Primary</td>
<td>19</td>
<td>17.8</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Research study, 2013*

It was reported that majority (42.1%) were diploma holders while minority (15.9%) were bachelor’s degree holders. The result shows that majority of the respondents were well educated. This implies that most of the respondents understood what Child Life support program entails.

4.4 Analysis of objective 1: Effect of Child Life on stress and anxiety

4.4.1 Accompany of child to procedure room by Child Life Staff

The study wanted to find out if child life staff accompanied the child to procedure rooms for distraction/ diversion during a procedure. Data on findings were presented below
### Table 4.4 Accompany of child to procedure room by Child Life Staff

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff accompanied the child</td>
<td>67</td>
<td>62.6</td>
<td>62.6</td>
</tr>
<tr>
<td>Staff did not accompany the child</td>
<td>38</td>
<td>35.5</td>
<td>98.1</td>
</tr>
<tr>
<td>Don’t know</td>
<td>2</td>
<td>1.9</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>107</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Research study, 2013*

In this regard the study indicated 62.6% agreed the staff accompanied the child while 35.5% said they were not and 1.9% indicated they didn’t know.

#### 4.4.2 Activity of accompanied child during procedure

The study intended to find out if the child who was accompanied to procedure room showed activity or movement during the procedure. Data on the findings were presented below
Table 4.5 Activity of accompanied child during a procedure

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calm</td>
<td>67</td>
<td>62.6</td>
<td>62.6</td>
</tr>
<tr>
<td>Were not calm</td>
<td>29</td>
<td>27.1</td>
<td>89.7</td>
</tr>
<tr>
<td>Don’t know</td>
<td>11</td>
<td>10.3</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Research study, 2013*

The study showed that 62.6% said that the child was calm during the procedure while 27.1% said they were not calm and 10.3% said they didn’t know.

### 4.4.3 Child life support

The study sought to find out what child life support program had provided in orders to help in stress and anxiety reduction. Data on the findings were presented on table 4.6
**Table 4.6 Child support program provided**

<table>
<thead>
<tr>
<th>Service</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional support to you and your child</td>
<td>21</td>
<td>19.6</td>
<td>19.6</td>
</tr>
<tr>
<td>Therapeutic play to your child</td>
<td>23</td>
<td>21.5</td>
<td>41.1</td>
</tr>
<tr>
<td>Stress coping technique</td>
<td>63</td>
<td>58.9</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research study, 2013

The result indicated that majority 58.9% stated that stress coping technique was provided. 21.5% said therapeutic play was provided while 19.6% said emotional support.

**4.4.4 Psychological/ Counselling services**

The study wanted to find out if both the parent and the child were provided with psychological/ counseling services. Data on the findings were presented on table below

---

32
The result showed that 83.2% majority were provided with psychological/counseling services while 6.5% indicated they didn’t know and 10.3% said they weren’t provided with those services.

### 4.4.5 Information on surgery/ medical procedure

The study wanted to establish if pediatric patients and their parents/caregivers received adequate information on medical procedures or surgery. Data on the findings were as below
Table 4.8 Information on surgery/ medical procedure

<table>
<thead>
<tr>
<th>Information on surgery</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>provided</td>
<td>84</td>
<td>78.5</td>
<td>78.5</td>
</tr>
<tr>
<td>not provided</td>
<td>20</td>
<td>18.7</td>
<td>97.2</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3</td>
<td>2.8</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research study, 2013

The results indicated that majority 78.5% were provided with the information while 18.7% said they were not provided and 2.8% indicated they didn’t know if they were provided.

4.5 Analysis of objective 2: Child Life support and cost of treatment

4.5.1 Duration for hospitalization

The study wanted to know the longest time the child had been hospitalized. Data on the findings were presented below
Table 4.9 Duration for hospitalization

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than a week</td>
<td>17</td>
<td>15.9</td>
<td>15.9</td>
</tr>
<tr>
<td>Two weeks</td>
<td>45</td>
<td>42.1</td>
<td>57.9</td>
</tr>
<tr>
<td>Three weeks</td>
<td>26</td>
<td>24.3</td>
<td>82.2</td>
</tr>
<tr>
<td>More than Four weeks</td>
<td>19</td>
<td>17.8</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research study, 2013

It was reported that majority (42.1%) had been admitted for two weeks, (15.9%) were had been admitted for less than one week, (24.3%) had been hospitalized for three weeks and (17.8%) had been hospitalized for more than four weeks.

