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Attitudes and Decision Making about Neonatal Male Circumcision in a Hispanic Population in New York City

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Abstract

Objective—To understand attitudes and decision making regarding neonatal male circumcision.

Methods—Parents (n = 150) with a son 3 years old were interviewed regarding demographics, communication with a medical provider, attitudes and process by which the neonatal circumcision decision was made.

Results—Thirty-three percent of sons were circumcised. In univariate analyses, choosing male circumcision was associated with parents being interviewed in English, the father being circumcised, positive attitudes, being informed of the advantages of circumcision, making a decision before birth, and being offered a choice. In the final model, parents who came from a culture and family that believed in circumcision and who believed it was not too risky were more likely to circumcise their sons.

Conclusions—Decisions regarding circumcision appear to be influenced by values, risk perceptions and medical providers. Future research should address ways of insuring that families have the opportunity to make an informed decision.

Keywords

circumcision; Hispanic; sexually transmitted infection; attitudes

Introduction

Across decades, the attitudes of the American medical community towards male circumcision have varied with an American Academy recommendation in 1971 stating that there was “no absolute medical indication for routine circumcision.”¹ This statement was later revised in 1989 to indicate that there “are potential medical benefits and advantages as well as disadvantages and risks.”² The recommendation was updated again in 1999 to

suggest that parents should have unbiased information so that they can make an informed decision on what is best for the child.³ A recent editorial⁴ suggested that this recommendation fails to take advantage of the most current data, including the results of three randomized trials in Africa which have provided powerful support for the use of circumcision to reduce HIV transmission.⁵⁻⁷ Additional data provide support of the role of circumcision in the reduction of HPV,⁸⁻¹⁰ herpes,¹¹ and other STIs including trichomonas, chlamydia, and bacterial vaginosis.¹²⁻¹⁴ The relevance of these findings with regards to decision-making for the population of U.S infants has been controversial because the prevalence of HIV is lower in the U.S. than in Africa, and thus a greater number of circumcisions would need to be performed to prevent one case of HIV.¹⁵ However, sub-populations within the U.S. have greater rates of HIV. For example, Hispanics have the second highest rates of HIV infections in the United States.¹⁶ In the neighborhood of Washington Heights/Inwood, New York City the rates of people over 13 living with HIV/AIDS is 1493 per 100,000.¹⁷ This community is 70% Hispanic¹⁷ and is largely made up of people from the Dominican Republic. Similar to many Latin American countries, in the Dominican Republic routine male circumcision is not practiced, with approximately 13% of men reporting being circumcised.¹⁸

Each family should make an active decision regarding neonatal male circumcision (NMC) based on a balance of their cultural beliefs and the facts regarding benefits and risk. In one study, most parents reported that at least one health care provider asked them about their decision regarding circumcision, with pediatricians being the most commonly identified. However, of concern, were the 19% of parents who reported no conversation.¹⁹ Health care provider's assumptions about the family's likely cultural or religious beliefs can hinder the process of educating parents about NMC.²⁰ Research has suggested that many factors go into parents' decision-making, including social issues (e.g., father and peer circumcision status,²¹ hygiene,²² and perceived infection reduction²³). Barriers to acceptability of NMC among populations with low rates of circumcision have been found to be dependent on fear of pain for the child, misinformation or lack of information and understanding, child's autonomy and cultural identity.²⁴

In order to better understand the decision-making process of NMC, parents of sons age 3 years and younger were interviewed in a clinic that serves predominately urban families from the Dominican Republic. The interview was designed to understand attitudes regarding NMC, and to evaluate the predictors of having a son who was circumcised.

