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Mother's Awareness towards Health Consequences of Female Circumcision in Rural Community

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Abstract: **Female circumcision is a harmful traditional practice with severe consequences for the health and well-being of girls and women Aim: this study aimed to assess mother's awareness towards health consequences of female circumcision in rural community. Design: A descriptive design was used to conduct this study. Setting: This study was carried out at seven maternal and child health centres affiliated to Ministry of Health in El-Qualiobia governorate.Sample: A purposive sample of 300 mothers having female daughter's from 7 to 15 years done circumcision or not.Tool: for data collection, a structured an interviewing questionnaire divided into five parts, socio-demographic data of mothers, history of female circumcision in family, mothers knowledge& reported practicestoward circumcision and its health consequences and mothers attitude toward causes leading to female circumcision. Results of the study revealed that: 33.3% of the studied mothers aged from 30 to <35 years, 70.3% of them perform circumcision for their daughters. 55.5% of daughters had health consequences after circumcision.Regarding mother's knowledge 25.7% of them had correct knowledge toward female circumcision. 65.3% of studied mothers had positive attitude toward female circumcision.Conclusion: The present study showed there was a statistically significant relation between mothers' socio-demographic characteristics and their total score of practices, there was a highly significant positive correlation between total level of mother's knowledge and their total score of attitude. Recommendation: Health education programs for increasing mother's awareness of about female circumcision and its health consequences at all maternal and child health (MCH) centres and maternal outpatient clinics.**

Keywords: **Female circumcision, awareness, rural community, Health consequences.**

1. INTRODUCTION

Female circumcision (FC) is known as female genital cutting (FGC) or mutilation is a damaging practice with no health benefits for girls and women, it is still a concern in many countries, and is considered to be a violation of children's rights. 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, and preservation of virginity and reduction of female sexual pleasure (**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 coveringseal 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 **(Brink, 2017).**

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Female circumcision is a danger to health and life as itis usually performed without anesthesia and is intensely painful. Life threatening complications are hemorrhaging; blood poisoning, tetanus and gangrene. FC, is a practice that have serious health consequences, is of great concern to the WHO. In addition to causing pain and suffering, it is a violation of internationally accepted human rights (**Chaiban et al., 2016).**

The long-term health consequences of FC include fistula, urinary tract infection, persistent pain, repeated scars which might be opened during childbirth causing permanent injury even death to women in labor, severe hemorrhage, obstructed menstrual flow, reproductive tract infection, and reduced fertility psychological distress and chronic infection from shared cutting instruments. Female circumcision may leave a lasting mark of the life and mind of the women who have undergone the procedure. Girls lose trust and confidence in care-givers. In the long term, women may suffer from feelings of anxiety, depression and frigidity **(Davidson & London, 2016).**

Cunningham & Casey (2014) indicated that, mother's awareness 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**.**

The main misconceptions of the women in rural community that, daughters undergone or would undergo female circumcision to maintain proper hygiene, increase fertility, and ensure a woman's chastity in order to be considered for marriage. Some of the rural mothers in Egypt know the negative reproductive health consequences of female circumcision and had experienced them during sexual intercourse and child birth. However, with regard to stopping female circumcision, few of them had tried to do so and the majority had not taken any step towards stopping this practice. This may be attributable to the cultural system and fear of isolation (**Ismail et al., 2015).**

Circumcision is usually performed for cultural, social or religious reasons. According to the traditional believes and conceptions, it should be conducted to girls before puberty aiming to prepare them to enter the womanhood and be ready to marry. The misconception is that removal of such parts excised in circumcision decreases the sexual desire of females, hence reducing the chance of extramarital relations and consequently persevering woman pride and her family honor. This act is motivated by both men and women**(WHO,2014).**

Community health Nurse can play a key role in preventing female circumcision and in supporting and informing communities about the benefits of eliminating it. This can be done by providing women with information about their own sexual and reproductive health, making it easier for them to understand natural body functions and the harmful consequences of female genital cutting. Nurses can also play an important role in community outreach, such as through school programs and public health education programs**(Mostofian et al., 2015).**

Significance of the study:

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 and reduction of female sexual pleasure **(Ward &Hisely, 2016).**

