

## Premarital Mental Screening Knowledge and attitude among Adults in Aswan City

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### Abstract

**Background:** Premarital mental screening is an effective primary preventive measure against some genetic disorders and psychological disturbances among youth before marriage. **Aim:** The study aimed to assess premarital mental screening knowledge and attitude among adults in Aswan City. **Methods:** A cross-sectional descriptive study was conducted in Aswan City. The study was carried out at Primary Health Care Centers, and University hospital outpatient clinics in Aswan city, a random sample of 399 participants was recruited as the sample size. Data collection utilized three tools: a structured interview questionnaire encompassing studied participant's socio-demographic data, knowledge assessment regarding premarital mental health screening, and attitude assessment toward premarital mental screening. **Results:** The majority of study participants (72,4%) had a good knowledge regarding premarital mental screening, and 77.4% of them had a positive attitude toward premarital mental screening compared to 22.6% had a negative attitude. **Conclusion:** The current study revealed that the majority of study participants had satisfactory knowledge regarding premarital mental screening. They also had a positive attitude towards premarital mental screening. **Recommendation:** Premarital screening should be added to the existing imposed screening methods with the help of the health sector and mental health screening should be incorporated into both nursing and medical science curriculum.

**Key words:** premarital mental screening, knowledge, attitude, Adult Partnerships, Aswan City.

### Introduction:

A mental health screening comprises a set of standard questions that an individual must answer for a healthcare provider to look for indications of a mental illness. The clinician insight into the mood, thoughts, actions, and memories of the patient. One approach for detecting mental health issues early on is through mental health screenings. Additional testing is typically required to identify a specific mental disorder if the screening reveals symptoms of the disorder. A mental health screening could be referred to as a "psychology test" or a "mental illness test." Mental disorders are also known as mental illnesses (Ewing, 2023).

Mental health screening is a sort of premarital screening used to identify and assess the need for mental health care and help. Screening is individuals who should be referred

for proper mental health diagnosis and care. Timely referrals to mental health care may help people live more productive and healthier lives. It is also very useful in detecting mental health disorders that may be passed down from parents to children (Alhousseini et al., 2023).

Mental health tests frequently reveal the presence of several mental health conditions, involving post-traumatic stress disorder, depression, eating disorders, and anxiety. Due to the high frequency of symptoms associated with the illness, we may frequently be blind to serious underlying issues that need further care. Rather than fostering an atmosphere of guilt or terror, which discourages many people from getting assistance (Hambleton et al., 2022).

Approaches of mental health screening involve a physical assessment, and the physician may also ask questions about feelings, mood, sleep habits, and other symptoms. To ascertain whether a disease, like a thyroid

disorder, is the root of the problem, the physician may also request a blood test, which involves a laboratory technician taking a sample of blood. The pair may also fill out a questionnaire on these topics, and the therapist may ask more questions regarding feelings and behavior (Chang et al.,2020).

Before getting married, youth might benefit greatly from the education provided by nurses regarding mental health issues. They can also offer counselling and evaluations for mental health. Nowadays, nurses handle a lot of the tasks that psychologists, counsellors, and psychiatrists used to just handle (Hertz et al.,2022). The assessment and evaluation of couples for mental health issues, creation of treatment plans, consultation with other medical professionals regarding treatment plans, delivery of care and psychotherapy, upkeep of medical records, and support and education for patients and their families are all a component of the nurse's screening responsibilities (Rykkje et al., 2022).

Community health nurses are knowledgeable in the screening and diagnosis of psychiatric approaches supported by psychiatric specialists, enabling them to offer specialized medical care. As members of a medical team, they usually work in tandem with other health experts to offer clients screening, diagnosis, and nursing intervention (Regier et al.,2022). Nurses assist youth in comprehending the psychological complexity, allowing them to provide better care to patients. Additionally, nurses encourage good communication between patients and loved ones, as well as the establishment of support structures to aid healing and rehabilitation. Nurses address misunderstandings and misinformation about mental drugs, treatments, alternative therapies, and counselling choices (Dorsch et al.,2022).

