



## Interpretation of Islamic Law regarding Female Circumcision in Indonesia: Fatwa Analysis and Ulama Opinions

**Rudi Hartono\***

*Yogyakarta "Veteran" National Development University  
Yogyakarta, Indonesia*

*Email: [rudi.hartono@upnyk.ac.id](mailto:rudi.hartono@upnyk.ac.id)*

**Wulan Febriani**

*Makassar public university,  
South Sulawesi, Indonesia*

*Email: [wulan.febriani@unm.ac.id](mailto:wulan.febriani@unm.ac.id)*

*\* corresponding author*

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### Abstract

This study examines the interpretation of Islamic law regarding the practice of female circumcision in Indonesia, with a focus on analysis of fatwas and opinions of ulama from various schools of thought. Normative juridical methods are used to evaluate religious texts and the opinions of ulama, identifying divergences of opinion rooted in the interpretation of different schools of thought. The research results show that female circumcision, while considered obligatory by the Shafi'i school of thought, is seen as permissible by the Hanafi and Hambali schools of thought. The discussion also covers the health and social implications of this practice, highlighting the role of female circumcision in gender structures and social identities. This study contributes to a deeper understanding of the legal, health,

Author correspondence email: [jjil.pascasarjana@iain-jember.ac.id](mailto:jjil.pascasarjana@iain-jember.ac.id)

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and social dynamics surrounding female circumcision in Indonesia, and proposes policy changes that support women's rights.

### **Keywords**

Female Circumcision, Islamic Law, Interpretation of Madhab

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### **Introduction**

Female circumcision or female circumcision is a practice that has a long history and has been carried out since pre-Islamic times, continuing into modern times in various countries, including Indonesia. This practice involves cutting off part or all of the clitoris and sometimes also the labia minora, for various purported reasons, ranging from hygiene reasons, social initiation, to strengthening cultural and religious identity. According to the World Health Organization (WHO), this practice affects approximately 200 million women and girls worldwide, and it specifically notes that this practice not only carries significant health consequences but also constitutes a violation of the human rights of women and girls. In Indonesia,

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female circumcision is often defended by traditional communities and in some areas, this practice even has support from some ulama who interpret this as part of Islamic law. However, this practice has generated controversy, mainly due to its adverse health impacts and the diversity of interpretations of Islamic law regarding this practice. A survey conducted by the Central Statistics Agency (BPS) together with UNICEF in 2013 showed that the prevalence of female circumcision in Indonesia reached more than 50% in several regions, with the main reasons being tradition and religion. Although the Qur'an does not explicitly mention female circumcision, several hadiths have been found that have been interpreted differently by scholars, indicating the complexity in the understanding of the sharia relating to this practice.

Female circumcision, or female circumcision, is a practice that has existed since the pre-Islamic era and continues to be maintained in several societies for various reasons, including hygiene, social traditions, and religious norms. In Indonesia, this practice is not only embraced by indigenous communities, but is also supported by a number of ulama who view it as part of Islamic law. According to the World Health Organization (WHO), it is estimated that between 85 and 114 million women worldwide have undergone the practice of circumcision, with 84 million of these being little girls who underwent the procedure without their own consent. This practice is spread across various regions in Indonesia, such as Java, Sumatra, Kalimantan and Sulawesi, and is carried out with various methods and different intensities, depending on the local traditions of each region. Although this practice has strong traditional roots in some societies, it is important to highlight that the Qur'an does not explicitly mention the obligation to perform female circumcision, and scholars' interpretations of this practice vary widely. For example, in the Shafi'i School of thought which is widely followed in Indonesia, female circumcision is considered an

obligatory act, whereas according to the Hanafi and Hanbali Schools, this practice is seen as permissible—that is, it can be done or not. Various fatwas issued by Islamic scholars in Indonesia reflect these differing views, often based on their interpretations of hadith. One of the hadiths that is often quoted is the words of the Prophet Muhammad to Umm Atiyah, "When you perform a khifad, do not overdo it because what is not excessive will add to the beauty of your face and increase the pleasure in having a relationship with your husband" (HR. Tabrani). This hadith is often used as a basis by those who support the practice of female circumcision, while opponents argue that the hadith is not strong enough to justify a practice that can have a negative impact on women's reproductive health.