Female circumcision is primarily widespread in certain high-risk countries including Egypt, and its rate is directly related to women's social status and gender equity. Despite the presence of a law banning female circumcision, the practice continues to be widespread in Egypt. The age of the girls who underwent this procedure usually varies from weeks after birth to puberty (**UNICEF, 2016**). The prevalence of female circumcision is 93% among ever-married women aged 15-49 in Egypt (**UNPF, 2015).**

Increasing awareness about adverse health consequences and greater access to health care services, healthcare providers have become increasingly involved in performing FC. Campaigns to abandon FC in Egypt gained momentum in the 1990s where many of the messages conveyed and primarily highlighted the immediate physical harms of FC which may have partly contributed to the rising medicalization**(Modrek, 2016).**

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Aim of the Study:

This study aimed to assess mother's awareness toward health consequences of female circumcision in rural community through:

1- Assessing mother's knowledge regarding female circumcision and its health consequences.

2- Assessing mother's reported practices towards their circumcised daughters.

3- Assessing mother's attitude towards female circumcision.

Research question

1- What are the health consequences of female circumcision in rural community?

2- Is there a relation between socio-demographic data of the studied mothers and their practices toward female circumcision in rural community?

3- Is there a relation between studied mother's knowledge and their attitude towards female circumcision?

2. SUBJECTS AND METHODS

Research design: A descriptive research design was used to conduct this study.

Study setting: This study was carried out in seven maternal and child health (MCH) centers which represented 5%from total (140) numbers of MCH centers in El-Qualiobia governorate which affiliated to Ministry of Health. Chose these centers with the highest density of attended mothers.

Sample type:A purposive sample of three hundred (300) mothers wererepresent 50% from total 1200 mothers attended the previously mentioned seven MCHcentres for receiving maternal and child services were chosen according to the following inclusion criteria; have daughters aged from 7 to 15 years, done circumcision or not.

Sample size Calculated by the following formula: $N = \frac{t2\ xp\ (1-p)}{m2}$

Description:

N = required sample size

t = confidence level at 95 % (standard value of 1.960)

p = total no. of admitted mothers in the previous mentioned MCH centers

m = margin of error at 5 % (standard value of 0.050). **(Bartlett, 2001, retrieved 2018)**.

Tool of data collection:

One tool was used for data collection: An interviewing questionnaire to assess mother's awareness towards health consequences of female circumcision,designed by the researchers based on the recent literature, experts' opinion and researchers' experience, include the following five parts:

Part I: Demographicdata for mothers includes 6 closed ended questions as (age, level of education, occupation, marital status, age of daughters in family and crowding index).

Crowding index was calculated using persons-per-room PPR measure. This measure depends on dividing persons' number by rooms number and overcrowding was determined when PPR exceed 1.50 **(Rogoet al., 2013).**

PartII: Studied mothers history towards circumcision of their daughters and health consequences includes 6 closed ended questions as (performing circumcision or not, causes if not performing circumcision, age of daughters when circumcised, person who decide performance of circumcision, health consequences after circumcision and its types.

PartIII: Studied mothers' knowledge towards female circumcision and its health consequences includes 7 open ended questions as (anatomy of female reproductive system, concept of female circumcision, types, causes behind circumcision, medical cases require circumcision, short and long term health consequences.

Scoring system: For mothers correct answer was scored (one) and incorrect answers or don't know was scored (zero).All items were summed up; thetotal knowledge score was further divided into: from 50% and above considered satisfactory level and less than 50% considered unsatisfactory knowledge level.

Part IV: Studied mothers reported practices towards their circumcised daughters as(management of pain, bleeding, urine retention, woundinfection and management of anaemia).

Scoring system:

Regarding Mothers "reported practice was scored (one) for the "done" practices and (zero) for "not done" practices. Summed the items of practices and total score level divided into the following; >60% if Adequate reported practices and <60% if Inadequate reported practices.

PartV: Mothers' attitude toward female circumcision: This tool was adopted from **(Stanhope, 2013)** and modified by the researchers after reviewing literature in this field include attitude toward (health, religious & socioeconomic, Customs & traditions).

Scoring system: Mothers" attitude was scored (two) for the "agree" response, (zero) for "not agree" response and (one) for "not sure" response.

Total attitude responses score level (18×2)=36 mark. More than 50% considered positive attitude and less than 50% considered negative attitude.