4.5.2 Preventive health maintenance activities

The study wanted to find out if both the parent and the child had been informed on preventive and health maintenance activities. Data on the findings were presented on table below
Table 4.10 Preventive health maintenance activities

<table>
<thead>
<tr>
<th>Health maintenance activity provided</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventive and health maintenance activities</td>
<td>89</td>
<td>83.2</td>
<td>83.2</td>
</tr>
<tr>
<td>Health maintenance activity provided not provided</td>
<td>11</td>
<td>10.3</td>
<td>93.5</td>
</tr>
<tr>
<td>Don’t know</td>
<td>7</td>
<td>6.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research study, 2013

The result showed that 83.2% which was majority has been informed on preventive and health maintenance activities while 6.5% indicated they didn’t know and 10.3% said they weren’t informed on preventive and health maintenance activities.

4.5.3 Pain medication after or before a procedure

The study wanted to find out if child had been given pain medication before, during or after a medical procedure. Data on the findings were presented on table 4.12
Table 4.11 Pain medication before, during or after a procedure

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain medication given</td>
<td>25</td>
<td>23.4</td>
<td>23.4</td>
</tr>
<tr>
<td>Pain medication not given</td>
<td>71</td>
<td>66.4</td>
<td>89.8</td>
</tr>
<tr>
<td>Don’t know</td>
<td>11</td>
<td>10.2</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>107</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research study, 2013

In this regard majority 66.4% indicated that they had not been given any pain medication, 23.4% said they were given and 10.2% did not know.

4.6 Analysis of objective 3: Hospital environment

4.6.1 Child friendly colours

The study wanted to find out if the hospital’s wards were painted using child friendly colours. Data on the findings were presented below
Table 4.12 Child friendly colours

<table>
<thead>
<tr>
<th>Colours were friendly</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>80</td>
<td>74.8</td>
<td>74.8</td>
</tr>
<tr>
<td>Colours were not friendly</td>
<td>18</td>
<td>16.8</td>
<td>91.6</td>
</tr>
<tr>
<td>Don’t know</td>
<td>9</td>
<td>8.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Research study, 2013*

The results indicated that majority 74.8% thought colours used to paint hospital’s wards were child friendly while minority 8.4% stated that the colours were not and 16.8% didn’t know if they were child friendly.

**4.6.2 Scared of medical staff**

The study wanted to establish if the child showed any behaviour/s suggestive of being scared of doctors or any other medical staff. Data on the findings were presented below
Table 4.13 Scared of medical staff

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical staff scared the child</td>
<td>88</td>
<td>82.2</td>
<td>82.2</td>
</tr>
<tr>
<td>Medical staff did not scare the child</td>
<td>15</td>
<td>14.0</td>
<td>96.3</td>
</tr>
<tr>
<td>Don’t know</td>
<td>4</td>
<td>3.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research study, 2013

The findings showed that majority 82.2% of the respondents indicated that the child showed suggestive behavior of being scared of the medical staff, 14% did not feel scared while 3.7% said they haven’t noticed.

4.7 Analysis of objective 4: Parental Involvement

4.7.1 Information concerning child’s health

The study wanted to find out if the parent/caregiver was provided with information concerning their child’s health. Data on the findings were presented below
Table 4.14 Information concerning child’s health

<table>
<thead>
<tr>
<th>Information was provided</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information was provided</td>
<td>102</td>
<td>95.3</td>
<td>95.3</td>
</tr>
<tr>
<td>Information was not provided</td>
<td>5</td>
<td>4.7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Total 107 100.0

Source: Research study, 2013

Based on the findings the respondent’s majority (95.3%) agreed that they were provided with the information on their child’s health while only 4.7% said they were not provided with any information.

