

**NURSES' ATTITUDES AND PERCEPTIONS TOWARDS PEDIATRIC ONCOLOGY
PATIENTS IN RELATIONSHIP TO THE QUALITY OF NURSING CARE THEY PROVIDE:
A CASE STUDY OF KENYATTA NATIONAL HOSPITAL.**

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Abstract

Cancer is a disease that creates fear and uncertainty in individuals in our society. This is mainly due to its poor prognosis. It is therefore regarded as not only a fatal disease, but also as a symbol of death. Cultural beliefs and practices play a big role in the diagnosis and treatment of cancer. A patient becoming ill is a social progress that involves other people besides the patient. In the African belief system, misfortunes such as ill health, natural disaster, or death do not just occur, but are perceived to be pre-destined. The objective of this study was to document nurses' attitudes and perceptions towards pediatric cancer patients.

This research was conducted in pediatric oncology unit in Ward 1E, Medical Wards 3A, 3B, 3C, and 3D at Kenyatta National Hospital (KNH). The study population was drawn from wards 1E, 3A, 3B, 3C, and 3D. The criteria used to include subjects were: all nurses who had been deployed to the selected wards at the time of the study. Target respondents must have held a minimum qualification of certificate in nursing (ECN, KRCHN, BSc.N, and MSc.N) and had been registered with the Nursing Council of Kenya (NCK) at the time of the study. The target respondent should also have worked for a minimum of one year. A list of all nurses (sampling frame) working in wards 1 E, 3A, 3B, 3C and 3D was obtained from the Chief Nurse's office. There were approximately 129 nurses who comprised the study population. The sample size calculation was done using Cochran's classical formula for sample size determination in surveys (Czaja & Blair, 2005). A total of 97 nurses were sampled for this study but only seventy nurses (representing 72.2 % of the total targeted sample size) participated in the study. A simple random sampling procedure was used to select nurses to participate in the study.

The results show that there is indeed significant relationship between the factors that explain nurse's attitudes and perceptions and the quality of care he/she gives to the patients. The results suggest that there is a relationship between the nurses' perception and attitudes towards pediatric cancers and the quality of care they give to pediatric oncology patients.

Key Words: Attitude, Perception, Pediatric, Quality, Nurse, Oncology.

Introduction

To many people, the word 'cancer' causes fear more than any other disease; possibly because its course is unpredictable and anyone of any age may be affected. No other disease is universally regarded with such dread and fear as cancer. In the past, it has been synonymous with death. In this generation, it has become associated with chronic illness and not infrequently, with cure (Purandare, 1997). The survival rates for pediatric cancers have continually improved over the past few decades, and currently it is estimated that 5-year, event-free survival rates are greater than 75% (Bleyer, 1997; Mertens et al., 2001). Any chronic illness might cause heavy impact on family members. The consequences of chronic childhood diseases are much more pronounced in the disturbing mental health of parents of these children (Rao et al., 1992; Bingler et al., 1964). Both patients and parents have to deal not only with their child's disease but should also stand with the prolonged therapy schedule which could be as distressing as the disease itself.

Cancer impacts on the total child and his/her family. For the family, it means adapting to repeated hospitalizations, seemingly endless clinic visits, and possible changes in the child's appearance, financial concerns and the always unsettling possibility of the child's untimely death (Dein, 2004). Both the way family functions and the effect the illness on the family influence the child. Parents, siblings, and extended family are prone to particular expected reaction to illness that in turn impacts the child. Parents' emotional wellbeing and style of coping directly affect the child, either due to the child modeling parents' reaction or because the parents' functioning changes the family environment (Wallender & Thomson, 1995). The impact of cancer in the child reaches beyond medical and emotional health issues. A number of important

ethical, legal and advocacy issues may arise in the course of treatment of children or adolescents with cancer revolving about such issues as compliance, consequence of therapy and experimental regimens and alternative medicine (Corner, 1998).