Validity and Reliability: The validity of the tools was ascertained by five experts from community health nursing, faculty of nursing, Ain Shames University who reviewed the instruments for content accuracy. The reliability test of translated version was established by using the Cronbach alpha and Pearson correlation which showed good internal consistency construct validity Cronbach alpha = (0.887).

Operational Design:

Pilot study: A pilot study was conducted before beginning data collection on 10% (30 mothers) having female daughters aged from 7 to 15 years, chosen randomly from previous mentioned settings. It was done to estimate the time required for filling out the tools and also to check the clarity, applicability, relevance of the questions and to detect any possible obstacles that might face the researchers and interfere with data collection. In light of the results of the pilot study, these mothers were included in the study sample.

Field work: -

A formal letter was issued by the Dean of Faculty of Nursing, Ain Shams University, directed to the directorsof maternal and child health (MCH) centres In order to obtain their agreement and cooperation after explaining the aim of the study.

Data collection process spanned about 6 months during the period from beginning of February 2019 until the end of July 2019.

The researchers attended the selected Maternal and Child Health centres 2 days per week alternatively from 9:00 am to 1:00 pm.

Each mother interviewed individually after oral consent for participation in the study according to ethical issues and thenprovides a brief explanation about aim of the study.

The time needed for completing data collection from each mother was about 30 to 40 minutes. The average number was 5 to 8 mothers per day till completing total study sample.

Ethical consideration: Oral consent was obtained from each mother, after explaining the aim of the study to ensure willingness oftheir engagement in the study. The researchers' ensured confidentiality of their personal data additionally, all participants were assured that their anonymity, confidentiality secured through coding the data and the study haven't any harmful effect on them and data was used only for scientific research.Mothers' participants were voluntary; they can withdraw from the study at any time.

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IV. Statistical Design: Data entry was done using Epi-info, version 6.04 laptop software program package, while statistical analysis was done using the statistical package for social sciences (SPSS), version 21.0. Data were presented using descriptive statistics for qualitative factors in the form of frequencies and percentages.

Qualitative variables were compared using Chi-square test (X2) & (R test). The significance of the results was considered as not significant, if P> 0.05; significant, if P < 0.05; and highly significant, if P<0.001.

3. RESULTS

Table (1): Distribution of the Studied Mothers according to their Demographic Characteristics (n=300).

Variables	No	%
Age:		
Less than 25	62	20.7
25 to < 30	87	29
30 to < 35	100	33.3
≥35	51	17
Mean +SD:34.3 ±4.1 Years		
Level of education:		
Can't read or write.	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
Age of daughter:		
7 to < 10	89	29.7
10 to <13	112	37.3
13 to ≤15	99	33
Mean + SD: 9.1±3.3 years		
Crowding index:		
Crowded	197	65.7
Not crowded	103	34.3

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. As regarding educational level 34.3% were can't read or write. 68% were house wife. 85.3% of mothers were married. 37.3% of them their daughter aged from 10 to <13 years. The table also clarifies that 65.7% of mothers living in crowded house.

According to Research question (no: 1): What are the Health Consequences of Female Circumcision in Rural Community?

Table (2): Distribution of Studied Mothers according to CircumcisionHistoryand Its Health Consequences of Their Daughters and (N=300).

Variables	NO	%
Performing circumcisionfor daughters		
Yes	211	70.3
No	89	29.7
Causes for not performing circumcision:(89)		

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Not reach to suitable age.	41	46.1
Consult physician before circumcision.	19	21.3
Fathers refused circumcision.	29	32.6
Age of daughters at circumcision (n=211)		
7to <9 years	61	28.9
10 to <13years	93	44.1
13to ≤15yea	57	27
Mean ±SD=10.3±2.1year		
Person who decide circumcision (n=211)		
Father	72	34.1
Mother	108	51.2
Grandparent	31	14.7
Health consequences after circumcision (n=211)		
Yes	117	55.5
No	94	44.5
Health consequences' after circumcision (n=117)		
***Physicalconsequences'**		
Severe Pain and bleeding	91	77.8
Infections of urinary tract	13	11.1
Urinary retention	26	22.2
Urinary tract inflammation	32	27.4
***Psychological consequences'**		
Fear	73	62.4
Depression	11	9.4
Behavioural disorders	47	40.2
lack of self confidence	51	43.6
***Social consequences'**		
Isolation	38	32.5
Lack of feeling secure	26	22.2
Feeling of social stigma	17	14.5
Feeling shame	73	62.4

*Responses are not mutually exclusive

Table (2) reveals that 70.3% of the studied mothers perform circumcision for their daughters. Regarding age of daughters when circumcised, 44.1% of daughters their age10 to<13 year. The table also clarifies that 51.2% of the studied mothers indicated that mother is the person who decide circumcision. The table clarifies that 55.5% of the studied mothers their circumcised daughters have health consequences after circumcised. 77.8% of them have severe pain and bleeding, 62.4% of their daughters had fear and 62.4% of them feeling shame.

