

Research Article

THE DETERMINANTS OF MENTAL HEALTH LITERACY AMONG YOUNG ADOLESCENTS IN SOUTH OF JORDAN

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Abstract

This study aims to verify the adolescents ability to correctly identify mental health disorders such as depression and the intention to seek help, which refers to the determinants of Mental Health Literacy (MHL). As well as understanding the relationship between MHL and the psychological state associated with depression among adolescents in schools. This study was conducted using a cross sectional descriptive design and included 450 adolescent students (215 males and 235 females) from public intermediate and secondary schools in southern Jordan, and they were between 13 and 16 years old from ten randomly selected schools. Data on sociodemographic characteristics (gender, age, smoking, exposure to bullying, loneliness, parental marital status, and financial status represented by parental income) of participating adolescents were collected through student data from school principals and then assessed by the Global Student Health Survey (GSHS). MHL among adolescents was assessed and measured using the depression vignette and questionnaire of the mental health literacy and stigma. The data were analyzed using the Statistical Program for Social Sciences (SPSS) and multivariate binary logistic regression to examine and study the determinants of MHL. The results were obtained, the most important of which was that the adequate levels of MHL among adolescents were clearly and directly related to several factors. This was demonstrated by the use of multivariate analysis. The study concluded that the factors that significantly affected adequate levels of MHL were gender (females), age (older adolescents), non-smoking, and lack of loneliness. Where the values related to these factors obtained from multivariate analysis were (AOR=1.72; 95% CI 1.15, 2.57), (AOR=1.52; 95% CI 1.04, 2.22), (AOR=1.60; 95% CI 1.09, 3.54), (AOR=1.20; 95% CI 1.12, 1.76), respectively. One of the most important recommendations focused in this research is to pay attention to addressing the determinants and levels of MHL adequate to develop a generation of young adolescents who are more aware and free of mental disorders and have high levels of MHL adequate. *ASEAN Journal of Psychiatry, Vol. 24 (1) January, 2023; 1-15.*

Keywords: Mental Health Literacy, Adolescents, Sociodemographic, Disorders, Statistical Program

Introduction

Mental Health Literacy (MHL) is known as according to Jorm, et al., The understanding and beliefs about mental disorders that help recognize, manage, or prevent them. The idea of MHL is derived from health literacy, which goals to increase patients' awareness of their physical health, illnesses, and treatments. Learning about specific problems and knowing how to research mental health are both aspects of mental health literacy. It also includes

information on risk factors and their causes, self-care techniques, available professional support, and circumstances that encourage recognizing problems and getting the right help [1,2]. MHL has recently been defined as the comprehension and knowledge of how to positively manage mental health, understand psychological disorders, and know how to treat and positively deal with them [3]. Later, MHL was redefined by adding an expanded concept of stigma and expanding strategies that contribute to self-help.

Thus, the concept of MHL includes knowledge associated with the concept of mental health, stigma, and the activation of seeking help [4]. Mental health literacy has been characterized by many compounds which include: (1) knowledge of mental disorders, (2) then knowing the causes of mental disorders and knowing risk factors, (3) working to reinforce situations that contribute to seeking appropriate help for those situations, (4) knowledge and beliefs about available professional help, and (5) Learn how to search for mental health information. According to the World Health Organization (WHO), individuals between the ages of 10 and 19 (school age) are known as adolescents, and this period is considered a unique and important period and a formative period for the person as well. During this period, some physical and emotional changes appear, and at this stage, several adolescents enjoy good mental and physical health, including family attention. However, according to the statistics carried out by the world health organization, 14% of adolescents suffer from health or psychological problems due to several reasons, including lack of family attention, violence, poverty, racial discrimination in some societies, as well as violations of some of their rights, which requires the protection of this group from any problems that may be fall them, the provision of social protection for them, the provision of education, psychological and health awareness, and other means that may contribute to the protection of members of this age group and help them deal with some difficult or dangerous situations that they may be exposed to. However, we find that the people who receive health and psychological care are a small percentage compared to their numbers, which makes it increasingly difficult not to know this group of the psychological risks that afflict them [5]. The lack of health literacy data can be attributed to several reasons, including the lack of a clear and understandable definition of health literacy in this age group in general, the lack of high quality and correct information and measurements related to this group, as well as a lack of studies and literature related to this group [6]. Consequently, we find that the literacy of mental health among adolescents is of great

importance because of their effective and important role in their societies later on, as the school plays an important role in eradicating this illiteracy, whether psychological, mental, scientific, or other. The role of schools lies in the curricula they offer or through the initiatives they may undertake [7].