Despite the available therapy and current advances, many children who are diagnosed with cancer do not survive. Helping during illnesses and imminent death becomes an important consideration for all caregivers. Nurses often care for patients in all stages of disease from diagnosis to death or survivorship. A nurses' shift can consist of patients in varying phases of illness presenting a challenge to nurses who must consistently adjust to the different needs of each patient and their families. A challenge faced in the management of pediatric oncology patients is pain. Pain can be associated not only with the disease process itself, but also with the treatment of disease (Payne, 2000). Nurses play a crucial role in pain assessment and management; they often act as mediators between the doctor and the patient and serve as the main observer of pain and discomfort in patients (Zhang, Hsu, & Zou, 2008).

A serious complication of cancer treatment in pediatrics is infertility. Follow up studies have demonstrated that pediatric cancer survivors who had their fertility preserved have since used assisted reproductive technologies to establish pregnancies (Meseguer et al., 2006). While family planning among pediatric patients is an important aspect of long term quality of life, existing studies indicate this issue is not consistently discussed by health care providers with cancer patients and their families (Reebals, Brown, & Buckner, 2006). The results of a study conducted by Vadaparampil et al. indicate that most nurses report discussing the risk of infertility or family planning less than 51% of the time. They perceive that parents are focused solely on treating their

child's cancer and less concerned about future impact of treatment (Vadaparampil et al., 2007).

Nurses play a key role in the care of pediatric cancer patients and their families, and compared to other health care providers, nurses are more likely to have multiple interactions with the patient. There is an increasing interest in the attitudes of health professionals and the general public towards cancer, their effects on the quality of care that patients with cancer receive and the effects of attitudes on an individual's likelihood to present with symptoms. A survey conducted by Murray and McMillan et al. (as cited in Elkind, 1982) indicated that cancer remains the most feared disease in modern society. Whereas the public might be excused for their negativity, one could assume that as a result of education, health professionals' attitudes would be more positive.

It is a matter of concern, therefore, to note that despite all the education they receive professionals consciously or subconsciously repress thoughts on cancer, suggesting that personal experience is a stronger former of attitudes than formal education (Purandare, 1997). Early work by Elkind (1982, 1981) identified several factors such as personal and professional cancer experience, seniority and specialist education as mediating negative attitudes in a positive direction. However, a consistent pattern of positive influences remains elusive.

The attitude a person holds about a certain subject will influence the way that person behaves when confronted with that subject. Attitudes are usually considered as a residue of previous experience which influences behavior either in the forms of disposition or as internal responses (Box & Anderson, 1997). Brooks (1979) felt that of all definitions of attitude, the most generally accepted was that by Allport: "An attitude is a mental and neural state of readiness organized through experience exerting a directive or dynamic

influence on the individual's response to all objects and situations with which it is related" (p. 44).

Deetey (1979) explains that attitudes are affected by personal experience of others as observed by or related to us, religious, aesthetic or moral sentiments, folklore, and culture. Brooks (1979) feels that the more we know about cancer attitudes, the more we can predict behavior related to cancer and perhaps the more we can influence such behavior in reducing mortality and morbidity from it.

Studies have shown that although nurses are in a privileged position concerning access to survival rates and knowledge of new and better treatments, their attitudes are just as pessimistic as those of the general public (Box, 1982). Elkind (1982) felt that "nurses through their training and experience, are in good position to understand the true nature of cancer rather than its distorted image" but found that "nurses share the fear of cancer felt by women generally" (p.47). Corner (1993) found that professional experience tended to reinforce attitudes already held, or increase nurses' negative attitudes, so that individuals who entered the nursing profession with the "lay view" of cancer, which is pessimistic and fearful, appear to have become even more despondent about the disease process and could liken it to the scaring effect of battle (Corner, 1993). Box and Anderson (1993) found that the access to information and knowledge of treatments seemed to add to health professional fear rather than usage.

To improve survival rates in the whole world will require more than making available international treatment protocols. Delays in diagnosis and abandonment of treatment are the most common problems in the developing world, seriously compromising survival. Delay in seeking a diagnosis may spring from a lack of knowledge or from guilt. The assumption that cancer is inevitably fatal can contribute to failure

to seek timely medical help in all cultures. Those who have a fatalistic approach to life may accept cancer as God's will and neither seek advice nor adhere to treatment. There is a belief across several cultures that a family member or an enemy or wizard causes the disease. Such a belief fits with the actions of traditional healers, who may be called in to exorcise the alien (Eiser, 2004).

