

To the Graduate Council:

I am submitting herewith a thesis written by Linda Chapman entitled "Factors Influencing Maternal Knowledge of Newborn Circumcision." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science in Nursing.

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FACTORS INFLUENCING MATERNAL KNOWLEDGE OF
NEWBORN CIRCUMCISION

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ABSTRACT

This descriptive study of new mothers' knowledge of newborn circumcision evaluated that knowledge as a basis for giving informed consent for the procedure on their newborn male infants. A total of 100 mothers were asked, prior to leaving the hospital, to complete a written questionnaire assessing their knowledge and the sources from which it was obtained. A particular emphasis was the role of the nurse in providing this information. This knowledge was assessed through a questionnaire that nurses on the obstetrical units of the study hospitals completed. Obstetricians and prenatal nurse practitioners were surveyed regarding their provision of circumcision counseling and their attitudes toward nurses dealing with this need in the hospital setting.

The study revealed many deficits in maternal knowledge considered important for granting an informed consent. The analysis of the data from the nurses revealed some deficiencies in knowledge of circumcision and little evidence of routine counseling of new mothers relative to this area. Data gathered from the nurse practitioners and obstetricians showed varying degrees of counseling practice, with the nurse practitioner more likely to provide information on a routine basis.

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CHAPTER I

INTRODUCTION

A. STATEMENT OF THE PROBLEM

The custom of circumcising newborn male infants in the United States is one which, with few exceptions, is accepted as routine practice by the medical and nursing communities, as well as by prospective parents and society as a whole. Because circumcision is generally performed for social or cultural reasons, it might be considered a social institution or ritual. It can also be viewed as a medical procedure since it is usually performed by physicians.

The major purpose of this descriptive-exploratory study was to examine mothers' knowledge about circumcision. It was assumed that a certain level of knowledge about circumcision is necessary in order to be able to give informed consent for the procedure. "Although signed consent is routinely obtained before newborn circumcision, the requirement for informed consent is satisfied far less often" (Grimes, 1973, p. 126).

It was assumed that parental informed consent is an important prerequisite to the performance of circumcision and that doctors and nurses have a professional obligation to provide information to parents which will enable them to make an informed choice.

A major responsibility of the nursing profession is health promotion. Because circumcision is a procedure which is probably

not necessary to promote health, and may in some cases be detrimental to the child, it is important to examine current nursing practice regarding circumcision counseling. Teaching parents to properly care for the uncircumcised male genitalia is assumed to be an important nursing activity because this would provide an alternative to circumcision.

B. CONCEPTUAL FRAMEWORK

The concept of informed consent was used to evaluate the knowledge of circumcision demonstrated by the mothers and nurses who participated in the study. The Report of the Ad Hoc Task Force on Circumcision stated, "It is the responsibility of the physician to provide parents with factual and informative medical options regarding circumcision. The final decision is theirs and should be based on true informed consent" (Thompson, King, Knox, & Korones, 1975, p. 610).

The doctrine of informed consent requires that the patient (or the parents in the case of minors) be involved in any major medical decision which affects them. It assumes that the patient, as a free individual and an equal partner in the health care system, has the right to choose appropriate therapies, as well as the right to be provided with sufficient information to allow for consent (Dickman, 1980). One of the basic features of informed consent is the preservation of the patient's autonomy. Respect for autonomy requires that a person's free choices be honored, even though the health professional may disagree with those choices (Brody, 1981).

The type of risk involved in the procedure affects the completeness of the disclosure required and informed consent may mean different things in different circumstances. The legal advisors to the Western Australian Nurse's Federation (1982, p. 70) outlined the following five elements of an informed consent.

1. The patient must understand the nature of the condition which necessitates the intervention.
2. The patient must understand the nature of the proposed treatment or procedure.
3. The patient must be aware of the possible alternative courses of action.
4. The patient must be acquainted with the risks of both the proposed and the alternative course of action.
5. The patient must be informed of the chances of success or failure of the proposed or alternative procedures.

Brody (1981) suggested that informed consent is made up of two elements: (1) the patient must be given any information he/she requires about the risks and benefits of the medical treatment and alternatives, and (2) the choice must be made voluntarily.

There are several factors that make the doctrine of informed consent more problematic than might at first be envisioned. First, knowledge of all the facts is impossible, because medicine is always practiced under a great deal of uncertainty. Some writers have suggested that if patients are told every conceivable risk of every procedure, they would be so apprehensive that even the simplest procedures would be refused (Dickman, 1980). It has also been shown that patients often make up their minds regardless of the facts given them. They are often not in an ideal emotional state to make a

dispassionate choice, and counselors can never remain strictly neutral (Brody, 1981).

Higgins and Wayland (1982) outlined four elements necessary for informed consent related to newborn circumcision. According to these authors, in order to give informed consent about neonatal circumcision parents must have received the following information: (1) a description of the procedure in words easily understood, (2) a description of the risks and possible complications of the procedure, (3) a description of the benefits of the procedure, and (4) a description of alternatives such as what to expect if circumcision is not done.

C. PURPOSE OF THE STUDY

This descriptive, exploratory study had three major objectives. The first objective was to describe mothers' knowledge related to routine newborn circumcision as this affects their ability to give informed consent for the procedure. The second objective was to describe the type of counseling/education regarding circumcision provided by obstetricians and nurse practitioners as a part of prenatal care for women. The third objective was to describe the attitudes toward and knowledge of circumcision of a group of nurses providing care for new mothers and their infants and to describe the extent of counseling/education which these nurses provide to new mothers in the hospital setting.

Several articles in the literature indicate that because nurses play such a critical role in caring for newborns and their mothers

they need to be able to counsel families about the potential benefits and risks of circumcision (Bailey & Miller, 1983; Boyer, 1980; Grimes, 1980; Poole, 1979; Wayland & Higgins, 1982). There have, however, been no studies done which address the degree and quality of circumcision counseling done by nurses. The results of this study thus have implications for improving nursing practice related to helping parents make informed decisions regarding neonatal circumcision.

D. ASSUMPTIONS

It was assumed that in most cases the respondents were able to read and understand the questionnaire. However, a brief, subjective assessment was made by the researcher or her assistant at the time of presenting the questionnaire relative to the mother's ability to read and answer the questions. If a deficit was suspected, the researcher offered to read the questions to the mother and record her answers. This procedure was followed for three teenagers and for three older mothers who were at least high-school graduates but who were required to lie flat or had intravenous needles in their writing hands.

An attempt was made to have the mothers fill in all blanks on the questionnaires. They were asked at the time of accepting the questionnaire to write "don't know" if the answer was not known, rather than to leave the space blank. When collecting the questionnaires the researcher reviewed them immediately. In the event that respondents still left some answers blank they were asked if they knew the answer to those questions. In every instance the

mothers failed to supply answers to these questions, but rather stated they did not know the answer. Despite these efforts, 16 blanks were found upon analyzing the data accounting for 3% of the answers to open ended questions. In view of the uniform answers of no knowledge when questioned about blank spaces, it was assumed that these blanks also represented a "don't know" answer.

In the case of blanks left on the nurses' questionnaires, it was assumed that these also represented a knowledge deficit regarding the question. The blanks were isolated occurrences except in two cases where entire pages were left blank. These two questionnaires were discarded. No blank answers occurred on the obstetrician or nurse practitioner questionnaires.

It was assumed that because of their educational background and work experience all nurses in the study would be able to define circumcision. The nurses were therefore not asked to define the procedure on the questionnaire.

It was also assumed that knowledge of the proper care of the uncircumcised infant would constitute a theoretically acceptable alternative to circumcision. If parents decide against circumcision but are not taught proper hygienic care the incidence of complications associated with the uncircumcised state will be increased. Non-circumcision becomes an acceptable alternative to circumcision only if proper hygiene is practiced (Metcalf, Osborn, & Mariani, 1983).

It was assumed that in order to grant an informed consent in the case of circumcistion mothers must be able to: (1) define the procedure, (2) name a complication of the procedure, (3) identify at least one valid indication for circumcision, and (4) describe how to provide proper hygienic care for the non-circumcised male infant.

CHAPTER II

LITERATURE REVIEW

A. HISTORICAL CONSIDERATIONS OF CIRCUMCISION

Ancient History

The true historical origin of circumcision is not known. There are, however, various controversial theories concerning the origin of the practice. Circumcision was pictured in Egyptian bas-reliefs dating back to 4000 B.C. (Samuels & Samuels, 1984; Warner & Strashin, 1981). One theory of the origin of circumcision states that circumcision evolved as an effective method of marking slaves in ancient Egypt. The Jews, having undergone compulsory circumcision as slaves, adopted the procedure as a ritual and it was incorporated into the Old Testament (Genesis 17:10-14) as a symbol of a covenant between God and man. Inspections of royal male mummies have revealed that individuals from royal families were not circumcised (Burger, Guthrie, Cullen, & Cullen, 1974).

Other reasons for the early practice of circumcision which have been identified include the beliefs that: (1) circumcision represented a blood offering to the gods which would ensure an eternal life for the gods and an extended life for man, (2) sacrifice of a part would ensure the welfare of the whole and preservation after death, (3) circumcision represented an atonement for childhood

incestuous desires, or (4) circumcision prevented infertility (Poole, 1979).

Historically, circumcision has also been utilized as a means of tribal identification. In times of war, bringing back an uncircumcised penis gave definite proof of the death of a male belonging to an uncircumcised tribe (Zimmer, 1977). The various historical accounts of circumcision suggest that the procedure originated in many locations and for a variety of reasons throughout the world.

Groups who practice ritualistic circumcision include Jews, Moslems, aboriginal tribes of Australia, Nicaraguan Indians, North and South American Indian tribes, and several African tribes (Burger et al., 1974; Higgins & Wayland, 1982; Samuels & Samuels, 1984).

Recent History

Today circumcision occurs more frequently in the United States than in most other countries of the world. The current incidence of newborn circumcision in the United States is between 80 and 90% (Gellis, 1978; Herrera, 1979; Metcalf et al., 1983; Samuels & Samuels, 1984). The newborn circumcision rate is between 20 and 48% in Canada (Taylor, 1983; Wirth, 1983) and less than 1% in England (Samuels & Samuels, 1984). The United States and Israel are the only developed countries in which circumcision is performed routinely on most newborn males.

In 1949, a British physician named Gairdner published research which concluded that the prepuce is not fully developed at the time of

birth. Other writers have also documented this maturation process (Harris & Stern, 1981; Slotkowski & King, 1982; Gibbons, 1984), which proceeds as follows: (1) at 8 weeks of fetal life, thickened epidermis starts to grow forward over the base of the glans penis; (2) at 16 weeks gestation, the prepuce has grown forward to the tip of the glans and the two structures have a common epithelium; (3) by the sixth fetal month, separation of the prepuce from the glans starts by keratinization of the common epithelial cells, but the separation of the prepuce from the glans remains incomplete at birth in most cases.

According to Oster (1968) separation of the prepuce takes place gradually and spontaneously as a normal process and may not be complete in some children until the age of 17. Gairdner (1949) found that the percentage of males with fully retractable foreskins varied with age. At birth, only 4% had fully retractable foreskins, but at 6 months, 3 years, and 17 years the percentage increased to 20%, 90%, and 99% respectively.

In 1971, the Committee on Fetus and the Newborn of the American Academy of Pediatrics concluded that there are no valid medical indications for circumcision in the neonatal period. Four years later, an Ad Hoc Task Force on Circumcision was formed by the Academy and reviewed evidence for and against the operation. The members of the Task Force concurred with the previous position statement (Thompson et al., 1975).

In 1975 the Canadian Pediatric Society published a statement which outlined the risks inherent in circumcision and concluded that

there was no medical indication for routine circumcision in the neonatal period (Bailey & Miller, 1983). Furthermore, in 1978 the American College of Obstetricians and Gynecologists endorsed the American Academy of Pediatrics' position on circumcision (Wallenstein, 1983).

Today, however, the controversy continues. Perhaps because circumcision involves infants and sexual organs, it elicits personal bias and individual interpretation regardless of the available factual information. There has been no substantial decline in circumcision rates since the recommendations by the professional medical organizations.

B. RATIONALE FOR CIRCUMCISION

There is much controversy regarding indications and contraindications for circumcision. In light of current knowledge, some of the previously accepted indications are no longer considered valid. Bailey and Miller (1983) identified 13 indications for neonatal circumcision which are cited most frequently. In this section, each of these indications is discussed reviewing evidence from the literature which either supports or refutes the validity of the indication.

Correction of Phimosis at Birth

As previously stated, approximately 96% of newborn males have non-retractable foreskins (Gairdner, 1949). Phimosis at birth is a normal physiological state and therefore is not an indication for

circumcision. The foreskin rarely obstructs the urine stream. If obstruction of urination is present the pathology is usually the result of meatal strictures. If the foreskin is actually the obstructing tissue, then circumcision is indicated (Harris & Stern, 1981).

Reduction of the Incidence of Penile Cancer

Penile cancer currently affects 1-2/100,000 males in the United States (Warner & Strashin, 1981). Leiter and Lefkovits (1975) reviewed the medical literature since 1936 and found only nine reports of penile cancer in neonatally circumcised men. Boyce (1983) suggested that the commonly reported incidence (1-2/100,000 men) is falsely low because all men are included. If only uncircumcised men are considered, Boyce contended that the lifetime risk of penile cancer would be about 166/100,000 men, or approximately 1/600. This is still a low incidence, but is a substantial increase from the figures cited previously.

