Abstract

Background: Female genital mutilation/cutting is seen as a normal part of female socialization in societies that practice it. According to a representative from the United Nations Population Fund in Cairo, Egypt's rate is so high that it accounts for one-fourth of all cases worldwide.

Aim: Assess Relationship between Upper Egyptian Females' Knowledge and attitudes Female Genital Mutilation.

Subject & Methods: A descriptive cross-sectional study was used. The study population consisted of 2837 females in Family Health Centers (FHCs) in different sitting at Beni-Suef. A Structured Interviewing Questionnaire sheet was used to collect data.

Results: Only 25.7% of females had good knowledge regarding FGM/C, while 40.5% and 33.8% had poor and fair levels of knowledge. More than one-third of females (35.5%) had an unfavorable attitude towards (supporting) FGM/C and 44.3 % of them had a favorable attitude towards (refusing) FGM/C while 20.2% had a neutral attitude. This is a significant association between females' knowledge and their attitude regarding Female Genital Mutilation (p-value <0.001).

Conclusion: Poor Knowledge and favorable attitude regarding female genital mutilation were more prevalent. A statistically significant association between females' knowledge and their attitude regarding Female Genital Mutilation was revealed.

Recommendations: Development of an educational programs and brochures for mothers is required to enhance their knowledge and establish negative attitude regarding Female Genital Mutilation.

Keywords: Female Genital Mutilation; Knowledge Attitude
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.

### Research Questions

1. What is the level of knowledge of females regarding the practice of FGM?
2. What are Sources of Knowledge Related to FGM?
3. What are the levels of attitude of females toward the practice of FGM?
4. Is there Relationship between Knowledge and attitudes regarding Genital Mutilation among Upper Egyptian Females?

### Subjects and Methods

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

#### Subjects & Setting:

##### Setting: The study was conducted in Family Health Centers (FHCs) in different sitting at Beni-Suef Governorate.

Sample:

- **Sample Type:** A Convenient sample was used.
- **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.

#### 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 four 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 about Female Genital Mutilation was assessed using both single-response and multiple-response questions.

#### 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 ≥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 ≥75%.
  - A fair level of knowledge is ≥50% to <75 %.
  - Poor level of knowledge <50%.

#### Section III: Attitudes of females regarding FGM/C:

A Likert scale was used to assess attitudes, ranging from agree to disagree.

#### Scoring system

- It received (1) if participants have bad attitude
- It received (2) if participants have neutral attitude
- It received (3) if participants have favorable attitude
- The scores are then turned into percentages, and the overall score is divided into the following categories:
  - Favorable attitude ≥75%.
  - Neutral attitude ≥50% to <75 %.
  - Unfavorable attitude <50%.

### Section IV: Sources of Females’ knowledge about Female Genital Mutilation.

#### Validity of the Tool

The questionnaire was developed in consultation with two gynecologists, five maternity & gynecological nursing professors, and expert in questionnaire validation. The validity of the used tool was evaluated by a health-care specialists.

#### Reliability of the Tool

Reliability assessed by piloting & measuring the related Cronbach Alpha value (Alpha = 0.405 for knowledge and 0.764 for attitude).

#### Ethical and Administrative Considerations:

Data were collected after explaining the purpose of the study to all women who took part in the study. Confidentiality was mentioned during all stages of the study, as well as obtained personal data and respects for participants’ privacy were totally ensured.

Necessary approval from previous mentioned MCH centers’ directors at ‗Beni-Suef city was taken after issuing an official letter from the dean of the Faculty of Nursing, ‗Beni-Suef University.

#### Pilot Study

The pilot study included about 10% (20 women) of the study sample. The pilot study assessed the clarity of language, the applicability of items, and time consumed for filling in the tools’ items.

#### Field Work

Data collection was done over a period of six months from the beginning of November 2021 till the end of April 2022.

#### 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.

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.