Pediatric patients with chronic illness are likely to seek alternative medicine (Sawani-Sikand, 2002). Recent studies have shown that the use of alternative medicine is especially common in pediatric oncology patients with up to 80% of the patients using alternative medicine during conventional treatment of their cancer (Kelly, 2004). Examples of commonly used alternative treatment and medicine include: nutritional supplements, vitamins, herbal remedies, changes in diet, spiritual therapies, aromatherapy, acupuncture and yoga (Roth et al., 2009). Alternative therapies have significant potential to improve the quality of life of pediatric oncology patients; however, they also have the potential to interact harmfully with the current standards of oncology treatment (Sencer & Kelly, 2006).

Patients or families may also delay seeking a diagnosis because they fear being blamed for past behavior. Such views are reinforced by established links between smoking and cancer, for example. Mothers may assume that they did something wrong when they were pregnant. Whereas lifestyle (smoking, alcohol and diet) accounts for many cancers in adults, there is no known cause for most childhood cancers (Eiser, 2004). Where there is no known cause, people typically search for some meaning to make sense of their experience. This happens in all cultures.

Lay beliefs and attitudes to cancer have been shown to be associated with delays in treatment, resistance to attending for screening, and attitudes towards therapy among adults of different

cultures (Dein, 2004). We may safely assume that culturally held beliefs also affect parents' approaches to managing their child's illness. For all these reasons, understanding cultural responses to cancer is as important to health-care professionals as knowledge of statistical trends (Dein, 2004).

One objective of nursing must be to deliver quality nursing care to clients. It is recognized that 'quality' like the nature of nursing is a difficult term to define. Nursing has struggled since the 1960's to capture its meaning (Fitzpatrick, 1992). A literature review conducted by Fitzpatrick et al. includes a large vocabulary about factors consisting and contributing to high quality care. These include ability, performance, clinical competence, behavior, decision making and the combination of knowledge, skills and attitudes (Fitzpatrick, 1992). Also, it seems that personal qualities of those delivering the care will impact upon the quality of nursing (Kendal, 1999).

Materials and Methods

Study Instrument

Based on review of literature, key domains were identified from Corners theoretical framework on factors affecting nurses' attitudes, beliefs and feelings in relation to cancer (Corner, 1998). Five key factors were developed from Corners theoretical framework to form the conceptual framework. A structured questionnaire was used to collect data from respondents. The instrument consisted of 40 items and took approximately 10 minutes to complete. The questionnaire was self administered. Information of personal attributes, personal experience of cancer, professional preparation for role of pediatric cancer care and nurse experience in pediatric oncology were captured in demography. A question to assess attitudes and perceptions, and cultural and spiritual beliefs, a 5 point Likert-scale was used (Agree strongly to disagree strongly).

Results

Respondents' Profile

The respondents' age distribution ranged from those below 24 years to nurses aged 40 years and above. Respondents in the age category of 30 to 39 years represented the largest percentage of all nurses surveyed and accounted for 62.3% (44) of all nurses surveyed. Altogether, just over three-quarters (53 or 76.8%) of respondents were below 40 years. This demonstrates that nurses working in pediatric oncology wards are fairly young. Married respondents make up 61.4% (43) of total nurses surveyed. Respondents who describe themselves as single are 17 (24.3%). Analysis of respondents

by sex indicates that majority are female, 58 (82.9%). Respondents have served for various periods in the Hospital. The period of service ranges from less than 5 years to over 20 years.

Professional Qualifications

Respondents had attained various levels of qualifications at the time of this study. The single largest percentage (35.7%) was of those who had a diploma level qualification. Slightly over one quarter (or 25.7%) had certificate level qualifications, while those holding diplomas in advanced nursing and baccalaureate level were 11.4% (9) and 20.0% (14)

