

Knowledge and Anxiety Levels of Parents with Children Undergoing Super Ring Circumcision

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(Received: October 31, 2025 Revised: November 25, 2025 Accepted: December 2, 2025)

ABSTRACT

Introduction: Circumcision is an effort to clean part of the foreskin on the penis. Surgical procedures such as circumcision are individual experiences that can cause anxiety, especially for parents when they are watching their child undergo the circumcision procedure.

Objective: This study aims to describe the level of knowledge and anxiety of parents with children undergoing circumcision using the super ring method.

Methods: The type of research is descriptive cross-sectional. The research was conducted at the Avamed circumcision clinic in Semarang city. The respondents numbered 30 people with the sampling technique being accidental sampling. Data on the level of knowledge were collected using a knowledge questionnaire related to circumcision, and data on anxiety were collected using the Hamilton Anxiety Rating Scale.

Results: The research results show that the majority of respondents had a college education (70%), the highest level of knowledge related to circumcision was categorized as good (66.7%), and the most common level of anxiety was mild anxiety (46.8%).

Conclusions: It can be concluded that parents whose children under went the super ring circumcision procedure at Avamed Clinic Semarang mostly have a good level of knowledge and mild anxiety.

Keywords: anxiety; knowledge; parents; super ring circumcision

INTRODUCTION

Circumcision, also known as circumcision, is a minor surgery that involves cutting away some of the skin covering the penile gland or prepuce so that the penile gland becomes exposed. In Indonesia, circumcision is performed before the child enters puberty with the most common age being 5-12 years old. The number of Indonesian boys who underwent circumcision was 8.7 million children (Ministry of Health of the Republic of Indonesia, 2024). The highest prevalence of male circumcision in Southeast Asia is Indonesia at 92.5%, followed by the Philippines at 91.7% and Malaysia at 61.4%. The low countries are Vietnam 0.2% and Laos 0.1%. WHO recommends circumcision to prevent the spread of HIV, urinary tract infections, phimosis and other venereal diseases (Angelia, 2022).

Conventional circumcision methods, which originally used anesthesia with needles and stitches, have shifted to modern methods, namely circumcision with anesthesia without needles and without stitches such as the super ring method. The super ring method uses a super ring clamp using an antibacterial plastic tube that has a variety of sizes according to the size of the penis as a substitute for verban and sutures that minimize the risk of bleeding. Modern circumcision is in high demand among parents and children because it can minimize the incidence of pain, bleeding and post-circumcision infection, so that the circumcision heals quickly (Purhadi & Ediyono, 2023). Circumcision using the super ring method requires removal of the ring after the wound is dry with care using the principle of moisture (Sutrisno, Abdullah, & Dwiangimawati, 2024).

Circumcision is a surgical procedure that is one of the stressors that can cause a condition of anxiety for patients and families. Based on data from the Indonesian health survey (SKI) in 2023, the Indonesian population with more than 15 years of age who experience mental emotional disorders including anxiety reached 2% and 2.4% lived in urban areas and in Central Java 1.7% experienced mental emotional disorders (Ministry of Health of the Republic of Indonesia, 2023).

Anxiety is inseparable from one's knowledge. Patient knowledge about preoperative for those who will undergo surgery is very important, it aims to make patients understand about the surgery they will undergo. So that when undergoing surgery can minimize the anxiety felt by the patient (Hatimah, Ningsih, & Syahleman, 2022). Nurses have a role in mental preparation and providing action information to patients and families before surgical procedures. Good knowledge will minimize resistance to surgical procedures (Mardjan, 2016). Based on the background above, this study aims to describe the level of anxiety and knowledge of parents whose children are undergoing circumcision using the super ring method.

MATERIALS AND METHODS

This study is a crosssectional descriptive survey study conducted at the Avamed clinic in Semarang city in December 2024 - January 2025. Respondents were determined as many as 30 people with accidental sampling technique. The level of knowledge was measured using a 20-question circumcision-related knowledge questionnaire and the level of anxiety using the HARS (Hamilton Anxiety Rating Scale) anxiety questionnaire. Knowledge assessment categories were 0-10 poor, 11-14 fair, 15-20 good and anxiety categories were no anxiety 0-13, mild anxiety 14-20, moderate anxiety 21-27, severe anxiety 28-41 and panic 42-56. Descriptive data analysis was used to determine and describe the description of variables consisting of education level, knowledge level, and anxiety level. The results of the analysis are displayed in the form of frequency tables

and percentages. The research has obtained a certificate of ethical feasibility from the research ethics commission of ngudi waluyo university with number 93/KEP/EC/UNW/2024.

RESULTS

The research that has been conducted provides an overview of the level of knowledge and anxiety of parents with children undergoing circumcision at the Avamed circumcision clinic in Semarang city. The results of descriptive analysis showed that the majority of respondents with a college education level as much as 70%, the level of knowledge was good category 66.7%, and the level of anxiety was mild anxiety 46.8%.

Table 1. Education level of parents with children undergoing super ring circumcision

Education Level	Frequencies	Percentage
Elementary school	1	3.3
Junior high school	1	3.3
High school	7	23.4
Colleges	21	70

Based on Table 1, it can be explained that the majority of respondents are college graduates. This can be understood because the respondents live in urban areas with many colleges, resulting in a large number of respondents with college degrees.

