

also the procedure usually takes from 15 to 20 minutes betting on the experience of the performer and the resistance of the girls. The age at which FGM/C is completed varies but it's usually done between the age of 4 and 14 years (Odukogbe, et al., 2017).

2. Aim of the Study

The present study was carried out to:

1. Assess the level of total knowledge of females toward the practice of FGM
2. Assess Participants' Sources of Knowledge Related to FGM
3. Assess the Effect of Female Genital Mutilation on Females' Related Knowledge

1.1. Research Questions

1. What is the level of knowledge of females regarding the practice of FGM at Beni-Suef.?
2. What are Sources of Knowledge Related to FGM?
3. Is there Relationship between Female Genital Mutilation and Females' Related Knowledge?

3. Subjects and Methods

3.1. Research Design: A Descriptive Cross-sectional study was used to achieve the aim of the current study.

3.2. Subjects & Setting:

3.3.1. Setting: The study was conducted in family health centers (FHCs) in different sitting at Beni-Suef Governorate. Beni-Suef governorate is divided into seven sectors. From every sector the MCH was randomly selected to geographically represent the sector.

3.2.2. Sample:

3.2.2.1. Sample Type:

A Convenient sample was used. The study sample was selected according to the following Inclusion criteria: 18-60 years old women and Can read and write

3.2.2.2. Sample size:

The study population consisted of all females who were accepted to participate in the study at the time of data collection (A period of six months from the start of data collection) and will be included in the study.

3.3. Tools of Data Collection:

A pre-designed structured questionnaire was used to collect data. Data were collected through personal interviews. The questionnaire is divided into six sections:

Section I: A Structured Interviewing Questionnaire sheet which includes the following parts: age, residence, level of education, marital status, occupation and experience with mutilation, etc.....

Section II: Knowledge of females regarding FGM/C: Females' knowledge was assessed using both single-response and multiple-response questions.

a. Single response questions:

They included knowledge of females about the spread, types, and procedures of FGM/C, side effects, and health consequences of FGM/C and FGM/C in Egyptian law.

Scoring system

- It received (0) if the answers were wrong or don't know
- It received (1) if the answers were incomplete correct
- It received (2) if the answers were complete correct

a. Multiple response questions:

They included knowledge of females regarding the immediate and long-term health consequences of FGM/C. Participants were expected to select the right responses and not select the wrong responses.

Scoring system

- It received (0) if less than 25% of the answers were correct.
- It received (1) if ≥ 25 percent to less than 50% of the responses were correct.
- It received (2) if $\geq 50\%$ of the answers were correct.

The scores are then turned into percentages, and the overall score is divided into the following categories:

- Good level of knowledge $\geq 75\%$.
- A fair level of knowledge is $\geq 50\%$ to $< 75\%$.
- Poor level of knowledge $< 50\%$.

3.4. Validity of the Tool

All tools were tested for content validity by a jury of four expertise in the woman health nursing and one from biostatistics field to ascertain its relevance and completeness.

3.5. Reliability of the Tool

Reliability of the tool (knowledge assessment sheet) was evaluated by using Cronbach's Alpha coefficient test. The tool consisted of relatively homogeneous items as indicated by the high reliability. Internal consistency of the second tool = 0.405

3.6. Ethical and Administrative Considerations:

After approval of the research from the nursing college/Beni-Suef University, an official letter was directed from nursing college to the head of MCH Centers at Beni-Suef in order to get his approval to conduct the study after clarifying its aim. Then oral consent was taken from each participant after clarification of the study aim and interventions. Each one was assured about the confidentiality of her data, her right to refuse participation and her right to withdraw from the study without any consequences.

3.8. Pilot Study

A pilot study was conducted on 10.0% of the total subjects to test the clarity and applicability of the study tools. Participants included in the pilot study were excluded from the study subjects.

3.9. Field Work

Data collection was done over a period of six months from the beginning of November 2021 till the end of April 2022. The sample was taken three days a week; (Saturday, Tuesday and Thursday) from 9 A.m. to 2 P.m.