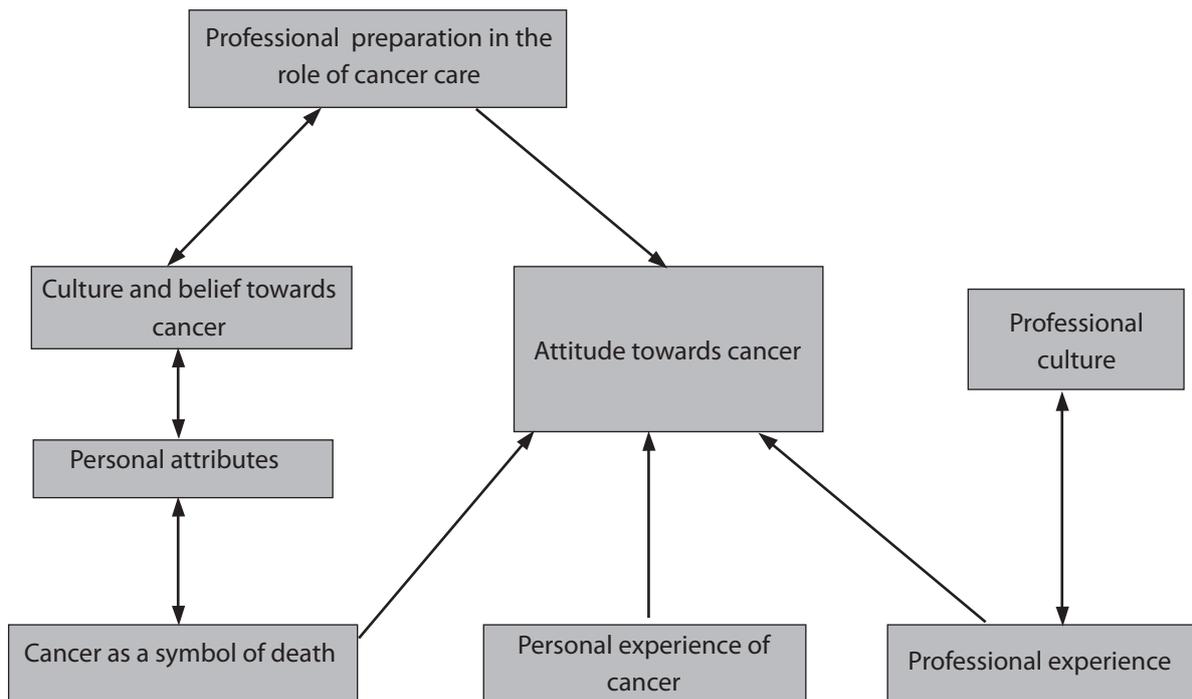


Figure 1

Theoretical Framework of Factors Affecting Nurses Attitudes, Beliefs and Feelings in Relation to Cancer. Adapted from Corner (1993).

