Mother's Perception towards Hazards of Female Circumcision in Rural Community

Shimaa Saber Abd el Atey, Hala Mohamed Mohamed¹, Shimaa Fathy Miky²

Clinical Instructor of Community Health Nursing, Faculty of Nursing Beni Suef University, Assistant Professor of Community Health Nursing1, Faculty of Nursing Ain Shams University., and Lecturer of Community Health Nursing2, Faculty of Nursing Ain Shams University

Abstract

Background: Female circumcision is any procedure involving the partial or total removal of the external female genitalia. Aim: The aim of this study was to assess mother's perception toward hazards of female circumcision in rural community. Design: descriptive research design was used to conduct this study. Setting: the study was conducted at MCH centers in Beni- suef city. Sample: A purposive sample of three hundred mother having female daughters at the age of 7 to 15 years who have done circumcision or not was selected. Tools: two tools were used for data collection, first tools divided into three parts, structured interviewing questionnaire to assess socio- demographic data of mothers, knowledge of mothers regarding female circumcision and its hazards, part three to assess predisposing factors leading to female circumcision, and the reported practices of mothers regarding hazards after circumcision, second tool to assess attitude of mothers toward hazards of female circumcision in rural community. Results: the mean age of mothers was 34.3 ±4.1 years, nearly half of mothers had satisfactory level of knowledge regarding female circumcision, more than two fifths of them done practices regarding hazards after circumcision and nearly three fifth of them had positive attitude regarding female circumcision. Conclusion: there is significance relationship between studied mothers knowledge, practice and attitude with their sociodemographic characteristics and there is significance correlation between knowledge of the studied mothers and their attitude regarding female circumcision. Recommendation: Increase mothers awareness about female circumcision through outpatient clinics and MCH centers.

Keywords: Female circumcision, Perception, Health, Rural community.

Introduction

Female circumcision (FC), it is known as female genital cutting (FGC) or mutilation is still a concern in many countries, is the damage inflicted on women. It refers to the practice of removing all or parts of girl's or woman's genitalia for cultural reasons. Female circumcision is a cultural ritual that is performed in 27 countries, most commonly in sub-Saharan and Northeast Africa. The ritual is performed by various ethnic groups for a variety of reasons including perceived improved hygiene, social acceptance, marriage ability, preservation of virginity, reduction of female sexual pleasure, and religious requirement (Ward & Hisely, 2016).

The World Health Organization (WHO) divides circumcision into four major types. Type I is the partial or total removal of the clitoris and/or the prepuce. Type II is partial or total removal of the labia minora and clitoris with or without excision of the labia majora, Type III is narrowing of the vaginal orifice with creation of a covering seal by cutting and repositioning the labia minora and/or the labia majora, with or without excision of the clitoris. It is called infibulation and is also known as pharaonic circumcision. Type IV is all other harmful procedures to the female genitalia for nonmedical purposes, for example, pricking, piercing, incising, scraping and cauterization (Wong, 2012).

Female circumcision is a danger to health and life as it usually performed without anesthesia and is intensely painful. Life threatening complications are hemorrhaging; blood poisoning, tetanus and gangrene. Longterm consequences include persistent pain, psychological distress and chronic infection from shared cutting instruments (**Bushy**, 2010).

Rural women believe that female circumcision makes a woman more fertile and thus increases the chances of children's survival. Rural women understood that female circumcision is performed in rural areas as sexuality of a woman is dirty, unsightly, and unnecessary, and thus female circumcision is believed to be essential. The elderly women in rural community see that there is no other alternative for circumcision and a decision to forget circumcision mav have negative outcomes, such as shame for the woman's family and exclusion from the society. (Akintunde, 2010).

Assessing the perceptions of mothers about female circumcision may provide insight into their knowledge and attitude towards circumcision and what mother might do to prevent circumcision complications and to deal with circumcision hazards if occur. Level of education, place of residence, religion and level of awareness have a direct link to the practice of female circumcision among women; the practice is closely associated with poverty, illiteracy and a low social status. Rural women reported that their daughters have undergone or would undergo the procedure to maintain proper hygiene, to increase fertility and to ensure a woman's chastity in order to be considered for marriage (Cunnigham & Casey, 2014).