### **Significance of the study:**

Premarital mental care is a global initiative to identify and treat diseases that are not well known to couples, as well as to prevent the spread of illnesses that could negatively impact their marriage and the health of their

children. Improving a woman's and her partner's health and well-being prior to pregnancy can benefit the health of future generations. It is frequently used to identify mental health conditions (Bener et al., 2019). A wide range of mental, emotional, and behavioral health conditions that have a high disease burden are referred to as mental health disorders. These conditions include autism, bipolar affective disorder, schizophrenia, anxiety disorders, dementia, substance use disorders, intellectual disabilities, and developmental and behavioral disorders that typically begin in childhood and adolescence (McCabe et al., 2021).

Mental health disorders are real, prevalent, and curable; with the correct care, recovery is very achievable. It's crucial to take part in mental health screenings in addition to visiting your doctor regularly. Mental health screenings assist in addressing these disparities and enable people to receive not only the care they need but also the help they deserve to close the gap (Reynolds et al., 2022). Understanding the attitudes, knowledge, and acceptance of premarital mental health screening is a significant aspect of public health and well-being. So, the current study was conducted to assess knowledge and attitude about premarital mental screening among Adult Partnerships in Aswan City.

### **Aim of the Study**

The study aimed to assess premarital mental screening knowledge and attitude among adults in Aswan City.

### **Subject & Methods**

#### **Research Design:**

The current study utilized A descriptive cross-sectional study design to assess knowledge and attitudes among Adult Partnerships in Aswan City toward premarital mental screening. A descriptive cross-sectional study design was chosen for its appropriate relevance in the setting, and participants were assigned randomly.

**Setting:**

The setting for this study was Primary Health Care Centers and University Hospital outpatients in Aswan city, the healthcare setting focused on the specialized care of Adult Partnerships searching for premarital screening. Given the inherent challenges and considerations connected with youth, the choice of this location was deliberated. This environment allowed for an enhanced assessment of youth perspectives, particularly their knowledge and attitudes toward premarital mental screening.

**Sampling:**

The study employed a random sampling technique, acknowledging the pragmatic considerations inherent in the previously mentioned environment during the six-months data collection period (from beginning of January 2023 to ending of June 2023) based on Inclusion criteria for Adult Partnerships searching for premarital screening, their ages were more than 18 years, they were from Aswan city, and married or will be to get married.

The random sample technique was utilized in this study for selecting study participants based on the sample size equation, which revealed that 399 persons were included in the research as follows:

**Sample size:**

The sample size is determined with a precision/absolute error of 5% and type 1 error of 5% based on data from the literature (*Alhusseini et al., 2023*). according to the following formula,

$$n = \frac{(Z_{1-\alpha/2})^2 \cdot P(1-P)}{d^2}$$

where,  $Z_{1-\alpha/2}$  at 5% type 1 error ( $p < 0.05$ ) is 1.96, P is the expected proportion in population based on previous studies and d is the absolute error or precision. Therefore, sample size

$$n = \frac{(1.96)^2 \cdot (0.709)(1-0.709)}{(0.0446)^2} = 398.5.$$

- Based on the formula, the total sample size required for the study is 399.

**Data collection tools:**

*Three tools were utilized for data collection:*

**The first tool**, known as the Structured Interviewing Questionnaire, was methodically designed by the researcher following a thorough review of related literature. This tool is offered in plain Arabic and serves as an instrument for measuring studied the sociodemographic details of the participants, including their age, gender, marital status, level of education, and income.

**The second tool:** It assessed the study participants' knowledge regarding premarital mental health screening. After reviewing the literature, the researcher established it (*Al-Shroby et al., 2021*); (*Al-Shafai et al., 2022*). It consisted of six questions about premarital mental health screening knowledge.

**Scoring system**

The scoring system for assessing participants' knowledge is structured to provide a nuanced evaluation. The total score was calculated by adding up the questions that assessed participants' knowledge; each correct response received one point, while unanswered questions or incorrect replies received zero points. The total knowledge score was 6 and was divided into three categories: Poor 50%, Fair 50%-65%, and Good >65%.

**The Third tool:** It assessed the participants' attitude towards premarital mental screening. It is developed by *Al Zeedi, & Al Abri, 2021*; *Hamed et al., 2022*. It consisted of nine questions designed to assess the participants' opinion towards premarital mental screening.