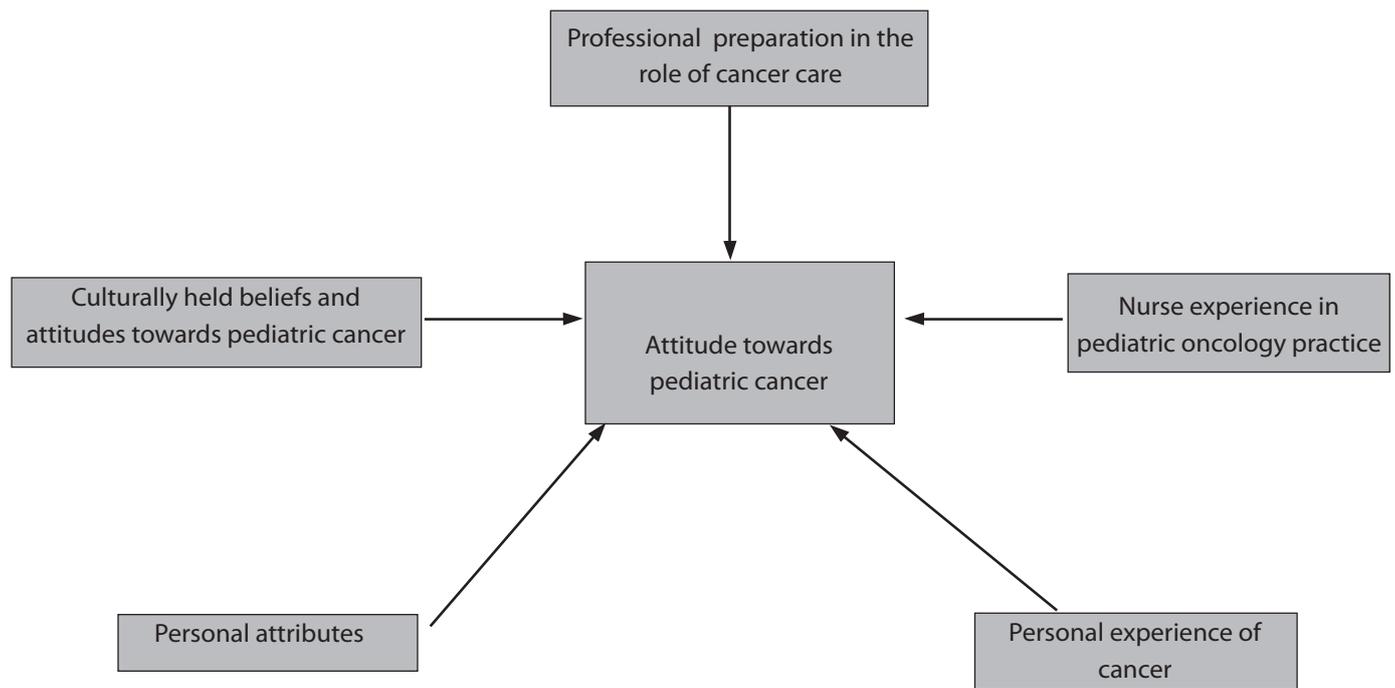


Figure 2
Conceptual Framework of Factors Affecting Nurses Attitudes, Beliefs and Feelings in Relation to Pediatric Cancer.

of the total, respectively. Of the nurses holding the various levels of professional qualifications, only a marginal 5.7% (4) have been trained in pediatric nursing. The rest have not been trained in this specialized area. Most respondents (62 or 89.2%) agree or strongly agree that there is need to train more oncology nurse specialists. It is not surprising; therefore, to observe that there exists a significant relationship between a respondent's recognition of that there is need to train more oncologists and the qualifications he/she currently holds. The p-value for this relationship is 0.029 and is statistically significant at the 0.05% level of significance. This result also means that there is a significant difference among respondents categorized on the basis of professional qualifications regarding the issue of providing specialized training. Therefore, nurses with higher qualifications are significantly likely to have different perspectives on the need to train more oncology nurses than nurses who currently have relatively less training. About one out of two nurses (or 48.5%) report that there is

a discrepancy between the way oncology nursing is taught and the way it is practiced. Only about one third of respondents (32.3%) disagrees or strongly disagree that there is any discrepancy.

Family Experience with Cancer

Twenty four respondents who account for 34.3% report that at least one person in their family has been diagnosed with cancer. Of these family members, parents account for 41.7% (12) of the total; siblings, 4.2% (1); spouses, 8.3% (2); and own child (or children), 4.2% (1). The rest 8 (33.3%) of the family members are not within the immediate nuclear unit but are part of the extended family. Most respondents 20 (81.8%) indicate that their attitude towards the disease has changed following the discovery of the disease in the family. The nature of change ranges from developing feeling of compassion to having feelings of anger. The change in attitudes is shown in Chart 3 below:

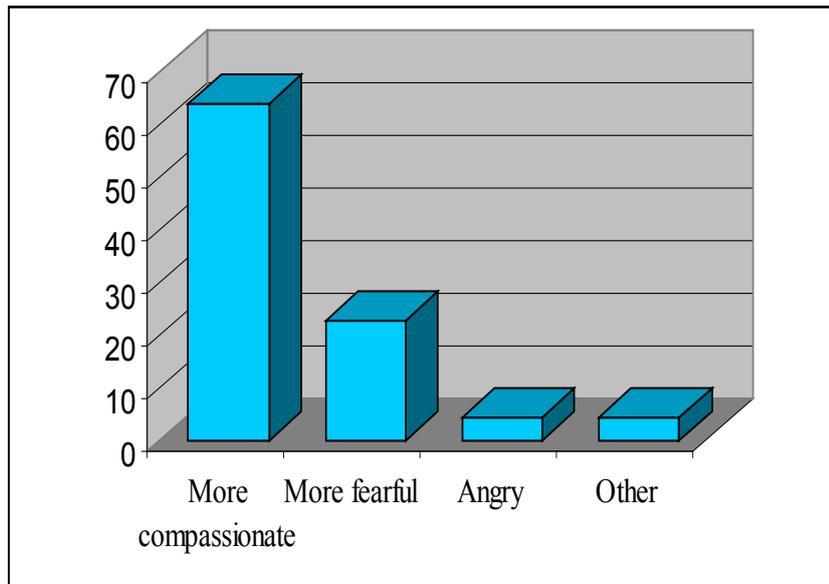


Figure 3
Nature of Perception Change Following Family Experience With Cancer

The discovery of the disease in a family member therefore evokes various attitudinal changes. While a significantly large percentage of respondents become more compassionate 63.6% (15), a fairly sizeable percentage (22.7%) becomes more fearful of cancer. A small percentage (4.5%)

become angry or develop another reaction altogether. There is a statistically significant relationship between the occurrence of the disease in a family member and the respondents' change in attitude to the illness as shown in the table below:

Table 1
Relationship Between Occurrence of Cancer in a Family Member and Respondent's Change in Attitude

Chi- square tests

	Value	df	Asymp.Sig(2-sided)
Pearson Chi-square	33.929a	4	.000
Likelihood ratio	35.806	4	.000
N of Valid cases	70		

a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is 34.

The p-value of 0.000 in the table above is highly significant and shows a very strong relationship between cancer occurring in the family and respondent's change in attitude following the illness's discovery in the family.

Nurses Attitudes and Perceptions

Although slightly over forty percent (28) of nurses agree or strongly agree that pediatric oncology patients are the same as adult oncology patients, a larger percentage, 41 (58.0%), feels that there is a difference between pediatric and adult oncology patients. Nurses who feel that pediatric patients are the same as adult patients are less likely to despair when another child is admitted for oncology treatment.

Nurses generally disagree that patients should be reprimanded when they become fussy or irritable, 49 (69.7%). Slightly over half of the nurses (54.3%) also disagree that the patient is in pain when he or she cries or refuses to eat. While a significant 61.4% (43) of respondents feel that non pharmacological ways should be used to relieve pain, 28.5% (20) disagree or strongly disagree that these (non pharmacological) ways should be used. Generally, the respondents agree that patients should be encouraged to perform daily duties, 63 (90.0%), to read and write, 65 (92.9%) and to participate in play and other social activities, 68 (97.0%).

Nurses Spiritual and Cultural Beliefs

Nurses agree or strongly agree 49 (70.6%), that their spiritual beliefs play a role in the quality of care they give to their patients. They, however, disagree or strongly disagree that pediatric cancer is God's punishment to parents for wrong-doing, 61 (86.9%); that childhood cancers are caused by curses on parents, 62 (88.3%); or that these illnesses are caused by witchcraft, 64 (91.3%). Nurses also generally disagree that alternative medicines cure childhood cancers, 48 (69.1%); or that medical therapy should be combined with alternative medicine, 57 (80.9%). About one-third of nurses (33.8%), however, feel that parents can be allowed to discharge their children to try alternative medicine if the parents wish to do so.

Factor Analysis of Attitudes and Perceptions

Nurses' Attitudes and Perceptions can be broken down (or decomposed) into seven factors or components. These are components with *eigen* value scores of over 1.00.

Table 2

Extraction of the Factors that Explain the Attitudes and Perceptions of Nurses.