Table (3): Studied Mothers' knowledge towards Female Circumcision and Its Health Consequences (n= 300)

Items	Correct		Incorrect	
	No	%	No	%
Anatomy of female reproductive system.	75	25	225	75
Concept of female circumcision.	98	29.7	211	70.3
Types of female circumcision.	61	20.3	239	79.7
Causes behind circumcision.	67	22.3	233	77.7
Medical cases require circumcision.	57	19	243	81

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Short term health consequences.	89	29.7	211	70.3
Long term health consequences.	97	32.3	203	67.7

Table (3) reveals that 25%, 29.7%, 22.3%, 29.7 and 32.3 respectively of the studied mothers had correct knowledge regarding anatomy of female reproductive system, concept, causes behind circumcision,short & long term health consequences. The table also proves that 79.7% of studied mothers had incorrect knowledge regarding types of female circumcision.

Fig (1) Distribution of Studied Mothers According to Their Total Knowledge Score Level toward Female Circumcision (n= 300)

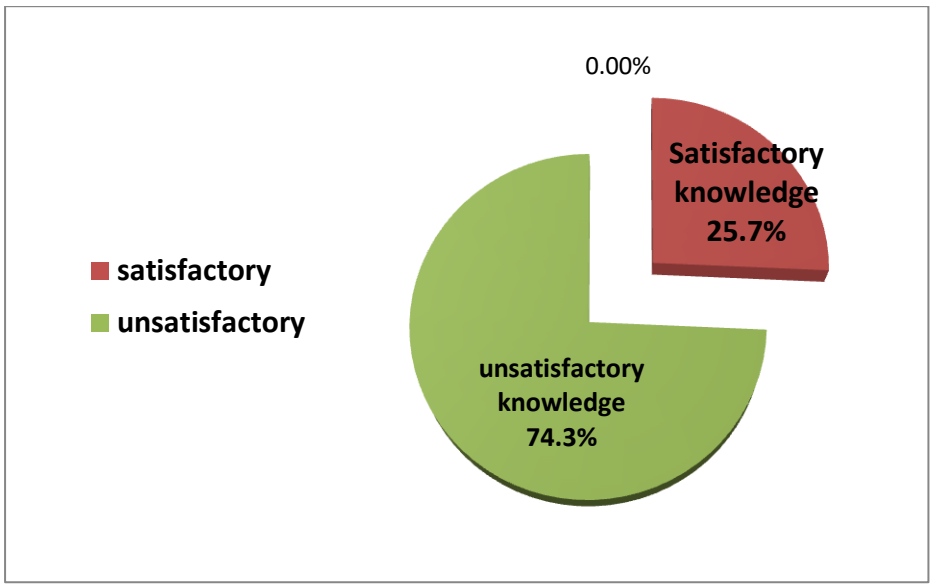

Fig. (1) Illustrate that 25.7% of studied mothers had satisfactory knowledge toward female circumcision meanwhile, 74.3% had unsatisfactory knowledge.

Table (4): Studied Mothers Reported Practices towards Their Circumcised Daughters (N= 117)

Variable	Adequate practices		Inadequate practices	
	No	%	No	%
Management of pain				
-Giving analgesic.	96	82.1	21	17.9
-Preserve wound area dry& clean.	35	30	82	70
-Go to health centre when not healing.	48	41	69	59
Total reported practices	**60**	**51.3**	**57**	**48.7**
Bleeding				
- Coverthe wound site	24	20.5	93	79.5
-Use dressing and press on bleeding site	31	26.5	86	73.5
-Go to hospital if notstopped.	48	41	69	59
Total reported practices	**34.3**	**29.3**	**82.7**	**70.7**
Urine retention				
-Give a strong analgesic.	79	67.5	38	32.4
-pour warm water into the genital area to help urinate.	57	48.7	60	51.3
	28	24	89	76