### Scoring system:

The scoring system for this tool involves a meticulous evaluation of each item within the scale. Each item is assessed on a five-point Likert scale, with 1 representing strongly disagree and 5 representing strongly agree for positive comments, and the converse for negative statements, to examine views regarding premarital mental screening. Based on their mean score, the participants' attitudes were categorized as Positive >60% and Negative 60%.

### Ethical considerations:

All throughout this study, ethical considerations were of the utmost importance. Adult partnerships were approached to get their voluntary participation and express agreement after providing a thorough description of the study's objectives. Official permission was carefully secured from the hospital administrative authorities in the designated setting, in addition to individual consents, guaranteeing compliance with institutional policies and ethical guidelines. Further confirming the study's ethical soundness was the ethical committee's approval. Sensitivity was used throughout the data collection procedure because it was understood how important privacy and secrecy were.

### Statistical design

The statistical design for this study involved a meticulous process of data input, validation, and analysis employing version 21 of the Statistical Package for the Social Sciences (SPSS) software, with a pre-established significance threshold of 0.05. The data underwent thorough scrutiny to identify and rectify any missing values before proceeding with the analyses. In terms of descriptive analysis, quantitative data were succinctly summarized using mean and standard deviation, offering a comprehensive overview of the central tendency and variability within the data set. Categorical data, on the other hand, were presented as frequencies and percentages, providing a clear depiction of the distribution of categorical variables. To assess the participants'

descriptive features, the Chi-Square test was employed, enabling an examination of potential associations or differences among categorical variables. The continuous data were presented as mean  $\pm$  standard deviation (SD) and had a normal distribution. Numbers and percentages were used to express categorical data. To check for relationships between two variables with continuous data, a correlation coefficient test was employed. Calculations were made about the reliability (internal consistency) test of the study's questionnaires. At  $p < 0.05$ , statistical significance was established.

### Results:

**Table 1** illustrates the frequency distribution of demographic variables of participants in the study. It was discovered that 72.2% of the study participants were females and 27.8% were from various age groups, with a mean age of  $31.6 \pm 10.1$  years. In terms of marital status, males were slightly less than one-half percent (48.1%) single, while 51.9% were formerly married (married, divorced, or widowed). The majority of them (92.9%) had no history of mental illness, and 57.1% earned enough money.

**Figure 1** depicts the distribution of the total knowledge score of the study participants related to premarital mental screening. It revealed that most of the study participants (72%) had a good knowledge of premarital mental screening, nearly one-fourth (24%) had moderate knowledge, and only 3.3% had poor knowledge.

**Figure 2** displays the distribution of the total attitude score of the studied subjects toward premarital mental screening. It found that 77.4% of respondents' attitude was positive for premarital mental screening, while 22.6% were negative.

**Figure 3** demonstrates the distribution of reasons given by study participants for accepting premarital mental health screening. It was discovered that the main reasons for accepting or showing a positive attitude towards premarital mental screening were avoiding the potential risk of not being screened, family

health and safety, avoiding transmitted mental illnesses to children, all previous causes, and other reasons (90.6%, 88.3%, 85.4%, 81.9%, and 6.5%) respectively.

**Figure 4** depicts the distribution of reasons given by study participants for refusing premarital mental screening. According to this figure, the main reasons for not accepting or having a negative attitude towards premarital mental screening were avoiding objections to God's will (61.1%), family refusal (60%), the respondent will marry regardless of screening results (54.4%), it is an insult (48.9%), and the results of screening may hinder the marriage process (8.9%).

**Figure 5** displays the relationship between the knowledge and attitudes of the

participants in the study. It revealed a highly statistically significant positive association between attitude and knowledge, with information increasing and improving attitude.

**Table 2** explains the linear regression to estimate Knowledge scores based on socio-demographic characteristics. Work status, monthly income, level of education, and a family history of mental illness were all positive predictors of knowledge score ( $P < 0.0001$ ).

**Table 3** shows socio-demographic characteristics that predict attitude scores using linear regression. Gender, educational level, and family history of mental illness were positive predictors of attitude ( $P < 0.0001$ ).