Table 2: Knowledge level of parents with children undergoing super ring circumcision

Knowledge level	Frequencies	Percentage
Kurang	3	10
Cukup	7	23.3
Baik	20	66.7

Based on Table 2, the majority of respondents have a good level of knowledge about circumcision. This can be understood as most respondents are college graduates. With a higher level of education, it is easier to transfer knowledge, including health-related information.

Table 3. Anxiety level of parents with children undergoing super ring circumcision

Anxiety level	Frequencies	Percentage
No anxiety	11	36.6
Mild anxiety	14	46.8
Moderate anxiety	5	16.6
Severe anxiety	0	0
Panic	0	0

Based on table 3, the majority of respondents have a mild anxiety level. This is understandable because the act of circumcision is considered a minor surgical procedure with a very small risk, thus the respondents were not overly anxious about the procedure.

DISCUSSION

Based on the research data in table 1, most of the respondents' education levels were college graduates. The level of education is very influential for a person, how he absorbs information and implements it in everyday life, formal education can also provide more value for individuals, especially in receiving new information (Ramadhana & Meitasari, 2023). Higher education teaches people to think logically and rationally, can see an issue from various sides so that they can better analyze and solve a problem. In addition, higher education improves the cognitive skills needed to continue learning outside of school (Laflamme, Engstrom, Moller, & Halqvist, 2004). According to the author, the respondent's level of education is inseparable from the location of the research. Where the research is located in the city of Semarang. Semarang City is a big city with good educational facilities, the number of public and private higher education institutions reaches 63, the participation rate of citizens to go to college reaches 40.77 and college graduates in Semarang city reach 18.25 percent (Semarang City Statistics Center Agency, 2023). This encourages the people of Semarang city to achieve better education.

Based on the research data in table 2, the level of knowledge of parents regarding the care of super ring circumcision is mostly obtained in the good category, reaching 66.7%. The results of the study are in line with Amandha (2024) in Medan city explained that the level of parental knowledge about circumcision in preventing sexually transmitted infections is mostly in the good category which reached 73.3%. Knowledge is the result of sensing an object or observation material using the five senses. Knowledge is a cognitive domain that is important in shaping a person's actions (Notoatmojo, 2014). According to the author, parents' knowledge of super ring circumcision wound care is an important factor in the success or speed of circumcision wound healing. Parents with good knowledge will be more optimal in caring for their sons. Knowledge is inseparable from education. The good knowledge of the respondents regarding circumcision is inseparable from the level of education of the respondents, most of whom are college graduates. Through education, it can improve specific skills that are relevant to general knowledge and contribute to individuals in making decisions for healthy living behavior (Pradono & Sulistyowati, 2013). Super ring circumcision uses a clamp in the form of an antibacterial plastic tube that varies in size according to the size of the penis instead of a bandage and sutures, minimizing the risk of bleeding. This modern circumcision is popular with parents (Purhadi & Ediyono, 2023).

Based on the research data in table 3, the anxiety level of most respondents at the mild anxiety level. Mild anxiety is normal anxiety that is usually part of everyday life and causes a person to become alert and increase attention, but individuals are still able to solve problems. Mild anxiety can motivate learning and produce growth and creativity characterized by appearing calm, confident, alert, mild muscle tension, aware of the environment, relaxed or slightly agitated (Santy & Arief, 2023). One of the anxiety stressors is surgical procedures such as circumcision. Circumcision is categorized as minor or minor surgery. Most respondents with mild anxiety, it is possible that respondents consider that circumcision is a common thing and should not be feared. The results of Rosalina's research (2023) explained that one of the factors associated with the anxiety level of parents waiting for their children to undergo surgery is the type of surgery. Minor surgery provides less anxiety than major surgery. Although the respondents' anxiety was in the mild category, according to the researchers, respondents still need to be given information about proper circumcision so that anxiety can be minimized (Sihombing, Hilman, & Marlina, 2023).

CONCLUSIONS

This study showed that parents whose children were given super ring circumcision at Avamed Semarang clinic mostly had a level of knowledge related to circumcision, namely good criteria and anxiety level, namely mild anxiety. A suggestion for future research is to investigate other factors that influence the anxiety levels of parents whose children are undergoing the Super Ring circumcision method.

Acknowledgement

The authors would like say thanks to Avamed circumcision clinic Semarang for the support of this research. Thanks are also extended to the Research and Community Service Institute of Ngudi Waluyo University, Ungaran for their support during this research, from the proposal, data collection, analysis stage, to the presentation of the results.

Funding Source

This research was funded by the Research and Community Service Institute of Ngudi Waluyo University Ungaran. The sponsor fully supports the development and competence of lecturers in research.

Availability of data and materials

The accessibility of raw data, datasets, or materials used in the study can be obtained by contacting the researcher via email: mukhamadmustain@gmail.com

Authors' contributions

The principal investigator's roles include: Developing the proposal, Budget management, Permits/licensing, Coordinating data collection, Compiling the final report, Presentation, and publication

Conflict of Interest

This research does not involve a commercial product.

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