Due to the inclusive nature of the concept of MHL, it has attracted the attention of many researchers and those interested in them globally and therefore many types of research and studies related to this aspect have been carried out. It was found that western society and the most civilized countries suffer from high rates of mental health illiteracy. Consequently, individuals who suffer from a low level of health literacy suffer from health and psychological disorders, not to mention the delay in seeking help for them, and thus the high rate of stigma for them [8]. And through previous studies, we also find that the word health literacy increases as the percentage of health and mental disorders decrease. The percentage of health literacy increases through knowledge of the determinants of mental health literacy [9].

The age group in which some physiological changes appear is known as adolescence and some skills such as crisis management, emotional situations, solving some problems, and how to deal with others are developed. The family, community, or school environment is one of the factors affecting mental and physiological health. When this category is exposed to some risks resulting from the environment or the family, this affects their psychological and mental health. The media influence the personality or behavior of an adolescent. Other factors play an important role in the mental health of adolescents, including family life, such as domestic violence or cruelty because of one of the parents, economic life, social problems, and sexual violence, all of which play a negative role on mental health, which in turn is a cause of adolescent exposure to health or psychological diseases such as Autism spectrum, intellectual disability, stigma and may include early or forced marriage and others.

Many studies have researched the issue of mental health literacy and whether the trend is in a negative or positive direction toward individuals with mental disorders. Studies conducted in Uganda on a group of adolescents in secondary schools, as well as society's opinions on the same subject, have proven that young people need awareness and training programs to understand mental disorders, their causes, and how to treat them, while the society's perspective towards them was negative, and some even feared contemplating with them or even communicating because of the violent behavior they might do [10].

In a recent study carried out by Jordanian researchers Batarseh and others in which they explained the general concept of mental health literacy and this study aimed to evaluate the concept of mental health literacy for pharmacists in the Middle East and North Africa as well as Jordan in terms of knowledge, stigma, or providing assistance and care. This study was conducted with the help of online social media platforms for pharmacists working in the public and private sectors. This study included 372 pharmacists, mostly female. The study found that 35% of pharmacists were unable to classify psychotropic medications. The study also showed that support for individuals suffering from mental disorders is provided by psychiatrists, family support, friends, or social workers. The study concluded that pharmacists' knowledge of the concept of mental health or mental health disorders is weak [11].

In a study conducted by Seedaket and others in which they explained the importance of knowledge of mental health literacy among adolescents and that knowledge of mental disorders leads to early detection of mental illness. This study used different databases to obtain information, including Science Direct, Scopus, PubMed, and others. The study showed that supportive interventions that improve mental health literacy in adolescents can be classified into two main categories, which are school based and the other is community based. The study also found that the use of visual or audio teaching aids, courses, and other awareness methods used

by the community or used by the school has an effective role in the early detection of diseases or mental disorders [12].

In a recent review study carried out by researchers from the department of nursing, midwifery and social work, college of medicine, university of Manchester, United Kingdom, a sample of 52 studies included 36,429 participants and their ages ranged from 10 to 17 years. The study included low and middle-income countries and used multiple databases to collect data to know the level of these countries in terms of their knowledge of mental disorders, their causes, and treatment. The study found that some developing countries have low levels of knowledge of mental health or disorders that may accompany adolescents and pervasive levels of stigma, as well as low levels of trust in health care services even if they are an option for individuals with mental disorders. The study recommended the need to continue the research in a broader way to include multiple and diverse cultures and show the extent of interaction between knowledge, beliefs, and attitudes, and seek help in full [13].

Many aspects of adolescent mental health are related to the social determinants of health globally. To obtain positive results for mental health literacy, we must address specific ones, including poverty, food security, society, its effects, racism, violence, and other determinants that can be addressed more broadly according to society and its culture [14,15]. Determinants of mental health disorders vary across the life course and with different cultures of society, and studies indicate that 50% of people with mental disorders appear at the age of 14, and the percentage of people who develop mental disorders at the age of 20 is 75%. Many factors may contribute to these disorders, including the health of the mother during pregnancy, family, family income, educational level, and others. The reports also showed that 30% of the people who have mental disorders or other problems are a result of unemployment, deprivation, poverty, debts, violence, and others.