Extraction Method: Principle Component Analysis

a. *Variance*

Total variance explained										
<i>Initial Eigen values</i>		<i>extraction sums of squared</i>					<i>rotated sums of</i>			
		<i>Loadings</i>					<i>squared loadings</i>			
<i>Comp</i>	<i>% of</i>	<i>Cumulative</i>			<i>% of</i>	<i>cumulative</i>			<i>% of</i>	<i>cumulative</i>
<i>onent</i>	<i>Total</i>	<i>Vara</i>	<i>e%</i>	<i>Total</i>	<i>Vara</i>	<i>e%</i>	<i>Total</i>	<i>Varaa</i>	<i>e%</i>	
1.	3.123	17.352	17.352	3.123	17.352	17.352	2.041	11.341	11.341	
2.	2.441	13.564	30.915	2.441	13.564	30.915	1.973	10.961	22.302	
3.	1.898	10.545	41.460	1.898	10.545	41.461	1.943	10.796	33.098	
4.	1.579	8.770	50.231	1.579	8.770	50.231	1.723	9.571	42.669	
5.	1.315	7.305	57.536	1.315	7.305	57.536	1.700	9.446	52.116	
6.	1.185	6.582	64.118	1.185	6.582	64.118	1.669	9.273	61.388	
7.	1.177	6.540	70.658	1.177	6.540	70.658	1.669	9.270	70.658	
8.	.976	5.423	76.081							
9.	.844	4.690	80.771							
10.	.710	3.942	84.713							
11.	.603	3.350	88.063							
12.	.524	2.209	90.972							
13.	.378	2.100	933.072							
14.	.351	1.498	95.020							
15.	.308	1.712	96.732							
16.	.257	1.425	98.157							
17.	.209	1.160	99.317							
18.	.123	.683	100.000							

The most important components, with *eigen* score of more than one, are shown in the table above. They are also represented in a plotting of the *eigen* values in a *scree* plot as shown below:

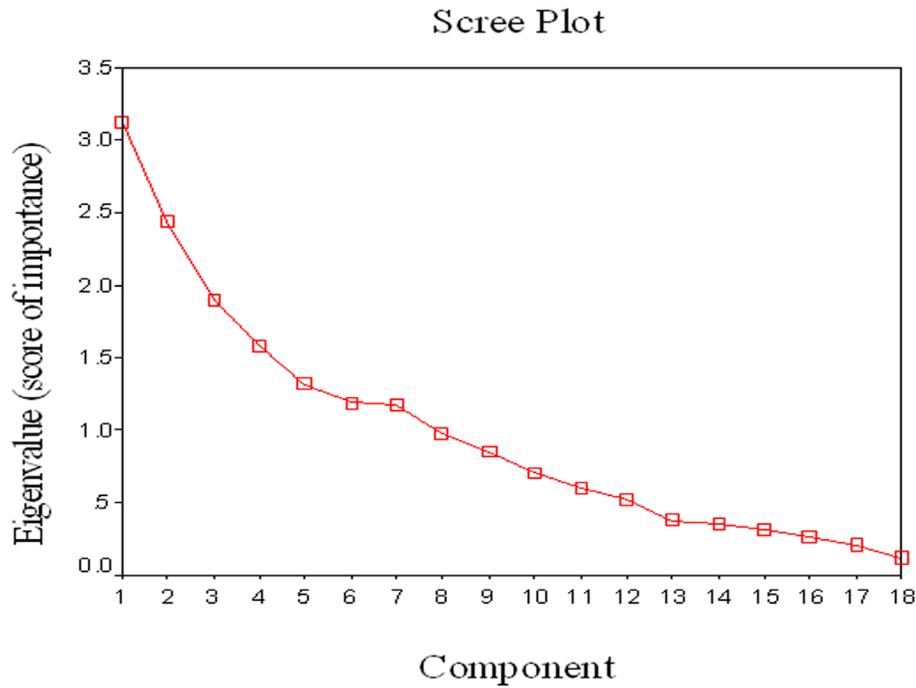


Figure 4
Scree Plot of the Factors Explaining Nurses’ Attitudes

Rotated Component Matrix groups the patterns into factors defining respondents’ attitudes and perceptions. The components are heuristically classified into the following categories for attitudes and perceptions:

Table 3
Classification of the Variables into Heuristic Factors

Component	Factors name	Percentage Composition	Numbers (n)
1	Nurse understands of her own role In patients care	17.35	12
2	Nurse’s perception of how professional colleagues (esp. doctors) regard her contribution to patient care	13.56	10
3	Nurse’s perception of maturity of patient (e.g. as child, adult, etc	10.55	7
4	Skills, training, and competence possessed by nurse	8.77	6
5	Impact of cancer on emotional strength of nurse	7.31	5
6	General awareness and knowledge of cancer	6.58	5
7	Role of alternative medicines in treating cancer	6.54	5
Total		70.66	50