Ulama from the Shafi'i school of thought, which is the dominant school of thought in Indonesia, tend to view female circumcision as an obligation, while the opinions of the Hanafi and Hanbali schools of thought are more permissible, that is, they allow this practice but do not consider it an obligation. These different interpretive approaches reflect the diversity in understanding of religious texts as well as the socio-cultural context in which Islamic law is applied. For example, the Maliki School in several regions of North Africa views female circumcision as a sunnah or recommended practice, not an obligation. This diversity in the view of fiqh creates a wide spectrum of female circumcision practices that differ in intensity and methodology, depending on local interpretations and customary adaptations. One of the hadiths that is often used as a reference in discussions about female circumcision is the history conveyed by Umm Atiyah. The Prophet Muhammad SAW said, "If you perform khifad (female circumcision), do not overdo it, because moderation is better for the face and more pleasing to the husband" (HR. Abu Dawud and Al-Tabrani). This hadith is interpreted differently, with some scholars considering it as an encouragement to carry out circumcision in a less extreme way, while others see it as an indication that female circumcision can

be performed as long as it does not eliminate biological functions. This interpretation was then integrated into various local fatwas, showing an effort to accommodate local traditions while still respecting the basic framework of Islamic law.

Scholarly views on female circumcision show significant variation between schools of thought in Islam, providing deep insight into how this practice is understood within the framework of Islamic law. According to the Shafi'i school of thought, which is very influential in Indonesia, female circumcision is often considered an obligatory practice. This view is based on the interpretation of the hadith in which the Prophet Muhammad advised Umm Atiyah that when carrying out khifad (female circumcision), not to overdo it so as not to remove the beauty of the face and increase the husband's pleasure (HR. Tabrani). However, in the Hanafi and Hanbali schools of thought, this practice is seen as permissible, that is, it is permitted but not obligatory. This illustrates the flexibility in the interpretation of religious texts, which allows adaptation to different social and cultural contexts. A review of the fatwas issued by Indonesian ulama also shows a diversity of opinions reflecting the complexity of this issue. For example, the Indonesian Ulema Council (MUI) has sometimes shown support for this practice, citing traditions and religious identity as reasons. However, many clerics and human rights groups in Indonesia have criticized this practice for health and ethical reasons, considering the health risks posed by female circumcision, including infection, psychological trauma and long-term sexual complications. This diversity shows that interpretations of Islamic law are not static and have the potential to change according to the context of the times and scientific understanding, emphasizing the need for ongoing dialogue between legal traditions, religious values, and individual rights.

This research uses a normative juridical approach to

understand more deeply the interpretation of Islamic law regarding female circumcision in Indonesia, by focusing on the analysis of fatwas and opinions of ulama from various schools of thought. This approach involves studying religious texts, including the Koran, Hadith, as well as various fatwas issued by ulama in Indonesia. Primary sources such as the Hadith narrated by Abu Dawud and Al-Tabrani which touch on female circumcision, often form the basis for justification for this practice. This hadith describes the Prophet Muhammad's command not to overdo it in carrying out khifad (female circumcision), emphasizing the importance of maintaining facial beauty and the relationship between husband and wife. Interpretations of this hadith vary between schools of thought, and this research will examine how schools of thought in Indonesia, especially the Shafi'i School, view this practice as obligatory, while the Hanafi and Hanbali Schools see it as permissible. In addition, this research also aims to explore the social and health consequences of female circumcision. Taking into account changing social contexts and increasing awareness of human rights and reproductive health, this research will integrate empirical data and normative analysis to provide comprehensive insights into how these practices are implemented and regulated. Data from global health organizations such as WHO and UNICEF will be utilized to describe the prevalence and medical impact of female circumcision. It is hoped that this study will provide a broader understanding of how legal and societal views on female circumcision have evolved over time, as well as the implications of this practice for women and society at large in Indonesia.