Methods

Procedure

The participants in this study were mothers, fathers, and grandparents of male infants/toddlers, who for the remainder of this manuscript will be referred to as "parents." Parents attending a medical appointment at an outpatient clinic of NewYork-Presbyterian Hospital were asked if they had a son who is age 3 years or younger. Records were not kept about refusals of eligible parents, but few refused. The parents were interviewed for 10 – 20 minutes in either English or Spanish. Demographic questions included parental age, Hispanic ethnicity, country of birth, years living in the United States and the child's birth order. Information was collected regarding the circumcision status of the child's father and brother(s). Communication and decision-making process questions included whether a conversation with a medical team member took place and whether that conversation took place in the parents' first language, whether it included a discussion about the advantages and disadvantages of circumcision, whether they were asked their preference and were given a choice about circumcising their son and when the final decision was made. Attitudes and knowledge were assessed by asking parents to rate their agreement with 12 statements on a

five-point Likert scale (see Table 2). An open-ended question asked parents to describe their reasoning for circumcising or not circumcising their son. These answers were sorted into word files and coded by themes. Participants were given a \$4.50 MetroCard for participation.

Analysis

Descriptive statistics were used to describe demographics, experience of the circumcision process, and attitudes. Relevant variables were used as predictors of the current circumcision status of the son. These predictors first were tested in chi square analyses or logistic regression models as appropriate. Those that were significant at the $p \leq .10$ were then entered in a multivariate logistic regression model predicting circumcision. There was occasional missing data due to interviewer error or skipped questions on the part of the parents. None of the items used in the predictive models had more than 5% of the answers missing.

The qualitative reasons for circumcising their son were analyzed in separate MSWord files, and themes were identified and coded. The two files (circumcised or not) were then compared for similar themes across the outcomes (e.g., “like his father”).

Results

Recruitment

Of the 150 participants enrolled, 11 were not included in the final analyses due to incomplete data. Reasons for incomplete data among the 11 excluded participants included discomfort discussing circumcision, difficulty understanding the interview questions based on not being proficient in either English or Spanish, and being called to see their physician. These participants were similar to the 139 participants with regards to demographics, although of the six participants who reported on their child's circumcision status, four (67%) were circumcised.

Parent Demographics and Circumcision Status of the Male Child

Table 1 shows the characteristics of the participants by circumcision status of the male child. Of the 139 participants, 46 (33%) indicated the male child had been circumcised and 93 (67%) indicated the male child had not been circumcised at the time of the interview. The participants were mothers ($n=127$, 91%), fathers ($n=11$, 8%), and a grandparent ($n=1$, 1%). The mean age of the participants was 29 years (range 15-61 years), and 129 (93%) identified themselves as Hispanic. Eight-five (61%) of the participants completed the interview in Spanish. Of the 129 Hispanic participants, 68 (49%) were born in the Dominican Republic, 36 (26%) were born in the United States, 10 (7%) in Mexico, and 9 (6%) in Puerto Rico, and 6 were born elsewhere including Ecuador, Honduras, El Salvador and Panama. Of the 93 Hispanic participants who were born outside of the United States, 22 (24%) have been in the U.S. less than 5 years, 28 (30%) 5-10 years, 15 (16%) 10-15 years and 28 (30%) more than 15 years. Of the 10 participants who identified themselves as non-Hispanics, two were born outside of the United States. They were born in Albania and Guyana, and had been living in the United States for more than 10 years. Fifty nine (42%) of the sons were described as only children, six (4%) were oldest children, 6 (4%) were middle and 68 (49%) were youngest. Of the 53 with brothers whose circumcision status was known, 17 (32%) were circumcised. Only one son was circumcised when his brother was not. Forty sons (30%) had fathers who were circumcised.

Process of circumcision decision-making

Of the 139 parents, 116 (83.5%) spoke with a member of the medical team about the choice to have to the child circumcised. Of the parents who were spoken to by a medical team member, 105 (89%) participants were in their first language. Parents were asked whether they were told about the advantages and disadvantages of male circumcision. Sixty-five (47%) of the 139 parents were told about the advantages of circumcision by a medical team member, and 61 (44%) were told about the disadvantages of circumcision by a medical team member. Interestingly, only 57 (41%) were informed about both the disadvantages and advantages, and 61 (44%) were given neither disadvantages nor advantages of circumcision by a member team member. Twelve participants were given one sided information, and the remaining 9 participants did not remember being given the advantages or the disadvantages. One hundred twelve (81%) participants were asked by a medical team member for their preference on the decision to circumcise their child. One hundred twenty one (88%) participants felt that they were given a choice about circumcising their son. Sixty-nine (50%) participants made the final decision about circumcision before the child was born.