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- Go to the hospital.				
Total reported practices	**54.7**	**46.8**	**62.3**	**53.2**
Wound Infection				
-Give antibiotic.	11	9.4	106	90.6
-Keep the wound clean and dry.	50	42.7	67	57.3
-Go to hospital if not improved.	38	32.5	79	67.5
Total reported practices	**33**	**28.3**	**84**	**71.7**
Anaemia related to bleeding.				
- Give food rich in iron &vitamin c.	28	23.9	89	76.1
- Giving iron tablets from pharmacy.	42	36	75	64
-Go to the hospital if not improved.	44	37.6	73	62.4
Total reported practices	**38**	**32.5**	**79**	**67.5**

Table (4) clarifies that 51.3%, 29.3%, 46.8%, 28.3% &32.5% respectively of studied mothers their reported practices were adequately in relation to management of pain, bleeding, urine retention, wound Infection &anaemia related to bleeding. Meanwhile48.7%, 70.7%, 53.2%, 71.7%&67.5% respectively were inadequately practices toward their circumcised daughters.

Table (5): Distribution of the Studied Mothers According to Their Attitude toward Female Circumcision (n= 300)

Variables	Agree		Not sure		Disagree	
	No	%	No	%	No	%
FC not has any risks or health consequences.	120	40	95	31.6	85	28.4
FC Increases and improves the fertility of the girl.	145	48.3	65	21.7	90	30
FC Protects the health of women's and reduces maternal and fatal mortality.	138	46	70	23.3	92	30.7
FC Does not impede reproduction of girls.	136	45.3	62	20.7	102	34
FC Preserve the cleanliness and prevent infection.	160	53.3	44	14.7	96	32
FCis a religious custom inherited from ancestors.	165	55	35	11.7	100	33.3
FC prevents them from practicing obscene.	120	40	85	28.4	95	31.6
There is an explicit religious text calling for female circumcision.	96	32	79	26.3	125	41.7
FC Maintains the chastity and purity of the girls.	131	43.6	89	29.7	80	26.7
-Low socioeconomic status leads to female circumcision.	79	26.3	81	27	140	46.7
Poor families only are circumcised their girls	132	44	70	23.3	98	32.7
FC Helps the girl to marry and reduces the divorce rate in our community.	187	62.3	23	7.7	90	30
The uncircumcised girl has no role in society	123	41	80	26.7	97	32.3

Female circumcision takes place only in families with more girls.	80	26.7	89	29.7	131	43.6
Female Circumcision is an old custom inherited from one generation to other.	168	56	43	14.3	89	29.7
Female Circumcision takes place due to the imposition of the father opinion.	99	33	91	30.3	110	36.7
Female circumcision not affected by Level of awareness and education.	103	34.3	50	16.7	147	49
Families that do not circumcise their daughters are notorious.	132	44	70	23.3	98	32.7

Table (5)clarifies that48.3%, 46%, 53.3%,40%&62.3% respectively of studied mothers agreed that female circumcision Increases and improves the fertility of the girl, Protects the health of women's and reduces maternal and fatal mortality, Preserve the cleanliness and prevent infection, prevents them from practicing obscene. Help the girls to marry and reduces the divorce rate in our community. The table also shows that 28.4%, 34%, 33.3%, 46.7%, 43.6% &49% respectively of studied mothers disagree that female circumcision; not have any risks or health consequences, does not impede reproduction of girls, is a religious custom inherited from ancestors, low socioeconomic status leads to female circumcision, takes place only in families with more girls&not affected by Level of awareness and education.

Fig (2) Studied Mothers Total Attitude Score Level toward Female Circumcision (n= 300)