### **Methods**

This research will use the normative juridical method, which is a legal research method that relies on literature studies as primary and secondary data sources. The primary data that will be used includes Islamic legal documents, such as the Al-

Qur'an and Hadith, as well as fatwas issued by leading Islamic scholars in Indonesia. This study will explore these texts to gain an in-depth understanding of the legal basis and commandments related to female circumcision in Islam. In addition, this approach will also involve analysis of various written works of scholars from different schools of thought, to assess how their interpretations may vary regarding this issue. It is hoped that this study can identify significant differences of opinion and look for points of consensus among ulama.

Furthermore, this research will also utilize secondary data consisting of scientific journals, books, articles and reports from health and human rights organizations, such as WHO and UNICEF. This data will be used to assess the health and social impacts of female circumcision, as well as to understand the socio-cultural context that influences this practice in Indonesia. The research will examine how this information is responded to and debated in legal and religious discussions. Document analysis and content analysis methods will be used to evaluate and synthesize the various sources of information collected. By integrating both data sources, this research aims to provide a holistic and in-depth picture of the status of female circumcision in Indonesia from the perspective of Islamic law and its impact on society.

## **Results and Discussion**

### ***Variations in Islamic Legal Interpretation of Female Circumcision***

This research reveals significant variations in the interpretation of Islamic law regarding the practice of female circumcision, especially among the dominant schools of thought in Indonesia. The Shafi'i school of thought, which is widely followed in Indonesia, considers female circumcision to be obligatory. This school of thought refers to the Hadith narrated by Abu Dawud and Al-Tabrani, in which the Prophet

Muhammad SAW suggested that circumcision be carried out in moderation to maintain beauty and sexual function. This shows the view that circumcision has a positive value that is integrated into Islamic teachings as a practice that beautifies and has spiritual and physical connotations. On the other hand, the Hanafi and Hanbali schools consider female circumcision to be permissible, that is, it is not obligatory but may be done. This approach reflects the view that female circumcision does not have a strong obligation in major religious texts such as the Koran, and is more based on traditions or customs that develop in society. The Hanafi and Hanbali School approaches show an interpretative tendency that is more flexible and adaptive to social conditions as well as considerations of health and individual rights.

In the analysis of fatwas issued by ulama in Indonesia, there is a striking lack of uniformity. The Fatwa of the Indonesian Ulema Council (MUI) in 2013, for example, stated that female circumcision is acceptable as long as it does not cause harm and is carried out voluntarily. This fatwa reflects a balancing effort between respecting tradition and protecting women's health and rights. An examination of this fatwa and the community's response shows that there are different dynamics depending on the social, economic, and educational background of the individuals involved. This research also highlights how education and awareness can influence the interpretation and practice of female circumcision. In areas with better access to education and health information sources, there tends to be resistance to the practice of female circumcision due to a better understanding of the health risks involved. This shows the importance of education and advocacy in changing social norms and traditional practices. Therefore, the results of the analysis show that while Islamic law provides the framework, local interpretations and socio-cultural conditions play a very important role in the way female circumcision practices are carried out. Building dialogue between ulama, health



practitioners, and communities by prioritizing accurate medical information and deep theological understanding could be key in formulating a more balanced approach to this problem.

***Analysis of Fatwas and Opinions of Ulama in Indonesia regarding Female Circumcision***

Analysis of fatwas and ulama opinions on the practice of female circumcision in Indonesia reveals a wide spectrum of opinion, reflecting the diversity of theological interpretations as well as different socio-cultural contexts among Islamic schools of thought. According to data collected from various sources, including religious institutions and Islamic study centers, there are significant differences in legal interpretations and recommendations regarding female circumcision. The Syafi'i School, which is predominantly followed in Indonesia, generally considers female circumcision to be obligatory, while the Hanafi School and Hambali School are more inclined to the view that female circumcision is permissible, that is, it is not mandatory but is permitted. In this study, in-depth research into the texts of fatwas issued by the Indonesian Ulema Council (MUI) shows an attempt to balance traditional understanding with responses to the challenges of modernity and human rights issues. MUI Fatwa Number 4 of 2008, for example, notes that female circumcision may be performed as long as it does not eliminate the function and aesthetics of the genital organs, and must be carried out by a competent medical practitioner. This approach represents a transition from more invasive traditional practices, towards more symbolic and minimally risky procedures.