Significance of the study

The World Health Organization estimates that globally 100 to 140 million girls and women have undergone some type of female genital mutilation. Currently, about 3 million girls, most under 15 years of age, undergo the procedure every year. The majority of FGM takes place in 28 African countries (WHO, 2010). Egypt is considered one of the most states with the number of circumcised girls around the world, and United Nations International Children's Emergency Fund (UNICEF) statistics indicate that 91% of married women between the ages of 15 and 49 have undergone genital cutting 72% of which have been made by a doctor (Berg & Dension, 2013).

One out of every 10 girls in the age group 8-9 was circumcised and one of every five girls in the age group10-19 has been circumcised. (United Nations International Children's Emergency Fund, 2014).

Female circumcision has serious problems such as hemorrhage, shock or septicemia occurred in 0-3% of cases, which infections and urinary symptoms ranged from 0-15%, and various scars and cysts ranged from 0-12%. Concerning reproductive health problems, such as those connected with labor and delivery. infertility, and sexual function, there was much less evidence, reported frequencies ranged more widely, and it was difficult to gain a good understanding of the effect of the operations on reproductive health (Davidson & London, 2016).

Aim of this study

The aim of this study was to assess mother's perception towards hazards of female circumcision in rural community through:

- 1- Assessing mother's knowledge towards hazards of female circumcision.
- 2- Assessing predisposing factors that lead to female circumcision.
- Organization 3- Assessing mother's practice towards hazards of female circumcision.
 - 4- Assessing mother's attitude towards female circumcision.

Research Questions: This study was based on answering the following question:

• Is there a relation between mother's knowledge and their attitude towards female circumcision in rural community?

• Is there a relation between mother's socio demographic characteristics and knowledge about female circumcision in rural community?

• What are the health hazards of female circumcision in rural community?

• What are the pre disposing factors leading to female circumcision in rural community?

Subject and methods

Research design: A descriptive design was utilized to achieve the aim of this study.

Setting of the study: The study was conducted at 16 MCH center at Beni-Suef city.

Subject: A purposive sample include mothers who attended in the previously mentioned setting having female daughters aged 7 to 15 years, done circumcision or not; their total number was 300 mother.

Tools for data collection:

Data collected through using the following two tools:

First tool:

A structured interviewing questionnaire designed by the investigator and written in simple Arabic language to gather data which are concerned with the aim of the study and consists of the following four parts:

Part I: Demographic data for mothers, it includes (age, educational level, occupation, marital status, number of female daughters in family, their age and crowding index) and it includes 9 closed ended questions from Q1 to Q9 as reported by the mothers.

Part II: Assess mothers knowledge towards female circumcision, includes (parts and function of female reproductive system, definition of female circumcision, types of female circumcision, causes of circumcision, cases require circumcision, rights and Egyptian laws), and assess mother's knowledge towards hazards of female circumcision. It includes (short term physical hazards as pain, long term hemorrhage physical hazards as and psychosocial hazards as depression and lack of feeling secure); it includes 10 closed and one open ended questions from Q10 to Q18 as reported by the mothers.

Part III: Assess predisposing factors leading to female circumcision as stated by mothers, it includes (habits and traditions, beliefs, religious causes, level of education and socio economic status), it includes 6 closed ended questions from Q21 to Q26 as reported by the mothers.

Scoring system:

For the mother's knowledge correct response was scored 1 and the incorrect response was scored zero.

- All items were summed up and a mean knowledge score was calculated

- The total knowledge score was further divided into knowledge levels:

- Satisfactory level if the percent score was (>50)

- Unsatisfactory level if the percent score was less than (<50%)

Part V:It devoted to assess the reported practice of mothers toward hazards after circumcision include (pain management, prevent anemia, hemorrhage and infection caused by circumcision), it includes 13 closed ended and 1 open ended questions from Q27 to Q40 as reported by the mothers.

Scoring system:

Mothers' practice was scored (one) for the "done" practices and (zero) for "not done" practices. Practice percent scores were further divided into practice levels as the following; • Accepted practice (>50)

• Not accepted practice (<50%)

Second Tool:

Assessment of mothers' attitude toward female circumcision:

This tool was designed by **Stanhope**, **2013** and modified by the investigator after reviewing literature in this field; to assess mothers' attitude towards hazards of female circumcision in rural community, it consisted of 32 questions.