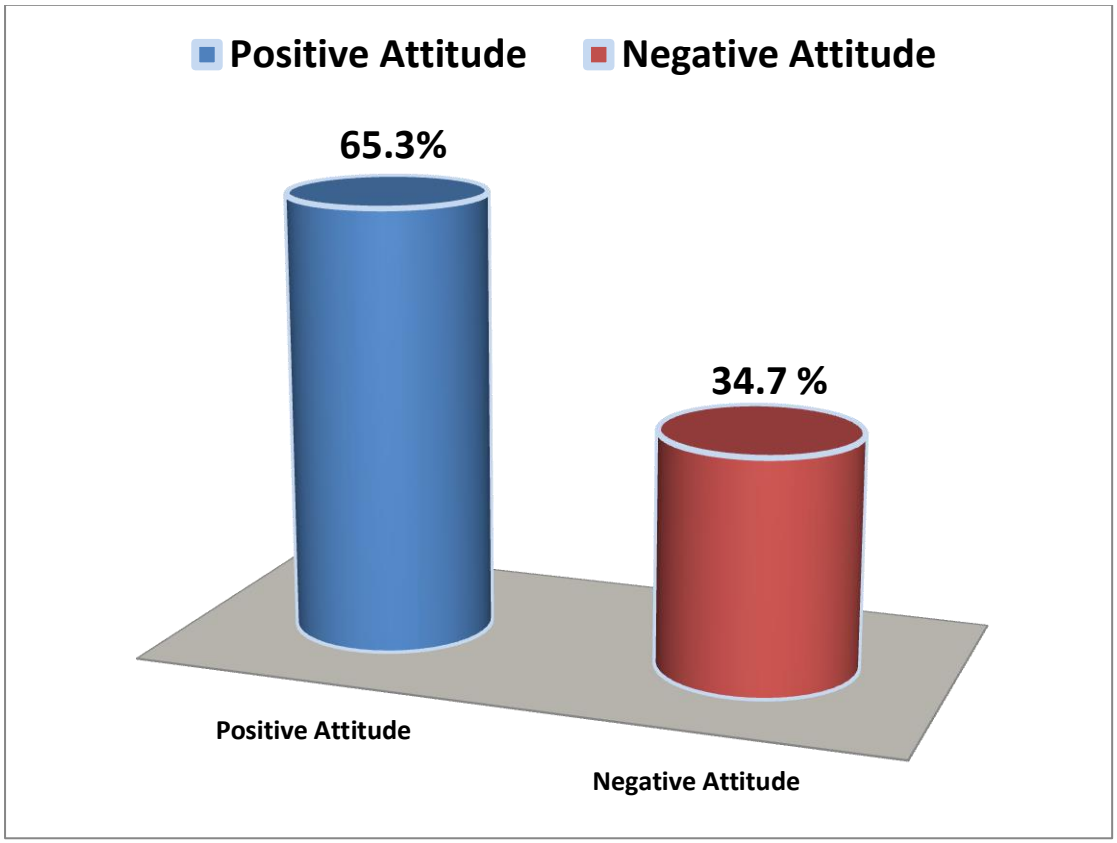

Fig. (2) Illustrate that 34.7% of studied mothers had negative attitude toward female circumcision meanwhile, 65.3% had positive attitude toward female circumcision.

According to research question (no: 2): Is there a Relation between socio-demographic data of the studied mothers and their practices toward female circumcision in rural community?

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Table (6): Relation between Demographic Data of the Studied Mothers and Their Total Score Level of Practices toward Female Circumcision= 300)

Mothers demographic data		Total score of reported practice				X2	P value
		Adequate (n=134)		Inadequate (n=166)			
		No	%	No	%		
Age	Less than 25	19	14.1	84	50.6	12.3	*0.005
	25-29	26	19.5	51	30.7		
	30-35	27	20.2	18	10.8		
	More than 35	62	46.2	13	7.8		
Education	Illiterate	23	17.2	79	47.5	46.5	**< 0.001
	Primary	21	15.6	56	33.7		
	Secondary	24	17.9	20	12		
	High education	66	49.2	11	6.6		
Occupation	House wife	75	55.9	128	77.1	33.8	**< 0.001
	Employment	59	44.1	38	22.9		
Marital status	Married	85	63.4	135	81.3	4	0.1
	Widowed	49	36.6	31	18.7		

Table (6): shows that there was a statistical significant difference between the studied mothers total reported practices and their age p-value ≤ 0.05, there was a highly statistical significant difference between the studied mothers total reported practice and their education & occupation p-value <0.001, while, there was no statistical significant difference between the studied mothers total practice and their marital status p-value ≥ 0.05.

According to research question (no: 3): Is there a relation between studied mother's knowledge and their attitude toward female circumcision?

Table (7): Correlation between Total Score Level of Mothers Knowledge and Their Total score Level of Attitude toward Female Circumcision.

Correlations	Total score level of knowledge	
	R	P-value
Total Attitude Score level	0.806	**0.001

**Highly statistically significant difference p≤ 0.001

Table (7); indicate that there was a highly significant positive correlation between total level score of mother's knowledge and their total attitude score toward female circumcision p≤ 0.001.