4.7.2 Opportunity to play with child

The study intended to establish if the parent/caregiver took time to play with their hospitalized. Data was presented below.
Table 4.15 Opportunity to play with child

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Took time to play</td>
<td>26</td>
<td>24.3</td>
<td>24.3</td>
</tr>
<tr>
<td>Did not take time to play</td>
<td>81</td>
<td>75.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Research study, 2013*

Majority of the respondents (75.7%) said they did not take time to play with their child while minority of respondent 24.3% indicated that they took time to play with their hospitalized child.

4.7.3 Accompany the child to the procedure room

The study wanted to find out if the parents were allowed to accompany the child to the procedure room. Data was presented below

Table 4.16 Accompany the child to the procedure room

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accompanied the child</td>
<td>91</td>
<td>85.0</td>
<td>85.0</td>
</tr>
<tr>
<td>Did not accompany the child</td>
<td>11</td>
<td>10.3</td>
<td>95.3</td>
</tr>
<tr>
<td>Don’t know</td>
<td>5</td>
<td>4.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Accompanied the child</td>
<td>Frequency</td>
<td>Percent</td>
<td>Cumulative Percent</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td>---------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Accompanied the child</td>
<td>91</td>
<td>85.0</td>
<td>85.0</td>
</tr>
<tr>
<td>Did not accompany the child</td>
<td>11</td>
<td>10.3</td>
<td>95.3</td>
</tr>
<tr>
<td>Don’t know</td>
<td>5</td>
<td>4.7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source: Research study, 2013*

The result showed that 85% indicated they accompanied their child to procedure room, 10.3% did not and 4.7% said they didn’t know.

### 4.7.4 Child’s health

The study wanted to find out if the respondent took time to explain to the child what was happening to his/her health. Data on the findings were presented below

**Table 4.17 Child’s health**

<table>
<thead>
<tr>
<th>Explained to the child</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explained to the child</td>
<td>70</td>
<td>65.3</td>
<td>65.3</td>
</tr>
<tr>
<td>Did not explained</td>
<td>37</td>
<td>34.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Research study, 2013*
Based on the findings the respondent’s majority (65.3%) agreed that they explained to their child what was happening to their health while only 34.7% said they did not.
CHAPTER FIVE
SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter presents a summary of the major findings of the study sequentially in relation to the study objectives. From the summary, appropriate conclusions were drawn and recommendations given on the assessment of pediatric Child life support program at Moi Teaching and Referral Hospital, Eldoret, Kenya.

5.2 Summary of the study findings
Among the respondents demographic characteristics that the researcher sought to know were age, gender and highest level of education. Majority of the parents/caregivers who responded were female. Among the parents/caregivers, majority of them were between 34-40 years while minority respondents were between the ages of 18-25 years. On the level of education, majority of the respondents had college education.

5.2.1 The effect of Child Life support on stress and anxiety on pediatric patients
Based on the findings on the effect of Child Life support stress and anxiety on pediatric patients at Moi Teaching and Referral Hospital, the levels of stress and anxiety of children was reduced. Accompanying children during procedures showed children to be calm. Children who were accompanied by Child Life workers were calm hence did not require more staff to support them.

5.2.2 Effect of Child Life program on cost of treatment among pediatric patients
Length of hospitalization affects the cost of hospitalization. The study findings showed that most respondents were taught on preventive health maintenance activities. One such activity is hand washing to prevent disease. The study also found out
that children who were psychologically prepared did not require pain medication or sleep medication. Parents/caregivers incur costs in purchasing such medications. Medical costs and the follow-up phase of the disease could have long-term effects on the financial stability of the family.

5.2.3 The effect of hospital environment on recovery of pediatric patients

Study findings on the effect of hospital environment on recovery of pediatric patients at Moi Teaching and Referral Hospital showed that the hospital had tried to paint the wards using child-friendly colours. However, it was found out that majority of the pediatric patients were scared of medical personnel. This could be attributed to the fact that medical personnel with an exception of Child Life Health Workers wear white. Majority of children associate white coats with hospital procedures that they undergo.