Circumcision does not protect against the development of penile cancer by removing the affected structure, because the usual site of the cancer is the coronal sulcus lying proximal to the glans. The exact mechanism of protection is unknown. A common finding in the reported cases of penile cancer is an almost complete lack of hygiene. Therefore, it is conceivable, but not substantiated by research, that proper hygiene could be equally effective in the prevention of penile cancer (Thompson et al., 1975; Grimes, 1978; Bailey & Miller, 1983; Boyce, 1983).

Prevention of penile cancer is thus an established benefit of circumcision (Kaplan, 1977). This benefit must be weighed against the possibility of serious complications occurring as a result of circumcision and the likelihood of a failure to maintain hygienic care. Some writers suggest that the risk of developing cancer of the penis is less than the risk of a major complication associated with circumcision (Gellis, 1978; Hillard, 1984).

Prevention of Balanitis

Balanitis (glanular inflammation), posthitis (preputial inflammation), or balanoposthitis (the combination of both), occurs as a result of poor hygiene of the uncircumcised penis (Gibbons, 1984). During World War II, under desert living conditions, balanitis due to sand lodging under the foreskin was common among uncircumcised American soldiers (Gee & Ansell, 1971). Posthitis can also occur if forceful retraction of the prepuce is performed. Circumferential tears can occur and become secondarily infected (Gibbons, 1984).

Recurrent inflammatory episodes are considered an indication for therapeutic circumcision. Prevention of these problems and the need for later circumcision is thought by some to justify neonatal circumcision (Burger et al., 1974). Others indicate that good hygienic techniques could be equally effective in the prevention of balanitis (Boyce, 1983; Gibbons, 1984). The Ad Hoc Task Force on circumcision of the American Academy of Pediatrics states that

circumcision does prevent balanitis, but under ordinary conditions the risk of the infection is not high (Thompson et al., 1975).

Reduction of the Incidence of Prostatic Cancer

Early studies showed that Jewish men developed prostatic cancer less frequently than uncircumcised men (Kaplan & O'Conner, 1966). The postulated reason was that smegma was a carcinogen capable of traveling up the urethra, and smegma collected around the prepuce in uncircumcised men if hygiene was inadequate (Warner & Strashin, 1981). Subsequent research with non-Jewish populations indicated that there was no difference in the incidence of prostatic cancer among circumcised and uncircumcised men. This research suggested that a genetic factor, rather than circumcision, could be responsible for the increased incidence of prostatic cancer among non-Jews (Boyce, 1983).

Reduction of the Incidence of Cervical Cancer

Terris, Wilson, and Nelson (1973) reviewed the research on the relationship of cervical cancer to the state of circumcision of the sexual partner. They concluded that the research on this topic demonstrates no definite relationship between cervical cancer and the state of circumcision of the sexual partner. The incidence of cervical cancer is increased by early onset of sexual intercourse, multiple partners, and presence of certain vaginal infections.

Prevention of Paraphimosis

Paraphimosis is the inability to replace the retracted foreskin over the glans, causing a constriction at the base and subsequent severe swelling and necrosis (Bailey & Miller, 1983). This usually occurs after forceful retraction of a tight prepuce (Gibbons, 1984). The incidence of paraphimosis is 0.9% in children, and 0.17% in adults (Kaplan, 1977). This problem can be prevented by replacement of the foreskin after it is retracted for hygienic care. Therefore, most writers conclude that prevention of paraphimosis cannot be considered a valid indication for neonatal circumcision (Boyer, 1980).

Decreased Incidence of Sexually Transmitted Diseases

A study by Taylor and Rodin (1975) found a lower prevalence of circumcision among men with herpes genitalis when compared to the prevalence of circumcision in control subjects. Both Poole (1979) and Boyce (1983) suggested that further research was needed before it could be concluded that uncircumcised males are more likely to develop herpes virus infections than their circumcised counterparts. There is no evidence linking circumcision to altered risks of infection with gonorrhea, syphilis, chlamydia, or the genital mycoplasmas (Boyce, 1983). Uncircumcised men do have an increased incidence of monilial balanitis compared with circumcised men (Taylor & Rodin, 1975). Bailey and Miller (1983) proposed that a surgical operation should not be done to prevent sexually transmitted

diseases when education about cleanliness and the use of prophylactics during intercourse could achieve the same results.

Enhancement of Sexual Pleasure

Arguments have been offered both pro and con for the effects of circumcision on sexual pleasure. Opponents of routine circumcision maintain that circumcised males experience decreased tactile sensation during intercourse, compared to uncircumcised men. Proponents argue that decreased sensation could be an advantage because it might decrease the likelihood of premature ejaculation (Boyer, 1980). Chronic exposure of the glans to the clothing probably does cause epithelial changes that decrease sensitivity to touch (Boyce, 1983). Whether this is good or bad is certainly debatable. According to Masters and Johnson (1966), who studied ejaculatory control and sexual pleasure, no difference in ejaculatory control was found between circumcised and uncircumcised men.

Decreased Trauma of Circumcision in the Newborn Period

Pain and trauma are subjective factors which are difficult to measure. However, several researchers have attempted to demonstrate that the neonate experiences pain and trauma as a result of circumcision. Some have also suggested that circumcision during the newborn period is less traumatic than circumcision when the child is older (King, Morris, & Pearson, 1978). One study by Talbett, Kraybill, and Potter (1976) found a significant increase in newborns'

plasma cortisol, an indicator of stress, after circumcision. One group of investigators documented changes in newborns' sleep patterns after circumcision, consisting of prolonged periods of non-rapid eye movement sleep (Emde, Harmon, Metcalf, & Wagonfeld, 1971). Others have documented an immediate increase in wakefulness and fussy crying after circumcision (Anders & Chalemian, 1974). It has been noted that newly circumcised newborn males respond differently to auditory stimulation than noncircumcised males or females. The responses of the circumcised male infants included more time awake and more time agitated (Brackbill, 1975).

Richards, Bunal, and Brackbill (1976) concluded that circumcision does have effects on infant behavior and psychophysiology. The scope and duration of these effects are still unclear. Richards et al. (1976) cited the results of animal research which demonstrated long-term effects of minor events in early animal development. On the basis of these animal studies, these researchers suggested that it would be unwise to assume that the effects of circumcision are transient. However, no studies were found that link long term psychological sequelae with the state of circumcision.

Elimination of the Risks of Later Circumcision and Anesthesia

Circumcision in the newborn period, if properly performed, eliminates the need for the surgery at a later time. Some think that this constitutes a valid indication for neonatal circumcision. Some say, however, that the low incidence of therapeutic circumcisions (2-10%), does not justify circumcising all newborns, especially when

a program of good hygiene could offer the benefits of circumcision without the attendant risks (Kaplan, 1977; Thompson et al., 1975).

Boyce (1983) contended that there are no valid estimates of the incidence of therapeutic circumcision. Assuming that the therapeutic circumcision rate in the United States is 2-10%, it is interesting to compare it with the rates of post-neonatal circumcision in other parts of the world. For example, in Finland, newborn circumcision is not practiced and the therapeutic circumcision rate is reported to be only 0.6% (Wallerstein, 1980).

The reason for the difference in the rates of therapeutic circumcision in the United States and other countries is not known. It has been postulated that iatrogenic phimosis can result from overly aggressive retraction of the foreskin. Release of penile adhesions in the pediatrician's office can lead to tearing of tissue and formation of fibrotic scar tissue which later causes phimosis. More judicious medical care and proper education of parents regarding retraction of the foreskin of male children and the importance of hygiene could decrease the need for later, therapeutic circumcision (Haris & Stern, 1981).

Assurance of Proper Penile Hygiene

Circumcision does facilitate hygiene, but provides no guarantee that good hygiene will be practiced. The glans and the preputial space are more accessible in the circumcised male which should facilitate hygienic care (Boyce, 1983). Gairdner's (1949) work

demonstrated the physiologic non-retractability of the infant foreskin and Oster's (1966) work demonstrated that smegma is rarely found in young boys before the age of 12-13 years. These findings do create doubt as to the advantage of easier access to the glans and preputial space prior to the natural physiological separation of the foreskin (Boyce, 1983).

Removal of Unnecessary Foreskin

In the newborn, the foreskin protects the glans from irritation by ammonia in the diapers (Mackenzie, 1966). One problem which can result because the foreskin has been removed is meatal stenosis. This can result because of ulceration or meatitis secondary to the chronic ammonia contact. It is accompanied by dysuria, frequency and enuresis (Bailey & Miller, 1983). Parents of circumcised infants should be told to observe the newborn's voiding patterns to ensure that there are no obstructions. Low grade kidney damage can result from even a minimal meatal stenosis (Poole, 1979). Meatal stenosis has been reported in as many as 20% of circumcised males. Because the foreskin serves a protective purpose during infancy, Mackenzie (1966) recommended that circumcision be delayed at least until the boy is no longer in diapers.

Safety of Circumcision as a Surgical Procedure

The rate of complications following circumcision is difficult to determine, due to differing interpretations of complications. Estimates of morbidity range from 0.06 to 55% (Patel, 1966; Speert,

1953). One study by Gee and Ansell (1976) reported an incidence of "significant" complications of 1 in 500 circumcisions. These researchers defined significant complications as life-threatening hemorrhage, systemic infection, or complete denudation of the penile shaft.

Three types of complications are cited most frequently in the literature. They are hemorrhage, infection, and surgical trauma (Warner & Strashin, 1981). Reported complications include: (1) iatrogenic microphallus (concealed penis), (2) denudation of the shaft, (3) incomplete circumcision with subsequent deformity, (4) lacerated scrotum, (5) bivalved, grooved, or amputated glans, (6) cautery burns, (7) secondary systemic infection such as meningitis, osteomyelitis, abscess and tetanus, (8) bridging the skin between penile shaft and glans, (9) wound dehiscence, (10) urethral fistula, (11) lymphedema of penile skin, and (12) sloughing of penis (only one reported case) (Bailey & Miller, 1983; Boyer, 1980, Gibbons, 1984; Grimes, 1980). The incidence of death secondary to newborn circumcision is thought to be about two per one million cases (Grimes, 1980).

While complications are infrequent and generally minor, some are serious. The question of whether to circumcise or not must be weighed against the known evidence regarding possible complications.

C. CONTRAINDICATIONS TO CIRCUMCISION

There are several conditions of the newborn infant which are considered contraindications to newborn circumcision. These

conditions include the following: (1) prematurity, (2) neonatal illness, (3) hypospadias/epispadias, (4) ambiguous genitalia, (5) bleeding disorders, (6) pustular rash, (7) low apgar scores, and (8) history of pneumothorax and pneumomediastinum (Warner & Strashin, 1981).

Circumcision should not be performed in the first 24 hours of life in order to prevent unnecessary cold stress in the infant and to allow the neonate to adapt to extrauterine life. It is also important to allow adequate time to evaluate the infant for the conditions that contraindicate the procedure (Thompson et al., 1975).

The presence of congenital anomalies is a relative contraindication, depending upon the specific problem. The contraindication is absolute for hypospadias/epispadias because the foreskin is necessary for later reconstruction. Any infant with an umbilical artery abnormality must be carefully evaluated prior to circumcision to rule out any possible genito-urinary abnormalities. Children with neurological impairment may be incontinent and an intact prepuce may be more easily fitted with a collection device. Warner and Strashin (1981) concluded that children with these anomalies should not be circumcised.

D. REASONS GIVEN BY PARENTS FOR CHOOSING CIRCUMCISION

Three research studies were found which examined the reasons cited by American parents for choosing to have their male infants circumcised. The first study by Lovell and Cox (1979) involved a

sample of 200 mothers in southern Illinois. The mothers completed anonymous questionnaires designed to determine the nature of their attitudes and knowledge of neonatal circumcision. The most common reasons given for neonatal circumcision were: (1) promotion of cleanliness/health (35%), (2) adherence to custom (16%), (3) recommendation of physician (11.6%), and (4) prevention of infection (6.7%). A number of mothers (10.8%) failed to list a reason for their decision to have their infants circumcised.

Rand, Emmons, and Johnson (1983) studied the effect of an educational intervention on the rate of circumcision. Their sample of mothers consisted of 54 obstetric clinic patients in Baltimore, Maryland. Information about the parents' decision to circumcise and their reasons for choosing circumcision were gathered from the mothers' written informed consents. The five most common reasons given by this group of mothers included cleanliness (23%), parents' desire (23%), health reasons (18%), preference for having the procedure done while the child was young (15%), and prevention of infection or disease (13%).

Metcalf et al. (1983) investigated the incidence of circumcision, the reasons governing parental decisions, immediate and late complications from the procedure, and genital problems in uncircumcised boys. The sample consisted of 231 mothers of male infants in Utah. The mothers had all consented to circumcision. The five most common reasons given for circumcision by the mothers in the study included hygiene (69%), social custom/routine (21%), circumcision of father

(17%), and physical appearance (14%). Fourteen percent of the mothers failed to cite a reason for circumcision.