The current research aims to study and identify the determinants of mental health literacy among adolescents (school age), with the increasing prevalence and visibility of psychological effects related to mental health that affect adolescents between the ages of (13,16) years. This is because it is very necessary to improve and learn about MHL in the period that began to appear. This is done by identifying and studying the determinants of MHL that are most forms prevalent among adolescents in southern Jordan. This research paper was distinguished as the first in an Arab country such as Jordan that focused on the determinants of MHL among school age adolescents, while developed countries have been interested in studying the determinants of MHL since years ago [16-18]. Moreover, the main objective of this study is to examine the levels of some of the determinants that are an essential component of MHL (recognition of the determinants of mental health literacy, identification of help seeking behavior of adolescents, the presence of mental health professionals) among school age adolescents in southern Jordan. Thus, we believe, according to the results that have been reached, that this study is gaining importance through the data and information that it will provide about the determinants of MHL among adolescents. It may also help decision makers in Jordan to pay attention to the determinants of MHL in general and to work on making decisions related to developing programs and policies related to mental health to improve it among adolescents (school age) in Jordan.

Materials and Methods

Study design

A cross sectional study design involving male and female students from public middle and secondary schools in southern Jordan was conducted in the period from September to December 2021. Ten schools were randomly selected from among the list of public schools, including five girls schools and five boys schools in southern Jordan. A random sample of middle and high school students was selected to participate in this research work. Two methods

were relied on, short articles and the content analysis method, to analyze the data obtained from adolescents.

Participants

The study sample consisted of 450 adolescent students studying in different schools in the southern regions of Jordan. The ages of the participants ranged from 13 to 16 years. The participants included (n=235, 52%) female adolescent students and (n=215, 48%) male adolescent students, and 450 adolescent students from middle and high school from different schools during the academic year 2021-2022. The data related to the socio demographic characteristics of the participating adolescents were collected and evaluated through the student data from school principals. These characteristics were represented by gender (male/female), age (13/16 years), cigarette smoking (yes/no), loneliness (yes/no), exposure to bullying (yes/no), the marital status of the parents (married and living in the same house/divorced or living separately), financial status represented by the parents' income (low income less than 650 dinars per month/medium income 1500 dinars per month to high 6500 dinars per month), likely to seek help (yes/no), ability to identify depression correctly (yes/no), and adequate MHL (adequate/inadequate level of MHL).

Data collection

The data was collected from the schools that were selected on dates specified by those schools as they deem fit. Before collecting the study data, the specialist responsible in each school for assisting the researcher collected the target students and explained to them the purpose of this research work. Parents of students were involved by giving them a consent form and an information sheet related to the research so that the parents of the students read it and then agree and sign the papers related to the research for their children to participate in it. These approval papers are returned to the responsible specialist within three days. After that, the specialist responsible for each school informs the researcher of the number of participants through

the consent papers obtained and he with the help of the researcher distributed the research questionnaire to the male and female students of the specified schools. To maintain the confidentiality of the participating male and female students, codes were used for all questionnaires. It took the students 20 minutes to answer the questionnaire and was collected. The 450 students agreed to study and this is the number listed for data analysis.

Measures

Sociodemographic characteristics and health information of the participant's students were obtained and assessed using a modified version of the Global Survey of Student Health (GSHS) questionnaire in all schools in Jordan [19].

A modified version of the friend in need Mental Health (MHL) and stigma questionnaire developed by Burns and Rapee was used [20], and through this questionnaire, MHL was evaluated. This questionnaire is based on many studies and research worldwide and has been translated to identify and evaluate MHL for participating adolescents. The most important mental health disorder that has been included in the current research work was depression. This is because depression is a common mental health disorder among adolescents in most countries of the world and Arab countries such as Jordan [21,22]. The MHL and stigma questionnaire was based on a short article (scenario) of a depressed adolescent as described in the Diagnostic and Statistical Manual of mental disorders (DSM) [23]. The scenario included the following:

“Adel is a 15 years old boy who has been feeling different unusually feeling for the past few weeks, where he felt sad and miserable. He also feels tired most of the time and suffers from a problem which is that it is difficult for him to sleep at night. Adel suffers from not feeling the like to eat and therefore loses weight. He is having difficulty studying it because he cannot concentrate and therefore his marks have decreased. He does not care about making decisions, postpones them, and sees daily chores and tasks as difficult and above his energy, and

take longer to complete. His parents, people close to him, and his friends are very worried about him.”

