Parents’ rationale for male circumcision

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Abstract
Objective  To determine which factors parents consider to be most important when pursuing elective circumcision procedures in newborn male children.

Design  Prospective survey.

Setting  Saskatoon, Sask.

Participants  A total of 230 participants attending prenatal classes in the Saskatoon Health Region over a 3-month period.

Main outcome measures  Parents’ plans to pursue circumcision, personal and family circumcision status, and factors influencing parents’ decision making on the subject of elective circumcision.

Results  The reasons that parents most often gave for supporting male circumcision were hygiene (61.9%), prevention of infection or cancer (44.8%), and the father being circumcised (40.9%). The reasons most commonly reported by parents for not supporting circumcision were it not being medically necessary (32.0%), the father being uncircumcised (18.8%), and concerns about bleeding or infection (15.5%). Of all parents responding who were expecting children, 56.4% indicated they would consider pursuing elective circumcision if they had a son; 24.3% said they would not. In instances in which the father of the expected baby was circumcised, 81.9% of respondents were in favour of pursuing elective circumcision. When the father of the expected child was not circumcised, 14.9% were in favour of pursuing elective circumcision. Regression analysis showed that the relationship between the circumcision status of the father and support of elective circumcision was statistically significant ($P < .001$). Among couples in which the father was circumcised, 82.2% stated that circumcision by an experienced medical practitioner was a safe procedure for all boys, in contrast to 64.1% of couples in which the father of the expected child was not circumcised. When the expecting father was circumcised, no one responded that circumcision was an unsafe procedure, compared with 7.8% when the expecting father was not circumcised ($P = .003$).

Conclusion  Despite new medical information and updated stances from various medical associations, newborn male circumcision rates continue to be heavily influenced by the circumcision status of the child’s father.
Raisons invoquées par les parents pour faire circoncire leur garçon nouveau-né

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Résumé

**Objectif** Déterminer les facteurs qui, selon les parents, sont les plus importants pour demander une circoncision elective pour leur nouveau-né mâle.

**Type d’étude** Enquête prospective.

**Contexte** Saskatoon, Saskatchewan.

**Participants** Un total de 230 personnes suivant des cours prénataux dans la région sanitaire de Saskatoon, sur une période de 3 mois.

**Principaux paramètres à l’étude** Intention des parents de demander une circoncision, présence de circoncision chez le père et dans la famille, et facteurs influençant la décision des parents concernant la circoncision elective.

**Résultats** Les raisons les plus fréquemment invoquées par les parents pour souhaiter la circoncision mâle étaient l’hygiène (61,9 %), la prévention des infections ou du cancer (44,8 %) et le fait que le père était circoncis (40,9 %). Les raisons le plus souvent invoquées pour refuser la circoncision étaient que ce n’était pas médicalement requis (32,0 %), que le père n’était pas circoncis (18,8 %) et qu’on craignait des saignements ou infections (15,5 %). Parmi tous les parents qui attendaient des enfants, 56,4 % disaient qu’ils le feraient pas. Lorsque le père du bébé à venir était circoncis, 81,9 % des répondants étaient en faveur de recourir à une circoncision optionnelle, mais si le père ne l’était pas, 14,9 % étaient favorables à en demander une. Parmi tous les couples dont le mari était circoncis, 82,2 % déclaraient qu’une circoncision effectuée par un médecin expérimenté était une intervention sécuritaire pour tous les garçons, par rapport à 64,1 % des couples dont le père n’était pas circoncis. Aucun des pères circoncis en attente d’un bébé n’a répondu que la circoncision n’était pas sécuritaire, contre 7,8 % de ceux qui n’étaient pas circoncis (P<0,003).

**Conclusion** En dépit des nouvelles données médicales et des déclarations récentes de diverses associations médicales, les taux de circoncision des nouveau-nés mâles continuent d’être fortement influencés par le fait que le père soit circoncis.
E
tective newborn circumcision has long been a
topic of debate and continues to remain so
today.\textsuperscript{1,2} Recent research conducted in Africa
has suggested that risk of HIV transmission could be
lowered by male circumcision.\textsuperscript{3} Some studies on sexual
health have shown negligible benefits in circumcised
males in regard to sexual health and transmission of
sexually transmitted infections (excluding HIV),\textsuperscript{4} while
others report statistically significant (\(P < .05\)) higher
rates of sexually transmitted infections in uncircumcised
men.\textsuperscript{5} Despite the changing evidence regarding
the risks and benefits of circumcision, rates of circum-
cision continue to fluctuate in different parts of the
world. In Australia rates have declined dramatically,
to only 32% among Australian men younger than 20
years of age.\textsuperscript{6} In the United States, data have shown
that rates are actually increasing, to 61% of men.\textsuperscript{7} In
Canada, the most recent data show our current circum-
cision rate to be 31.9% nationwide.\textsuperscript{8} In Saskatchewan
the rate is slightly higher, at 35.6%.\textsuperscript{8}