4. DISCUSSION

Female circumcision, also termed female genital mutilation (FGM), is a damaging practice with no health benefits for girls and women, and is considered to be a violation of children's rights**(WHO, 2013).** FGM is primarily widespread in certain high-risk countries including Egypt, and its rate is directly related to women's social status and gender equity (**Van et al, 2015).**

The current study aimed to assess mothers' awareness towards health consequences of female circumcision in rural community. Regarding socio-demographic 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 **Yasinetal.,(2013)** who assessed "Female genital mutilation among Iraqi Kurdish women" 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 studied 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" found that 36% of studied mothers were illiterate.

In relation tooccupation, 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" demonstrated that 65% of studied women were house wives.

This finding is due to the main occupation of mothers in our rural community is housewife.

In relation to crowding index,the current study indicated that two thirds of studied mothers had crowded houses **(Table 1)** this finding was in agreement with **Abdella et al., (2013)** who assessed "continuing challenge of female genital mutilation in Sudan" reported that 65% of mothers had crowded houses. This finding due to that most types of families in rural community is extended family so houses were overcrowded.

Regarding age of daughters in family, the current study proved that mean age was 9.1±3.3 years their age ranged from 7-15 year **(Table 1)** this result was in agreement with study conducted by **Ako&Akweongo, (2012)**"the limited effectiveness of legislation against female genital mutilation and the role of community beliefs in Upper East Region" they reported that the mean age of daughters in families was ranging from 7 to12 years.

According to History of female circumcision in family; concerning person who decides performing circumcision in family, the result of the current study indicated that more than half of the studied sample reported that mother who decidesto circumcise their daughters (**Table 2).** This result is consistent with the study conducted by **Fadel, (2015**) who assessed "Egyptian doctors found guilty of female genital mutilation" indicated that 50% of the sample stated that mothers are who decide circumcision.

Regarding health consequences after circumcision, the present study revealed that more than three quarters of mothers who performed circumcision for their daughters stated that their daughters had pain and bleeding after circumcision **(Table 2).** This finding was consistent with the study conducted by **Rasheed et al., (2011)** who assessed "Female genital mutilation in upper Egypt in the new millennium"clarified that 78% of the studied women had girls with pain and bleeding after performing circumcision.

The current study cleared that less than two thirds of mothers and their daughters had fear after performing circumcision **(Table 2).** This finding was in agreement with **Ouedraogo, (2009**) who assessed "psychosocial effect and female genital mutilation" and demonstrated that 64.6%of the studied females' developed fear after performing the practice.

In the researcher's point of view this pain due to that female circumcision in rural areas done by midwifes without any anaesthetic drugs or control bleeding and this leads to many physical, psychological and social health consequences after circumcision.

Regarding the knowledge of mothers towards female circumcision **(Tables 3)** the result of the current study demonstrated that three quarters of studied mothers had incorrect knowledge regarding anatomy of female reproductive system. These findings were in agreement with **Behrendt, (2015)** who conducted a study about "the practice of exicion in Moyamba and Bambali districts of Sierra Leone: perceptions, attitudes and practices" and he reported that 70% of the study sample didn't know the anatomy of female genitalia. Meanwhile, this result was disagreement with **Kaplan et al., (2013)** who studied "knowledge, attitudes and practices of female genital mutilation cutting among health care professionals in the Gambia" and demonstrated that 65% of women identified the questions related to female reproductive system.

In relation to concept of female circumcision,the present study revealed that less than three quarter of the studied mothers had incorrect knowledge **(Table 3).** These findings were consistent with **Ahanonu& Victor, (2014)** who assessed "Mothers perceptions of female genital mutilation, Health Education Research" demonstrated that 68.3% of the studied mothers didn't know the meaning of female genital mutilation.

The current study showed that more than three quarters of the studied mothers had incorrect knowledge regarding types and causes behind female circumcision **(Table 3)**. This finding was congruent with the study conducted by **Barber, (2010)** who assessed "Female genital mutilation: A review, Practice Nursing" reported that 76% of the studied women didn't explain types of female genital mutilation.