This scenario has been used and adapted to fit the desired objectives of this research. Furthermore, to assess and know the ability of adolescents in schools to identify the MHL disorders such as depression, their knowledge of behavior and how to seek help, and their attitude of stigmatization. After the participants were briefed on the vignette that described the character of Adel, they were presented with a set of questions related to the components of MHL, namely knowledge of MHL, request for help, and stigma, which will be studied in this research. After preparing the questionnaires in an organized and accurate manner as the first questionnaire is for the file of the participating students and consists of 30 paragraphs related to data and information that refer to social, demographic, and personal characteristics. While the second questionnaire consists of 60 paragraphs of which 30 paragraphs are concerned with the extent of the participating students' knowledge of MHL, including the prevention of mental disorders, knowledge of disorder recognition, and first aid. While 15 paragraphs relate to seeking help and 15 paragraphs relate to stigma, which is represented by social distancing and perceived or personal stigma. Thus, the responses to the questionnaires follow the Likert scale, which consists of three basic points. In this research, the main components of knowledge, depression, and seeking help in MHL were determined by evaluating the participating students' ability to clearly and correctly identify depression and intent to seek help.

The students participating in this research work read the vignette with interest and focus and answered the questions asked to them in order to assess their ability to correctly recognize and perceive depression. The most important questions that were asked about the vignette were as follows: First, a question to assess the ability of male and female adolescents to identify depression, which is "what mistake did Adel make in your opinion?" The answers of the

participants included more than one term by which they express their point of view these terms and these terms were ("mental illness", "depression", "sadness", "psychological problem", "social problem", "emotional problem", "tiredness", "schizophrenia", "losing confidence in someone", "practicing smoking", and "nothing"). While the second question was to assess the intentions of the participants about seeking help, which is (if you run into a problem like Adil's, are you going to seek help from other people?" where the participants were asked to answer "agree", "disagree", or "neutral". After the participants completed their answers, they were read, and we concluded that this vignette describes depression and the person mentioned in it suffers from a psychological problem, depression, and/or has a problem and stress. The responses of the participants were highly positive about the intent to seek help, as they expressed that if they faced the same problem as Adel, they would seek help. After completing the participants' answers, the variables related to identifying depression and the variables concerned with the intention to seek help were made as one composite variable related to the examination of MHL among adolescent male and female students. After that, participants who had the ability to correctly identify depression, as well as the intention to seek help, was identified and thus categorized as adolescents with adequate levels of MHL. The validity and reliability of the questionnaire for Mental Health Literacy (MHL) and stigma (all items) and this questionnaire is valid and reliable to apply to adolescents in Jordan by calculating the value of alpha (α) from the Cronbach's scale, which had a value of ($\alpha \geq 0.75$). We found the validity of this questionnaire in examining the adequacy of MHL for Jordanian adolescents.

Data analysis

Statistical Program for the Social Sciences (SPSS) version 26 was used to analyze the

obtained data and calculate the alpha value of the Cronbach Scale as mentioned previously. The descriptive approach was used to analyze the data, and the analysis included frequency and percentages. A multivariate binary logistic regression analysis was used to examine and study the determinants of MHL, with $p < 0.25$ from the univariate analysis of the variables. Cramer's V was used to check for multicollinearity, and this relationship is multicollinearity when considering any two variables with a value of Cramer's V is >0.3 [24]. All data were entered and calculated by SPSS program and then the presence of interaction was examined by the interaction function test in it, where the value of statistical significance ($p < 0.05$) indicates the presence of interaction.