**Table 1. Frequency distribution of demographic characteristics of studied participants (n=399)**

Demographic characteristics	N	%
<b>Age (Years)</b>		
18 – 30	224	56.1
31 – 40	76	19.0
41 – 50	90	22.6
51 – 60	7	1.8
> 60	2	0.5
<b>Mean <math>\pm</math>SD</b>		<b>31.6 <math>\pm</math>10.1</b>
<b>Gender</b>		
Female	288	72.2
Male	111	27.8
<b>Marital Status</b>		
Single (never married)	192	48.1
Married	197	49.4
Widow	3	0.8
Divorced	7	1.8
<b>Working Status</b>		
Working	163	40.9
Not Working	236	59.1
<b>Monthly come</b>		
Insufficient	171	42.9
Sufficient	228	57.1
<b>Educational Level</b>		
Primary	7	1.8
Secondary	68	17.0
University or Higher	324	81.2
<b>Family History for Mental Illness</b>		
No	367	92.0
Yes	32	8.0
<b>Check Before Marriage</b>		
No	108	27.1
Never been married	167	41.9
Yes	124	31.1

Figure 1. Distribution of Studied participants' total knowledge score regarding premarital mental screening (n=399)

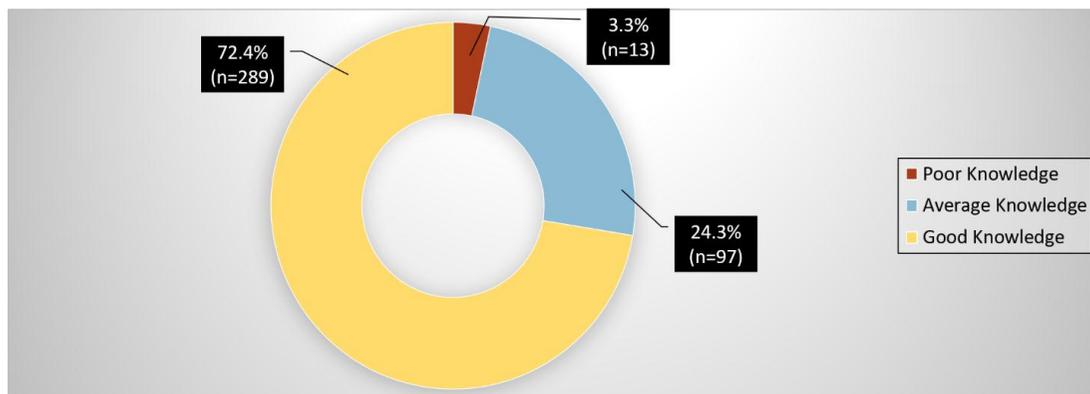


Figure 2. Distribution of Studied participants' total Attitude score regarding premarital mental screening (n=399)

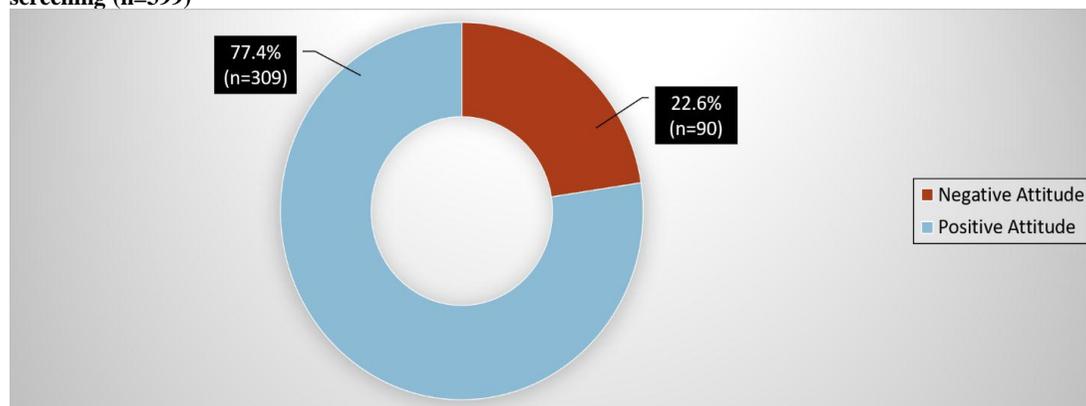


Figure 3. Distribution of Studied Participants' Reasons for Accepting premarital Mental Health Screening (n=309)