Just as the prevalence of male circumcision var-
ies around the world, the reasons for circumcision
are equally diverse.\textsuperscript{9,10} Even physicians are guided by
personal influences when determining a stance on
circumcision. One study showed that circumcised
physicians were more likely to support circumcision,
and uncircumcised physicians were more likely to be
against circumcision.\textsuperscript{11} Parents might be guided by
their physicians’ opinions, their own religious views,
the father’s circumcision status, and, more recently,
by financial considerations. In 1996, the Ministry of
Health in Saskatchewan made elective circumcision an
uninsured procedure, meaning that parents must pay
to have the procedure done.

A recent study of parents in the United States
showed that 86% of respondents supported elective
circumcision of newborns, and this support did not
vary after parents were given literature on the sub-
ject of HIV and human papillomavirus transmission.\textsuperscript{10}
The Canadian Paediatric Society (CPS) continues to
recommend against routine newborn circumcisions,
although an updated position statement has not been
released since 1996. In June 2006, the British Medical
Association updated its stance on the issue, taking
the father’s circumcision status into account.\textsuperscript{11} Proposals
were presented that non-therapeutic male circum-
cision is a beneficial, neutral, or harmful procedure
or whether it is superfluous.\textsuperscript{12} The question remains:
What is the main determining factor for parents sup-
porting circumcision? Are parents making decisions
based on personal research or rumours about circum-
cision’s benefits and risks? Are the determining factors
dependent more on personal factors or the male par-
ent’s circumcision status?

Survey design and participants
In 2011, 230 participants were identified using regis-
tration in Saskatoon Health Region prenatal classes in
Saskatchewan. There was no pre-existing questionnaire
available, so a new unvalidated questionnaire was spe-
cifically designed for this study and handed out to par-
ticipants at evening prenatal classes. Although it was
not pilot-tested, this questionnaire was designed based
on a similar questionnaire used to survey physician sup-
port of circumcision\textsuperscript{11} and an Australian study evaluat-
ing the factors affecting circumcision.\textsuperscript{13} Ethics approval
was obtained from the University of Saskatchewan and
the Saskatoon Health Region before study administra-
tion. The study participants were asked to complete the
survey and return it to a sealed dropbox. Participants
were instructed that if they did not wish to participate
they should return the blank questionnaire to the drop-
box. The study took place from June 13 to August 2,
2011, and spanned a total of 9 prenatal classes. The par-
ticipants in the survey were limited to parents attending
prenatal classes. The parents completed the surveys on
the first day of the prenatal classes, before subsequent
class teaching that included information about circum-
cision. The survey was purposefully administered before
prenatal teaching, as there were many different prenatal
classes offered throughout the city and this avoided any
bias that these particular prenatal classes might have
had on parents’ decisions. All parents who registered for
and attended the prenatal classes were invited to par-
ticipate in the survey. Class participants who were not to
be the parent or primary caregiver of the expected child
were excluded from the survey.

The questionnaire was designed by the principle
author (C.R.). It contained participant demographic
questions (sex, age), information about the parents’
upcoming pregnancy (sex of baby expected, plans for
circumcision), circumcision status (own, partner’s, and
sons’), opinions regarding circumcision, and personal
factors that could influence a parent’s position on elec-
tive circumcision.

Statistical analysis
We used SPSS 18 to enter and analyze the data.
Categorical data were summarized into frequencies
and percentages. Continuous data were analyzed using
measures of central location. Hypothesis testing was
investigated using the Pearson \(\chi^2\) statistic for independ-
ence of association between 2 independent samples.
The null hypothesis was that there was no association
between circumcision status, demographic characteris-
tics, or the expected sex of the baby and whether par-
ents supported elective circumcisions (ie, these are
independent). The alternative hypothesis was that these
factors are not independent. Two-sided probability val-
ues (\(P\) values) were compared against an \(\alpha = .01\) level
of significance as the hypothesis rejection criterion. The
degrees of freedom and the Pearson χ² statistic were
determined for each multiple 2-sample test.

RESULTS

The response rate was 78.7% (181 of 230). The aver-
age age of respondents was 30.3 years (range 16 to 69,
median 29.5) and 58.6% (106 of 181) of respondents were
female. The sex of the baby expected by parents was not
known by most respondents (62.4%, 111 of 178).