In 1966 in Ontario, Canada, Patel studied 100 male infants to determine the incidence and complications of routine neonatal circumcision and also interviewed the parents to determine the reasons for the performance of the procedure. The most common reasons cited in the Canadian study were hygiene/cleanliness (19%), prevention of need for therapeutic circumcision (15%), problems associated with uncircumcised state (10%), and relatives' advice to have the procedure done (8%). The researchers concluded that parents need more information about newborn circumcision in order to give an informed consent for the procedure.

E. RESEARCH RELATED TO COUNSELING PRACTICES REGARDING CIRCUMCISION

The American Academy of Pediatrics Ad Hoc Task Force on Circumcision concluded that there are no valid medical indications for circumcision in the neonatal period. They recommended that prenatal patients receive information about the long-term effects of circumcision and noncircumcision in order to be able to make an informed decision (Thompson et al., 1975).

The studies reported in the previous section suggest that parents do not have adequate knowledge about the indications for circumcision (Gouell & Cox, 1979; Metcalf et al., 1983; Patel, 1966; & Rand et al., 1983). In order to be effective, the information must be in a format that the parent can understand. For those with poor reading

skills and little medical knowledge, this might best be accomplished by a personal educational exchange (Gorske, 1980).

The three studies done in the United States also examined the counseling the mothers received. In the retrospective study by Lovell and Cox (1979), 80% of the mothers indicated that they had not discussed the risks of circumcision with a physician. Ten percent of the mothers indicated that the risks of circumcision had been explained to them.

Rand et al. (1983) combined verbal counseling regarding circumcision with visual illustrations for both a prenatal and postnatal group of mothers. There was a reduction in the number of mothers in the study groups choosing circumcision, compared with a control group receiving no educational intervention. These researchers reported that there was no difference in decisions regarding circumcision between the mothers who received prenatal counseling and those who received postnatal counseling. This study demonstrated that when obstetric patients were told of the risks and potential advantages of circumcision many of them chose not to circumcise their sons.

In the Utah study by Metcalf et al. (1983), 67% of the mothers interviewed immediately after their infants' circumcision stated that they had been counseled regarding circumcision. Only 7% of the mothers of 6-month-olds recalled such counseling. Seventy-three percent of the mothers interviewed immediately after circumcision were counseled by obstetricians and 16% by pediatricians.

Herrera & Troven-Trend (1979) studied the counseling received by parents of 100 circumcised male newborns in Baltimore, Maryland. These researchers reported that 63% of the parents had not discussed the risks and benefits of the procedure with any medical personnel until the time of delivery. Twenty-three percent of the parents did not know why circumcision was done or believed it was automatically performed. Herrera, Hsu, Salcedo, and Ruiz (1982) then prepared a follow-up study in which they evaluated whether counseling and education affected the incidence of circumcision. In the follow-up study, prenatal patients were randomly assigned to one of two groups. Mothers in group 1 were interviewed and counseled about the indications, risks, and benefits of circumcision, according to the guidelines of the American Academy of Pediatrics Ad Hoc Task Force on Circumcision (Thompson et al., 1975). They were given written statements outlining the information and encouraged to ask questions about any areas they did not understand. A total of 41 male infants were subsequently delivered to mothers in group 1 and 40 were circumcised (98%). A total of 46 boys were delivered to mothers in the control group and 44 were circumcised (96%). There was no statistically significant difference between the incidence of circumcision in the two groups. Herrera et al. (1982) concluded that because circumcision is such a part of our culture and tradition, it is difficult to change attitudes even with proper information.

Patel (1966) found that the obstetrician clearly influenced the incidence of circumcision. In his study, obstetricians who

opposed the procedure circumcised 20% of their patients' male infants. Those who favored it circumcised 100% of their patients' male infants and those who remained neutral circumcised 50%. It is important to remember, however, that this study was done in Canada where the circumcision rate is considerably lower than in the United States.

In another study, Patel, Flaherty, and Dunn (1982) questioned Chicago area pediatricians, obstetricians, and family practitioners to determine the impact that the American Academy of Pediatrics position on circumcision had on their approach to circumcision. Only 49% were aware of the position. Forty-one percent recommended routine circumcision and 15% discouraged the practice. Thirty-eight percent did not make any recommendation. Pediatricians were more likely to discourage circumcision, and older physicians more commonly recommended the procedure. The most common reason given for recommending circumcision was "better hygiene," however a substantial number recommended circumcision to prevent cancer. These researchers, along with the others cited, identified a need for educational programs to inform parents about circumcision. They further stated that the educational efforts must extend to the pediatrician, obstetrician, and family practitioner before the Academy's intent of an educationally informed consent for neonatal circumcision becomes a reality.

F. NURSING AND CIRCUMCISION COUNSELING

In a letter to the editor of Pediatrics, April 1983, Dr. George Brenneman suggested that it is important to provide parents with information about circumcision during the prenatal period. However,

he noted that parents are also influenced by the "routines and attitudes of all personnel who work in the postpartum and nursery areas" (p. 669). Numerous articles in the nursing literature indicate that because nurses play such a critical role in caring for newborns and their mothers, they need to be able to counsel families effectively about potential benefits and risks of circumcision (Bailey & Miller, 1983; Boyer, 1980; Enzenaur & Smith, 1983; Gibbons, 1984; Grimes, 1980; Poole, 1979; Wayland & Higgins, 1982). No studies were found, however, which described nurses' knowledge regarding circumcision and the extent and nature of their counseling activities.

All references surveyed indicated that obtaining an informed consent is the responsibility of the physician (Brody, 1981; Lovell & Cox, 1979; Maisals, Hayes, Conrad, & Chez, 1983; Rand et al., 1983; Stein, Marx, Taggart, & Bass, 1982; Thompson et al., 1975). The literature does suggest that nurses are also responsible for counseling patients about circumcision to ensure that an informed consent is given. The role of the nurse in the consent process, however, is somewhat nebulous. Some suggest that the entire responsibility for obtaining informed consent is properly that of the physician, not the nurse (Curtin, 1982). Nurses frequently have the responsibility, however, of seeing that consent forms are signed. In a legal sense, the nurse is only performing a clerical duty (Regan, 1983). If the nurse determines, through interactions with the patient that the patient does not have the needed information to make the informed consent, then she/he has an ethical decision to make regarding the situation.

William Andrew Regan, nationally known expert in medicolegal aspects of nursing practice, proposed that, "Since it is the physician who performs the surgery, he/she alone is responsible for making sure the patient understands and consents to the treatment" (1983, p. 79). Regan also suggested that if a nurse determines that the patient is not capable of giving an informed consent, he/she must use "nursing judgment" to determine an appropriate course of action.

Curtin (1982) suggested that a nurse in such a situation has a responsibility to notify the physician of the patient's lack of knowledge, express concern about legal liability, and ask the physician to provide the patient with further explanation. The nurse may also choose to prompt the patient to ask more questions.

None of the literature that encourages nurses to provide circumcision counseling to mothers deals with the physician's legal responsibilities to provide counseling for informed consent. Nurses, if well informed about circumcision, could be a valuable source of information for parents. Studies previously cited have shown the lack of knowledge and counseling by the medical profession, but none have dealt with the degree of knowledge and counseling by the nursing profession.

CHAPTER III

METHODS AND PROCEDURES

A. DESCRIPTION OF SUBJECTS

The sample for this descriptive-exploratory study included postpartum mothers and nurses from three hospitals in two counties of East Tennessee. Hospital A is a 525 bed, metropolitan, general hospital with approximately 140 deliveries per month. Hospital B is a 334 bed, community hospital with approximately 70 deliveries per month. Hospital C is a 565 bed, university teaching institution and research center with approximately 190 deliveries per month.

Study Population of Mothers

A total of 100 mothers participated in the study, including 95 mothers who chose to have their infants circumcised, and five who decided against circumcision. Four of the mothers who decided against circumcision delivered at Hospital C and one at Hospital A. At the time of participation in the study all mothers had either signed the permit for circumcision or had been approached and had declined to consent to the procedure. All infants had not actually been circumcised at the time the questionnaires were completed. Circumcisions had been completed on 49 of the 95 infants whose mothers had consented to the procedure.

Mothers who met the following criteria were eligible to participate in the study: (1) admitted as a patient on the postpartum units of one of the three study hospitals, (2) delivered a healthy full-term male infant who was free from any medical contraindications to circumcision, (3) had no conditions which would preclude her completion of the study questionnaire. Such conditions included preclampsia/eclampsia, tubal ligation, excessive pain, sedation by analgesic medication, or emotional distress.

Demographic Characteristics of Study Population of Mothers

Information on the age, race, education, and marital status of the study mothers is presented in Tables 1-5. Some differences between the mothers from the three study hospitals can be seen. The mothers from Hospital A were the most homogeneous group. All of them were married Caucasians, and a greater percentage were Catholic. The mothers from Hospital C were the most diverse group racially, educationally, and maritally. A higher percentage of mothers in this group indicated no religious affiliation, than mothers from Hospital A or B.

By chance rather than design, no individuals of religious backgrounds commonly associated with the practice of circumcision (Jews or Moslems) were included in the study population. Interestingly, six mothers indicated religious reasons for choosing circumcision and these six mothers indicated their religious preference as Protestant.

Table 1
Age Distribution of Study Mothers

	Hospital			All Mothers	Mothers Declining Circumcision
	A	B	C		
Mean (years)	24.25	24.57	24.25	24.67	23.20
Range (years)	16-35	18-37	16-34	16-37	20-27

Table 2
Racial Distribution of Study Mothers

Race	Hospital			All Mothers	Mothers Declining Circumcision
	A	B	C		
Caucasian					
Frequency	23	20	49	92	5
Percentage	100	95	88	92	100
Black					
Frequency	0	1	7	8	0
Percentage	0	5	13	8	0

Table 3
Marital Status of Study Mothers

Marital Status	Hospital			All Mothers	Mothers Declining Circumcision
	A	B	C		
Married					
Frequency	23	20	40	83	4
Percentage	100	95	71	83	80
Divorced					
Frequency	0	0	2	2	0
Percentage	0	0	4	2	0
Single					
Frequency	0	1	14	15	1
Percentage	0	5	25	15	20

Table 4
Distribution of Religious Preferences of Study Mothers

Preference	Hospital			All Mothers	Mothers Declining Circumcision
	A	B	C		
Protestant					
Frequency	15	17	46	78	3
Percentage	65	81	82	78	60
Catholic					
Frequency	4	2	0	6	1
Percentage	17	10	0	6	20
None					
Frequency	1	2	9	12	1
Percentage	4	10	16	12	20
Other					
Frequency	3 ^a	0	1 ^b	4	0
Percentage	13	0	2	4	0

^aOne Mormon, one nondenominational Christian, one not specified.

^bMormon.

Table 5
Distribution of Levels of Education of Study Mothers

Level of Education	Hospital			All Mothers	Mothers Declining Circumcision
	A	B	C		
Less than high school					
Frequency	5	3	16	24	1
Percentage	22	14	29	24	20
High school graduate					
Frequency	7	9	19	35	1
Percentage	30	43	34	35	20
Some college/ vocational school					
Frequency	5	6	16	23	3
Percentage	22	30	29	23	60
College/post college					
Frequency	6	4	14	24	0
Percentage	26	19	25	24	0

Study Population of Nurses

The sample of nurses included 96 nurses who worked in the labor and delivery, postpartum, and nursery departments of the three study hospitals. Table 6 illustrates the profile of nurse response rates by hospital. Of the total population of 168 nurses who were asked to participate in the study, 96 or 57% participated by completing questionnaires.

Table 6
Response Rates of Nurses by Hospital

Employees and Responses	Hospital			All Nurses
	A	B	C	
Number of staff employed on obstetrical units	49	37	82	168
Number responding to questionnaire	27	19	50	96
Percentage of response	55	51	61	57

The sample of nurses included only licensed personnel and included nurses with a variety of educational backgrounds, religious preferences, work areas, shifts worked and years of experience. These factors are presented in Tables 7, 8, and 9.

Demographic Characteristics of Study Population of Nurses

Hospital C had more respondents with baccalaureate degrees (B.S.N.) and Hospital B was the only hospital with no baccalaureate degree

Table 7
Educational Background of Nurse Respondents

Education	Hospital			All Nurses
	A	B	C	
LPN				
Frequency	4	9	6	19
Percentage	15	48	12	20
RN--Associate Degree				
Frequency	3	1	9	13
Percentage	11	5	18	14
RN--Diploma				
Frequency	17	9	20	46
Percentage	63	48	40	48
RN--B.S.N.				
Frequency	3	0	13	16
Percentage	11	0	26	17
Other				
Frequency	0	0	2 ^a	2
Percentage	0	0	4	2

^aR.N. with B.S. degree in education, R.N. with postgraduate work.

Table 8

Characteristics of Work Experience of Nurse Respondents

Characteristics of Work Experience	Hospital			Nurses
	A	B	C	
Principal shift worked				
Day	8 ^a (30) ^b	8 (42)	18 (36)	34 (35)
Evening	11 (41)	3 (16)	16 (32)	30 (31)
Night	8 (30)	8 (42)	16 (32)	32 (33)
Work area:				
Labor and Delivery	11 (41)	3 (16)	16 (32)	30 (31)
Newborn Nursery	8 (30)	11 (58)	16 (32)	35 (37)
Postpartum	8 (30)	5 (26)	18 (36)	31 (32)
Years of experience				
Mean	8.08	13.95	11.17	11.06
Range	<1-27	1-32	1-37	<1-37

^aFrequency.^bPercentage.