Of the sons who were circumcised, most (31 sons) of the circumcisions took place within 3 days of birth, 13 within the first year of life, and only 1 taking place between 1 and 3 years of age. For purposes of analyses, the current circumcision status of the child was used. However, the parents were asked if they had planned to have their son circumcised before being discharged from the hospital even if it did not happen, and if they planned to have their son circumcised at a later date. When examining intention, of the 90 parents of uncircumcised boys who answered the follow-up questions, 61 (68%) parents expressed no previous or current intention to have their son circumcised, 5 (5%) had a previous intention but were either no longer intending to or were not sure, 17 (19%) reported a future plan to have their child circumcised, and 7 (8%) had no previous intention but were uncertain about future plans.

Attitudes about Circumcision

The parents rated on a five-point Likert scale their agreement with a series of 12 statements regarding knowledge and attitudes about NMC. The frequency of parents endorsing each of these 12 items is presented in Table 2. Those with small cell sizes were collapsed into agree, neutral, disagree. Few parents did not know that there was something that can be done to help with the pain (20%), and thus, this item was dropped from further analysis.

Predictors of circumcision status

Of the demographic variables evaluated (age of the parent, language, Hispanic ethnicity, father's status), only completing the interview in English ($\chi^2 = 6.2$, $p = .01$) and having a father who was circumcised ($\chi^2 = 8.6$, $p = .003$) were significantly associated with circumcision (see Table 3).

With regards to attitudes, those parents who believe that circumcision is consistent with cultural values ($\chi^2 = 12.2$, $p = .002$), their family believes in circumcision ($\chi^2 = 13.1$, $p = .002$), circumcision is natural ($\chi^2 = 8.7$, $p = .01$), circumcision is not too risky to be worth it ($\chi^2 = 35.8$, $p < .001$), and that boys will not make fun of boys whose penis is different ($\chi^2 = 7.6$, $p = .02$) were more likely to have sons that were circumcised. The remaining 6 items were not significant. (see table 3)

With regards to the process of circumcision decision making, being spoken to by a medical team member was not significant. Being told the advantages of circumcision was significantly associated with being circumcised ($\chi^2 = 6.03$, $p = .01$), but being told the disadvantages was not significantly related to circumcision. Participants who made the final

decision before their son was born ($\chi^2 = 7.1$ $p = .008$) and who felt like they had a choice about circumcising their son ($\chi^2 = 4.1$ $p = .04$) were more likely to circumcise their child. (see table 2) The questions about choice and preference, i.e., feeling like the parent had a choice and whether or not the parent was asked for their preference, were closely related so only choice was put into the final model.

Final model

For purposes of the final model, the language the interview was completed in, fathers' circumcision status, being told the advantages, feeling like they were given a choice, making the final decision before son was born, culture believing in circumcision, family believing in circumcision, circumcision risk being worth it, uncircumcised penis being natural, and boys making fun of other boys were put in a logistic regression model with backwards elimination. Only culture believing in circumcision (Wald $\chi^2 = 5.03$ $p = < .0001$), family believing in circumcising boys (Wald $\chi^2 = 6.1$ $p = .014$), and circumcision not being too risky, (Wald $\chi^2 = 20.5$ $p = < .0001$) remained in the model. Those parents who came from a culture and a family that believed in circumcision and who believed that circumcision was not too risky were more likely to circumcise their sons.