Of those who answered the question on their opin-
ions of male circumcision performed by an experienced
medical practitioner, 90.8% (158 of 174) reported that
they believed circumcision to be a safe procedure for
either all (74.7%, 130 of 174) or some (16.1%, 28 of 174)
boys. Only 2.9% (5 of 174) reported male circumcision to
be an unsafe procedure. Of the parents who responded,
56.4% (102 of 181) would consider pursuing elective cir-

Table 1. Three most important factors parents
considered when deciding whether to circumcise
their sons

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>PROPORTION OF PARENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting circumcision</td>
<td></td>
</tr>
<tr>
<td>• Hygiene</td>
<td>61.9</td>
</tr>
<tr>
<td>• Prevention of infection or cancer</td>
<td>44.8</td>
</tr>
<tr>
<td>• Father is circumcised</td>
<td>40.9</td>
</tr>
<tr>
<td>Not supporting circumcision</td>
<td></td>
</tr>
<tr>
<td>• Not medically necessary</td>
<td>32.0</td>
</tr>
<tr>
<td>• Father is not circumcised</td>
<td>18.8</td>
</tr>
<tr>
<td>• Concerns about infection and bleeding</td>
<td>15.5</td>
</tr>
<tr>
<td>during procedure</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Single most important factor in supporting
circumcision, as indicated by parents: N = 143.

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hygiene</td>
<td>73 (51.0)</td>
</tr>
<tr>
<td>Prevention of infection or cancer</td>
<td>22 (15.4)</td>
</tr>
<tr>
<td>Father circumcised</td>
<td>12 (8.4)</td>
</tr>
<tr>
<td>Personal preference</td>
<td>11 (7.7)</td>
</tr>
<tr>
<td>Religion</td>
<td>9 (6.3)</td>
</tr>
<tr>
<td>Doctor advises it</td>
<td>5 (3.5)</td>
</tr>
<tr>
<td>Looks better</td>
<td>3 (2.1)</td>
</tr>
<tr>
<td>It just seems right</td>
<td>3 (2.1)</td>
</tr>
<tr>
<td>To look like other boys</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>Other sons are circumcised</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (2.1)</td>
</tr>
</tbody>
</table>

Of the reasons that parents gave for supporting cir-

cumcision of their children, hygiene (61.9%, 112 of 181),
prevention of infection or cancer (44.8%, 81 of 181), and
the father being circumcised (40.9%, 74 of 181) were the
most often cited reasons (Table 1). When asked what
was the single most important factor in supporting male
circumcision, hygiene was most commonly (51.0%, 73 of
143) reported (Table 2).

When respondents were asked what factors were
important in their not supporting the circumcision of
their children, it not being medically necessary (32.0%,
58 of 181), the father being uncircumcised (18.8%, 34 of
181), and concerns about bleeding or infection (15.5%,
28 of 181) were the most common answers (Table 1).

When asked about the single most important factor in
their not supporting male circumcision, it not being

medically necessary was most commonly (54.3%, 50 of
92) reported (Table 3).

When asked about the circumcision status of the
father, most respondents (61.0%, 105 of 172) reported
that the father had been circumcised, whether at birth, in
childhood, or in adulthood (Table 4). Among respondents
(male and female), if the father of the expected baby was
circumcised, 81.9% (86 of 105) were in favour of pursu-
ing elective circumcision (Figure 2). When the father of
the expected child was not circumcised, 14.9% (10 of 67)
were in favour of pursuing elective circumcision. The
relationship between circumcision status of the father
and support of elective circumcision was statistically sig-
ificant (P < .001, χ² = 80.54) (Table 5).

When the father was circumcised, 82.2% (83 of 101)

stated that circumcision by an experienced medical
practitioner was a safe procedure for all boys. When the
father of the expected child was not circumcised, 64.1%  
(41 of 64) of parents stated that it was a safe procedure
for all boys. If the father was circumcised, no one (0 of
Parents’ rationale for male circumcision

The results of the survey suggest that the personal circumcision status of the male parent is an extremely important factor in the decision to pursue elective circumcision, regardless of the reasons that parents state. Other influencing factors in supporting circumcision included hygiene and prevention of infection or cancer. Commonly cited factors for parents not supporting circumcision included the procedure being medically unnecessary, and concerns about bleeding and infection. Although circumcision status of the father was often mentioned as a reason, it was not usually listed as the most important factor in coming to a decision about circumcision. Although the survey did not explicitly ask about religious beliefs, religion was listed among the options for reasons to support circumcision and was not chosen very often.

Similarly, circumcision status of the father seemed to affect both parents’ opinions about elective circumcision. Families in which the father was circumcised were overwhelmingly more likely to support circumcision as a safe procedure for all boys, while the only respondents to state that circumcision was an unsafe procedure were families in which the father was not circumcised.

