

# Stigma of Mental Illness and Attitudes Toward Psychological Help-seeking in Jordanian University Students

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**Abstract Background.** Avoiding seeking professional help for psychological problems may have a devastating impact on the life of university students. Data about stigma toward mental illness and attitudes toward seeking professional psychological help (ATSPPH) in Arab university students are rare. This study aims to examine the correlates of ATSPPH in Jordanian university students. **Method.** A cross-sectional correlational design was used for this study. Using an online survey, a sample of 519 Jordanian university students completed measures of demographic and clinical variables, stigma toward mental illness and ATSPPH. Stigma toward mental illness was tested as a correlate of ATSPPH using a series of hierarchical multiple regression analyses, controlling for demographic and clinical variables. **Results.** The results showed that Jordanian students have relatively less favorable ATSPPH than other study groups. Female gender, medically-related specialities, students with a previous history of receiving mental health counseling services and students who reported low scores on measures of stigma toward mental illness were more likely to have favorable ATSPPH. The stigma toward mental illness was the strongest correlate of ATSPPH in students and accounted for 13% additional variance above and beyond the 3% accounted for by all other independent variables. **Conclusions.** Combating stigma toward mental illness in Arab students is an important step toward promoting their ATSPPH. There is a crucial need to provide professional and culturally competent psychological care for this population in particular.

**Keywords:** *stigma, mental illness, attitudes toward seeking professional psychological help, student, university, Jordan*

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## 1. Introduction

Mental illness is highly prevalent around the world, especially in young adults [40]. One in four people in the world experience a mental illness during their lives but only 30% of people who are diagnosed with mental illness seek treatment [50]. In Jordan, the statistics found that in every 100.000 of the population, there were 305 persons diagnosed with mental illness [49].

Although all individuals do encounter emotional difficulties throughout their lives [23,24], university students, in particular, are a vulnerable population. Research shows that mental disorders usually have the first onset during or shortly before the university age [10,22,29,33]. These mental disorders are precipitated or exacerbated by a variety of stressors in university life, including the intense academic pressures and the balancing of social life with academic and other life responsibilities and separation from family [10].

Recent studies reported a high percent of psychological disturbances and mental disorders in Jordanian university

students [1,5,30,51]. For example, Zawawi and Hamaideh [51] found that almost half of university students in the Hashemite University in Jordan had a major depression. Similarly, Ismayilova et al. [30] found that 66 % of college-age students and university students in Jordan experienced feelings of sadness, 49% of them reported loss of joy, and 43 % of them had loss of hope in living. However, students may feel hesitant to seek help and consult a professional for their psychological problems if they have a stigma about being labeled as "mentally ill" [11,17,18]. Avoiding seeking help and disclosing psychological or emotional problems may become more evident in Arab societies who generally have negative attitudes toward mental disorders [4,20,31]. In fact, avoiding seeking psychological help may have a devastating impact on the life of university students with mental disorders. For example, untreated depression has a nearly 20% risk of suicide, and most people who commit suicide are severely depressed at the time of their suicide [44].

There is a paucity of studies conducted in Jordan on mental illness stigma and professional psychological help-seeking. Also, there is no study conducted in Jordan to

examine stigma toward mental illness in university students. The researchers in the current study are ambitious to get results that can be helpful to fill the gap in the literature and develop new policies to lessen the stigma toward mental illness. This might help in developing intervention programs to encourage university students to get professional psychological help in the future. Moreover, examining stigma toward mental illness and correlates of psychological help-seeking may represent a precious expansion of the global body of knowledge about this topic. Furthermore, ethnic Arab peoples have high rates of population growth in many Western countries. Knowledge about mental illness stigma and ATSPPH in an Arab sample may help to provide culturally competent care for this population in particular.

The stigma of mental illness is a broad concept. However, perceived public stigma and social distance are among the most popular types of stigma investigated in the psychological research. Perceived public stigma is the extent to which participants expect that people will devalue or discriminate against someone with a mental illness while social distance examines whether participants want to be in touch with people with mental illness [36,38].

The general goal of this study was to examine the level of stigma toward mental illness and its association with attitudes toward psychological help-seeking in Jordanian university students. To understand the role that stigma towards mental illness may play in help-seeking attitudes in Jordanian university students, the specific research objectives of the study are offered:

1- To assess the attitudes about mental illness, specifically, the social distance that a person exhibits towards an individual suffering from mental illness, in Jordanian university students.