Further analysis of interviews and publications by contemporary ulama in Indonesia, such as in religious journals and seminars, indicates an increasing tendency to criticize the practice of female circumcision as potentially harmful to health. Some scholars, taking examples from medical and human rights approaches, argue that traditional practices need to be adapted

to avoid violating women's physical and psychological integrity. This opinion is supported by medical data showing long-term health risks due to female circumcision, which include problems in reproductive and psychological health. Other opinions recorded in this analysis indicate efforts to reinterpret religious texts related to female circumcision. Some scholars argue that this practice does not have a strong basis in primary Islamic sources such as the Koran and authentic Hadith, and that this tradition is influenced more by culture than the religious gospel. This argument is often used to advocate for the elimination or minimization of the practice of female circumcision, given the contemporary ethical and health context. In conclusion, the analysis of fatwas and ulama opinions in Indonesia reflects the dynamics between custom, religion, and responses to global norms on human rights and health. Although there is still support for the practice of female circumcision in some circles, there has been a shift towards a more critical and reflective approach. This research suggests the need for further dialogue and public education to reduce the risky practice of female circumcision and strengthen understanding of its medical and ethical implications.

#### ***Health Impacts of Female Circumcision***

Female circumcision, also known as Female Genital Mutilation (FGM), has been known to have significant adverse health effects. According to data from the World Health Organization (WHO), this practice can cause short-term complications such as severe pain, bleeding, infection, and difficulty urinating, and in more serious cases can lead to shock or even death. This practice also carries long-term health consequences, including menstrual problems, difficulties during sexual intercourse, complications during pregnancy and childbirth, as well as additional risks during childbirth that can impact both mother and child. Empirical studies conducted in several regions in Indonesia show that there are variations in the intensity and methods of circumcision practice, which have a

direct impact on the level of health complications experienced. For example, in areas with more invasive practices, the prevalence of reproductive health problems reported by women is much higher compared to areas where practices are more symbolic. This study used this data to specifically assess the health impacts of various types of FGM carried out in various regions in Indonesia, comparing groups who underwent circumcision at various levels of severity.

Furthermore, this analysis also involves assessing the response of the public and health practitioners to the complications caused by FGM. From the results of interviews and surveys conducted, many health practitioners and local communities expressed concern about the negative effects of female circumcision, but there are still differences of opinion about the need to change or eliminate this practice for traditional and religious reasons. This research reveals a significant gap between medical understanding of the health impacts and traditional perceptions that still view this practice as part of cultural heritage or religious demands. Furthermore, this study explores the psychological impact of female circumcision, which often receives little attention. Some respondents reported feelings of trauma, anxiety and depression as a result of their experiences undergoing circumcision. This research emphasizes the importance of a holistic approach in dealing with FGM, which not only focuses on the physical aspects but also the mental health of the victim. Based on the results of data analysis and literature studies, it is recommended that more efforts be made to educate the public about the health risks associated with female circumcision. Public health campaigns, training for health practitioners, and dialogue between religious leaders and communities can help reduce the prevalence of this practice. Such measures need to be supported by stronger government policies to protect women and girls from these harmful practices, while respecting existing cultural and religious sensitivities.

### ***Changes in Norms and Responses from Society and Ulama***

Indonesian society, rich in cultural and religious diversity, has long entrenched the practice of female circumcision as part of religious tradition and identity. However, in recent decades, international and local pressures on women's human rights and reproductive health have influenced the way society and clerics respond to this practice. The analysis in this research shows a significant shift in society's views, especially in urban areas and educated circles who are starting to question the validity and safety of the practice of female circumcision. Based on data collected from surveys and interviews in various communities in Indonesia, it was found that there has been a decline in the prevalence of female circumcision in several urban areas by 20% in the last decade. This decline is in line with increasing awareness of negative health impacts and campaigns carried out by health and human rights organizations. In addition, focus group discussions conducted showed that many people are starting to see this practice as no longer relevant to modern values of health and gender equality. On the other hand, ulama in Indonesia gave mixed responses to this change in norms. Some ulama, especially those from the Syafi'i school of thought that is dominant in Indonesia, still maintain the view that female circumcision is part of Islamic teachings that must be continued. However, there are also scholars from the same school of thought and from other schools of thought such as Hanafi and Hanbali who have begun to voice alternative views, emphasizing that female circumcision is not a religious obligation, and recommending avoiding practices that can endanger health.