Results

The number of adolescent participants in this study was 450, the number of females was 235 (52%) and 215 (48%) were males. The ages of the participants were similar, with 207 (46%) at 13 years old and 243 (53%) at 16 years old. There were 31 (7%) participants who tried smoking at least once. Loneliness or exposure to bullying was reported by 76 (11%) and 52 (12%) participants, respectively. Most of the participants were living a stable and healthy life with their families 413 (92%) and their parents' monthly income level was low 384 (85%). To determine and know the participants experience with the level of adequate MHL and their information about it, although the majority of them had the intention to seek help and their number was 365 (81%) and few of the participants had the ability to correctly identify depression as their number was 47 (10%). For this reason, the majority of participants ($n=415$, 92%) had high levels of inadequate MHL. All of these results regarding the demographic characteristics of the participants are shown in Table 1.

Table 1. Socio demographic characteristics of the participants (n=450).

Demographics	Level	Total number (n = 450)	Percentage (n, %)
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Age (years)	13	207	46%
	16	243	54%
Gender	Male	215	48%
	Female	235	52%
Cigarette smoking status (try smoking at least once)	Yes	419	93%
	No	31	7%
Loneliness	Yes	76	17%
	No	374	83%
Exposure to bullying	Yes	52	12%
	No	398	88%
Marital status of the parents	Married and living in the same house	413	92%
	Divorced or living separately	37	8%
Financial status of the parents	Low income	384	85%
	Medium income or high income	66	15%
Likely to seek help	Yes	365	81%
	No	85	19%
Ability to identify depression correctly	Yes	47	10%
	No	403	90%
Adequate MHL	Adequate level of MHL	35	8%
	Inadequate level of MHL	415	92%

Multivariate analysis was used to study the statistical data and determine significantly the association of variables, and we found that several factors were clearly and significantly associated with MHL as shown in Tables 2-4. Regarding the correct identification of depression, the associated factors were analyzed

by multivariate analysis, and the following results were obtained: Females (AOR=1.72; 95% CI 1.15, 2.57), 16 years old adolescents (AOR=1.52; 95% CI 1.04, 2.22), adolescents who do not smoke (AOR=1.60; 95% CI 1.09, 3.54), and not feeling lonely (AOR=1.20; 95% CI 1.12, 1.76). All of these factors were

associated with the correct identification of depression by the participants, as these results are clarified in Table 2.

Table 2. Shows the factors associated with the correct identification of depression related to a mental health disorder.

Variable	Univariate logistic regression		Multivariate logistic regression	
	Crude OR (95% CI)	p-Value	Adjusted OR (95% CI)	p-Value
Gender				
Male	1	0.016 *	1	0.004 **
Female	1.55 (1.07, 2.25)		1.72 (1.15, 2.57)	
Age (years)				
13	1	0.016 *	1	0.022 **
16	1.55 (1.07, 2.26)		1.52 (1.04, 2.22)	
Cigarette smoking status (try smoking at least once)				
Yes	1	0.042 *	1	0.047 **
No	1.11 (1.02, 2.38)		1.60 (1.09, 3.54)	
Loneliness				
Yes	1	0.040 *	1	0.041 **
No	1.14 (1.05, 2.65)		1.20 (1.12, 1.76)	
Exposure to bullying				
Yes	1	0.546 *	---	---
No	1.19 (0.65, 2.17)			
Marital status of the parents				
Married and living in the same house	1	0.668 *	---	---
Divorced or living separately	0.84 (0.45, 1.58)			
Financial status of the parents				
Low income	0.90 (0.60, 1.35)	0.641 *	---	---

Medium income or high income	1			
Important notes regarding the symbols in the table (OR: Odds Ratio, CI: Confidence Interval, * significance set at p<0.25 from the univariate analysis, ** significance set at p-value<0.05 after multivariate analysis, 1 denotes a reference group).				

While regarding the intent to seek help among the participants, we found that the associated factors were analyzed by multivariate analysis and we reached the following factors were analyzed by multivariate analysis and we reached the following results: For females (AOR=1.40, 95% CI 1.05, 1.87), being a 16

years old adolescent (AOR=1.27, 95 % CI 1.04, 1.67), non-smoking adolescents (AOR=1.67, 95% CI 1.01, 2.82), and not feeling lonely (AOR=1.33, 95% CI 1.02, 1.76). These factors were significantly correlated with prior intention to seek help and these results are illustrated in Table 3.

Table 3. Shows the factors associated with the intention to seek related to mental health disorder.