2- To assess the perceived public stigma toward mental illness from the perspective of Jordanian university students as implied by their view of devaluation and discrimination based on mental illness in their community.

3- To assess the attitudes of Jordanian university students toward seeking mental health treatment.

4- To compare between university students in medically-related specialties and those in other specialties with regard to their attitudes about mental illness, their perceived public stigma toward mental illness, and their attitudes toward seeking mental health treatment. For the purpose of this study, medically-related specialties included but were not limited to medicine, nursing, clinical psychology, pharmacy, rehabilitation sciences, and allied medical sciences.

5- To identify the extent to which stigma toward mental illness would be correlated with ATSPPH, controlling for the demographic and clinical characteristics of the Jordanian university students

We hypothesized that the Jordanian university students would report relatively high scores on measures of stigma toward mental illness and relatively low scores on measures of ATSPPH. Further, we hypothesized that university students in medically-related specialties would report more favorable attitudes about mental illness, less perceived public stigma toward mental illness, and more favorable attitudes toward seeking mental health treatment than those in other specialties. Finally, we hypothesized that, regardless of the demographic and clinical

characteristics of the Jordanian university students, stigma toward mental illness would be significantly associated with ATSPPH.

## 2. Methods

### 2.1. Ethical Considerations

An agreement to conduct the study was obtained from the responsible committees in Zarqa University. The purposes, benefits, and risks of the study were explained to each participant. Participation in the study was voluntary, and confidentiality of participants was assured. Informed consent was obtained from each participant. Participants were able to contact the researchers by telephone or via online communication for any questions.

### 2.2. Procedure

In this cross-sectional correlational study, four governmental and four private universities were randomly selected from all universities in Jordan to recruit the students. University students in the selected universities were recruited through convenience sampling technique. For the purpose of the current study, participants were invited to complete the study if they were Jordanian and if they were currently university students in a governmental or private university in Jordan. All post-baccalaureate students were excluded from the study. Students were invited to complete the study using online method of data collection. Online data collection has become a popular method to collect data particularly among university populations [14]. Recently, each university has an official online social network in which thousands of students are involved. In the last decades, using the Internet has created a new way to conduct psychological research. This new technique for data collection allows researchers to collect data from participants 24 hours a day and seven days per week. Via Internet, surveys can be delivered quickly to anyone connected to the Web and data can be saved automatically in electronic form, reducing costs in needed equipment, paper, mailing costs, and labor. Once a survey is properly programmed, data can be stored in a form ready for analysis, decreasing the costs of data coding and entry that used to be an expensive and time-consuming part of the research process [12]. In this study, the researcher created a self-administered, electronic questionnaire. Then, with a cooperation of the administrators of the Facebook pages for the selected universities, the consent form and the online link for the questionnaires were sent to students. Before sending each questionnaire, the researchers assured that the participant is currently a Jordanian university student by direct questioning. A total of 1634 students were invited to complete the study. However, only 519 of them completed the study.

The needed precautions to overcome methodological problems of online studies were carefully considered in the current study. The link provided for students allows only one response per user. No incentives were provided for participants to discourage trying multiple submissions by a student. Participants were explicitly requested to fill the study questionnaires only once. In addition, one question was included in the questionnaire that asks "are

you currently a university student?" Participants who answered no to this question were allowed to complete the questionnaire but excluded from data analysis. Further, data was filtered to remove repeated records. Finally, the participants were not able to submit the filled questionnaires until responding to all questions or items. Birnbaum (2004) reported that most studies that compared data obtained in Web versus lab usually reach the same conclusions. However, one limitation to be considered for online data collection is that college students who do not use the Internet frequently could be underrepresented.

### 2.3. Instruments

Participants answered questions from three separate scales. The first two scales were used to measure stigma toward mental illness [the social distance scale [38] and Devaluation-Discrimination Scale [36]]. The third scale was used to measure attitudes toward seeking professional psychological help (ATSPPH) [Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS) [26]]. Demographics for each participant were obtained to better assess the correlates of Attitudes Toward Seeking Professional Psychological Help such as gender and age of students.