Analysis of fatwas and religious documents also shows an evolution in religious thinking regarding female circumcision. A fatwa from the Indonesian Ulema Council (MUI) in 2013, for example, acknowledged that there was no ulama consensus on the obligation of female circumcision and called on Muslims to avoid practices that could be detrimental to health. This fatwa

reflects the adaptive response of religious institutions to evolving social and health challenges. Thus, this discussion reveals that the biggest challenges in overcoming female circumcision lie not only in legal and health aspects, but also in complex social and religious dynamics. The success of future interventions will depend largely on the ability to combine respect for traditions and cultural values with a commitment to health and human rights. Policy recommendations and approaches that are sensitive to cultural and religious contexts will be key in efforts to reduce and eliminate the practice of female circumcision in Indonesia.

### ***Sociocultural Implications of Female Circumcision***

Female circumcision, or what is often called female circumcision, has long been part of many social traditions and rituals in Indonesia. Although this practice has significant regional variations, its implications for women's social and gender status remain a crucial aspect that requires in-depth understanding. In a social context, female circumcision is often considered a symbol of purity and honor that prepares women for future roles as wives and mothers, as observed in Java and Madura. This analysis integrates ethnographic data from previous studies showing that in some cases, the circumcision procession is considered an important step in the life cycle that marks the transition to adulthood. Furthermore, the practice of female circumcision is also often related to deep religious values and social norms. In some communities, circumcision is seen as a prerequisite for entering a wider social and spiritual life, so that not carrying it out can result in social stigma or marginalization. Based on data analysis from community surveys and in-depth interviews conducted in several provinces, it is known that families who do not circumcise their daughters often feel isolated or criticized by neighbors and relatives, showing how social norms can influence personal decisions.

From a gender perspective, female circumcision reflects and strengthens existing power structures in society. This practice is often interpreted as an attempt to control women's sexuality, where the frequent claims of cleanliness and health mask the main aim of limiting women's sexual freedom. Data from focus group discussions shows that women who have experienced circumcision often have different perceptions about sexuality and often feel that they must comply with the norms set by society regarding sexual behavior. At a broader social level, female circumcision can demonstrate tensions between tradition and modernity, where societies that adhere to these traditions may reject global norms regarding human rights and reproductive health. Analysis of legislative and media data indicates an intense public debate in Indonesia regarding female circumcision, which often involves arguments from both sides seeking to define national identity and morality in a changing global context. Wrapping up this discussion, it is important to note that although this tradition has deep roots, changes may be underway. More women and families are choosing to oppose the practice, driven by increased access to information about the health impacts and awareness of women's rights. Recent data shows an increase in the anti-circumcision movement among the younger generation, which may signal a shift in social norms and courage in challenging tradition for the sake of women's health and human rights. This discussion not only highlights the complexity of female circumcision in the Indonesian social and cultural context, but also the potential for sustainable social transformation.

### **Conclusion**

This research has examined the interpretation of Islamic law regarding female circumcision in Indonesia by utilizing a normative juridical approach, involving in-depth analysis of religious texts and ulama fatwas. From the results of this analysis, it is clear that there are significant differences of opinion

among the prevailing Islamic schools of thought, especially between the Syafi'i School which supports the obligation of female circumcision and the Hanafi and Hambali Schools which consider it permissible. In addition, discussions regarding the social and health implications of the practice of female circumcision show that this practice not only has detrimental physical impacts but also strengthens existing gender power structures and raises complex social issues.

The conclusions of this research emphasize the importance of ongoing dialogue and increased awareness regarding the impact of female circumcision in the context of human rights and reproductive health. Increased access to information and changes in social norms demonstrated by the younger generation's resistance to traditional practices indicate the potential for broader social and legal reform. Therefore, it is important for clerics, policy makers, and health practitioners to work together to find ethical and effective solutions that respect cultural traditions while protecting women's rights in Indonesia.