#### Analytical Statistics:

- Cronbach alpha and Spearman-Brown coefficients: The internal consistency of the generated tools was measured to assess their reliability.
  a. One-way ANOVA test (F): A statistically significant difference between the means of three or more independent groups is detected using this method.
  b. Post hoc test (Tukey): After a one-way ANOVA test, this statistic is used to test all pairwise comparisons between the means of all groups and the mean of every other group.
  c. Student t-test (t): It's used to see if there's a significant difference between two means.
difference between two independent variables or to find out if two meanings are different.

**Graphical presentation:**

a. Data visualization was done with graphs.
   - Column chart
   -饼图 in 3D chart

**Results**

**Figure (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. 

**Figure (2):** describes the percent of the distribution of females according to their total attitude score towards FGM/C. More than one-third of females (35.5%) had an unfavorable attitude towards (supporting) FGM/C and 44.3% of them had a favorable attitude towards (refusing) FGM/C while 20.2% had a neutral attitude.

**Table (1) & Figure (3):** Presents the Relationship between Knowledge and attitudes regarding Female Genital Mutilation among Upper Egyptian Females. It showed an association between Poor knowledge and unfavorable attitude. An unfavorable attitude was more prevalent among females with poor knowledge (74%), while the favorable attitude was more prevalent among females with good knowledge (49.4%). This is a significant association between females’ knowledge and their attitude regarding Female Genital Mutilation (p-value <0.001). 

**Table (2):** 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% 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.
Discussion
Female genital mutilation/ cutting are procedures in which young girls and women's external genital organs are manipulated, altered, or removed. A religious leader, town elder, or medical practitioner with insufficient experience performs the procedure using a blade or shard of glass [28-29]. The current study was conducted to assess the Relationship between Knowledge and attitudes regarding Female Genital Mutilation among Upper Egyptian Females.

In the current study, more than one third of females had poor knowledge regarding FGM/C. This may attribute to that the most of the studied females were young aged and rural residents. Several nations, including Sudan, Ethiopia, and Nigeria, have conducted studies on females' knowledge of FGM.

This is contradicted the results of Adigüzel et al., 2019 that discovered that the majority of females had a good level of knowledge about FGM/C [30, 31]. 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 [32].

Moreover, the present study revealed that more than one-third of females had an unfavorable attitude towards FGM/C and more than two-fifths of them had a favorable attitude towards FGM/C. This result is higher than that reported in Sohag. A study of university students indicated that near to one third of the female students supported the continued use of FGM/C [33]. It is clear that female attitudes regarding FGM/C are changing significantly for the better, and this will contribute to the eventual eradication of the practice and a drop in its prevalence [34-36].

Other findings of studies on female attitudes regarding FGM/C; In Sudan, most respondents had an unfavorable attitude towards FGM/C practice and they supported continuation rather for good prospective of marriage or protecting virginity, while in Ethiopia, more than three fourths of participants had a negative attitude toward FGM/C, with more than one fifth of them being in favor of the procedure [37,38].

Concerning the relationship between knowledge and attitudes regarding Female Genital Mutilation among Upper Egyptian Females, The results of the current study reveals an association between Poor knowledge and unfavorable attitude. An unfavorable attitude was more prevalent among females with poor knowledge, while the favorable attitude was more prevalent among females with good knowledge.

This may attribute to females' residency and their sources of information. The main source of information as discovered by study results was friends and neighbors. Researche discovered that the females' knowledge and attitudes toward FGM/C varied by area and ethnicity of the interviewees [30, 31, 39].

Conclusion
Poor Knowledge and favorable attitude regarding female genital mutilation were more prevalent. An unfavorable attitude was more prevalent among females with poor knowledge, while the favorable attitude was more prevalent among females with good knowledge. A statistically significant association between females' knowledge and their attitude regarding Female Genital Mutilation was revealed.

Recommendation
1. Development of an educational programs and brochures for mothers is required to enhance their knowledge and establish negative attitude regarding Female Genital Mutilation.

References
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