5.2.4 The effect of parental involvement on recovery of pediatric patients

Based on the findings on how parental involvement affects recovery of pediatric patients at Moi Teaching and Referral Hospital the study showed that there was some form of parental involvement in management of their sick child. Majority of parents/caregivers accompanied their children into procedure rooms so as to provide comfort to them. Parents also took time to explain to their children on concerns about their health.

The study on the other hand found out that most parents/caregivers did not take time to play with their hospitalized child. This role was left to staffs who were employed by the Child Life department.
5.3 Conclusion

This study concludes that most female caretakers stay with their child whenever hospitalized as compared with males. Culture may have a contribution to this because in African cultures gender roles have been defined. Females bear and take care of children, while males are bread winners of the family.

This study also concludes Child Life may help contain some treatment costs that would have been incurred by the parent/caregiver. This is because the study showed that with Child Life support, sometimes use of pain medication or sleep medication could be avoided.

The study concludes that Child Life program at MTRH has put some efforts in trying to create child friendly environments for pediatric patients. Majority of the respondents agreed that the hospital’s pediatric wards had been painted using child friendly colours. It was however noted that the children were scared of medical personnel and this could be attributed to the fact that most of them wear white coats and not child friendly attire.

This study also concludes that there was some level of parental involvement in the care of their children. Parents were given the chance of accompanying their children during medical procedures in order to offer comfort and a sense of security. Most parents/caregivers did not take time to play with their children when hospitalized. This might be due to the African cultural effect where children only play with other children and adults.
5.4 **Recommendations**

The study makes the following recommendations:

a) Hospitals in Kenya should realize the important role played by CL. Child Life programs should be used as standard requirement for hospitals that serve children

b) MTRH and other pediatric hospitals should understand the important roles played by families during a child’s hospitalization. Parents/caregivers should be included as partners and active decision makers when it comes to their child’s health.

c) Child life support programs are important in management of pediatric patients. Pediatric hospitals should promote and support such programs in order to make pediatric hospitals child friendly.

d) More efforts at MTRH should be put in creating child friendly environments. This needs to include the uniform of all staff serving children

5.6 **Suggestion for further studies.**

In relation to the findings and the conclusion in this study, the researcher recommends that further studies should be done on the impact of child life support programmes on the length of hospitalization.
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APPENDICES

APPENDIX I Letter of permission from IREC
Ernest Kimutai Kirui.
Admission Number L50/84131/2012
P.O.Box 1950 – 30100,
Eldoret.

The Chairman,
Institutional Research and Ethics Committee,
P.O. Box 3 – 30100,
Eldoret.

Dear Sir/Madam:

RE: PERMISSION TO CONDUCT RESEARCH AT THE MOI TEACHING AND REFERRAL HOSPITAL

I am a second year postgraduate student at the University of Nairobi pursuing a masters degree in Project Planning and Management. I would like to request your permission to carry out a research at Moi Teaching and Referral Hospital. Research is a requirement of my course. My topic of interest is to assess the status of Child Life Support Program among Paediatric Patients at Moi Teaching and Referral Hospital.

I look forward to your favourable consideration.

Yours Faithfully,

Ernest Kimutai Kirui

Email address: kimue1950@yahoo.com

Mobile no. 0722-938-979
APPENDIX II: Consent Form

Assessment of paediatric Child life support program at Moi Teaching and Referral Hospital, Eldoret, Kenya

You must read this greeting to the respondent and proceed with the interview only after he/she gives consent.

Good morning/afternoon, Baby/Madam/Sir. My name is Ernest Kirui. I am here today from University of Nairobi to collect information and data for the study on adherence to guidelines for Paediatric Child life support program. The Institutional Research and Ethics Committee (IREC) of Moi University/MTRH have approved this research.

I will be asking you questions on demographics and health care issues related to your clinical care. I will also check your medical records for data verification. I plan to conduct interviews with 278 participants. All information you provide will remain confidential.