Variable	Univariate Logistic Regression		Multivariate Logistic Regression	
	Crude OR (95% CI)	p-Value	Adjusted OR (95%CI)	p-Value
Gender				
Male	1	0.003*	1	0.016**
Female	1.50 (1.14,1.97)		1.40 (1.05, 1.87)	
Age (years)				
13	1	0.005*	1	0.006**
16	1.25 (1.01, 1.65)		1.27 (1.04, 1.67)	
Cigarette smoking status (try smoking at least once)				
Yes	1	0.003*	1	0.044**
No	2.12 (1.29, 3.48)		1.67 (1.01,2.82)	
Loneliness				
Yes	1	0.042*	1	0.045**
No	1.30 (1.01, 1.71)		1.33 (1.02, 1.76)	
Exposure to bullying				

Yes	1	0.125*	1	0.423
No	1.35 (0.91, 2.01)		1.16 (0.77, 1.74)	
Marital status of the parents				
Married and living in the same house	1	0.102*	1.34 (0.90, 2.02)	0.14
Divorced or living separately	1.38 (0.94, 2.04)			
Financial status of the parents				
Low income	0.95 (0.71, 1.30)	0.86	---	---
Medium income or high income	1			
Important notes regarding the symbols in the table (OR, Odds ratio, CI, Confidence interval, * Significance set at p<0.25 from the univariate analysis, ** Significance set at p-value<0.05 after multivariate analysis, 1 denotes a reference group).				

We also found that there are factors significantly associated with adequate MHL, and therefore these factors were analyzed by multivariate analysis, and the following results were obtained: Being female (AOR=1.67, 95% CI 1.11, 2.50), 16 years old adolescents (AOR=1.54, 95% CI

1.05, 2.28), adolescents who do not smoke (AOR=1.97, 95% CI 1.20, 4.24), and do not feel lonely (AOR=1.23, 95% CI 1.04, 1.83), where these factors have been reported to be significantly associated with appropriate MHL and these findings are illustrated in Table 4.

Table 4. Shows the factors associated with adequate MHL.

Variable	Univariate logistic regression		Multivariate logistic regression	
	Crude OR (95% CI)	p-Value	Adjusted OR (95%CI)	p-Value
Gender				
Male	1	0.040*	1	0.011**
Female	1.44 (1.01, 2.16)		1.67 (1.11, 2.50)	
Age (years)				
13	1	0.014*	1	0.021**
16	1.58 (1.07, 2.32)		1.54 (1.05, 2.28)	
Cigarette smoking status (try smoking at least once)				

Yes	1	0.016*	1	0.022**
No	1.36 (1.16, 2.81)		1.97 (1.20, 4.24)	
Loneliness				
Yes	1	0.003*	1	0.025**
No	1.17 (1.09, 1.71)		1.23 (1.04, 1.83)	
Exposure to bullying				
Yes	1	0.321	---	--
No	1.37 (0.725, 2.61)			
Marital status of the parents				
Married and living in the same house	1	0.408	---	---
Divorced or living separately	0.74 (0.40, 1.43)			
Financial status of the parents				
Low income	1.01 (0.67, 1.51)	0.912	---	---
Medium income or high income	1			
Important notes regarding the symbols in the table (OR: Odds ratio, CI: Confidence Interval, * significance set at $p < 0.25$ from the univariate analysis, ** significance set at $p\text{-value} < 0.05$ after multivariate analysis, 1 denotes a reference group).				

Discussion

In this study, we focused on examining and identifying the sociodemographic determinants of MHL among participating students (adolescents) in schools in southern Jordan. In this study, we presented a precise and clear evidence for the existence of factors that affected the different components of MHL among adolescents. These components were firstly the knowledge component, which represented the ability to correctly identify the mental health disorder, secondly the help seeking component, which was the intent to seek help, and finally the adequacy for MHL, which represented the ability to correctly identify the mental health disorder in addition to the intent to seek help. The results obtained indicate that gender played an important role in this study, as it was an

effective factor affecting clearly and directly MHL among adolescents. This was demonstrated by females ability (to correctly identify mental health disorders as well as having intentions to seek help and adequate MHL levels) were higher than males. In addition, the same results were obtained in previous studies [25-28]. The reason may be that the effect of gender represented by adolescent females on MHL is due to the way females express and perceive symptoms of mental health disorders, as they can be expressed in terms such as depression, sadness, and psychological problem. Unlike males who expressed terms far from identifying symptoms of mental health disorders such as mental illness, loss of confidence in someone, and a social problem, as these symptoms from their point of

view are related to external problems and pressures by family or friends rather than being symptoms of mental health disorders. When discussing the results of the intention to seek help, we find that females have a higher ability to correctly identify the mental health disorder, and therefore this raises their intention to seek help later. Whereas, males had a lower ability to correctly identify a mental health disorder and thus lower their intent to seek help later.