For the purpose of this study, the three scales used in the current study were translated into Arabic utilizing a rigorous process of translation and back-translation. As suggested by Brislin [13] and Chapman and Carter [15], the three scales used in the current study were first translated from English into Arabic by a professional English language editor. Two professional translators who are bilingual in English and Arabic completed the back-translation process. Then, translators met together and agreed on the conceptual meaning, accuracy and clarity of the Arabic translated items in comparison with the original English version. Two clinical psychologists made the final review and verified the final Arabic version before pilot testing. Following pilot with 52 students, minor revisions were made by the original researchers taking into account the cultural context.

#### 2.3.1. Social Distance Scale

The 6-item Social Distance (SD) Scale [38] is a measure of stigma to mental illness or individuals attitudes towards mental illness. It is examining social distance that a person exhibits towards an individual with mental illness. This scale asks respondents to rate their willingness to interact with individuals suffering from mental illness in six different situations. Response options on the scale range from 1 (definitely willing) to 4 (definitely not willing). The total scores can range from 6 (low social distance) to 24 (high social distance). This 6-item scale has good-to-excellent internal consistency (Cronbach's  $\alpha=0.75-.90$ ) [37]. Pilot testing of the Arabic translated version of the scale demonstrated good reliability. In the current study, the scale had Cronbach's  $\alpha=0.85$ .

#### 2.3.2. Perceived Devaluation-Discrimination Scale

The Perceived Devaluation-Discrimination (DD) Scale [36] is a 12 item scale which measures perceived public stigma toward mental illness. It is used to assess the extent to which a person believes that other people who are

living in the community will devalue or discriminate against someone with a mental illness. It asks people to rate the extent of agreement on a 6-point Likert scale how much they agree with statements regarding individuals with mental illness. This also reflects their reactions toward disclosure of mental illness. Participants are asked to rank how much they agree or disagree on a scale from 1-6 with the statements related to how most people would treat someone with mental illness. Statements indicating that most people devalue psychiatric patients by perceiving them as less intelligent than other persons, as failures, and as individuals whose opinions need not be taken seriously. The possible total score on this scale range between 12 and 72, with higher scores indicate more public stigma.

The Perceived Devaluation-Discrimination Scale had adequate reliability (Cronbach's  $\alpha=0.78$ ) and high construct validity [36,37] when the scale was used for individuals who received professional psychological help and those who did not. This scale is widely used literature for over 35 years. Pilot testing of the Arabic translated version of the scale demonstrated good reliability. In the current study, the scale had Cronbach's  $\alpha=0.83$ .

#### 2.3.3. Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPH)

To measure students' attitudes toward seeking professional psychological help, the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS; [26]) was used. The ATSPPHS is a 29-item measure for which individuals are asked to rate how much they agree with certain statements regarding seeking help from a psychiatric or mental health professionals. Respondents are asked to rate, on a scale of 0 "strongly disagree" to 3 "strongly agree" each of the statements; thus scores could range from 0 to 87; higher scores reflect more positive attitudes toward seeking psychological help. The ATSPPHS has good internal reliability ( $\alpha=0.86$ ) [26] and test-retest reliability after testing intervals of two months ( $r=.74$ ). Fischer and Farina [25] noted that, in the 40 years of the ATSPPHS's existence, different studies have showed it to be a valid measure. In the current study, the scale had Cronbach's  $\alpha=0.82$ .

### 2.4. Participants

A total of 519 undergraduate students completed the study measures. Among them, 103 students were bridging and the others were regular students. The mean age of the participants was 22.39 (Standard Deviation= 2.96), ranging from 19 - 35 years. Additional characteristics of the sample are presented in Table 1.

### 2.5. Data Analysis

Data were analyzed using Version 20 of the Statistical Package for the Social Sciences (SPSS). Data assessment and cleaning were first completed. Descriptive statistics were used to describe the study sample, and to assess the attitudes about mental illness in Jordanian university students, perceived public stigma toward mental illness, and the attitudes of Jordanian university students toward seeking professional psychological help. Independent samples t-test was used to compare university students in medically-related specialties and those in other specialties

with regard to their attitudes about mental illness, perceived public stigma toward mental illness, and their attitudes toward seeking mental health treatment. Finally, hierarchical multiple regression analysis was conducted to identify the extent to which the demographic variables, attitudes about mental illness, and perceived public stigma toward mental illness are correlated with attitudes toward

seeking mental health treatment among Jordanian university students. In the regression analysis, all of the independent variables presented in Table 1 were dichotomous categorical variables coded as (0, 1), and the interpretation of the sign of the correlation between these variables and ATSPPH was made accordingly. The results of data analysis were considered significant at  $p$  values  $< 0.05$ .