Scoring system:

Mothers' attitude was scored (two) for the "agree" answers, (zero) for "not agree" answers and (one) for the "not sure" answers, Total score = 64. Attitude percent scores were further divided into attitude levels as the following;

• Positive attitude (>50)

• Negative attitude (<50)

Pilot study

A pilot study was conducted on 30 mother with female daughters at the age of 7 to 15 years, it was done for evaluation of the applicability and clarity of the tools, assessment of feasibility of fieldwork, identification of a suitable place for interviewing mothers, and to detect any possible obstacles that might face the investigator and interfere with data collection. Necessary modifications related to sexual sides were done based on the pilot study findings. The sample of mothers included in the pilot study was excluded in the main study sample.

Administrative Design

An approval was obtained from the Research and Ethics committee at Faculty of Nursing Ain-shams University, also, an official permission was obtained from the administrator of health directorate at Beni-Suef to conduct the study. An official letters were sent to the director of the health directorate at Beni-Suef explaining the aim of the study, and seeking her permission for data collection. Total confidentiality of any obtained information was ensured. Also, the study maneuvers couldn't harm the participants.

Ethical considerations

Each participant was informed about the purpose of the study and its significance. They were informed as well, that participation in the study is completely voluntary, as well as they have the right to withdraw from the study at any point without any penalty. Additionally, all participants were assured that their anonymity and confidentiality secured through coding the data. Moreover, participants were informed that the data not reused for any research purposes without the permission.

Statistical Analysis

The collected data were collected and encoded in special format to be suitable for computer feeding. Following data entry, checking and verification process were carried out in order to avoid errors. Data were analyzed using the statistical package for social science SPSS. The following statistical analysis measures were used.

- **Descriptive statistical measures**, which include number, percentages, and averages (Minim, Maximum, Arithmetic mean (X), Standard deviation (SD).

- Statistical analysis tests, which include Chi square, T test.

Results

Table (1) shows that the mean age of the studied mothers was 34.3 ± 4.1 *year* and 33.3% of them aged from 30 to 35 years. Regarding occupation, 68% were house wife. As regarding educational level 34.3% were illiterate. 85.3% are married. The mean number of female daughters in family from 7 to 15 year was 3.2 ± 1.4 daughter. The table also clarifies that the crowding index rate was 2 ± 1.3 person.

Fig. 1: Reveals that 49% of the studied mothers were satisfactory knowledge regarding circumcision, meanwhile 51% of the studied mothers

were unsatisfactory knowledge regarding circumcision.

Fig. 2: Demonstrates that, 44.4% of the mothers had accepted practices regarding complications after circumcision, meanwhile 55.6% don't have accepted practices.

Fig. 3: Reveals that totally, 58.4% of the subjects were positive attitude, meanwhile 41.6% were negative attitude.

According to research question (no: 2): Is there A relation between Socio-demographic Characteristics of Mothers and their Knowledge towards Female Circumcision?

Table (2) illustrates that there is a highly statistical significant differences between mothers knowledge and their socio-demographic characteristics (p<0.001).

Table (3) shows that there is a highly statistical significant differences between mothers practice and their socio-demographic characteristics (p<0.001).

Table (4) clarifies that there is a highly statistical significant differences between mothers attitude and their socio-demographic characteristics (p<0.001).

According to research question (no: 1): Is there a relation between mothers Knowledge and their Attitude towards female circumcision in rural community?

 Table (5) shows that there was a highly significant positive correlation between total level of attitude score and total level of knowledge score.

Table	(1):	Distribution	of	the	Studied	Mothers	according	to	their	Socio-demographic
Characteristic	es (n=	300).					_			

Variable	es		Ν		%			
Age:								
•	Less than 25		62		20.7			
•	25-less than 30		87		29			
•	30-less than 35		100		33.3			
•	≥35		51		17			
		Mean + SD: 34.3 ±4.1 years						
Level of	education:							
•	Illiterate		103		34.3			
•	Read and write		77		25.7			
•	Secondary		45		15			
•	University & above		75		25			
Occupation:								
•	House wife		203		68			
•	Employee		97		32			
Marital status:								
•	Married		256		85.3			
•	Widowed		44		14.7			
Crowdin	ng index:							
Mean +	SD: 2±1.3 person							
Age of f	emale children:							
•	7-9		89		29.7			
•	10-12		112		37.3			
•	13-15		99		33			
Mean + SD: 9.1±3.3 years								
Number of female children in family from 7to15 years:								
	• 1girl		72	24				
	• 2-3 girls	i	118	39				
	• More th	an 3 girls	110	37				
		Mean + SD: 3.2±1.4daughter						