3.10. Statistical Analysis

All data were collected, tabulated and statistically analyzed using IBM SPSS 25. Data was supplied, and appropriate analysis was performed for each parameter based on the type of data obtained.

3.10.1. Descriptive Statistics data were expressed as:

- **Count and percentage:** Used for describing and summarizing categorical data
- **Arithmetic mean (X-), Standard deviation (SD):** Used for normally distributed quantitative data, these are used as measurements of central tendency and dispersion.

3.10.2. Analytical Statistics:

- **Cronbach alpha and Spearman-Brown coefficients:** The internal consistency of the generated tools was measured to assess their reliability.

- **Chi-square (χ^2):** used to see if there's a link between two category variables or to see if two or more proportions differ. For Race tables, Monte Carlo exact probability was used wherever 2 was present.

3.10.3. Inter Quartile Range (IQR)

- a. **Graphical presentation:**
 - Data visualization was done with Bie in 3D chart

4. Results

Figure (1) showed that the most of studied participants (71.2%) their age was 15-30 years old.

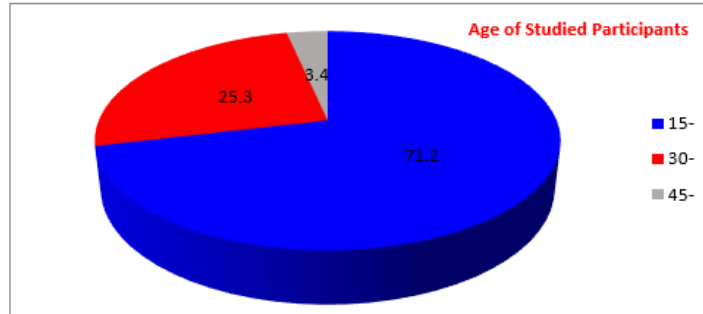


Figure 1: Age of the Studied Participants

Figure (2) showed that the majority of studied participants (90.2%) were highly educated.

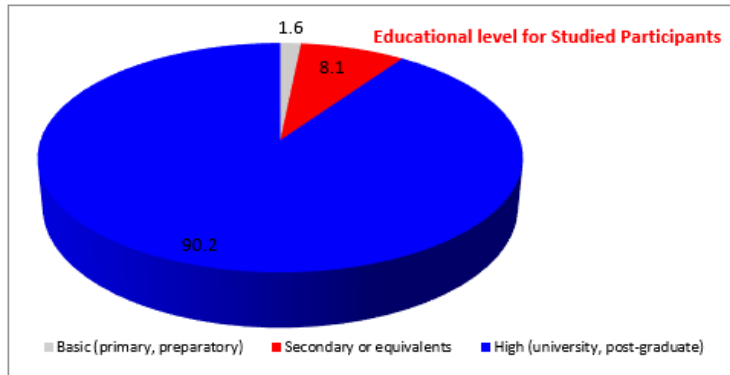


Figure 2: Educational Status of the Studied Participants

Figure (3) showed that the more than half (57.5%) of studied participants were single.

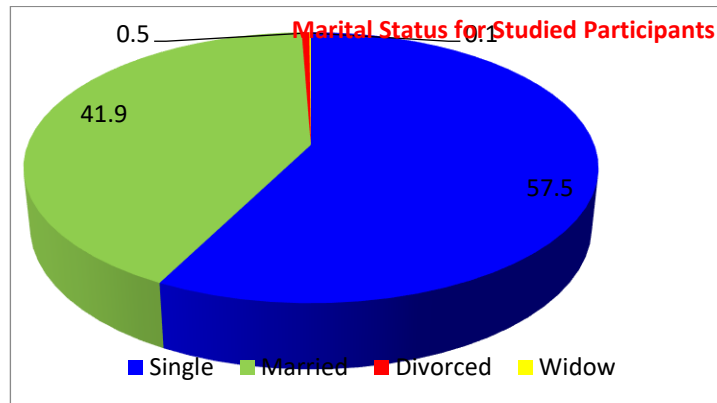


Figure 3: Marital Status of the Studied Participants

Figure (4) showed that around two-thirds (65.4%) of studied participants were students.