**Table 1. Frequencies and Percentages for Students' Characteristics (N=519)**

Item	Category	Frequency	Percent
Gender of Participant	Male	159	30.6
	Female	360	69.4
Marital Status	Married	91	17.5
	Unmarried	428	82.5
Specialty	Medically related	243	46.8
	None medically related	276	53.2
Are you satisfied with your socioeconomic status?	Yes	234	45.1
	No	285	44.9
Having a history of psychiatric treatment?	Yes	19	3.7
	No	500	96.3

### 3. Results

#### 3.1. Stigma Toward Mental Illness and ATSPPH in Jordanian University Students

Examination of the histograms, and the skewness, and kurtosis values revealed that scores on measures of stigma toward mental illness and ATSPPH were approximately normally distributed. Regarding students' attitudes toward professional psychological help-seeking (see Table 2), the

analysis showed that students had a mean score of 47.24 (Standard deviation=9.69) with scores ranging from 17 to 79. This mean score is relatively less than mean scores of ATSPPHS reported in previous studies (e.g. 59.6 in US students: [26]; 60.41 in Tukey university students: [32]; 50.4 in international students: [19]; and 48.8 in Asian-American students: [35]). The outcome obtained in the current study suggests that Jordanian students have less favorable attitudes toward seeking professional psychological help than other study groups.

**Table 2. Mean, Standard Deviation, Median, Minimum, Maximum Values and Percentiles for Scores of ATSPPH, SD, and DD in University Students**

	Mean	Standard Deviation	Median	Min	Max	P25	P50	P75
ATSPPH*	47.24	9.68	47	17	79	42	47	53
SD**	13.27	4.08	13	6	24	10	13	16
DD***	41.01	9.94	41	15	65	35	41	48

\*ATSPPH= attitudes toward seeking professional psychological help

\*\*SD= Social Distance

\*\*\*DD= Devaluation-Discrimination.

Regarding DD measure, the analysis showed that students had a mean score of 41.01 (Standard Deviation =9.94) with scores ranging from 15 to 65. Their mean score fell within the middle portion of the range of scores for the DD measure. This indicates that the Jordanian students in this study did not expect a relatively high or low amount of devaluation and discrimination based on mental illness.

Finally, the overall Jordanian student s' mean score on the measure of SD towards mental illness was 13.27 (Standard Deviation=4.01) with scores ranging from 6 to 24. This value fell within the middle of the range of possible scores for this measure. This indicates that the Jordanian students in this study did not express wanting a high or a low amount of SD towards individuals with mental illness.

#### 3.2. Difference in Stigma toward Mental Illness and ATSPPH in Jordanian University Students Based on Specialty

Independent samples t-test was conducted to assess if there were statistically significant differences between university students regarding DD, SD and ATSPPH, based on their specialty. As indicated in Table 3, students in medically-related specialties demonstrated higher mean score in the measure of DD than students in non-medical related specialties. Surprisingly, despite they had a relatively higher mean score in the measure of DD, students in medically-related specialties had better ATSPPH than students in non-medical related specialties.

**Table 3. Difference in Stigma toward Mental Illness and ATSPPH in Jordanian University Students Based on Specialty**

	Mean (Standard Deviation) in medical students	Mean (Standard Deviation) in non-medical students	t	P value
ATSPPH*	48.21(9.69)	46.38 (9.62)	2.16	0.0
SD**	13.42(4.07)	13.13 (4.09)	0.81	0.42
DD***	43.32(9.27)	38.98(10.08)	5.08	<0.001

\*ATSPPH= attitudes toward seeking professional psychological help

\*\*SD= Social Distance

\*\*\*DD= Devaluation-Discrimination.

### 3.3. Correlates of ATSPPHS in University Students

Pearson's product-moment correlation coefficient was used to determine the strength of the correlation between the independent variables (i.e. age, gender, specialty, history of psychiatric treatment, DD and SD) and the dependent variable (ATSPPH) in university students. All the independent variables were significantly correlated

with the ATSPPH (Table 4). None of the correlation coefficients presented in Table 4 were high (above 0.70), which may affect the multiple regression analyses [16]. However, small intercorrelations were found between the independent variables. Examination of the tolerance statistic (all of them were above 0.2), and the variance inflation factor (all of them were below 10) indicated no any problem in multicollinearity.