Benefits
This is a research project that may help Government’s policy makers and health providers to design appropriate policies and plans to provide better health services for our children in the future by using its findings. Your participation will help us to gain a better understanding of the issues affecting clinical care of young children and welfare for their families.

Risks
Am aware of the fact that some of the questions regarding your clinical care may be sensitive and time consuming. Everything you will tell me will be kept confidential. Under no circumstance will we link your name to the data during analysis and dissemination of the study findings. If you choose not to participate, it will not affect you in anyway. If you feel uncomfortable in the course of the survey, you can withdraw at any time. If you agree to participate, it will take approximately 30 minutes to complete the interview. If you have any further questions during the period and in the
future, please do not hesitate to contact the research team using the telephone number below.

May we proceed?  Verbal consent:  Yes……………No……………………

Date ………………………………………

Thank you for participating.

Contacts for the research team,

MR. ERNEST KIRUI,

UNIVERSITY OF NAIROBI AT ELDORET CAMPUS, P.O BOX 1950-30100 Eldoret, Kenya

Phone; 0722938979, E- Mail address; kimue1950@yahoo.com
APPENDIX III Questionnaires

Questionnaire for Parents/Guardians

The purpose of this questionnaire is to assess Child Life support at the Moi Teaching and Referral in Eldoret, Kenya. I request you to feel free and cooperate in this exercise.

About Child Life
Child Life support is the provision of comprehensive psychosocial, developmental, and information services to children and families in order to normalize the hospital environment and cope up with treatment stress, pain and trauma that accompanies hospitalization. Child life; gives orientation tours to the hospital environment during admissions, advocates for parental presence during procedures, gives information to parents, provides psychological preparation of children and families for surgeries and procedures, provides developmentally appropriate therapeutic play activities to children, offers distraction and diversion during procedures and provides safe environments for children in the hospital.

Demographics
1. Age (years)
   18-25 years ( )   26-33 years ( )   34-40 years ( )
   41-48 years ( )   Above 48 years ( )
2. Gender
   Male ( )   Female ( )
3. What is your highest education level
   University ( )   mid level College ( )
   Secondary ( )   primary ( )   None ( )
CHILD LIFE SUPPORT ON STRESS AND ANXIETY

4. (i) Does the Sally Test Child life staff accompany your child to procedure rooms for distraction/diversion during a procedure?
   (a) Yes ( )  (b) No ( )  (c) Don’t know ( )

4. (ii) Was your child calm or showed a lot of activity during a procedure?
   (a) Yes ( )  (b) No ( )  (c) Don’t know ( )

4. (iii) In your perspective, has child life support program provided the following?
   Emotional support to you and your child? ( )
   Therapeutic play to your child? ( )
   Stress coping techniques? ( )

4. (iv) Have you and your child been provided with psychological/counselling services
   (a) Yes ( )  (b) No ( )  (c) Don’t know ( )

4. (v) In case of surgery/medical procedures, did you receive adequate information about it?
   (a) Yes ( )  (b) No ( )  (c) Don’t know ( )

CHILD LIFE ON COST OF TREATMENT

5. (i) How long has your child been in the hospital?
   Less than one week ( ) One Week ( ) Two Weeks ( ) Three weeks ( )
   Four weeks ( ) More than four weeks

5. (ii) Have you been informed on preventive and health maintenance activities for your child
   (a) Yes ( )  (b) No ( )  (c) Don’t know ( )

5. (iii) Was your child given any pain medication before, during or after any painful procedure?
   a) Yes ( )  (b) No ( )  (c) Don’t know ( )
HOSPITAL ENVIRONMENT

6 (i) In your perspective, are the hospitals’ wards painted using child-friendly colours?
   (a) Yes (   )   (b) No (   )   (c) Don’t know (   )

6 (ii) Has your child shown any behaviour suggestive of being scared of doctors or any other medical staff?
   (a) Yes (   )   (b) No (   )   (c) Don’t know (   )

6 (ii) In your perspective, are the hospitals’ wards painted using child-friendly colours?
   (a) Yes (   )   (b) No (   )   (c) Don’t know (   )