1



Figure (1): Distribution of the studied Mothers according to their Total Score Level of Knowledge regarding Circumcision (n=300)



Figure (2): Distribution of the Studied Mothers according to their Total Score Level of Practice regarding Complication after Circumcision (n= 117)



Fig. 3: Distribution of the Studied Mothers according to Their Total Attitude regarding Hazards of Female Circumcision (n= 300)

50	Store Level of Knowledge (n= 500)							
To	otal score of knowl	edge						
Mothers demographic items		Satisfactory (n=147)		Un satisfactory (n=153)		X ²	Р	
			N	%	Ν	%		value
		Less than 25	12	8.2	83	54.3		
•	Age	25-less than 30	30	20.4	52	34		**<
	8	30- less than 35	33	22.4	10	6.5	25.8	0.001
		≥35	72	49	8	5.2		
		Illiterate	18	12.2	85	55.5		
		Primary	28	19.1	49	32	23.1	**<
•	Education	Secondary	32	21.7	13	8.5		0.001
		High education	69	47	6	4		
•	Occupation	Hose wife	80	54.4	123	80.3	18.7	**<
	•	Employment	67	45.8	30	19.7		0.001
•	Marital status	Married	92	62.5	131	85.6	7	.1
		Widowed	55	37.5	22	14.4		

Table (2): Relation between Socio-demographic Data of the Studied Mothers and their Total Score Level of Knowledge (n= 300)

**Highly significant difference p≤ 0.001

No statistical significant difference $P \ge 0.05$

 Table (3): Relation between Socio-demographic Data of the Studied Mothers and Their Total

 Score of Practice (n= 300)

]	Fotal score of pract	tice						
Mothers demographic items		Accepted practice (n=134)		Not accepted practice (n=166)		X ²	P value	
			Ν	%	Ν	%		
Г		Less than 25	19	14.1	84	50.6		
•	Age	25-less than 30	26	19.5	51	30.7		
	-	30- less than 35	27	20.2	18	10.8	12.3	
		≥35	62	46.2	13	7.8		*0.005
		Illiterate	23	17.2	79	47.5		
	Education	Primary	21	15.6	56	33.7	46.5	**< 0.001
	Luutuutu	Secondary	24	17.9	20	12		
		High education	66	49.2	11	6.6		
	Occupation	Hose wife	75	55.9	128	77.1	33.8	**<
		Employment	59	44.1	38	22.9		0.001
	Marital status	Married	85	63.4	135	81.3		
		Widowed	49	36.6	31	18.7	4	.1

* Highly significant difference p≤ 0.001

*Statistically significant difference $p \le 0.05$

No statistical significant difference $P \ge 0.05$

Mothers demographic items		positive (n=175)		Negative (n=125)		X ²	P value
into an		N	%	N	%		
	Less than 25	28	16	67	53.6		
• Age	25- less than 30	44	25.1	28	22.4		
-	30- less than 35	35	20	17	13.6	11.6	
	≥35	68	38.9	13	10.4		*0.005
	Illiterate	28	16	73	58.4		
• Education	Primary	39	22.3	34	27.2	38.4	**< 0.001
	Secondary	41	23.4	7	5.6		
	High education	67	38.3	11	8.8		
• Occupation	Hose wife	125	714	75	60	33.8	**< 0.001
• Occupation		123	/ 1. T	-0	00	55.0	< 0.001
	Employment	50	28.6	50	40		
 Marital status 	Married	132	75.4	82	65.6		
	Widowed	43	24.6	43	34.4	28.7	**< 0.001

Table (4): Relation between Socio-demographic Data of The Studied Mothers and Their Total Score of Attitude (n= 300)

*Statistically significant difference p≤ 0.05

**Highly significant difference $p \le 0.001$

Table (5): Correlation between	Total Level of Knowledge of the Studie	ed Sample and Their Total
level of Attitude		

Correlations	
Total score of attitude	Total score of knowledge
R	P-value
Positive attitude 0.6	2 **0.001
Negative attitude 0.72	**0.001
Total 0.8	**0.001

**Highly statistically significant difference $p \le 0.05$

Discussion

Regarding characteristics of the studied mothers, the result of the current study showed that, the mean age of the mothers who had female daughters in the age of circumcision was 34.3 ± 4.1 years (Table 1). This result was in agreement with the study carried out by Yasin et al., (2013) who assessed Female genital mutilation among Iraqi Kurdish women, he reported that the age distribution of mothers who had female daughters in the age of circumcision ranged from 30-37 year.