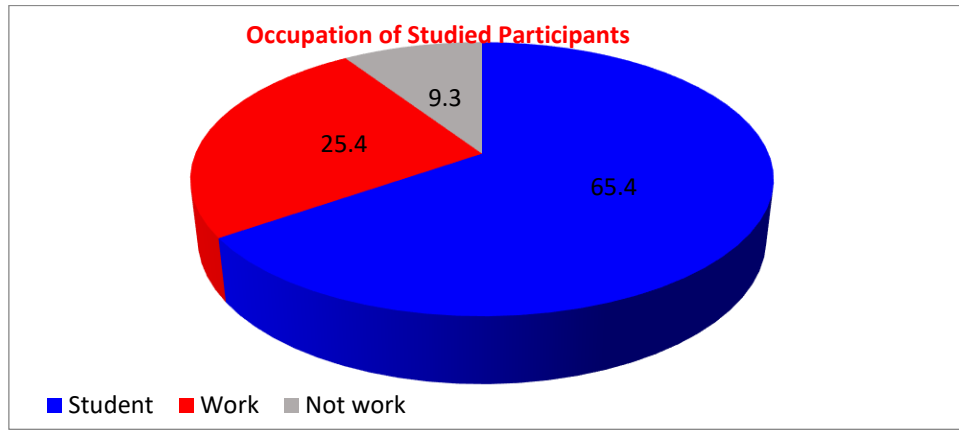


Figure 4: Occupation of the Studied Participants

Table (1): presents the distribution of females aged 18-60 years according to their total knowledge score. Only 25.7% of females had good knowledge regarding FGM/C, while 40.5% and 33.8% had poor and fair levels of knowledge,

Categories	Frequency	Percent
Poor knowledge	960	33.8
Fair knowledge	1149	40.5
Good knowledge	728	25.7
Total	2837	100.0

Table 1: Total Knowledge Score categories among the studied participants

Figure (5): presents the Studied Participants' Sources of Knowledge Related to FGM. About 71.3% of females mentioned that the source of their information about FGM/C was their personal experience, 36.2% from friends or neighbors, 22% from TV or radio, 22.1% from the internet, 5.1% from friends or neighbors, 22% from TV or radio, 22.1% from the internet, 5.1%

mentioned religious leaders, 10.3% from doctors and nurse, 8% from the lecture about FGM and 0.03% of females read about FGM/C health consequences in books.