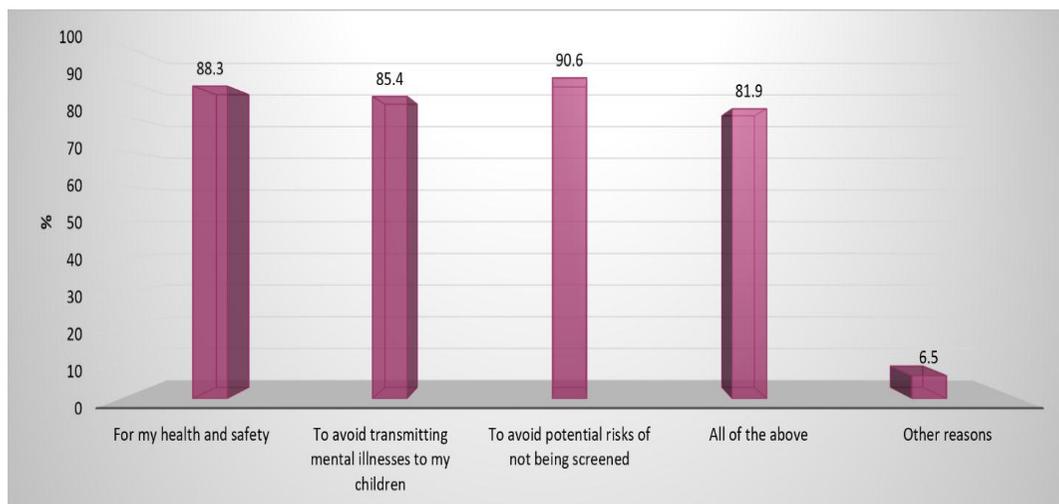


Figure 4. Distribution of Studied Participants' Reasons for refusing premarital mental health screening ((n=309)



Figure 5. Correlation between Studied participants' knowledge and attitude (n=399)

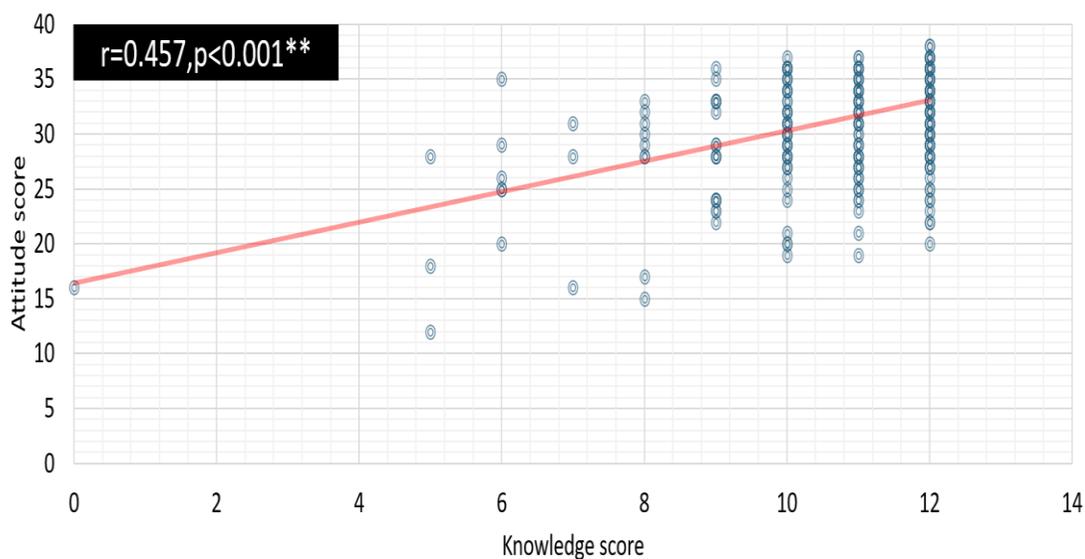


Table 2. Linear Regression of socio-demographic factors to predict Knowledge score (n=399)