Regarding to the total Level of mother's knowledge regarding female circumcision the result of the present study revealed that less than one third of the studied mothers had satisfactory knowledge regarding female circumcision **(Figure 1)**these results were disagreement with**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 clarified that 47% of the respondents had satisfactory knowledge about female circumcision. From the researcher point of view this finding could be due to the high level of illiteracy and lack of awareness among mothers in rural community.

According to mothers reported Practices after circumcised their daughters, the current study reveals that more than two thirds of studied mothers didn't preserve wound clean and dry in relation to management of pain, **(Table 4).** From the same point of view, **Rasheed et al., (2011)**who studied "Female genital mutilation in Upper Egypt in the new millennium," indicated that 70.3% of studied females were not cleaning wound area to relieve pain after circumcision.

In relation to bleeding management more than three quarters of the mothers didn't cover the wound site **(Table 4).** This finding is in agreement with **Reyners, (2014)** who assessed "Health consequences of female genital mutilation" and reported that more than 75% of the studied women were not cleaning the bleeding area to manage bleeding from circumcision.

Regarding urinary retention, more than three quarters of mothers didn't go to hospital **(Table 4).** In the same line **Abdulcadir et al., (2011)** conduct study on "Care of women with female genital mutilation/ cutting "told that 79% of the studied mothers were not taking their daughters to doctor to treat urine retention.

The current study demonstrated that most of the studied mothers didn't give their daughters antibiotic fordealing with wound infection after circumcision **(Table 4)**this finding was consistent with the study conducted by **Ismail et al., (2015)**"Knowledge, Attitudes, and Behaviours in Panel Survey of Young People in Egypt Generating Evidence for Policy, Programs, and Research" and stated that more than 88.9% of studied mothers were not giving their females drugs to treat infection.

In relation to Attitude of mothers regarding female circumcision in rural community the current finding reveals that less than two thirds of the studied mothers agreed that circumcision helps the girl to marry and reduces the divorce rates **(Table 5).** This finding was supported by **Gele&Sundby (2013a**) who conducted a study, "Attitudes toward female circumcision among people in the Hargeisa district" and determined that 40% of the study sample agreed that circumcision helps the girl to marry and reduces the divorce rates.

Regarding mothers attitude towards customs and traditions behind circumcision, the current study revealed that more than half of mothers agreed that circumcision is an old custom's inherited from one generation to others**(Table 5).** This finding is in agreement with **Gele&Sundby, (2013b**) who assessed "Attitudes toward Female Circumcision among Men and Women in Two Districts in Somalia" and clarified that 50%of the studied women agreed that circumcision is an old custom.

According to total level of mother's attitude toward female circumcision, this study indicated that tow third of mothers were positive attitude toward female circumcision **(Fig2)**. In the same line **Karmaker et al., (2011**) that assessed "Knowledge, Attitude and Practice related to Female circumcision among adult women", revealed that nearly 49%of the study sample had positive attitude towards circumcision. Also, **(Fig2)** shows that more than one third of studied mothers were negative attitude toward female circumcision, this result In the same line with 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.

From the researchers point of view this result could be due to misconception toward female circumcision in our rural community due to old customs and false beliefs that transmitted from one generation to other that need to community effort and religious opinion's to change these beliefs and customs.

According to research question (**NO 2)** is there a relation between demographic data of the studied mothers and their total score of reported practice the current study revealed that there was a statistically significant different relation between age, education, occupation and practices of mothers regarding consequences after female circumcision **(Table 6).** 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 researchers 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.

According to research question **(NO 3)**Is there a relation between studied mother's knowledge and their attitude toward female circumcision?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 7).** 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.

5. CONCLUSION

After conduction of the present study, it concluded that; more than two thirds of studied mothers circumcised their daughters and more than half of them have health consequences after circumcision. One quarter of studied mothers has satisfactory knowledge regarding female circumcision.Furthermore two thirds of studied mothers were positive attitude toward female circumcision. Also, there was a statistically significant relation between mothers' socio-demographic characteristics and total score of reported practices and highly significant positive correlation between total level of attitude score and total level of knowledge toward female circumcision.

6. RECOMMENDATIONS

- Health education programs for increasing awareness of mothers about female circumcision and its consequences at MCH centers and maternal outpatient clinics.
- Counseling program for parents in rural communities to increase level of awareness toward female circumcision and its health consequences.
- Further study on Conducting Comparative study between rural and urban areas about misconceptions of female circumcision and its health consequences.

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