Qualitative analysis of reasons

Many parents of uncircumcised sons reported concerns about NMC. Parents were concerned about the pain and/or risk of the procedure, such as the parent who said, I've read and seen photos about it and I think it's painful but especially for the recovery time which is too long for him, or the grandfather who said, the mother said it had a small risk, some cases where kids lost feeling in the penis, not worth it. One parent worried that that the penis is uncovered, there is less protection, and would make them more prone to get hurt. Several parents discussed the vulnerability of the newborn both in terms of the baby being young or small or the recent trauma of birth, e.g., *birth is traumatic enough to put him through*. They also indicated that they viewed the procedure as unnecessary and an uncircumcised penis as being natural, e.g., God wouldn't have put it there, if he didn't want it. For the parents of circumcised boys, hygiene was a common reason for having the procedure. One thought it would increase sexual pleasure. In both groups, some parents reported wanting the son to look like fathers and brothers, and wanting to be consistent with cultural/family values. Also, in both groups, a few parents mentioned not liking the look of the other type of penis, e.g., *an uncircumcised penis is horrible; I thought it (circumcised penis) was ugly*.

Particularly in the uncircumcised group, the process of the decision-making was a barrier for some. Two mothers reported that the timing of the decision-making was problematic. One said she wanted to have the baby circumcised but that it wasn't done within 1-2 days and that she wanted to go home, and another reported that the nurse asked when she was not feeling well, and she was never asked again. Another difficulty with the process was that the participants reported not being informed. For example, three participants did not know the procedure existed, and others indicated that they were not well informed as indicated by the parent who said that she did not really understand and thought it caused harm to the child. In the circumcised group, one participant reported doing her own research and then choosing to have her child circumcised.

In both groups, some participants mentioned that the fathers made the final decision. In the uncircumcised group, some parents wanted to leave the decision-making up to the son at a later age. Discussions with health care providers were influential and several mothers in the uncircumcised group reported that the conversation with the health care provider led to the decision to not circumcise, including one who said the doctor told her the penis was too small.

Some of these mothers reported initially planning to have their son circumcised. For example, one parent said that she does not like the way it looked uncircumcised because there is too much skin, but the doctor told her that she could not have the child circumcised. The reason the doctor told her that was not queried. In both groups, there were parents who reported the health status of the child made a difference. For example, one parent reported, In my case my child was born premature and they told [me] about the possibility of my child having an infection after “that” plus anesthesia, I did not want to take more risk.; another said, The kid was born with broken arm and I didn't want to make him suffer more. It is unclear in these examples what the health care provider recommended. However, in the case of one circumcised son, the parent reported that at 7 months, the doctor recommended it for health reasons.

Discussion

NMC rates have been falling in the U.S. over the last decade with rates ranging from about 63% in 1999 to 58% in 2001, 56% in 2008, to 55% in 2010.²⁵ Consistent with cultural practices, in this population of primarily families from the Dominican Republic, only 33% of sons were circumcised, which is less than the national average. In the final model, cultural and family values as well as perceptions of risk were associated with NMC status. This is similar to other reports, which demonstrate that circumcision has been historically a cultural or religious practice.²⁶ In addition, although the recommendations of health care providers, and systemic issues (such as timing of the decision) did not remain in the final model, the results do suggest that these are important factors.

In this study we found, similar to another study, that social reasons were indicative of whether a child was circumcised or not.²³ Parents were more likely not to have their sons circumcised in families where the norm was not to circumcise male infants and when they viewed their culture as not believing in NMC. The strong role of cultural practices and familiarity may be related to the reason that previous studies found that providing parents with educational materials did not impact the decision about NMC.²¹ Parents' view that other boys would make fun of someone whose penis is different than theirs was related to the NMC in univariate analyses. This suggests that part of the NMC discussion with parents should include how to manage relatives and the community, should they choose to make a counter-culture decision.