Socio-demographic factor	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	10.722	0.947		11.316	<0.001**
Age	0.358	0.125	0.222	2.856	0.005
Gender	0.603	0.166	0.185	0.262	0.794
Marital Status	0.639	0.164	0.265	0.182	0.855
Working Status	0.051	0.195	0.017	3.635	<0.001**
Monthly Income	0.029	0.161	0.010	3.902	<0.001**
Educational Level	0.609	0.163	0.185	3.731	<0.001**
Family History for Mental Illness	0.680	0.261	0.126	2.606	<0.001**
Check Before Marriage	0.227	0.101	0.118	2.239	0.026

Table 3. Linear Regression socio-demographic factors to predict attitude score (n=399)

Socio-demographic factors	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	33.506	2.879		11.639	<0.001**
Age	0.715	0.381	0.146	1.879	0.061
Gender	2.748	0.504	0.277	5.449	<0.001**
Marital Status	0.895	0.498	0.122	1.798	0.073
Working Status	0.364	0.592	0.040	0.614	0.540
Monthly Income	0.316	0.489	0.035	0.647	0.518
Educational Level	1.077	0.496	0.108	2.171	0.031*
Family History for Mental Illness	2.266	0.793	0.139	2.857	0.005*
Check Before Marriage	0.558	0.308	0.096	1.811	0.071

## Discussion

Mental health literacy includes understanding the characteristics of mental diseases, information and attitudes about mental health risk factors, and accessible medical interventions. It also includes the capacity to distinguish mental health conditions from ordinary stress (Mantell et al., 2020). Divorce rates are predicted to be substantially higher for couples with two mentally ill spouses than for those with one mentally ill partner; the rates for couples with one mentally ill partner should be markedly higher than those of couples without any mentally ill partners. Additionally, it has been discovered that there is a protective effect against divorce when both couples have the same mental illness (Abbas et al., 2023).

Matrimony is one of the essential stages of human existence. Before marriage individuals should be examined for anxiety, depression, bipolar disorder, and post-traumatic stress disorder before to marriage (Fakhari et al., 2020). Thus, this study was conducted to assess the knowledge and attitude regarding premarital mental screening among adult partnerships.

The current study's findings showed that majority of participants had a good knowledge

of premarital mental screening. This could be because health information is readily available on websites, in hospitals, primary care facilities, and on social media platforms. This may also be because families of affected individuals have access to tools like counselling sessions and educational materials that help them become more knowledgeable. This finding was consistent with Natarajan & Joseph, (2021) who stated that the majority of participants report having a sufficient knowledge regarding premarital screening. The current findings also consistent with Alhusseini et al. (2023), who reported that premarital mental health screening knowledge was generally well-received, despite the sensitive nature of mental health.

This result also in line with Alkalbani et al. (2022), who indicated that the majority of survey participants had satisfactory knowledge regarding a premarital mental screening and realize what the premarital mental screening test entailed. In other hand; Al-Shroby et al., (2021) stated that a recent population-based survey carried out in Saudi Arabia, just 9.2% of respondents had satisfactory awareness of premarital mental screening programs, whereas 52.4% of participants had unsatisfactory awareness of PMS.

The current study's findings demonstrated that there was a positive connection between a family history of mental illness and knowledge score. This rationalized by that the people who have a family history of a particular genetic issue are probably more curious to learn about the condition because they worry about how it can affect their own families or their future children. These findings concur with those of **Al-Shafai et al. (2022)**, who discovered that there was a highly significant connection among individuals with a genetic problem or had a family member with PMS knowledge scores because of the services offered to family of afflicted individuals, like counselling sessions and educational materials that increase their awareness.

Regarding the current study, there was a positive connection between education level and knowledge score. These findings matched the findings of the study which conducted in Saudi Arabia by **Shroby et al. (2021)**, who reported that a highly significant relation found among knowledge score and the participants who had completed college or higher education, it may be that participants acquired information regarding PMS through academic courses and social media platforms.