Also interesting was the fact that so many parents were in favour of pursuing circumcision. This was well above the national and provincial average of circumcisions performed; further studies might be useful to see what factors (eg, cost, socioeconomic status, prenatal teaching, procedural roadblocks, availability of physicians performing circumcisions) caused such a discrepancy between the number of parents wanting to pursue circumcision and the actual number that go through with the procedure. Because this survey was administered before the prenatal classes, more research is needed, perhaps in a follow-up format, to determine what parents have chosen and why.

Limitations
The survey was conducted at prenatal classes; therefore, the survey captured parents’ opinions before the baby was born. The fact that so many respondents were in favour of pursuing elective circumcision might be biased, as some might not be aware of the definite procedures and costs involved in pursuing circumcision. In

### Table 3. Single most important factor in not supporting circumcision, as indicated by parents: N = 92.

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not medically necessary</td>
<td>50 (54.3)</td>
</tr>
<tr>
<td>Concerned with infection or bleeding</td>
<td>13 (14.1)</td>
</tr>
<tr>
<td>Father is not circumcised</td>
<td>9 (9.8)</td>
</tr>
<tr>
<td>Hurts too much</td>
<td>9 (9.8)</td>
</tr>
<tr>
<td>Baby has no input in decision</td>
<td>6 (6.5)</td>
</tr>
<tr>
<td>Looks better</td>
<td>5 (5.4)</td>
</tr>
<tr>
<td>Other sons are not circumcised</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Other</td>
<td>0 (0.0)</td>
</tr>
</tbody>
</table>

101 respondents that circumcision was an unsafe procedure. If the father was not circumcised, 7.8% (5 of 64) reported circumcision to be an unsafe procedure. This difference was also statistically significant ($P = .003, \chi^2 = 13.84$).

### DISCUSSION

The results of the survey suggest that the personal circumcision status of the male parent is an extremely important factor in the decision to pursue elective circumcision, regardless of the reasons that parents state. Other influencing factors in supporting circumcision included hygiene and prevention of infection or cancer. Commonly cited factors for parents not supporting circumcision included the procedure being medically unnecessary, and concerns about bleeding and infection. Although circumcision status of the father was often mentioned as a reason, it was not usually listed as the most important factor in coming to a decision about circumcision. Although the survey did not explicitly ask about religious beliefs, religion was listed among the options for reasons to support circumcision and was not chosen very often.

Similarly, circumcision status of the father seemed to affect both parents’ opinions about elective circumcision. Families in which the father was circumcised were overwhelmingly more likely to support circumcision as a safe procedure for all boys, while the only respondents to state that circumcision was an unsafe procedure were families in which the father was not circumcised.

Also interesting was the fact that so many parents were in favour of pursuing circumcision. This was well above the national and provincial average of circumcisions performed; further studies might be useful to see what factors (eg, cost, socioeconomic status, prenatal teaching, procedural roadblocks, availability of physicians performing circumcisions) caused such a discrepancy between the number of parents wanting to pursue circumcision and the actual number that goes through with the procedure. Because this survey was administered before the prenatal classes, more research is needed, perhaps in a follow-up format, to determine what parents have chosen and why.

### Limitations
The survey was conducted at prenatal classes; therefore, the survey captured parents’ opinions before the baby was born. The fact that so many respondents were in favour of pursuing elective circumcision might be biased, as some might not be aware of the definite procedures and costs involved in pursuing circumcision. In
addition, the circumcision teaching done at the prenatal classes might also influence parents’ decisions. Last, parents’ feelings might change about circumcision after the baby is delivered.

We took care to survey both male and female participants attending classes and to allow for single, homosexual, or untraditional family structures. In addition, the survey was conducted during the first prenatal class, before an information session by the health region on circumcision, in order to avoid influence from any bias that might have existed in the presentation.

Conclusion
These findings further confirm that circumcision is a controversial subject, with multiple factors affecting parents’ decisions about whether or not to circumcise their children. Our results suggest that although multiple considerations play a role in parents choosing or not choosing circumcision, the single most important factor in parents’ initial opinions about circumcision seems to be the circumcision status of the father, rather than research or rumour.

Mr Rediger is a medical student at the University of Saskatchewan in Saskatoon. Dr Muller is Assistant Professor in the Department of Academic Family Medicine at the University of Saskatchewan.

Contributors
Mr Rediger was the principle investigator in this study and the main author of the manuscript. Dr Muller contributed to the concept and design of the study, data gathering, analysis, and interpretation; and preparing the manuscript for submission.

Competing interests
None declared.

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References