Table 9
Religious Preferences of Nurse Respondents

Preference	Hospital			All Nurses
	A	B	C	
Protestant				
Frequency	22	17	38	77
Percentage	81	89	76	80
Catholic				
Frequency	1	2	5	8
Percentage	4	11	10	8
None				
Frequency	3	0	2	5
Percentage	11	0	4	5
Other				
Frequency	1 ^a	0	5 ^b	6
Percentage	4	0	10	6

^aChristian.

^bOne Eastern Orthodox Christian, one Christian, two Seventh Day Adventists, one Other--nonspecified.

nurses responding. Hospital B also had a greater percentage of licensed practical nurses (L.P.N.'s) participating in the study.

Religious preferences were primarily protestant, with a few Catholics represented. No nurses of the Jewish faith were represented. Hospital B had no representatives of religions included in the "other" category and no nurse from Hospital B stated her religious preference as "none."

The overall distribution of nurses among the three shifts and work areas was very even. The evening shift and the labor and delivery department at Hospital B were the least represented.

Obstetrician and Nurse Practitioner Study Population

Questionnaires were mailed to 30 obstetricians who cared for mothers at the three study hospitals. Fifteen responded for a return rate of 50%. Fourteen physicians completed the questionnaire and one declined to participate. Four family nurse practitioners who worked at a county health department provided prenatal care to some of the women in the study. Questionnaires were mailed to them and all four responded. No demographic data were collected from these individuals.

B. INSTRUMENTATION

The data collection instruments were questionnaires which were created by the researcher to meet the objectives of this study. The questionnaires included both open ended and multiple choice

questions. The instruments were not pilot tested but were extensively examined for content validity by the researcher's faculty committee. These individuals are knowledgeable in the areas of maternal-child health and the research process. An effort was made to keep the questionnaires as concise, clear and readable as possible in order to be understood by individuals with marginal reading skills.

It took approximately 10-15 minutes for most mothers and nurses to complete the questionnaires. The nurse practitioner and obstetrician questionnaires required less time to complete. Samples of each instrument and cover letters to hospital nurses, nurse practitioners, and obstetricians are included in Appendices A-G.

C. DATA COLLECTION METHODS

Data were collected at Hospitals B and C by the researcher during May, June, and July 1984. Another graduate nursing student, acting as a research assistant, collected all of the data from Hospital A during the month of July. Prior to collecting any data, the nursing supervisors from each study hospital were consulted for permission to use the facility and asked how the nursing staff should be informed about the project. At Hospital A the supervisor preferred to inform the nurses at staff meetings. At Hospital B the researcher presented the project at a staff meeting, and at Hospital C the researcher met with all of the head nurses to explain the study.

Lists of all licensed nurses were obtained from the nursing supervisor and packets of questionnaires with the nurses' cover letters were placed on the individual units in a conspicuous area.

Inside the packets were the nurses' questionnaires with each nurse's name attached on a separate small piece of paper. An empty envelope was also stapled to the questionnaire. The nurses took their questionnaires from the packet, removed and discarded the papers with their names, completed their questionnaires, and sealed them in the envelopes for privacy. The questionnaire in the sealed envelope was then replaced in the packet. At a specified time the packet of completed questionnaires was collected from the study hospitals by the researcher or her assistant.

Packets, including a questionnaire, a cover letter, and a return envelope, were mailed to each physician and family nurse practitioner who provided prenatal care to the study mothers. Completion of the questionnaire was done on a voluntary basis and the data were handled in a confidential manner. The participants were informed that the results of the study would be available for their examination at each study hospital at the conclusion of the study. Individuals could request a copy of the results personally, but none did.

The mothers were surveyed by first determining if they met the criteria for inclusion in the study. The charge nurse in the newborn nursery was contacted to help identify male infants who were candidates for routine circumcision. If the infant was a candidate and his parent had either signed or declined to sign the circumcision permit, his mother's name was listed by the researcher. The charge nurse or team leader on the postpartum unit was consulted to determine whether the mothers on the list were eligible for inclusion in the study. Permission to approach the mothers was either granted or

denied by the postpartum nurse based on her judgment of the mother's condition.

Mothers identified as potential participants in the study were approached by the researcher or her assistant. They were told that a study was being conducted by a graduate nursing student to assess the information new mothers had about circumcision and to identify individuals who had discussed the procedure with them. They were asked if they would participate in the study by completing a questionnaire. All but two mothers who were approached agreed to participate. The two who declined to participate were patients at Hospital A.

The mothers were told that their questionnaire would not be identified except by the hospital. They were also instructed that if they did not know the answer to a question to write "don't know" rather than leave the question blank. If the mother appeared very young, was lying flat, or had an intravenous infusion in her hand, the researcher offered to read the questionnaire and record her answers. This procedure was also followed if the mother seemed unsure about how to proceed. Otherwise, the researcher or assistant left the mother with the questionnaire. The mother was told that if she did not understand any questions they would be clarified for her when the questionnaires were collected. No mother required clarification of any of the questions. Any questions asked by the mothers about circumcision were referred to the hospital staff and the physician. When the questionnaires were collected they were

quickly examined for blank spaces, and if found, the mother was asked if she knew the answer to that particular question. At no time did the mother then supply the answer. The mothers were thanked for their participation in the study at the conclusion of the contact.

CHAPTER IV

RESULTS

Because this was an exploratory study, the data relating to each of the study objectives were analyzed using descriptive statistics. The answers from each open ended question were coded and grouped according to commonly occurring answers. They were transcribed onto a grid for each sample of mothers, nurses, obstetricians and nurse practitioners and then summarized. Frequency of occurrence and percentages are used to describe the findings.

Data related to the counseling practices and attitudes of obstetricians and nurse practitioners are presented first. The counseling often occurs prior to admission to the hospital for delivery and therefore is antecedent to the activities encompassed by the other two objectives.

Data related to maternal knowledge regarding newborn circumcision were evaluated utilizing criteria established for the granting of an informed consent. It was assumed that some degree of informed consent could be established if the mothers could: (1) define circumcision, (2) name one complication of the procedure, (3) name one valid reason for performing the procedure, and (4) express some knowledge of an alternative to circumcision, demonstrated by knowledge of proper hygienic care for the uncircumcised male infant. Data about individuals who influenced the mother's decision were also evaluated.

Finally, the counseling activities, attitudes, and perceived roles of the obstetrical nurses were examined. Much of the information is presented in table form for completeness and clarity.

A. SUMMARY OF OBSTETRICIAN COUNSELING

All of the participating obstetricians indicated that they answer questions as they are posed by their patients. Three provide written materials and two indicated their plans to provide written materials in the near future. Five physicians said they provide verbal counseling outlining indications, benefits, and risks to all patients. One indicated that an office nurse provides routine verbal counseling to all patients. Another indicated that an office nurse reaffirms the physician's counseling. A total of seven (50%) of the participating obstetricians personally thought that routine circumcisions should be done, and six (43) indicated that routine circumcisions should not be done. One obstetrician had no opinion on the matter. Only one obstetrician, however, admittedly encouraged parents to have their infants circumcised. All others stated that they remained uncommitted.

When asked how important they thought it was for mothers to receive counseling in order to give a fully informed consent, none of the physicians thought it was not important. Three (21%) of the physicians indicated that it was somewhat important and nine (64%) marked the important category. Only one thought that ability to give informed consent was very important (7%). Table 10 outlines

Table 10

Information Obstetricians Indicated Mothers Should Have in Order
to Give Informed Consent for Circumcision

Type of Information	Number Reporting	Percentage Reporting
What circumcision is	1	7
How the procedure is done	4	27
The benefits of circumcision	7	47
The risks/complications of circumcision	7	47
Alternative care of penis if not circumcised	1	7
The lack of medical indications	2	13
Possibility of need for remote military assignment	1	7
The psychological/social/religious indications	2	13

the information the obstetrician indicated in response to an open ended question about the information mothers should have in order to give an informed consent.

The obstetricians were also asked to give their opinions about whether nurses should provide circumcision counseling in the hospital setting. These findings will be discussed in the section on nurses' counseling activities.

B. SUMMARY OF NURSE PRACTITIONER COUNSELING

All four nurse practitioners who responded indicated that they provided verbal counseling to all patients outlining the indications, benefits, and risks of circumcision. One also indicated that she answered questions posed to her by the expectant mothers. Two stated that they thought it was very important for the mothers to be counseled about circumcision, and two marked the important category. All but one thought that routine newborn circumcision should not be done, but all remained uncommitted in their counseling of the expectant mothers. The one practitioner who favored routine newborn circumcision did indicate, however, that she would give her personal opinion on the matter if asked.

The nurse practitioners were divided on the question of nurses providing circumcision counseling in the hospital setting. Two thought it was appropriate, and two indicated that this counseling should be handled in the prenatal setting.

Table 11 illustrates the information identified by the practitioners as necessary for informed consent in response to an open-ended item on the questionnaire.

Table 11

Information Nurse Practitioners Indicated that Mothers should Have
to Give Informed Consent for Circumcision

Type of Information	Frequency	Percent
How the procedure is done	2	50
Various techniques for performing circumcision	1	25
The benefits of circumcision	3	75
The risks/complications of circumcision	3	75
Alternative care of penis if not circumcised	2	50
Why the procedure is done	1	25
Pictures showing circumcised and uncircumcised children and adults	1	25
Information on fathers' feelings about circumcision	1	25

C. MATERNAL KNOWLEDGE RELATED TO ABILITY TO GIVE INFORMED CONSENT

Ability to Define Circumcision

The first criteria established for evaluating the ability of mothers to give informed consent for the procedure was that they be able to define or describe the procedure of circumcision. Acceptable answers included any reference to cutting, trimming, clipping or removing the skin or foreskin from the penis (Miller & Keane, 1978).

Table 12 shows the numbers and percentages of mothers related to their ability to define a circumcision.

Table 12

Demonstrated Ability of Study Mothers to Define Circumcision

Mother's Sample	Defined	Did Not Define	Percentage Who Did Not Define
Hospital A	19	4	21
Hospital B	18	3	17
Hospital C	44	12	28
Mothers declining circumcision	5	0	0
All mothers	81	19	23

Of the 19 mothers who were unable to define circumcision, 16 either left the question blank or wrote in "don't know" or "no understanding." One mother answered ". . . foreskin pressed down around penis." Another stated ". . . doctor takes the head of the penis and pulls it back to keep it from growing together." A third merely referred to a pulling back of the skin from the head of the penis.

Table 13 illustrates demographic differences between the mothers who did not indicate a basic understanding of the definition of circumcision and those whose responses indicated an adequate understanding.

The data indicate that the younger, single mothers with lower educational levels did not have as great an understanding of circumcision as the older, married, and better educated mothers.

Table 13

Demographic Differences Among Study Mothers According to
Ability to Define Circumcision

Demographic Characteristics	Mothers Who Did Not Define Circumcision	Total Group
Mean age (years)	21	24.67
Percent unmarried	32	17
Percent Black	26	8
Education		
Percent with less than high school	42	24
Percent who were high school graduates	32	35
Percent who had vocational school training or some college	5	17
Percent who were college graduates or had post college education	11	24

In addition, there was a greater percentage of Black mothers in the group with low understanding of circumcision.

A closer look at the questionnaires of three mothers with at least some college, shows some differences, however, from the other 16 mothers who did not define circumcision. One of these mothers was one of only two who said she had talked to both her obstetrician and pediatrician before and after the delivery about circumcision. Both these mothers made some attempt at defining circumcision and knew that the head of the penis was exposed, but did not indicate that they knew the skin was cut surgically. The second mother was the only one in the group who had not talked to any health professional about circumcision and indicated that she wished she had received more information about the procedure. The third mother stated that she had talked to both her obstetrician and pediatrician prior to delivery and that both had encouraged her to have the procedure done. She was the only one of the 19 who indicated that her physician had encouraged circumcision. She did not indicate that she had received any more specific information about the procedure. This mother seemed to have a poor understanding of circumcision, as she also did not answer the questions on complications or care of the uncircumcised baby boy.

An attempt was made to determine if the time the questionnaire was presented could have affected the degree of understanding reflected by the mothers' responses. It was found that the mothers who could not define circumcision completed their questionnaires on mean postpartum day 2.0. The mean time of completion of the questionnaire

for the group as a whole was postpartum day 1.68. At the time of the survey all of the mothers had signed consent forms or declined the circumcision.

A total of 95 mothers had signed forms consenting to have their infants circumcised. At the time of the survey, circumcisions had been done on 51 (54%) of these infants. Of the 19 who signed consents but did not define circumcision, 11 (65%) had already been circumcised at the time of the survey. Therefore, neither timing of administration of the questionnaire nor the actual performance of the circumcision was related to the mothers' responses to the questionnaire item asking them to define the procedure.

Table 14 compares the most important sources of information cited by the mothers as affecting their decisions about circumcision. Comparisons are shown between those mothers who did and did not define circumcision. Some mothers cited more than one important source, therefore the totals may exceed the total group numbers.