In both cases of circumcised and uncircumcised boys, the father's status played a role in the final decision. In univariate analyses, male infants with a father who was circumcised were more likely to be circumcised. The fact that the father's circumcision status influences the decision to have the child circumcised indicates that the father's concerns need to be addressed as well. Studies geared towards men have shown that physician recommendations influence the decision to get circumcised for the prevention of HIV infection.²⁷ In addition, after providing information about circumcision to men in the Dominican Republic, even when men were not in favor of getting circumcised themselves, they were in favor of circumcising their sons.²⁸ Therefore, providing fathers with information about the process as a preventative measure could impact the father's attitude towards NMC for his son. If fathers are not present at health care visits to the obstetrician or pediatrician, it is to explicitly ask the mother about the fathers' attitudes and invite him to participate in any discussions with health care providers about the decision-making.

With regards to the perception that the risk was not worth it, there were data from the qualitative portion that suggest that the families (as well as sometimes their health care provider) may have been misinformed about risks. With regards to pain, research has shown that anesthesia including EMLA cream is effective in reducing the pain of the

procedure.^{26, 29} Although almost all of the parents knew that there was something that could be done to minimize the pain, they still worried about it. The typical complications to NMC are minor³⁰ and in fact the risks of circumcision increase later in childhood³¹; thus, delaying the decision-making is associated with increased risk should they decide later to get circumcised. This may be counter-intuitive to parents who were concerned that the newborn was too vulnerable and the penis was too little. Thus, providing parents with risks and trade-off benefits to the procedure, may guide them to make an objective decision.³⁰

Health care providers played an important role and it is not clear that their information was always impartial. NMC is often not promoted or discussed between health care providers and Hispanic patients.²⁰ Forty-four percent of the parents in this study reported not having any discussion of the advantages and disadvantages and only 41% were provided information about both harms and benefits. This is despite the AAP recommendation that parents should be fully informed in making a decision about NMC.³ When medical team members do not guide parents in making an informed decision, parents will default to their cultural belief.³² In this group of parents for whom the custom is not to circumcise male infants, it is not surprising that having a health care provider discuss the advantages was related to their son being circumcised. Perhaps discussing the disadvantages was not related because parents may have already been knowledgeable about the disadvantages. Medical team members should play an active role in making sure to provide complete information in order to guarantee that parents have an informed choice about the decision, although the best way for health care providers to impact informed decision-making is not clear.^{28, 33}

Besides parents not being provided with enough information there were systemic issues, such as timing, that influenced the circumcision decision. A number of parents expressed their main reason for not having their son circumcised because of the difficulties of having to make a decision in the postpartum period. If a parent is not feeling healthy or wants to be discharged from the hospital this also becomes a barrier to circumcision. We found that parents who made the decision before their child was born were more likely to have their son circumcised in univariate analyses. One study found that the circumcision decision is often made before a health care provider has a discussion with the parents, which would suggest that health care providers should have discussions during the early stages of pregnancy.³³ The best way to address this issue is to discuss options with parents before the child is born and making sure that they know what they want for the child. Although we did not evaluate how decisions regarding circumcision may change over time, if decisions are made before birth, it will be important to have another conversation with the parent after birth, particularly if there are birth complications.

The nature of the data collection did not allow us to explore the role of marital status on the decision-making process. In addition, it is recognized that all Hispanic cultures are not alike and we did not have the ability to test whether there were different patterns of decision-making based on the country of origin. For example, it was interesting to note that of those born outside of the United States; almost all of the Puerto Rican parents had sons that were circumcised (6/9 were circumcised), whereas almost all of the Mexican families had sons that were not circumcised (2/10 were circumcised). Finally, this was a retrospective study, so we are limited to parents' ability to recall aspects of the decision making process.

Currently, there is a debate in parts of the U.S., about parents' right to make this medical decision for their newborn. However, we continue to grant parents the right to act as surrogate decision-makers.¹⁵ Thus, there is an obligation to help parents make an informed decision based on the most current medical information. Future research should address how to ensure that health care providers are well informed and have the tools to assist parents in making an informed decision in a culturally sensitive manner.