The table shows that seven factors explain the most significant portion (amounting to about 70.66%) of total effect on nurses’ attitudes and perceptions in the care and management of oncology patient. The most important of these, in order of importance, are: nurse’s understanding of own role in caring for oncology patient (17.35%), nurse’s perception on how professional colleagues (especially doctors) regard his/her contribution and role in managing patients, and particularly if doctor involves him/her in suggesting options of managing cases (13.56%), nurse’s perception of maturity of patient (10.55%), and skills, training and competence possessed by the nurse (8.77%). These four factors account for over 71.0% (36) of the total factors isolated to explain the influences of nurses’ attitudes and perceptions and are the most important predictors of nurses’ attitudes and perceptions.

Explanatory Power of Spiritual and Cultural Beliefs on Nurses’ Attitudes

Three factors explain the most important components making up the nurses’ spiritual and cultural attitudes. These factors explain 72.67% of all variation in the category of spiritual and cultural attitudes. These factors are extracted from the rotated component matrix and are shown in table 4 (with their factor scores):

Table 4

Rotated Component Matrix

Extraction method: Principle Component Analysis. Rotation Method: Varimax with Kaiser Normalization

Rotated component matrix

	Component 1	2	3
Nurses’ spiritual belief play a role in type of care given to a patient	-.009	-.098	.842
Pediatric cancer is Gods punishment to parents for wrong doings	.923	.261	.039
Childhood cancers are caused by curses on parents	.940	.222	.097
Childhood cancers are caused by witchcraft	.947	.122	-.054
Alternative medicine cure childhood cancers	.495	.382	.497
Combination of alternative medicine and conventional medicine should be allowed	.091	.663	.323
Parents should be allowed to discharge their children to go try alternative medicine	.179	.645	-.056
Parents should be allowed to administer alternative medicine on weekends	.254	.713	-.3

Nurses' superstitions explain the largest percentage of the variation in their spiritual and cultural beliefs, followed by the importance nurses attach to alternative medicines and the final factor is on nurse own spiritual beliefs as shown in figure 5.

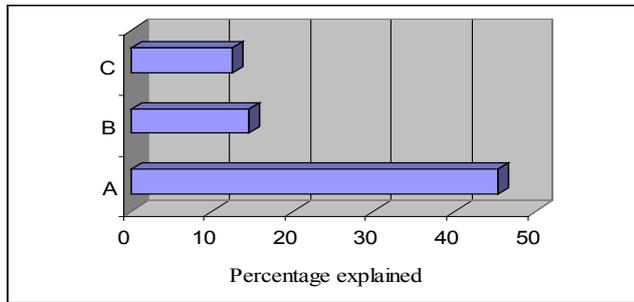


Figure 5
 Importance of nurses' spiritual and cultural beliefs
 (Legend: A: Influence of superstition, B: Role of alternative medicine, C: Nurse's spiritual beliefs)

Conclusion

The results suggest that there is a relationship between the nurses' perception and attitudes towards pediatric cancers and the quality of care they give to pediatric oncology patients. The key predictors of nurses' quality of care are found in the seven factors that define the Nurses' Attitudes and Perceptions, in order of priority as outlined in table three. The data from the study supports the idea that there is need to train more nurses on pediatric oncology management. This will improve the quality of care they give to pediatric patients.

The study also shows that nurse' superstitions, attitudes towards alternative medicine, and personal spiritual beliefs impact the quality of service they give to patients and modify their attitudes towards pediatric oncology care. In previous study, Deteey (1997) explains that attitudes are affected by personal experience of others as observed by or related to us. The effects superstitions alternative medicine in the management of pediatric oncology patients can be overcome by adequately educating the care givers on the causes of cancer and the disease process.

Nurses who have had experience with cancer in their families say that they have become more compassionate to cancer patients. Previous studies indicate that the nurses were encouraged to talk about recent encounters with cancer and the findings from this study suggests that experience of cancer appears to be the most important influence on subsequent attitudes towards the disease (Corner, 1993). Some nurses, however, develop feelings of anger which ultimately affects the quality of care to patients. As such, it is imperative to create tools and educational material that nurses can use to both increase their knowledge about pediatric cancers which in turn will equip them with the proper attitude towards the patients and the care at large.

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