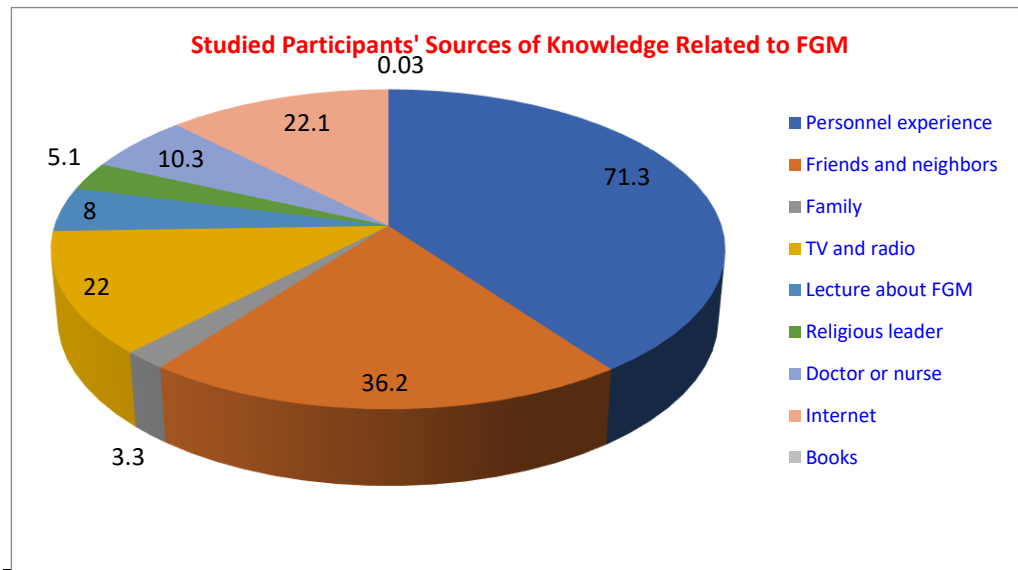


Figure 5: Studied Participants' Sources of Knowledge Related to FGM

Table (2) showed an association between poor knowledge and circumcision. Poor knowledge score (37.1%) was more prevalent among females with circumcision. While fair knowledge was more prevalent (51.9%) among un-

circumcised ones. There was a significant relationship between circumcision and participant knowledge (p-value <0.001).

Knowledge score categories	Are you circumcised				Total	
	Yes (n=2021)		No (n= 816)			
	No	%	No	%	No	%
Poor knowledge	750	37.1	210	25.8	960	33.8
Fair knowledge	725	35.9	424	51.9	1149	40.5
Good knowledge	546	27	182	22.3	728	25.7
Total	2021	100.0	816	100.0	2837	100.0
P-value	<0.001*					

*P-value is significant

Table 2: Association between the Participants' Knowledge and their Circumcision

5. Discussion

The current study was conducted to assess the level of total knowledge of females toward the practice of FGM, and assess participants' sources of knowledge related to FGM. In the current study, less than one third of females had good knowledge about FGM/C. This may attribute to that the most of the studied females were young aged and rural residents. This result was much lower than results reported in Sudan (*Esmeal, et al., 2016*) and Nigeria (*Ibekwe, et al., 2012*) which reported that most females had a good level of knowledge relating to FGM/C.

Several nations, including Sudan, Ethiopia, and Nigeria, have conducted studies on females' knowledge of FGM. FGM is viewed differently by girls and women in different countries. Mali, Sierra Leone, Guinea, and Somalia had the highest levels of support for FGM, with more than half of the female population believing the practice should continue (*Abolfotouh, S. M & Abolfotouh, M. A, 2015*).

In Mauritania, *Ouldzeidoune (2013)* discovered that 91.7 percent of females had heard about FGM/C and 64.4 percent of them wanted the practice to continue (had an unfavorable attitude), whereas in Somalia, Adigüzel et al., 2019 discovered that the majority of females had a good level of knowledge about FGM/C, 92.1 percent of them saw FGM/C as a health problem, and 91 percent wanted the practice to be In Ethiopia, females' knowledge and attitudes toward FGM/C varied by area and ethnicity of the interviewees (*Melese, et al., 2020*).

Additionally, it was lower than *Mohammed, et al., (2018)* studies' findings, which showed that more than half of the female participants had a good level of understanding. The fact that the present study covered a wide range of FGM/C knowledge topics, including names, occurrence, types, complications, and legalization of FGM/C in Egyptian law, as opposed to other studies that focused primarily on the health issues related to FGM/C, may help to explain the difference in knowledge levels.

Significant statistical relationship between participants' experiences to FGM and their total score of knowledge was revealed (p-value <0.001). It showed an association between good knowledge and circumcision. Good knowledge score was more prevalent among mutilated females. This may be due to their exposure to that experience give and encourage them to read and find out information related circumcision.

6. Conclusion

Knowledge score regarding FGM was poor for the most of participants. The main source of females' information was their personal experience. Poor knowledge score was more prevalent among mutilated females.

7. Recommendation

Development of an educational programs and brochures for mothers about FGM is required to increase their awareness.

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DOI: [10.31579/2692-9406/139](https://doi.org/10.31579/2692-9406/139)

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