It is apparent by examining the table that sources of information varied somewhat between the groups. The mothers who defined circumcision relied more heavily on their obstetricians or pediatricians for information. Mothers who defined the procedure were more likely to gain information by reading, which is perhaps reflective of their higher educational level, and were more likely to name themselves as an important source of information.

The mothers who did not define circumcision relied more heavily on their families for information, although the family was by far the primary source in both groups. This heavier reliance on the

Table 14

Most Important Sources of Information Regarding Circumcision
Cited by Mothers, Related to their Ability to
Define Circumcision

Sources of Information	Mother's Ability to Define			
	Defined Circumcision		Did not Define Circumcision	
	Frequency	%	Frequency	%
Family	39	48	11	58
Pediatrician	8	10	1	5
Self	8	10	0	0
Magazines/books	7	9	0	0
Husband	6	7	0	0
Obstetrician	6	7	0	0
Bible/minister	3	4	0	0
Nurse	2	2	1	5
Friends	2	2	1	5
Other (nonspecific)	1	1	0	0
None	0	0	2	10

family might be explained by the younger ages of many of the mothers and the fact that more of them were single. Neither group cited nurses as a very important source of information, although the percentage total was higher for the less knowledgeable group. Husbands were seen as having greater influence for this group.

Table 15 illustrates the health professionals identified by mothers in the two groups as providers of information regarding circumcision. No appreciable differences in health professional counseling of mothers who did and did not define circumcision was demonstrated. The mothers who did not define circumcision were less likely to have talked with their obstetricians, but more likely to have talked with their pediatricians. A more notable difference in the counseling received by the two groups is seen by identifying individual mothers who did not discuss circumcision with any health care professional. It was usual to find that if a mother talked to one health care professional, she also talked to others. Of those mothers who defined circumcision, 83% had talked to at least one health care professional, compared to 59% of those who did not define circumcision.

The ability to define circumcision was viewed as an important prerequisite for giving an informed consent for the procedure. The ability to express this information in writing may not have always reflected the true knowledge of the individual mother. It was assumed, however, that the mothers's questionnaire responses

Table 15

Health Professionals Cited by Mothers as Providing Counseling,
Related to Mothers' Ability to Define Circumcision

Health Professional	Mother's Ability to Define			
	Defined Circumcision		Did not Define Circumcision	
	Frequency	%	Frequency	%
Obstetrician				
Before birth	30	37	5	26
After birth	24	30	6	32
Pediatrician				
Before birth	7	9	3	16
After birth	16	20	6	32
Nurse				
Labor and delivery	16	20	2	11
Postpartum	5	6	1	5
Nursery	18	22	4	21
Doctor's office	4	5	0	0
Other	2 ^a	2	0	0

^aChildbirth educators.

provided a reasonable indication of their knowledge about newborn circumcision.

Ability to Name a Complication of Circumcision

The second criteria established for evaluating informed consent was that the mother could name at least one complication of circumcision. Fifty-seven (57%) of the mothers named at least one complication of circumcision and 43 (43%) did not name a complication of circumcision. Table 16 lists the complications named in descending order of frequency.

Of the 19 mothers unable to define circumcision, 16 were also unable to name a complication of circumcision. Thus there was a large overlapping of populations of mothers unable to meet the two criteria. Table 17 shows the demographic characteristics of the group of 43 mothers who did not name a complication of circumcision, compared with the total group.

The group who failed to name a complication of circumcision is similar to the study population as a whole in terms of age and marital status. They are more likely to be Black and to have less education than mothers who identified at least one complication.

Table 18 shows the sources of information regarding circumcision considered most important by the mothers related to their ability to identify complications of the procedure. Mothers in both groups cited the family as an important source of information. The obstetricians and reading materials were more important sources of

Table 16
Complications of Circumcision Cited by Study Mothers

Complication	Number of Times Named
Infection	50
Bleeding	11
Accidental disfiguration	6
Damage to urethra	3
Scarring	2
Adhesions	2
Pain/soreness	2
Difficulty voiding	2
Swelling	1
Nerve damage	1
Minor complications (nonspecific)	1

Table 17

Demographic Characteristics of Study Mothers, Related to
Ability to Name at Least One Complication of Circumcision

Demographic Characteristics	Mother's Ability to Name a Complication	
	Did not Name at Least One Complication	Total Group
Mean age (years)	23.70	24.67
Percent unmarried	19	17
Percent Black	14	8
Education		
Percent with less than high school	37	24
Percent who were high school graduates	44	35
Percent who had vocational education or some college	13	17
Percent with college or post college education	7	24

Table 18

Most Important Sources of Information Cited by Mothers, Related to
an Ability to Name a Complication of Circumcision

Source of Information	Mother's Ability to Name a Complication			
	Named at Least One Complication		Did Not Name a Complication	
	Frequency	%	Frequency	%
Family	38	67	23	53
Pediatrician	9	16	2	5
Self	7	12	2	5
Magazines/books	7	12	0	0
Obstetrician	6	1	0	0
Husband	4	7	5	12
Bible/minister	3	5	0	0
Nurse	2	4	0	0
None	2	4	0	0
Friends	0	0	4	9
Other (nonspecific)	0	0	1	2

information to mothers able to name a complication, while friends were mentioned more often by the less knowledgeable group. The pediatrician was also cited more often as giving information by the group able to name a complication of circumcision.

The extent of counseling is made more evident by looking at the percentages of mothers receiving counseling by at least one health care professional related to their ability to name a complication of circumcision. Of those mothers who named a complication of circumcision, 91% were counseled by at least one health care professional. Of those who did not name a complication 58% had talked to at least one provider of health care.

The fact that 58% of mothers who did not name a complication of circumcision had talked to someone in the health care field about circumcision is significant. This indicates that many interactions between mothers and caregivers regarding circumcision may not be sufficient in quality or scope to provide parents with an understanding of possible complications of the procedure.

Knowledge of the Indications for Circumcision

The third criteria for the evaluation of the ability to give informed consent was that the mother knew why the procedure was done. The mothers were asked to list the reasons they believed newborn circumcision should or should not be done. Acceptable answers, substantiated by the literature, included religious beliefs and the

facilitation of hygiene (Boyce, 1983; King et al., 1978; Poole, 1979; & Thompson et al., 1975). Some authors do not accept hygiene as an acceptable indication for circumcision (Grimes, 1978; Preston, 1970). For purposes of this study, however, facilitation of hygiene was classified as an acceptable reason to circumcise the newborn male infant.

Adherence to social/cultural practices was classified as an acceptable answer if considered important by the mother (King et al., 1978). Penile cancer is currently the only cancer thought to be prevented by circumcision, but the incidence of significant circumcision complications exceeds the incidence of penile cancer; therefore this was not viewed as a justifiable reason for the procedure (Gellis, 1978; Hillard, 1984). Because proper hygiene can prevent infections and the need for most circumcisions later in life, infection and prevention of circumcision later in life were not considered acceptable reasons for the procedure (Boyce, 1983; Gibbons, 1984; Thompson et al., 1975). Because a diagnosis of phimosis cannot be made until the child is at least 3 years old and there are no methods available for accurate diagnosis of those newborns at risk of developing phimosis, circumcision is not indicated in the newborn period to correct a state of phimosis (King et al., 1978). Table 19 outlines the reasons the mothers in the study thought circumcision should be done.

The categories judged by the criteria for this study to be valid reasons for circumcision were: (1) cleanliness/hygiene, (2) ease of care, and (3) religious beliefs. These three categories were

Table 19
Reasons for Circumcision Cited by Study Mothers Who
Consented to the Procedure

Reason	Frequency	Percent
Cleanliness/hygiene	39	41
Prevention of infections	23	24
Ease of care	11	12
No reason cited	10	11
Prevention of later problems (nonspecific)	7	7
Health reasons (nonspecific)	7	7
Prevention of future circumcision	6	6
Cultural/psychological/social reasons (nonspecific)	6	6
Religious reasons	6	6
Perception that it "should be done"	5	5
Prevention of cancer (cervical, prostatic, testicular)	5	5
Tradition	4	4
Prevention of sexual problems	3	3
Enables child to look like father	2	2
Prevention of harassment by peers	2	2
Medical reasons (nonspecific)	2	2
Facilitation of urination	1	1
Necessity of removal of excessive foreskin	1	1
Prevention of skin from growing over end	1	1

cited by 59 percent of the mothers who consented to have their sons circumcized.

Indications which were considered valid depending upon personal preference included: (1) cultural/psychological/social reasons, (2) tradition, (3) enabling the child to look like father, and (4) prevention of harassment by peers. These factors are related to the perceptions of normality in our culture; their importance and validity may be disputed by some. It was assumed that parents who gave careful consideration and made the decision to circumcise based on these factors based their decision on informed consent. These "possibly valid" reasons were given by 15% of the study population of mothers.

Reasons which were given and not considered to be valid included: (1) prevention of infections, (2) prevention of problems later, (3) health reasons, (4) prevention of need for procedure later in life, (5) necessity, (6) prevention of cancer, (7) prevention of sexual problems, (8) medical reasons, (9) facilitation of urination, (10) removal of excessive foreskin, and (11) prevention of skin growing over the end of the penis. Reasons in these non-valid categories were given by 64% of the mothers. It should also be noted that 10% cited no reason for the procedure. Most of the preceding non-valid reasons were classed non-valid because hygiene is the important variable, rather than the presence or absence of circumcision. Other answers reflected lack of knowledge of the normal anatomy and physiology of the penis.

It is apparent that while a majority of mothers (74%) gave at least one valid reason for circumcision, a large percentage (64%) gave non-valid reasons. An overlap exists because of the mothers who gave multiple reasons for their decisions.

The five mothers in the study who decided against circumcision also identified reasons for their decisions. It is necessary also to evaluate the extent to which they made an informed decision to decline circumcision. As noted in previous sections, all these mothers were able to define circumcision and all were able to name at least one complication. They seem to be much better informed than their counterparts having their infants circumcised; however, because of the small number it is not possible to make any wide generalizations.

The following reasons were given as the basis for the decisions not to circumcise. Two of the mothers stated that they saw no medical need for the procedure. One did not want her son subjected to the procedure and was concerned about possible surgical risks. Another had a husband and other son who were not circumcised and said that because they had had no problems she did not think that the new son would experience any difficulties. One mother simply stated that she wanted her son to be able to decide for himself about circumcision when he was older. Two of the mothers indicated that they did not think there would be any problem with hygiene, and that the child could be taught to care for himself as he matured. This rationale is consistent with the position of the American Academy of Pediatrics.

Knowledge of Alternative to Circumcision

The final criteria for giving an informed consent is knowledge of the alternative to the procedure. The only alternative to newborn circumcision commonly accepted in our culture is non-circumcision. However, for non-circumcision to be an acceptable alternative, some knowledge of the hygienic care required for the non-circumcised male must be present. The mothers were therefore asked to describe how they would care for the penis of a baby boy, if he were not circumcised.

The answers were evaluated in terms of the following aspects of the care which are considered to be important in providing proper hygiene.

1. Demonstration of some knowledge that the foreskin is usually physiologically not retractable in the newborn period.
2. Demonstration of knowledge that the process of retraction should be gentle and gradual.
3. Demonstration of knowledge that cleanliness is necessary.
4. Demonstration of knowledge that the foreskin must be replaced over the glans at the conclusion of cleansing.
5. Demonstration of the necessity of teaching the boy to perform proper penile hygiene as he assumes responsibility for his own care. (Boyer, 1980; Gibbons, 1984; Harris & Stein, 1981; Marino, 1983; Osborn, Metcalf, & Mariani, 1981; Poole, 1979; Wayland & Higgins, 1982.)

The answers of the 95 mothers having their sons circumcised indicated that the mothers either had very little knowledge of the care of the uncircumcised male, or they did/could not express it in writing. No mother gave an answer that encompassed all five identified aspects of importance. Because this would have involved a great deal of detail for the mothers to give, the answers were examined for indications that knowledge of any of the factors existed.

Five mothers indicated that they should not simply retract the foreskin and clean. One said "don't retract foreskin." Another indicated that she would not try to retract the foreskin until her doctor told her to. The other three indicated that the retraction process should be gentle and gradual.

The mothers did much better in stating the importance of cleanliness. Sixty mothers mentioned that they would keep the penis clean. Some of these answers, however, also included aspects which are not advisable such as, "keep it clean and moist," "clean inside with a cotton swab, and wash and apply powder and vaseline."

Awareness that the foreskin must be replaced over the glans after cleaning was indicated by only one mother. Four mothers said that they would keep the skin pulled back. The need to teach the child to care for himself was mentioned by three mothers.

The second most frequent answer was no answer at all, or an admission of no knowledge in this area. Thirty-one mothers, or 33%, indicated no knowledge of care for the uncircumcised male.

It can perhaps be argued that if a mother plans on circumcising her male infant, then she does not need to know how to care for the uncircumcised infant. If, however, one accepts the premise that knowledge of alternatives is a prerequisite to informed consent, then some basic knowledge in this area is necessary.

Of the five mothers declining circumcision, one knew that the foreskin was not retractable at birth and that she should gently and gradually retract it with bathing. Therefore she included three of the variables in her answer. One mother stated she had not yet talked to her pediatrician about the care, but that she would get that information. Two mothers simply referred to the need to retract the foreskin and cleanse and one mother started to answer the question but did not complete her answer. It is not known if she was interrupted or did not know what to say.