**Table 4. Pearson Product-moment Correlation between ATSPPH and the Independent Variables in the Study**

	Age	Gender	Specialty	Previous psychiatric treatment	DD**	SD***
ATSPPHS*	.12**	-.09-*	.10*	.09*	-.22-**	-.32-**

\*ATSPPH= attitudes toward seeking professional psychological help

\*\*DD= Devaluation-Discrimination

\*\*\*SD= Social Distance.

Hierarchical multiple regression analysis was conducted to assess the correlation between the predictor variables and ATSPPH in students. Table 5 displays the unstandardised regression coefficients (b) with their standard errors and the standardized regression coefficients ( $\beta$ ) for the regression analysis. The gender and age of students were considered demographic variables and were entered at the first step of the regression analysis. Gender and age of the students were significantly correlated with ATSPPH in students,  $F(2, 519) = 6.41, p = 0.002$ . Together, these variables accounted for 2% of the variance in ATSPPH. Both of them had contributed unique variance to the model, gender ( $\beta = -0.10, p = 0.02$ ), age ( $\beta = -0.13, p = 0.004$ ). This analysis revealed that female students are more willing to seek professional psychological help than male students. The larger age in students was associated with less willing to seek professional psychological help.

The speciality of the student and history of psychiatric treatment might provide the student with some knowledge or experience regarding professional psychological help. Consequently, these variables were entered at the second step of the regression analysis. The regression examining

whether speciality of the student and history of psychiatric treatment were correlated with ATSPPH, after controlling for age and gender of the student, was found to be significant,  $F(4, 514) = 5.12, p < 0.001$ . The speciality of the student and history of psychiatric treatment accounted for 1% additional variance above and beyond the 2% accounted for by age and gender. In this model, all the variables included had a unique contribution to the model, except for speciality of the student ( $\beta = 0.08, p = 0.08$ ).

Further, the regression examining whether measures of stigma toward mental illness (DD and SD) were correlated with ATSPPH in students, after controlling for age, gender, speciality of the student, and history of psychiatric treatment in students was found to be significant,  $F(6, 512) = 17.1, p < 0.001$ . All the variables included (i.e. age, gender, specialty (medically-related Vs another specialty), history of psychiatric treatment, DD, and SD) contributed unique variance to the model. The measures of stigma toward mental illness (DD and SD) accounted for 13% additional variance above and beyond the 3% accounted for by age, gender, specialty (medically-related Vs another specialty), and history of psychiatric treatment (Table 5).

**Table 5. Hierarchical Multiple Regression of the Independent Variables as Correlates of ATSPPH in University Students**

	b	SE b	B	$\Delta R$ Square
Step 1				0.02**
Constant	38.59	3.22		
Age	0.416	0.14	0.13**	
Gender	-2.18	.92	-0.10-*	
Step 2				0.01***
Constant	38.89	3.21		
Age	0.36	0.15	0.11*	
Gender	-2.25-	0.91	-0.11-*	
Specialty	1.49	0.86	0.08	
History of psychiatric treatment	4.82	2.23	0.09*	
Step 3				0.13***
Constant	50.23	3.28		
Age	0.51	0.14	0.16***	
Gender	-1.89	0.85	-0.09-*	
Speciality	2.14	0.82	0.11*	
History of psychiatric treatment	4.22	2.08	0.08*	
Total DD	-0.15	0.04	-0.16-***	
Total SD	-0.66-	0.78	-0.55***	

ATSPPH= attitudes toward seeking professional psychological help

SD= Social Distance, DD= Devaluation-Discrimination

\* =  $P < 0.05$

\*\* =  $P < 0.01$

\*\*\*=  $P < 0.01$ .

## 4. Discussion

The current study examined stigma toward mental illness and its role in ATSPPH in Jordanian university students. The results showed that Jordanian students have relatively less favorable ATSPPH than other study groups. In general, female gender, medically-related specialities, students with a previous history of receiving mental health counseling services and students who reported low scores on measures of stigma toward mental illness were more likely to have favorable ATSPPH. In fact, although the associations between ATSPPH and the independent variables were statistically significant, the researchers expect that not all of these association are clinically meaningful (e.g.  $r=-0.09$ ,  $0.10$ ,  $0.09$  are very small correlations between ATSPPHS and gender, specialty, and previous psychiatric treatment respectively, Table 4). On the other hand, the stigma toward mental illness was the strongest correlate of ATSPPH in students.