PARENTAL INVOLVEMENT

7. (i) Have you been provided with information that concerns your child’s health?
   (a) Yes (   )   (b) No (   )   (c) Don’t know (   )

7. (ii) Do you play with your child while at the hospital
   (a) Yes (   )   (b) No (   )   (c) Don’t know (   )

7. (iii) Are you allowed to accompany your child to the procedure room?
   (a) Yes (   )   (b) No (   )   (c) Don’t know (   )

7. (iv) Do you take time to explain to the child what is happening to his/her health?
   (a) Yes (   )   (b) No (   )   (c) Don’t know (   )
APPENDIX IV Questionnaires

Questionnaire for Staff

The purpose of this questionnaire is to assess Child Life support at the Moi Teaching and Referral in Eldoret, Kenya. I request you to feel free and cooperate in this exercise.

About Child Life
Child Life support is the provision of comprehensive psychosocial, developmental, and information services to children and families in order to normalize the hospital environment and cope up with treatment stress, pain and trauma that accompanies hospitalization. Child life; gives orientation tours to the hospital environment during admissions, advocates for parental presence during procedures, gives information to parents, provides psychological preparation of children and families for surgeries and procedures, provides developmentally appropriate therapeutic play activities to children, offers distraction and diversion during procedures and provides safe environments for children in the hospital.

Demographics
1. Age (years)
   18-25 years ( ) 26-33 years ( ) 34-40 years ( )
   41-48 years ( ) Above 48 years ( )
2. Gender
   Male ( ) Female ( )
3. What is your highest education level
   University ( ) mid level College ( )
   Secondary ( ) primary ( ) None ( )

CHILD LIFE SUPPORT ON STRESS AND ANXIETY
4. (i) Does the Sally Test Child life staff accompany children to procedure rooms for distraction/diversion during a procedure?
   (a) Yes ( ) (b) No ( ) (c) Don’t know ( )
4. (ii) Did you notice calmness or a lot of activity on the child accompanied during a procedure?
4. (i) In your perspective, has child life support program provided the following to children and their parents/caregivers?
   - Emotional support to you and your child? (  )
   - Therapeutic play to your child? (  )
   - Stress coping techniques? (  )

4. (iv) Do you feel children and their parents are provided with psychological/counselling services
   - Yes (  )
   - No (  )
   - Don’t know (  )

4. (v) In case of surgery/medical procedures, do you feel children and parents receive adequate information about it?
   - Yes (  )
   - No (  )
   - Don’t know (  )

**CHILD LIFE ON COST OF TREATMENT**

5. (i) What is the average length of hospitalization?
   - Less than one week (  )
   - One Week (  )
   - Two Weeks (  )
   - Three weeks (  )
   - Four weeks (  )
   - More than four weeks

5. (ii) Do you feel parents and their children are informed on preventive and health maintenance activities for your child
   - Yes (  )
   - No (  )
   - Don’t know (  )

5. (iii) Did you notice a child that had been psychologically prepared given any pain medication before, during or after any painful procedure?
   - Yes (  )
   - No (  )
   - Don’t know (  )

**HOSPITAL ENVIRONMENT**

6 (i) In your perspective, are the hospitals’ wards painted using child-friendly colours?
   - Yes (  )
   - No (  )
   - Don’t know (  )
6 (ii) Have you noticed any behaviour in hospitalized children at MTRH suggestive of being scared of doctors or any other medical staff?
(a) Yes ( ) (b) No ( ) (c) Don’t know ( )

PARENTAL INVOLVEMENT
7. (i) Do you feel Child Life provides parents and children with information that concerns their child’s health?
(a) Yes ( ) (b) No ( ) (c) Don’t know ( )
7. (ii) Do you parents play with their hospitalized child while at MTRH?
(a) Yes ( ) (b) No ( ) (c) Don’t know ( )
7. (iii) Are parents allowed to accompany their child to the procedure room?
(a) Yes ( ) (b) No ( ) (c) Don’t know ( )
7. (iv) Do you think parents take time to explain to the child what is happening to his/her health?
(a) Yes ( ) (b) No ( ) (c) Don’t know ( )