It is hoped that all of these mothers become more knowledgeable in the care of their infants through future interactions with their nurses and pediatricians. At the point of giving consent, however, there is strong evidence that the mothers lacked knowledge of the alternative to circumcision.

D. EVALUATION OF NURSES' KNOWLEDGE AND ATTITUDES REGARDING CIRCUMCISION

A necessary part of evaluating circumcision counseling by nurses is determination of the extent of knowledge practicing nurses have about newborn circumcision. It was assumed that all practicing

obstetrical nurses would be able to define the procedure so they were not asked to define this on the questionnaire. Additional information that nurses need in order to counsel mothers is a knowledge of the complications of circumcision and a knowledge of the reasons for having circumcision done. In addition, knowledge of proper care for the uncircumcised infant is needed in order to share with the mother an alternative to newborn circumcision. Also, it is important to examine what the nurses perceive as adequate information necessary for informed consent to be given.

Nurses' Knowledge of Complications of Circumcision

The majority of nurses (95%) were able to name at least one complication of circumcision. The five nurses who did not list a complication included four labor and delivery nurses and one post-partum nurse. All but one of the nursery nurses were able to name two or more complications. Only five nurses named only one complication, and the rest named from two to five. Table 20 lists the complications the nurses identified. The nurses as a group were well informed regarding complications of circumcision.

Nurses' Knowledge of the Indications for Circumcision

The nurses' responses about the reasons for doing circumcision were evaluated with the assumption that facilitation of hygiene and religious reasons are valid indications, and social/cultural reasons are valid if carefully considered. All others were considered non-valid indications. Tables 21, 22 and 23 give the reasons nurses

Table 20
Complications of Circumcision Identified by Nurses

Complication	Frequency	Percent
Bleeding	84	88
Infection/drainage/inflammation	74	77
Mutilation/trauma/poor surgery	30	31
Edema	23	24
Inability to void	10	10
Adhesions	6	6
Stress of procedure/choking during procedure	4	4
Pain/irritability	2	2
Improper healing (nonspecific)	2	2
Nerve damage	1	1

Table 21
Valid Reasons Given by Nurses for Performance of
Newborn Circumcision

Indication	Frequency	Percent
Hygiene	49	51
Religion	10	10
Convenience	1	1
Occlusion of urethra (if actually occluded by foreskin)	1	1
No medical indications	3	3

Table 22

Possible Valid Reasons Given by Nurses for Performance of
Newborn Circumcision

Indication	Frequency Mentioned	Percentage Naming
To match father	3	3
To match peers	13	14
Cosmetic reasons	2	2
Social/cultural/traditional reasons	11	11
Difficulty in practicing or teaching good hygiene	1	1
Parental preference	8	8

Table 23

Non-valid Reasons Given by Nurses for Performance of
Newborn Circumcision

Indication	Frequency Mentioned	Percentage Naming
Phimosis	12	13
Prevention of infection	11	11
Prevention of cancer (cervical, penile, prostate)	10	10
Prevention of phimosis	6	6
Prevention of later surgery	5	5
Prevention of later problems (nonspecific)	2	2
Medical indications (nonspecific)	2	2
Evaluation of urethral patency	1	1
Epi/hypospadias	1	1
Mother's ability to pay for procedure	1	1
Prevention of development/spread of venereal disease	1	1

believe circumcision should be done related to the validity of the reason as determined by the criteria of this study.

Even though the majority of nurses' responses were valid (54%) or possibly valid (40%), many of the responses were classified as non-valid indications. Of a total of 154 responses, 34% were considered non-valid. The data support the existence of some deficit in nursing knowledge in this area, which could result in nurses giving mothers misinformation during counseling. Although many nurses may be well informed, there is a need for some to update their knowledge on this subject.

Nurses' Knowledge of Proper Hygienic Care of the Uncircumcised Male Child

Nurses' knowledge of proper hygiene for the uncircumcised child was evaluated utilizing the same criteria used to evaluate the mothers' knowledge of the subject. The five criteria that were used to evaluate the completeness and appropriateness of the information included these:

1. Demonstration of some knowledge that the foreskin is usually physiologically not retractable in the newborn period.
2. Demonstration of knowledge that the process of retraction should be gentle and gradual.
3. Demonstration of knowledge that cleanliness is necessary.
4. Demonstration of knowledge that the foreskin must be replaced over the glans at the conclusion of cleansing.

5. Demonstration of knowledge of the need to teach the boy to perform proper penile hygiene as he assumes responsibility for his own care.

Two nurses gave information that included all the aspects except teaching the child to care for himself. One of these nurses, a nursery nurse, had an uncircumcised child and was often recruited by the pediatrician to counsel the mothers who decided against circumcision. Another nursery nurse identified all five components of the criteria in her answer. Three more nurses, one from each of the three obstetrical departments, included three aspects in their answers. They failed to include replacing the foreskin over the glans, teaching the child proper care, and indication of knowledge that the foreskin is not retractable in the newborn period.

Most of the nurses' answers were not wrong but many were incomplete. Forty-two nurses said only that the foreskin should be retracted and the penis washed. Others were very nonspecific about the answer, saying they would teach the mother to provide proper hygiene, but failed to identify what constituted proper hygiene.

The data suggested that nursery personnel were primarily responsible for providing education about circumcision, since four of the six with the most complete answers were nursery staff. Three nurses said that they would simply refer the mothers to nursery personnel for information, and seven stated they would refer the mothers to their pediatricians. Five nurses would advise the mothers not to retract the foreskin until the pediatrician suggested that

this be done. Three nurses said they didn't know what constituted proper hygiene.

The only answers which described practices which might be contraindicated included one which suggested pulling the foreskin all the way back, another which suggested keeping the foreskin pulled back, and one which advocated the use of a cotton swab to slide back the foreskin and check for adhesions. Each of these three suggestions could result in damage to the infant's penis if they were followed by the mother.

It is difficult to determine if the nurses included in their answers everything they would teach a mother about caring for the uncircumcised infant. All nurses are not involved in this type of teaching, nor do they need to be. It is hoped that those nurses who seem to be most knowledgeable are the ones providing circumcision counseling. Five of the six with the better answers said they do provide this teaching to mothers. Of the group as a whole 31 (32%) indicate that they provided this teaching, and 65 (68%) indicated that they do not.

Information Identified by Nurses as Necessary for Mothers
to Give Informed Consent

For the purpose of this study, informed consent was considered to have four components: (1) definition of the procedure, (2) identification of complications of the procedure, (3) identification of indications for the procedure, and (4) identification of an alternative to the procedure.

This last section describes the types of information that nurses identified as necessary in order for mothers to give an informed consent for circumcision. It was assumed that the nurses' perception of the information that mothers require would influence the amount and character of information that nurses share with mothers for whom they provide nursing care.

The first aspect of informed consent identified in this study was the definition of circumcision. Five nurses (5%) indicated that they felt mothers should know what circumcision is and 10 (10%) indicated that mothers should know how the procedure is done. These small numbers may reflect a view on the part of the nurses that most mothers would know what circumcision is. The analysis of the data from the mothers' questionnaire revealed that 21% could not define circumcision. Therefore, it might behoove nurses and physicians to assume little when talking with mothers about circumcision. The method of performing the procedure may also be important information for the mother to have but was not specifically considered in this study.

The complications of any procedure should be known prior to granting permission for its performance. It would be acceptable to share the information that complications are not common, but the fact that they can occur should not be avoided. Twenty-nine (30%) of the nurses indicated that they thought it was important for mothers to be told the possible complications of circumcision. Twenty-four other nurses (25%) indicated that they felt mothers should be told

the advantages and disadvantages, or pros and cons of the procedure. The disadvantages or cons of the procedure would certainly include the possible complications. Therefore, a total of 55% of the responding nurses indicated that they believed the mothers should have a knowledge of the complications of circumcision prior to giving consent. Three nurses pointed out that the mothers should know that complications can occur without circumcision and that circumcision is sometimes required later in life. These were considered to be valid statements.

Knowledge of indications for the procedure is another component of informed consent. Fifty-five of the nurses (57%) included this aspect in their answers. Knowledge of an alternative to the procedure, however, was not identified by the nurses as important for the giving of informed consent. Only two (2%) stated that it was important to be sure the mother knew it was an optional procedure, and five (5%) suggested that the mother should know that it was not medically indicated. No one indicated that it was desirable to inform the mother of the care that would be required by her child if she should decide to avoid circumcision.

Several other factors were identified by the nurses as desirable information for the mothers to have prior to giving consent for circumcision. Several nurses suggested that the mothers should know that circumcision is painful for the infant, and what the circumcised penis will look like. Several mentioned that the mothers should receive counseling in the prenatal period rather than during labor or in the immediate postpartum period.

Counseling by Nurses in the Hospital Setting

Several aspects of circumcision counseling by nurses in the hospital settings were evaluated: (1) the extent of the counseling provided, (2) the personal preferences of the nurses regarding the routine performance of newborn circumcision, (3) whether the nurses encourage or discourage the procedure, (4) the nurses' perceptions of their roles regarding counseling, and (5) their perceptions of any constraints upon this activity.

The nurses were asked to respond to a question describing various levels of counseling practices. Table 24 gives an outline of their responses related to their department of employment.

The data presented in Table 24 indicate that 65% of the nurses in all departments are willing and do answer direct questions about circumcision. Only 5% routinely provide circumcision counseling. None of the hospital labor and delivery nurses routinely counsel mothers, yet the labor and delivery area is where many circumcision permits are signed. This raises questions related to the appropriateness of this setting for circumcision counseling. However, 20% of all nurses indicated that they provide counseling at some time. A total of 31% stated that they refer mothers' questions to physicians.

It was assumed that the shift the nurses worked would influence their answers, because those nurses working while the mothers slept would have less opportunity for counseling activities. Table 25 illustrates the extent of circumcision counseling related to the shift primarily worked.

Table 24

Extent of Circumcision Counseling by Hospital Obstetrical Nurses
Related to Department of Employment

Extent of Counseling	Department of Employment			Total
	Newborn Nursery	Labor and Delivery	Postpartum	
Routinely discusses	3 ^a (9) ^b	0 (0)	2 (6)	5 (5)
Answers direct questions	22 (63)	23 (77)	17 (55)	62 (65)
Sometimes or occasionally discusses	6 (7)	7 (23)	6 (20)	19 (20)
Instructs mothers to direct questions to physicians	10 (29)	10 (33)	10 (32)	30 (31)
Other	3 (9)	4 (13)	1 (3)	8 (8)

^aFrequency.

^bPercent.

Table 25

Extent of Circumcision Counseling by Hospital Obstetrical
Nurses According to Work Shift

Extent of Counseling	Work Shift			Total
	Day	Evening	Night	
Routinely discusses	1 ^a (3) ^b	4 (13)	0 (0)	5 (5)
Answers direct questions	21 (62)	20 (67)	21 (66)	62 (65)
Sometimes or occasionally discusses	7 (21)	7 (23)	5 (17)	19 (20)
Instructs mothers to direct questions to physician	13 (38)	6 (20)	11 (34)	30 (31)
Other	5 (15)	2 (7)	2 (6)	8 (8)

^aFrequency.

^bPercent.

The data indicated that those nurses who worked the night shift do less counseling than those on the day and evening shifts. None of the night shift nurses routinely discussed circumcision with the mothers. They did discuss it occasionally, but to a lesser extent than nurses working the other two shifts. They are, however, just as likely to answer direct questions or to refer the mothers' questions to their physicians.

The educational preparation of the nurses included programs preparing licensed practical nurses (LPN), associate degrees in nursing (A.D.), diplomas in nursing, and baccalaureate degrees in nursing (BSN). Table 26 outlines the counseling practices of hospital nurses according to their educational preparation.

There does not appear to be any direct correlation of counseling practices with the nurses' educational preparation. The only nurses who routinely discussed circumcision with the mothers to any significant extent were those prepared in associate degree programs. A total of 23% of these nurses indicated that they routinely provide circumcision counseling. Surprisingly, none of the baccalaureate prepared nurses routinely provided counseling. Nurses in all educational categories indicated, however, that they counseled the mothers "sometimes."

Because of the relatively small sample size it is not possible to generalize the findings. However, it is significant to note that only 5% of the nurses in this study routinely discussed this matter with mothers, and 20% sometimes discussed it. Only 65% of the nurses

Table 26

Extent of Circumcision Counseling by Hospital Obstetrical
Nurses According to Educational Preparation

Extent of Counseling	Educational Preparation				
	LPN	RN A.D.	RN Diploma	RN BSN	RN Other
Routinely discusses	1 ^a (5) ^b	3 (23)	2 (4)	0 (0)	0 (0)
Answers direct questions	6 (31)	8 (62)	32 (70)	12 (75)	2 (100)
Sometimes or occasionally discusses	4 (21)	2 (15)	9 (20)	5 (31)	0 (0)
Instructs mothers to direct questions to physician	7 (37)	4 (31)	14 (30)	6 (38)	0 (0)
Other	4 (21)	1 (8)	2 (4)	1 (6)	0 (0)

^aFrequency.