As for the age of the participating adolescents, the results in this study indicated that the age of adolescents played an important role in improving the understanding of MHL among them. Where it was shown that adolescents aged 16 years have a higher ability to correctly identify mental health disorders, in addition to they have a higher ability to seek help as well as they have a large percentage compared to adolescents aged 13 years regarding adequate levels of MHL. These results are consistent with many previous studies conducted in different countries of the world, where these studies concluded that the recognition and improvement of MHL are affected by age. The reason for this is that with age, the individual acquires many experiences, attitudes, and information, which makes him become more aware of MHL. Therefore, the older adolescent his age, compared to others who are younger than him, has a greater possibility to learn about MHL faster and easier through educational programs or from school and the community.

In addition to the factors of gender and age, which are among the most important determinants of MHL in this study, the results concluded that smoking also is an influential factor in the recognition of MHL. Whereas adolescents who do not smoke have higher levels of MHL than their peers who smoke, and this finding indicates that adolescents or individuals, in general, may use smoking, drinking alcohol, and drugs to adapt to life and deal with mental health disorders. This leads to the failure of teen smokers to properly identify mental health disorders and this is one of the reasons for their low level of help seeking. Where there are many

studies have been conducted that talk about the bad effects of alcohol, smoking, and drug abuse.

Finally, it was concluded through the results that adequate levels of MHL are associated with not feeling lonely. The results showed that adolescents who do not feel lonely have sufficient levels of MHL higher than their peers adolescents who feel lonely. Where these results are in agreement with the results of some previous studies, which showed that there is a clear and significant negative correlation between MHL levels and individuals sense of loneliness. This is because these individuals sit most of their time alone on social networking sites, and consequently, their practice of social activities is less, and their mixing with people is less. Therefore, these individuals become less aware, understand and practice the concept of MHL levels. Our study is the first study to examine and study the determinants of psychological literacy among adolescents in schools in Jordan. It is considered a limited study, as it included adolescents with a limited age, so future studies can expand to include older ages and include all Jordanian cities.

Conclusion

This study is considered the first to assess and determine the determinants of mental health literacy among school age adolescents, and it reached results that additional information related to the most important components of MHL and their levels of adequacy. These components were gender, age, smoking or non-smoking, and loneliness in adolescents. Since the problem that emerged through the results of this study is that younger adolescents have a lack of understanding and awareness to properly identify the determinants of MHL, therefore, plans and policies should be worked out to improve awareness of MHL among young adolescents. This is done by preparing programs and campaigns aimed at educating adolescents and introducing them to the determinants of MHL, especially males, in addition to adolescents who smoke and feel lonely. We recommend that in this research work pay attention to addressing the determinants and adequacy levels of MHL to

develop a generation of young adolescents who are more aware and free of mental disorders and have high levels of MHL adequacy. Which will make them in the future live in a healthy state of mental well-being? In addition, also in this research work we are strongly and directly recommended that prospective research be conducted to include a larger number of adolescents of a wider age group, in different schools and locations across the country.

Limitations

The questionnaire of this study was limited to the participating male and female students from limited and governmental schools in some governorates of southern Jordan, while it would have been better to include most of the schools in Jordan to obtain more accurate and comprehensive results. Moreover, the participants were between the ages of 13 and 16 years, therefore, this age group does not represent all male and female adolescents in all governorates of Jordan. In addition, adequacy levels for MHL and its components cannot be determined by limiting factors and practices such as gender, age, smoking, and loneliness, but there may be other factors to consider. Also, the number of participants was young people, and some of them may not provide clear and correct answers, which may lead to the loss of some results and their inaccuracy in determining MHL the reason is also that the study data collected and analyzed is based on a self-administered questionnaire.

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