Regarding level of education the current study revealed that more than one third of mothers were illiterate (**Table 1**). The present study findings were in accordance with the study carried out by **Hiba**, (2011) who assessed the Factors influencing the continuation of female circumcision practice in Sudan, and found that 36% of studied mothers were illiterate.

Regarding occupation the current study explained that more than two thirds of mothers were house wives (**Table 1**). These findings were also revealed by **Forbes et al**, (**2013**) who assessed long term health consequences of female circumcision in Somalia and demonstrated that 65% of studied women were house wives.

In relation to crowding index the current study indicated that the mean rate of crowding index was 2 ± 1.3 person (**Table 1**). This finding

is in agreement with **Abdella et al.**, **(2013)** who assess the continuing challenge of female genital mutilation in Sudan; he reported that the crowding index ranging from 1to3 persons.

Regarding number and age of female daughters in family from 7-15year, the current study proved that the mean number of female daughters was 3.2 ± 1.4 daughters and their mean age was 9.1 ± 3.3 years (**Table 1**). This result is in accordance with **Rushwan**, (2013) who assessed female genital mutilation: A tragedy for women's reproductive health in Egypt and he reported that the mean age of daughters was ranging from 7to12 years.

Regarding to the total Level of knowledge of mothers the result of the present study revealed that less than half of the studied mothers were satisfactory knowledge regarding female circumcision and its hazards (Figure 1). However, these results were similar to those of Osagie et al., (2010) who assessed Awareness, perception and practice of female genital mutilation among expectant mothers in Jos University, Teaching Hospital Jos, north-central Nigeria and he clarified that lower than half of the respondents had satisfactory knowledge about female circumcision. From the investigator's point of view this finding could be due to decrease educational program in this field.

Regarding the total level of practices of mothers the result of the present study revealed that more than half of mothers have not done practices regarding hazards after circumcision (Figure 2). This result is in agreement with Bjalkander et al., (2013) who assessed Female genital mutilation in sierra leone: forms, reliability of reported status, and accuracy of related demographic and health survey questions and he reported that 57% of studied women didn't perform practices related to with dealing hazards occurred from circumcision.

According to total level of attitude among mothers, the current study showed that more than two fifths of the mothers were negative attitude towards circumcision (Figure 3). In a similar study carried out by Yirga et al., (2012) on Female Genital Mutilation: Prevalence, Perceptions and Effect on Women's Health in Kersa District of Ethiopia, showed that 44.3% of women had negative attitude regarding circumcision.

Concerning relationships between study variables and research questions, (table 2) replying on research question no 2, the present study showed that, the relation between age and knowledge was highly statistical significant in which mothers more than 35 years had satisfactory level of knowledge. The previous findings are congruent with many studies as **Yirga et al.**, (2012) who assessed Female Genital Mutilation: Prevalence, Perceptions And Effect On Women's Health In Kersa District Of Ethiopia, showed that there was a statistically significant relationship between mothers age and their knowledge (p<0.05)

The current study revealed that there was a statistically significant different relationship between age, education, occupation and practices of mothers regarding hazards after circumcision (Table 3). This finding was in agreement with Ezenyeaku et al., (2011) who stated that further association was found between socio-demographic characteristics and knowledge, attitude, and practice. On multivariate analysis, it was found that mothers with age >35, higher level of education and those who were employed were more likely to have adequate practices. From the investigator's point of view this finding could be due to mothers who are educated and working have a greater opportunity for social interaction hence they get to know more about the practices and how to manage hazards of circumcision.

The present study demonstrated that there was a highly statistically significant different relationship between age, education, occupation, marital status and attitude of mothers regarding hazards of circumcision (Table 4). According to Karmaker et al, (2011) who assessed knowledge, attitude, and practices related to female circumcision among adult women, and stated that illiterate, married and house wife mothers are more likely to have positive attitude regarding female circumcision.