^bPercent.

indicated that they were willing to answer questions, and 31% indicated that they would refer the mother to her pediatrician or obstetrician.

Opinions of Nurses Regarding Performance of Routine
Newborn Circumcision

The nurses were asked to respond to a question about their personal feelings about circumcision since one's personal feelings can sometimes influence the approach to a situation such as this. Of the 96 nurses in the study, 39 (41%) thought that routine circumcision should be done on all male infants, excluding those with medical contraindications. A total of 54 (56%) did not think that circumcision should be done routinely. Three percent stated no opinion on the matter.

Of those who favored doing the procedure routinely, seven (18%) encouraged mothers to have their infants circumcised. Of those who thought circumcision should not be done, only one (2.5%) discouraged the procedure. All others indicated that they remained uncommitted when discussing the procedure with obstetric patients.

Perceived Role of the Nurse in Circumcision Counseling

The nurses were asked to respond to an open ended question about the role of the nurse in counseling mothers about circumcision. They gave a variety of responses which are outlined in Table 27.

The most frequent response from the nurses was that they should answer mothers' questions in a neutral manner. Fourteen (15%) thought that doctors should counsel, not nurses. Several thought that the

Table 27

Perceived Role of the Nurse in Circumcision Counseling

Identified Role Function	No. of Nurses Identifying	Percentage of Total Group
Answer questions	28	29
Explain advantages/disadvantages	22	23
Remain neutral	21	22
Instruct regarding care	16	17
Have doctor counsel, not nurse	14	15
Explain/describe procedure	14	15
Explain complications	7	7
Support mother's choice	7	7
Provide information to allow parents to make knowledgeable choice (nonspecific)	4	4
Provide counseling by nursery nurses	3	3
Tell parents circumcision is not medically necessary	2	2
Provide counseling prenatally	2	2
Review operative consent form	1	1
Prepare parents for what circumcision will look like	1	1
Correct misconceptions about circumcision	1	1
Pass on medical information	1	1
Refer the mother to her family for information	1	1

counseling should be provided by nurses working in the nursery rather than by those working in the labor and delivery area. Only two mothers indicated that they would tell the mothers that circumcision is not medically necessary.

When asked to speculate about how they thought obstetricians felt about nurses in the hospital setting talking with the mothers about circumcision, the nurses gave a variety of responses. Table 28 lists the nurses' perceptions of the obstetricians' views of nurses counseling mothers about circumcision.

Of all the perceptions of the nurses regarding physician attitudes, the most prevalent response, given by 29%, was that physicians preferred to do this themselves, or felt an infringement on their territory if nurses provided circumcision information to mothers. Twenty nurses (21%), however, thought that physicians were at least agreeable, if not appreciative.

In comparing the nurses' perceptions with the stated opinions of obstetricians regarding nurses doing circumcision counseling in the hospital setting, some interesting insights became apparent. Table 29 lists the opinions of the 15 obstetricians on this matter along with the frequency mentioned.

The responses indicate that many obstetricians generally agree that it is appropriate for nurses to provide circumcision counseling. Five obstetricians (33%) were agreeable without qualification, and another three (20%) were agreeable if they knew that the nurses were well-informed. It is important to realize, however, that the obstetrician sample represented only 50% of the obstetricians serving

Table 28

Nurses' Perceptions of Obstetricians' Views of Nurses doing
Circumcision Counseling in the Hospital Setting

Obstetricians' Views as Perceived by Nurses	Frequency	Percentage of Respondents Mentioning
Prefer to do it themselves/perceive nurse counseling as infringement on their territory	28	30
Don't know	12	13
Some agree--some don't	11	11
Agreeable	9	9
Appreciative	7	7
Agreeable if nurse is knowledgeable	5	5
Glad not to have to provide the counseling	5	5
Depend on nurses to counsel	4	4
Indifferent	3	3
Agreeable if reflects physician's ability	3	3
Threatened	1	1
Don't realize nurses do counseling	1	1
Question nurses' ability to give correct information	1	1

Table 29

Obstetricians' Views on Nurses doing Circumcision Counseling
in the Hospital Setting

Obstetricians views	Frequency	Percentage of Respondents Mentioning
Agreeable	5	33
Do not feel that it is appropriate	3	20
Agreeable if obstetrical medical staff approves information given	2	13
Agreeable if nurse is well informed	1	7
Acceptable if nurse answers parents' questions	1	7
Feel that it should be done by obstetrician, although nurses are very capable	1	7
Feel that prejudice and emotion prevent effective counseling by nurses	1	7

the three study hospitals. The 50% who declined to participate in the study may have been less receptive to nursing input than those who agreed to complete the survey. Therefore, it is possible that the nurses correctly perceived resistance from the medical staff to their offering information to mothers regarding circumcision and may have done less counseling because of this.

CHAPTER V

CONCLUSIONS

A. SUMMARY OF FINDINGS

This study revealed deficits in maternal knowledge considered important for granting an informed consent for newborn circumcision. Specific deficits included these aspects:

1. Twenty-three percent of the study mothers did not demonstrate a basic knowledge of the definition of circumcision;
2. Forty-three percent of the study mothers did not indicate any knowledge of circumcision complications; and
3. Sixty-four percent of the study mothers cited at least one non-valid indication for circumcision.

Seventy-four per cent gave at least one valid reason, and 38% gave a combination of both valid and invalid reasons. No mother indicated a level of knowledge which met all five criteria for awareness of the alternative to the procedure, i.e. knowledge of hygienic care for the uncircumcised infant. A total of 95% demonstrated no knowledge that the foreskin generally cannot be retracted in the newborn period. A total of 97% failed to cite the necessity of a gentle and gradual retraction of the foreskin. A total of 37% did not mention that cleanliness was important. Ninety-nine percent of the mothers demonstrated no knowledge that, after retraction, the foreskin must be replaced over the glans, and 97% did not mention the important

factor of assuring that the child learn proper penile hygiene.

The survey of obstetricians and nurse practitioners revealed that 50% of the obstetricians and 75% of the nurse practitioners thought circumcision should not be done routinely. Only one out of each group actively encouraged mothers to have their infants circumcised.

The evaluation of the nurses' data revealed that 95% could name at least one complication of circumcision. Ninety-four percent of the nurses were able to give a valid reason for circumcision; however, 34% also gave at least one non-valid reason. Nurses' knowledge of proper hygiene for the uncircumcised child revealed many areas of deficiency. Only one nurse (1%) gave information that included all the criteria for proper hygiene. Two nurses (2%) included all the criteria except teaching the child to care for himself, and three (3%) of the nurses included three of the criteria in their answers.

B. LIMITATIONS OF STUDY

One limitation of the study is limited generalizability, because the study participants were representative of only a two-county area in East Tennessee. Only mothers admitted to the three hospitals during the spring and summer of 1984 were eligible to participate in the study. Only nurses working in one of the three hospitals, and only obstetricians and nurse practitioners providing care to mothers admitted to the three hospitals were surveyed.

The data included only written questionnaire responses. Therefore, the participant must have been able to understand the directions

and answer the questions correctly and fully. Failure of the study participants to give fully detailed answers to the open ended questions may have been a reflection of their unwillingness to spend the time writing a detailed answer rather than lack of knowledge of the subject.

C. IMPLICATIONS FOR FURTHER RESEARCH

The results of this study suggest many implications for further research regarding circumcision attitudes, knowledge, and counseling practice relative to circumcision. It would be useful to evaluate the effects of educational programs about circumcision for nurses. Would their counseling activities increase as they became more knowledgeable?

Disparities exist in the literature as to exactly what constitutes proper hygienic care of the uncircumcised male infant. Some advocate not retracting the foreskin until the child is three or four years old to prevent tearing of the penile tissue. Others propose that gentle retraction, to the point of resistance, is indicated. A comparative, long term study comparing the two practices would be enlightening.

It would also be useful to repeat this study using an interview technique or a more structured questionnaire to determine whether the questionnaire responses correctly reflected the degree of knowledge held by the groups surveyed. Surveying the mothers after their initial visit to the pediatrician might also reveal additional knowledge gained.

D. IMPLICATIONS FOR NURSING PRACTICE

This study dealt only with the knowledge of nurses and mothers about circumcision. The results of a study by Osborn et al. (1981) indicated that pediatricians were not completely knowledgeable about this subject. Osborn et al. distributed a questionnaire to determine the advice 90 Utah pediatricians gave mothers concerning hygiene in uncircumcised infants. Most counseled mothers to retract the foreskin and clean the child, but only 22% knew when the foreskin should easily retract. This study also found that 40% of the mothers of uncircumcised boys said that they would have their next male child circumcised because the pediatricians had freed "adhesions" in the office and the parents had anxiety about providing hygienic care without proper instructions. Another study surveyed a mixed group of physicians, 15 pediatricians, 32 obstetricians, 21 family practice physicians, and 19 general practice physicians (Stein et al., 1982). Only 36% of all responding physicians were aware that the newborn's foreskin is characteristically not fully retractable. Forty-seven percent answered that a nonretractable foreskin in a newborn is an indication for circumcision. Furthermore, some physicians were not aware that hypospadias and epispadias are contraindications to circumcision.

The results of these studies are illustrative of the widespread lack of knowledge regarding circumcision among the medical profession. Unfortunately, this present study illustrates that nurses too lack knowledge about circumcision. The fact that a lack of knowledge

also exists among other members of the health care professions is important for nurses to realize. Nurses need to develop their own knowledge base and ability to counsel, rather than assume that physicians are more capable of providing accurate information to mothers about circumcision.

Thirty-four percent of the nurses' answers about the indications for circumcision were not considered to be valid indications. Some of the criteria used to determine the validity of responses may be debatable because controversy remains on this subject; however, the data indicated that some nurses do not have adequate knowledge of the indications for circumcision. It is possible that some nurses may be providing inaccurate information regarding circumcision when they discuss this procedure with mothers. There is a need to provide nurses with more education in this area. Very few nurses indicated knowledge of the proper care for uncircumcised male infants. This finding may be related to the widespread practice of circumcision in the United States and the lack of experience of many nurses with noncircumcised infants. This lack of knowledge does become important, however, because nurses are often expected to provide hygienic information to new mothers. Also, as mothers become better educated about circumcision and realize they have a choice, more of them may choose not to have their infants circumcised. The American Academy of Pediatrics has taken the position that "a program of education leading to continuing good personal hygiene would offer all the advantages of routine circumcision without the attendant surgical risk" (Thompson et al., 1975). Nurses could play an important role

in that program of education if they themselves were well informed about proper hygienic care. Noncircumcision is only a successful alternative to circumcision if the mother, and later the boy, have the knowledge needed to provide good hygiene. In 1859, Florence Nightingale defined the nature of nursing as "discovering and reinforcing nature's laws of health" (cited in Harris & Stern, 1981). Providing education regarding proper hygiene for the uncircumcised male infant is certainly one way to reinforce nature's laws of health.

The data from the mothers in the study indicated that many mothers are poorly informed about newborn circumcision. Nurses should not assume that mothers know what circumcision means. Twenty-three percent of the mothers in the study did not define circumcision in response to a question asking them to state in their own words what they thought circumcision was. Perhaps all initial discussions with mothers about circumcision should begin with an assessment of this basic knowledge.

Forty-three percent of the mothers surveyed could not name a complication of circumcision. Nurses are well informed about complications of circumcision, but mothers are not. This is an area related to the giving of an informed consent where the nurse may be able to contribute to the knowledge of the mother.

While some physicians may appreciate the nurse's input in the area, others will prefer to judge the amount of disclosure needed in this situation themselves. Such disclosure is ultimately the responsibility of the physician performing the procedure. Nurses

should be knowledgeable about this area, however, and be able to give information, answer questions, or refer the mother to her physician if she/he determines that the mother has inadequate knowledge to give an informed consent for the procedure.

The findings from this study indicated that mothers have a lot of misinformation about the indications for circumcision. Sixty-four percent of the reasons given by the study mothers for circumcision were considered non-valid. Mothers should realize that there are no valid medical indications for routine neonatal circumcision. If mothers consider the social/cultural indications to be important, then they should weigh these factors against possible complications and make a thoughtful decision based on facts, not custom.

The mothers' lack of knowledge of the alternatives to circumcision suggests that nurses should educate mothers about proper penile hygiene. This type of nursing intervention could promote the health of young boys and men.

The data from the obstetricians' questionnaires regarding their opinions about circumcision counseling by hospital nurses showed that 53% were agreeable to such counseling activities by nurses. There is a need for nurses and physicians to coordinate their educational/counseling activities. Educational programs could be instituted which would provide parents with information needed to give an informed consent for the procedure. Nurses who assume responsibility for such counseling activities, however, must ensure that they are knowledgeable about all aspects of the procedure.

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APPENDICES

APPENDIX A

COVER LETTER TO OBSTETRICIANS

The University of Tennessee, Knoxville
College of Nursing
1200 Volunteer Boulevard
Knoxville, Tennessee 37996-4110
Telephone (615) 974-4151

May 18, 1984

Dear Dr.

This letter is to inform you of a research study being conducted by Linda Chapman, R.N. as a master's thesis in The University of Tennessee Parent-Child Nursing Program. The study will assess maternal knowledge of circumcision and will also explore the type of counseling regarding circumcision provided routinely by nurses and physicians to women during the prenatal and postpartum periods.