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Table 1

Characteristics of the Parents by Circumcision Status of the Child

	Child circumcised (n=46)	Child not circumcised (n=93)
Parent, n (%)		
Mother	43 (34)	84 (66)
Father	3 (27)	8 (73)
Grandparent	0	1 (100)
Parent age, (mean)	28.6	29.3
Hispanic, n (%)	43 (33)	86 (67)
Completed survey in Spanish, n (%) *	22 (26)	63 (74)
Where Hispanics born, n (%) **	43 (33)	86 (67)
Dominican Republic	19 (28)	49 (72)
USA	15 (42)	21 (58)
Mexico	2 (20)	8 (80)
Puerto Rico	6 (67)	3 (33)
Elsewhere	1 (17)	5 (83)

*
p .05**
p .10

Table 2

Parents endorsing attitude and knowledge statements about NMC

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
My culture does not believe in circumcision *	21(15%)	30 (22%)	26 (19%)	39 (28%)	23(17%)
The risks of male circumcision are small	26 (19%)	51 (37%)	35 (25%)	22 (16%)	5 (4%)
There is less chance of people getting herpes, HPV, and other infections spread by having sex if they are circumcised	17 (12%)	31 (22%)	40 (29%)	27 (19%)	24 (17%)
Sexual partners care about whether a man is circumcised	4 (3%)	41 (30%)	27 (19%)	47 (34%)	20 (14%)
The doctor or nurse can give a baby something to help the pain during circumcision	45 (33%)	65 (47%)	14 (10%)	11 (8%)	3 (2%)
Being circumcised has no effect on sexual pleasure	29 (21%)	54 (39%)	28 (20%)	23 (17%)	5 (4%)
My family believes in circumcising baby boys *	27 (19%)	50 (36%)	23 (17%)	23 (17%)	16 (12%)
It is more natural for a male not to be circumcised *	20 (14%)	48 (35%)	30 (22%)	34 (24%)	7 (5%)
Male circumcision is just too risky to be worth it	3 (2%)	33 (24%)	26 (19%)	55 (40%)	21 (15%)
It is easier for boys to clean themselves if they are circumcised	69 (50%)	49 (36%)	10 (7%)	8 (6%)	2 (1%)
Boys will make fun of other boys whose penis looks different than theirs *	7 (5%)	38 (28%)	35 (26%)	45 (33%)	13 (9%)
Men who are circumcised are less likely to get HIV	2 (1%)	15 (11%)	35 (25%)	35 (25%)	51 (37%)

* For purposes of analysis, these items were collapsed into three categories: strongly agree/agree, neutral, disagree/strongly disagree.

Table 3

Participants Who Endorsed Each Variable for the Significant Predictors of NMC in Univariate Analyses

Variable				
	Total	Son is circumcised	Son is not circumcised	P-value
Completed survey in English	44 (34%)	21 (49%)	23 (27%)	.01
Father is circumcised	40 (30%)	21 (46%)	19 (21%)	.003
Being told the advantages of circumcision	65 (50%)	29 (64%)	36 (42%)	.01
Final decision was made before the child was born	69 (50%)	30 (67%)	39 (42%)	.008
Parent felt like he/she was given a choice	121 (88%)	44 (96%)	77 (84%)	.04
My culture does not believe in circumcision (disagree/ strongly disagree)	62 (45%)	29 (63%)	33 (35%)	.002
My family believes in circumcising baby boys (agree/strongly agree)	77 (55%)	35 (76%)	42 (45%)	.002
Male circumcision is just too risky to be worth it (strongly disagree)	21 (15%)	16 (35%)	5 (5%)	< .001
It is more natural for a male not to be circumcised (disagree/strongly disagree)	41 (30%)	21 (46%)	20 (22%)	.01
Boys will make fun of other boys whose penis looks different than theirs (disagree/strongly disagree)	58 (42%)	25 (54%)	33 (36%)	.02