According to research question no one who stated that is there relationship between knowledge of mothers and their attitude, this question was supported when the present study showed that, mothers who had satisfactory knowledge were more likely to have negative attitude compared to mothers who had unsatisfactory knowledge and the difference was a statistically highly significant (Table 5). This finding was in agreement with Yirga et al., (2012) who stated that those with more negative attitudes toward circumcision and greater intent to discourage the practice had a higher level of knowledge. This result could be due to good knowledge toward hazards of circumcision lead to negative attitude.

Conclusion

The present study showed there was a statistically significant relationship between mothers socio-demographic characteristics and their knowledge, practice and attitude toward circumcision. Finally there was a highly statistical significant relationship between knowledge and attitude of mothers toward female circumcision.

Recommendations

• Community awareness campaign to ensure that young women don't continue with the practice especially on their girls.

• Increase awareness of mothers about female circumcision through outpatient clinics and MCH centers. Informing mothers about its associated immediate and long-term complications.

• Raise mother's awareness about how to deal with hazards after performing circumcision.

Reference

Abdella AA, Sharfi AR, Elmegboul MA and. (2013): The continuing challenge of female genital mutilation in Sudan. Afr J Urol of vulval swelling secondary to female circumcision posing a diagnostic dilemma. Int J Surg Case Rep; 3: 431-434.

- Akintunde, D. O. (2010): Female genital mutilation: A socio-cultural gang up against womanhood. Feminist Theology, 18(2), 192-205.
- **Berg RC and Denison E. (2013):** A tradition in transition: factors perpetuating and hindering the continuance of female genital mutilation/cutting (FGM/C) summarized in a systematic review. Health Care Women Int; 34(10): 837-859.
- **Bjalkander O, Grant DS, Berggren V, et al.** (2013): Female genital mutilation in sierra leone: forms, reliability of reported status, and accuracy of related demographic and health survey questions. Obstet Gynecol Int; 680926.
- **Bushy A. (2010):** Nursing in rural and frontier areas: issues, challenges and opportunities. Harvard Health Policy Review; 7(1):17-27.
- **Cunnigham F and Casey B. (2014):** Obstetric Health, 24th edition. United States of America., Vaginal delivery; 545-546.
- **Davidson M and London M. (2016):** Maternal-Newborn Nursing and Women's Health, 10th edition, United States of America. Women's Care and Social; 125-126.
- Ezenyeaku C, Okeke T, Chigbu C, et al. (2011): Survey of Women's Opinions on Female Genital Mutilation (FGM) in Southeast Nigeria: Study of Patients Attending Antenatal Clinic. Ann Med Health Sci Res; 1: 15-20.
- Forbes M, Kaplan A1, Bonhoure I, et al. (2013): Female genital mutilation/cutting in The Gambia: long-term health consequences and complications during delivery and for the newborn. Int J Women's Health; 5: 323-331.
- Hiba S I. (2011): Influencing the continuation of Female Genital Mutilation / Cutting Practice in Sudan.

- Karmaker B, Kandala NB, Chung D, et al. (2011): Factors associated with female genital mutilation in Burkina Faso and its policy implications. International Journal for Equity in Health; 10- 20.
- **Osagie OE, Dattijo LM and Nyango DD.** (2010): Awareness, perception and practice of female genital mutilation among expectant mothers in Jos University Teaching Hospital Jos, north-central Nigeria. Age; 20(21): 8–1.
- Rushwan H. (2013): Female genital mutilation: A tragedy for women's reproductive health. Afr J Urol.
- United Nations of International Children Emergency Fund (UNICEF). (2014): Female Genital Mutilation Cutting: A statistical overview and exploration of the dynamics of change. New York: UNICEF.

- Ward S and Hisley S. (2016): Maternal-Child Nursing care, 2nd edition United States of America, foundation maternal family and child; 46.
- Wong D and Perry S. (2012): Maternal child nursing care, 5th edition. China, health promotion and prevention; 69.
- World Health Organization. (2010): Female genital mutilation; 241.
- Yasin. B. A., N. G., Al-Tawil, Shabila, et al. (2013,September 8). Female genital mutilation among Iraqi Kurdish women: а Cross - sectional study from Erbil city. BMC Public Health, 13(809), 1-8.
- Yirga WS, Kassa NA, Gebremichael MW, et al. (2012): Female genital mutilation: prevalence, perceptions and effect on women's health in Kersa district of Ethiopia. Int J Womens Health; 4: 45-54.