The study will involve asking mothers during their postpartum hospital stay to complete a questionnaire, which includes questions about the information they have received from their obstetricians, pediatricians, and nurses regarding circumcision. No mother will be approached whose personal medical condition is not stable, nor will she be approached if her infant is ill or otherwise not a candidate for routine circumcision. The charge nurse in the nursery and on the postpartum unit will be consulted to identify eligible study participants. All mothers who ask the researcher questions about circumcision will be referred to their personal obstetricians. No teaching or counseling will be done by the researcher in the course of this study.

We would very much appreciate your participation in this study by completing the enclosed questionnaire. A stamped, addressed envelope is included for your convenience. A summary of the study findings will be available at each study hospital or to individual physicians upon request.

If you have questions or comments about the study, you may reach Linda Chapman in the evenings by calling 856-2051, or Lynda Harrison during the day at 974-7634. Thank you for your time. Any comments you may have are welcomed.

Sincerely,

Linda Chapman R.N.

Linda Chapman, R.N.
Graduate Student in Nursing

Lynda Harrison

Lynda Harrison, R.N., Ph.D.
Coordinator, Parent-Child Nursing
Graduate Program Option and Faculty Advisor

Enclosures

APPENDIX B

OBSTETRICIAN QUESTIONNAIRE

Obstetrician Questionnaire

Your response on this questionnaire will indicate your willingness to participate in a study entitled "Factors Influencing Maternal Knowledge About Newborn Circumcision" being conducted by Linda Chapman, R.N.. All information collected for the study will be reported only in summary form and your individual responses will not be identified. Your decision about participation in this study is voluntary. Please feel free to call me if you have any questions.

Thank you,
Linda Chapman, R.N.
856-2051

How do you approach circumcision counseling in your practice?
Please circle the appropriate replies.

- a. I provide written material outlining indications, and risks to all patients.
- b. I provide verbal counseling outlining indication, benefits and risks to all patients.
- c. I answer questions as they are posed to me by my patients.
- d. I do no counseling.
- e. My nurse does the counseling by answering questions as they are posed by the patients.
- f. My nurse provides comprehensive verbal counseling to all patients.
- g. Other -----

What is your opinion on nurses doing circumcision counseling in the hospital setting?

How important do you feel it is for mothers to be counseled about circumcision in order to be able to give a fully informed consent?

- a. not important b. somewhat important
- c. important d. very important

What information do you feel mothers should be given in order to make an informed decision?

Do you personally feel that routine circumcision should be done?
yes no

In talking with mothers about circumcision do you

- a. encourage it b. discourage it
- c. remain uncommitted

APPENDIX C

COVER LETTER TO NURSE PRACTITIONERS

The University of Tennessee, Knoxville

College of Nursing
1200 Volunteer Boulevard
Knoxville, Tennessee 37996-4110
Telephone (615) 974-4151

April, 1984

Nurse-Practitioner
Address
City, State, Zip

Dear [name of nurse practitioner]

I am asking for your participation in a study I am conducting to fulfill my thesis requirement for my M.S.N. degree in The University of Tennessee, Knoxville Parent-Child Nursing Program. One purpose of the study is to determine if new mothers have enough information about routine newborn circumcision to give informed consent for the procedure. The study will also explore the type of counseling provided routinely by nurses and physicians to women during the prenatal and postpartum periods.

I would appreciate your assistance in this endeavor by completing the enclosed questionnaire and returning it to me in the addressed, stamped envelope provided. If you have questions you may reach me at home at 856-2051 or through Lynda Harrison, R.N., Ph.D., coordinator of the Parent-Child Graduate Program at 974-7634.

Thank you very much,

Linda Chapman, R.N.

enclosure

APPENDIX D

NURSE PRACTITIONER QUESTIONNAIRE

Nurse Practitioner Questionnaire

Your response on this questionnaire will indicate your willingness to participate in a study entitled "Factors Influencing Maternal Knowledge About Newborn Circumcision" being conducted by Linda Chapman, R.N.. All information collected for the study will be reported only in summary form and your individual responses will not be identified. Your decision about participation in this study is voluntary. Please feel free to call me if you have any questions.

Thank you,
Linda Chapman, R.N.
856-2051

How do you approach circumcision counseling in your practice?
Please circle the appropriate replies.

- a. I provide written material outlining indications, benefits and risks to all patients.
- b. I provide verbal counseling outlining indications, benefits and risks to all patients.
- c. I answer questions as they are posed to me by my patients.
- d. I do no counseling.
- e. Other _____

What is your opinion on nurses doing circumcision counseling in the hospital setting?

How important do you feel it is for mothers to be counseled about circumcision in order to be able to give a fully informed consent?

- a. not important
- b. somewhat important
- c. very important
- d. extremely important

What information do you feel mothers should be given in order to make an informed decision?

Do you personally feel that routine circumcision should be done?
yes no

How do you influence your patient's decisions?

- a. I encourage it
- b. I discourage it
- d. I remain uncommitted

APPENDIX E

MOTHERS' QUESTIONNAIRE

Mother's Questionnaire

Your response on this questionnaire will indicate your willingness to participate in a study entitled "Factors Influencing Maternal Knowledge About Newborn Circumcision" being conducted by Linda Chapman, R.N.. All information collected for the study will be reported only in summary form and your individual responses will not be identified. Your decision about participation in this study is voluntary. Please feel free to call me if you have any questions.

Thank you,
Linda Chapman, R.N.
856-2051

Baby's birth date _____ Today's date _____

Has your baby been circumcised? yes no

Do you plan to have your baby circumcised? yes no undecided

Briefly state in your own words what circumcision is.

What are the reasons you believe it should/should not be done?

Was the cost of the procedure a factor in your decision? yes no

What are the complications that can occur as a result of circumcision?

Describe how you would care for the penis of your baby boy if he had not been circumcised.

What/or who was your most important source of information regarding your decision about whether to have your infant circumcised?

- a. Obstetrician b. Friends c. Magazines
d. Pediatrician e. Family f. Nurse
g. Other _____

Is this your first son? yes no

If no, did you have your other son/sons circumcised?
yes no

Is the baby's father circumcised?

yes no don't know

Did you and the baby's father discuss whether or not to have your child circumcised?

yes no

Did he want the circumcision done?

yes no left decision to me

Why did he want/not want it done?

Did you discuss circumcision with your obstetrician before the baby's birth?

yes no

--after the baby's birth?

yes no

Mark any of the following that apply to your discussions of circumcision with your obstetrician.

- a. I received written material telling me the pros and cons.
- b. We discussed verbally the pros and cons.
- c. The subject was brought to my attention by my doctor.
- d. My doctor answered what questions I asked but offered nothing further.
- e. My doctor encouraged me to have it done.
- f. My doctor discouraged me from having it done.
- g. I am satisfied with the information I received.
- h. I wish I had received more information.
- i. My doctor told me how to care for my son's penis if I decided against circumcision.
- j. My doctor informed me of the cost of the procedure.
- k. Other--please specify

Did you discuss circumcision with your pediatrician before the baby's birth?

yes no

--after the baby's birth?

yes no

Mark any of the following that apply to your discussions of circumcision with you pediatrician.

- a. I received written material telling me the pros and cons.
- b. We discussed verbally the pros and cons.
- c. The subject was brought to my attention by my pediatrician.
- d. My pediatrician answered what questions I asked but offered nothing further.
- e. My pediatrician encouraged me to have it done.
- f. My pediatrician discouraged me from having it done.
- g. I am satisfied with the information I received.
- h. I wish I had received more information.
- i. My pediatrician told me how to care for my son's penis if I decided against circumcision.
- j. Other--please specify

Have you discussed circumcision with any of the nurses caring for you or your baby? yes no

If yes, who--

- a. labor and delivery nurse
- b. postpartum nurse
- c. nursery nurse
- d. doctor's office nurse
- e. other _____

Mark any of the following that apply to information about circumcision received from your nurses.

- a. I received written material telling me the pros and cons.
- b. We discussed verbally the pros and cons.
- c. The subject was brought to my attention by my nurse.
- d. The nurse answered the questions I asked but offered nothing further.
- e. I am satisfied with the information I received from my nurses.
- f. I wish I had received more information from my nurses.
- g. I was encouraged by a nurse to have the circumcision done.
- h. I was discouraged by a nurse from having the circumcision done.
- i. Other--please specify _____

How old are you? _____

race?

- a. caucasian
- b. black
- c. other _____

What is your level of education?

- a. Less than high school
- b. High school graduate
- c. Vocational
- d. Some college
- e. College graduate
- f. Post college

What is your marital status?

- a. married
- b. divorced
- c. single

Religious Preference

- a. Protestant
- b. Catholic
- c. Jewish
- d. none
- e. _____

Comments:

APPENDIX F

COVER LETTER TO NURSES

The University of Tennessee, Knoxville
College of Nursing
1200 Volunteer Boulevard
Knoxville, Tennessee 37996-4110
Telephone (615) 974-4151

Memorandum

Date: May 4, 1984

To: All R.N.'s and L.P.N.'s

From: Linda Chapman, R.N.
The University of Tennessee
Graduate Student in Nursing
Parent-Child Clinical Option

Lynda Harrison, R.N., Ph.D.
Coordinator, Parent-Child Nursing
Graduate Program Option

We are asking for your participation in a study being conducted by Linda Chapman as a master's thesis in The University of Tennessee, Knoxville Parent-Child Nursing Program. The purpose of the study is to describe the information mothers have about routine newborn circumcision. A special focus of the study is the nurse's role in the counseling of these mothers.

Contained within this envelope are questionnaires with each nurse's name attached. Please take your questionnaire from this folder and remove your name. After completion of the questionnaire, replace it in the envelope, and seal the envelope. The sealed envelopes can be placed in the large envelope labeled "Circumcision Study Questionnaires" which will be left on the unit.

We very much appreciate your assistance in this endeavor. If you have questions you may reach Linda Chapman at home at 856-2051, or Lynda Harrison at 974-7634.

Thank you very much,

Linda Chapman, R.N.
Graduate Student in Nursing

Lynda Harrison

Lynda Harrison, R.N., Ph.D.
Coordinator, Parent-Child Nursing
Graduate Program Option and Faculty Advisor

enclosures

APPENDIX G

NURSE'S QUESTIONNAIRE

Nurse's Questionnaire

Your response on this questionnaire will indicate your willingness to participate in a study entitled "Factors Influencing Maternal Knowledge About Newborn Circumcision" being conducted by Linda Chapman, R.N.. All information collected for the study will be reported only in summary form and your individual responses will not be identified. Your decision about participation in this study is voluntary. Please feel free to call me if you have any questions.

Thank you,
Linda Chapman, R.N.
856-2051

Educational preparation :

- a. LPN School
- b. RN Associate Degree
- c. RN Diploma
- d. RN BSN
- e. Other _____

Shift Worked: a. 7-3
 b. 3-11
 c. 11-7

Primary Work Area:

- a. L & D
- b. Postpartum
- c. Nursery

Year of Graduation _____

Religious Preference:

- a. Protestant
- b. Catholic
- c. Jewish
- d. no preference
- e. other _____

What is the extent that you counsel mothers regarding the circumcision of their male infants?

- a. I routinely discuss the advantages, disadvantages and risks of the procedure with the mothers under my care.
- b. I will answer direct questions posed by the mothers regarding circumcisions.
- c. I sometimes discuss the advantages, disadvantages and risks of the procedure with the mothers under my care.
- d. I occasionally discuss the advantages, disadvantages and risks of the procedure with the mothers under my care.
- e. I instruct the mother to direct her questions regarding circumcision to her doctor.
- f. Other--please specify

Do you personally think that circumcision should be done routinely on all male infants during the newborn period excluding those with medical contraindications?

yes no

In talking with mothers about circumcision do you

- a. encourage it? b. discourage it?
d. remain uncommitted?

The primary indication(s) for newborn circumcision is(are):

Complications associated with the procedure include these:

What would you tell a mother who had decided against circumcision to help her to provide proper hygienic care for her infant?

Do you routinely provide this information to these mothers?

yes no

Briefly state what you feel the role of the nurse should be in counseling mothers about circumcision.

How do you think doctors feel about nurses doing circumcision counseling?

What information do you think mothers need in order to give informed consent about neonatal circumcision?

Your comments are welcomed.

VITA

Linda Rogers Chapman was born in Maryville, Tennessee on January 6, 1948. She attended Blount County schools and The University of Tennessee Memorial Research Center and Hospital School of Nursing. Her diploma in nursing was awarded in August 1969.

She has worked as a registered nurse in the areas of pediatrics, adolescent medicine, intensive care nursery, newborn nursery, school nursing, and postpartum. She served for two years as an Air Force nurse, and two years as an Army civil service nurse.

She attended Valdosta State College, Valdosta, Georgia and the University of Hawaii in Honolulu. In 1981 she received a B.A. in social science from Maryville College, in Maryville, Tennessee. In December 1984 she was awarded a Master of Science degree in nursing with a concentration in parent-child nursing.

The author is a member of The Nurses' Association of the American College of Obstetricians and Gynecologists, The American Nurses' Association, The National Association of Neonatal Nurses, and Sigma Theta Tau.