The relatively low scores on ATSPPH in the current study could be influenced by students' culture. Arab cultural traditions, values and beliefs are different from those of Westerners [41]. These unique sociocultural aspects for Arab population can affect their ATSPPH [4]. In contrast to medical services which are broadly accepted in Jordan, mental health services have not. In reference to Arab culture, Arab may view mental illness as an illness of the soul and not of the body or the mind. Sharing personal experiences and seeking help involve revealing familial and personal issues. Breaking family privacy is not acceptable in Arab norms. Thus, Arab students may rely on seeking social support from family members and relatives or friends rather than seeking professional psychological help [20]. Previous research found that the percent of Arab people who seek psychological help is much lower than those in Western countries [34]. To enhance favorable ATSPPH, the Jordanian students may need trained professionals who can provide psychological help in a culturally appropriate way.

Consistent with previous literature (e.g., [8,21,22,39]), female students reported more favorable ATSPPH than male students. This is evident in Jordanian culture where males hardly express or share their emotions while females are allowed to thoroughly discuss their personal issues and express their emotions. As most participants in this study were female, it is important to be cautious when interpreting the current study finding regarding the mean scores of ATSPPH, since female gender is associated with greater scores on ATSPPH.

Students who were enrolled in medically-related specialities and students with a history of receiving mental health counseling services expressed more willingness to seek professional psychological help. These students may know more about the benefits of professional psychological help and counseling. Unsurprisingly, students who believe in the effectiveness of professional psychological support services are more likely to have positive ATSPPH [47].

Furthermore, stigma toward mental illness was the strongest correlate of ATSPPH, which was supported by previous literature [17,21,27,46,49]. This outcome suggests that combating stigma toward mental illness in Arab students is an important step toward promoting

students' ATSPPH. Development of anti-stigma programs on university campuses may help to normalize students experience with psychological professional help and promote help-seeking among university students with mental illness.

The role of socioeconomic status among students must also be considered. About 45.1% of the students were not satisfied with their socioeconomic status. Poor socioeconomic status and a high cost of psychological counseling in Jordan could be a barrier to seeking professional psychological help.

The final model created using the regression analysis explained only 16% of students' scores on ATSPPH. It is noteworthy to suggest examining other potential correlates related to Arab culture in the future research. The unfamiliarity with professional psychological help services, lack of knowledge about the existence of professional psychological help services, and depending on social support as a method to relieve psychological tension may play a role in shaping ATSPPH. Unsurprisingly, Arabs have less knowledge regarding the existence of professional psychological help services [4]. Additionally, in Arab countries, there are some alternatives for professional psychological help including seeking support from family members and going to Sheikh (Religious Man). Many Arab Muslims still believe that the Sheikh can cure mental illness by using supernatural forces such as praying and reading in the "Holy Quran" to fight what is called "Jinn", "Hasad eye", or "black magic" [6,28,48]. These practices, however, are not consistent with the Islamic recommendations, since Islam suggests that each sickness has a medication for it [8]. Future research may want to examine the association between Arab cultural practices and beliefs and ATSPPH in university students. Unfortunately, examining specific Arab cultural beliefs and practices was beyond the scope of the current study.

In addition to mental health care professionals, nurse practitioners and other health care professionals should develop realistic interventions against the stigmatizing attitudes towards mental illness. Furthermore, they can play a vital role in assessment and management of mental illness [43]. Likewise, nursing educators and other health care educators should integrate culturally sensitive concepts into the academic curricula to promote positive ATSPPH in students [2,3]. Finally, there is a need for enforcing mental health policies to provide accessible mental health services and encourage Jordanian students who experience mental illnesses to seek psychological help [41].

Some limitations in the current study may impact the results. About 32% of the invited students completed the questionnaire which is considered one of the limitations of this study. In addition, most of the participants in the study were female students. Further, the study used convenience sampling technique which may bias the data. Because the survey was distributed via Facebook, there might be some difficulty in assuring the identity of all individuals who completed the survey. Moreover, scores on ATSPPH might have been positively influenced due to social desirability bias. Finally, the current study depended on self-report measures. Despite these limitations, the results of this study provided valuable data specific to the Arab population.

## Conflict of Interest

The authors declare that they have no conflict of interest.

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