According to the current study, majority of study participants had a positive attitude for premarital mental screening. While 22.6% of them were had a negative attitude, This may be interpreted in light of the findings since participants stated that the main motivations for embracing premarital screening were avoiding the possible risk of not getting screened, family health and safety, and preventing the transmission of mental diseases to children. **Al-Kindi et al., 2019** corroborated this finding by stating that there was a willingness and favorable attitude regarding premarital screening tests. The majority of students believed that screening was required before marriage and chose to do it later.

The present study also showed that avoiding the possible risk of not getting screened, family health and safety, and preventing mental diseases from being passed

down to children were the primary justifications for adopting or displaying a positive attitude towards premarital mental screening. **Altaany et al. (2021)** supported these findings, stating that the study's overall results demonstrate young Jordanian participants' favorable attitudes toward PMS. The majority of participants thought it was successful in preventing hereditary illnesses, according to the results. The majority of participants were likewise supportive of PMS being required and thought it would lessen future families' financial load and psychological issues.

This finding is also consistent with the findings of **Al-Shafai et al. (2022)**, who stated that, 75.81 % of respondents accepted premarital screening as a means of preventing the inheritance of genetic illnesses in offspring, while 25% reject it for a variety of reasons. In some societies where tribal weddings are common, premarital testing for genetic abnormalities is more common and tolerated. This result contradicted the findings of a study conducted in 2021 by **Elyamani et al.** on mental health literacy in the Gulf Cooperation Council countries, which showed that even among physicians, mental health literacy was low. The findings demonstrated that stigma and unfavourable views on mental health are widespread in the general public. Although 51.62% of participants suggested premarital mental health screening, a significant number of respondents (53.19%) stated that screening for mental health disorders before marriage is a privacy infringement (**Alhusseini et al.,2023**).

Concerning the justifications offered by research subjects for declining to undergo premarital mental health screening. According to the current results, the respondent will marry regardless of the screening results (54.4%), it is an insult (48.9%), avoiding objections to God's will (61.1%), family refusal (60%), and the results of the screening may hinder the marriage process (8.9%) were the main reasons for not accepting or having a negative attitude towards premarital mental screening. These results were in line with those of **Alamer et al. (2021)**, who carried the Despite the fact that 91.96% of the population experienced moderate to low stigma, a study evaluating mental health stigmas in the

Al-Ahsa community found that the stigma was influenced by a number of characteristics, including age, career, the number of languages spoken, and either having a diagnosis of or knowing someone who has one. Furthermore, 76.3% of Saudis 18 years of age or above have indicated that “stigma” is a major social barrier to seeking help for mental health disorders, followed by culture (61.5%) and negative perceptions (56.2%).

Finally, the study's findings showed a positive correlation between the participants' attitude and knowledge. These results were in line with those of **Hamed et al., 2022, who stated that** The study participants' overall perception, overall knowledge, and overall attitudes were found to be correlated. Additionally, there was a highly significant statistical difference between the study's future couples' total knowledge, total attitude, and total perception scores about premarital screening. Furthermore, the findings corresponded with the study carried out by **Al-Shafai et al. (2022)**, which investigated attitudes, views, and knowledge on a premarital mental screening program in Qatar. The results of the study showed a favourable correlation between the prospective couples' overall attitudes, knowledge, and perceptions of premarital mental screening.

### **Conclusion:**

The current study concluded that most study participants had positive attitudes toward premarital mental screening, and the majority of them had good knowledge related to the premarital mental screening. Furthermore, a positive correlation was found between the participants' knowledge and attitude toward premarital mental screening.

### **Recommendations:**

**Based on the findings of the current study, the following are recommended:**

- Ongoing education initiatives: Organizations ought to set up consistent, customized educational initiatives for

prospective spouses that center around mental health screening before marriage.

- Multidisciplinary Collaboration: Foster collaboration between community health nursing, pediatricians, and other healthcare professionals involved in premarital mental screening. This interdisciplinary approach can enhance communication, share best practices, and collectively work towards minimizing mental disorders .

- Broadcasting of public education programs and various forms of mass media should be used to disseminate knowledge about the official premarital mental screening program, including testing and consanguinity-related complications.

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