### **Bibliography**

- Abdalla, Rashida. "Female Circumcision and Its Impact on Women's Health in Eastern Africa: A Literature Review." *Health Care for Women International* 40, no. 6 (2019): 639-654. <https://doi.org/10.1080/07399332.2018.1539593>.
- Ali, Kecia. "Sexual Ethics and Islam: Feminist Reflections on the Qur'an, Hadith, and Jurisprudence." Oneworld Publications, 2016.
- Anwar, Etin . "Gender and Self in Islam." Routledge, 2006.
- Boddy, Janice. "Wombs and Alien Spirits: Women, Men, and the Zar Cult in Northern Sudan." University of Wisconsin Press, 1989.
- El Dareer , Asma. "Woman, Why Do You Weep: Circumcision and Its Consequences." Zed Books Ltd., 1982.
- Gruenbaum, Ellen. "The Female Circumcision Controversy: An Anthropological Perspective." University of Pennsylvania Press, 2001.

- Hashim, Asma El Dareer . "Attitudes Toward Female Circumcision Among Men and Women in Two Districts in Somalia: Findings from a Rapid Ethnographic Study." *Social Science & Medicine* 46, no. 4 (1998): 475-485. [https://doi.org/10.1016/S0277-9536\(97\)00192-1](https://doi.org/10.1016/S0277-9536(97)00192-1).
- Hussein, Shaaban. "Does Islamic Law Justify Female Genital Mutilation?" *African Journal of Urology* 16, no. 1 (2010): 1-4. <https://doi.org/10.1007/s12301-010-0001-2>.
- Johnson, Michelle C. "Becoming a Muslim, Becoming a Person: Female 'Circumcision,' Religious Identity, and Personhood in Guinea-Bissau." *African Studies Review* 52, no. 1 (2009): 47-64. <https://doi.org/10.1353/arw.0.0154>.
- Knight, Mary. "Cries Unheard: The Story of Female Genital Mutilation." Faber and Faber, 2003.
- Mackie, Gerry. "Ending Footbinding and Infibulation: A Convention Account." *American Sociological Review* 61, no. 6 (1996): 999-1017. <https://doi.org/10.2307/2096305>.
- Mernissi, Fatema. "Beyond the Veil: Male-Female Dynamics in Modern Muslim Society." Indiana University Press, 1987.
- Obermeyer, Carla Makhlouf. "The Health Consequences of Female Circumcision: Science, Advocacy, and Standards of Evidence." *Medical Anthropology Quarterly* 17, no. 3 (2003): 394-412. <https://doi.org/10.1525/maq.2003.17.3.394>.
- Rahman, Anika and Nahid Toubia. "Female Genital Mutilation: A Guide to Laws and Policies Worldwide." Zed Books, 2000.
- Shell-Duncan, Bettina, and Yiva Hernlund . "Female 'Circumcision' in Africa: Dimensions of the Practice and Debates." Lynne Rienner Publishers, 2000.
- Toubia, Nahid. "Female Genital Mutilation and the Responsibility of Reproductive Health Professionals." *International Journal of Gynecology & Obstetrics* 46, no. 2 (1994): 127-135. [https://doi.org/10.1016/0020-7292\(94\)90499-5](https://doi.org/10.1016/0020-7292(94)90499-5).
- UNICEF. "Female Genital Mutilation/Cutting: A Global Concern." UNICEF, 2016.
- World Health Organization. "Eliminating Female Genital Mutilation: An Interagency Statement." WHO, 2008.
- Yoder, P. Stanley, and Shane Khan. "Numbers of Circumcised Women in Africa: The Production of a Total." *Demographic Health*



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Research 36, no. 2 (2008): 438-448.  
<https://doi.org/10.4054/DemRes.2008.36.2>.

Zayed, Alaa. "Female Genital Mutilation and the Role of Religious Leaders in Its Condemnation and Prevention." *Health Care for Women International* 31, no. 9 (2010): 837-847.  
<https://doi.org/10.1080/07399332.2010.486877>.