


Eating Disorders Literacy: Youth's Beliefs Related to Mental Health First Aid

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Quantitative Study

Abstract

Background: One of the community-based interventions for increasing mental health literacy is mental health first aid (MHFA) training. The current study measured literacy regarding MHFA for eating disorders (EDs) among the youth and adolescents.

Methods: This cross-sectional study was performed on those aged 16-29 years in Tehran, Iran. The sample size was 252 individuals. For data gathering, the Mental Health Literacy Questionnaire (MHLQ) was used that was modified for EDs. The validity and reliability of the Persian version of the MHLQ was confirmed. Data were analyzed using SPSS software. To determine the demographic variables that can predict participants' literacy concerning EDs, logistic regression analysis was used.

Results: Among the participants, 11.5 could successfully recognise EDs, 34.5 were not at all confident in their ability to help, and 36.95 said they would not seek help if faced with a similar problem. Most of the participants selected "obtaining more information about the problems described in the vignette and available services" and "listening to the problems of the vignette character in an understanding way" as the correct first aid interventions.

Family and friends were mentioned as the main influential people. Higher education could significantly predict the ability to correctly diagnose the disorder ($P = 0.03$) and help-seeking behavior ($P = 0.002$). Only relatives' history of exposure to the problems described in the vignette could significantly predict higher scores in diagnosing suitable first aid ($P = 0.02$).

Conclusion: In general, mental health literacy regarding EDs was not suitable among the participants of this study. Thus, it seems necessary to consider targeted MHFA training, particularly in the field of EDs, to provide training in an understandable language to the community and with emphasis on seeking professional services.

Keywords: Disorders; Eating; Literacy; Mental Health; First Aid; Youth

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Introduction

Various studies have emphasized the increasing growth of obesity in developing countries, including Iran. It affects the patterns of both physical diseases and mental disorders. Moreover, widespread warning about the associated risks of obesity as well as advertisements and media patterns on fitness may also affect youngsters, which, either intentionally or unintentionally, increase body dissatisfaction, unhealthy nutrition, weight control, and eating disorders (EDs) in vulnerable groups, which in turn increase family's concern (Rahmani, Sayehmiri, Asadollahi, Sarokhani, Islami, & Sarokhani, 2015).

Globalization and familiarization with other cultures, particularly the western culture, fuel concerns related to attitudes and behaviors. Studies conducted in other countries have reported that EDs are not limited to one country or particular ethnic groups. Generally, it is believed that EDs are limited to the western culture, that emphasizes fitness, but it is an important issue in developing societies, and hence, problems related to EDs and individual's beliefs about their fitness should also be considered in developing societies (Mancilla- Diaz, Franco-Paredes, Vazquez-Arevalo, Lopez-Aguilar, Alvarez-Rayon, & Tellez-Giron, 2007; Baş, Karabudak, & Kiziltan, 2005; Hoek, 2016; Nishizawa, Kida, Nishizawa, Hashiba, Saito, & Mita, 2003; Szabo & Allwood, 2004; Vilela, Lamounier, Dellaretti Filho, Barros Neto, & Horta, 2004).

ED is one of the most common psychosomatic disorders and causes many problems for physical health and mental functions. In addition, it reduces quality of life (QOL) and increases the rate of mortality. By altering nutritional patterns and eating unhealthy food, ED can cause nutritional disorders and threaten our health. These disorders, in turn, can cause malnutrition, osteoporosis, amenorrhea, cardiovascular diseases (CVDs), and depression (Chamay-Weber, Narring, & Michaud, 2005; Emans, 2000).

Adolescents and youngsters are at a higher risk of developing mental illness. Studies have shown that during adolescence, due to the formation of attitudes toward the body as well as the sense of competition with their peers in sports activities, the risk of developing ED is higher (Rosendahl, Bormann, Aschenbrenner, Aschenbrenner, & Strauss, 2009; World Health Organization, 2020). Various studies have reported a prevalence of 0.8 to 14 for EDs among adolescents (Chamay-Weber et al., 2005). Iranian studies have reported a prevalence of 0.9 to 11.5 for EDs (Garrusi & Baneshi, 2012; Nobakht & Dezhkam, 2000).

Less than one quarter of people with EDs seek appropriate care despite the available treatments (Hart, Jorm, and Paxton, 2012). People with EDs are also more likely to seek help from informal sources such as their social network or search for information on the internet rather than seek specific and evidence-based treatment (Hart et al., 2012; Mond, Hay, Rodgers, Owen, & Mitchell, 2006; Mond et al., 2009). Mental health literacy was first defined by Jorm (2012) in Australia as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention".

Mental health literacy among the people of any society indicates their knowledge about mental disorders and their understanding of the necessity to consult a specialist and to receive the necessary interventions. Accordingly, an important step in promoting the mental health of societies is to determine the state of mental health literacy through need assessments and, if necessary, improve the situation. Various studies have shown the need for interventions to promote mental health literacy, increase help-seeking behaviors, and reduce the stigma of EDs (Ali, Farrer, Fassnacht, Gulliver, Bauer, & Griffiths, 2017; McAndrew & Menna 2018; Griffiths et al., 2015; Mohler-Kuo, Schnyder, Dermota, Wei, & Milos, 2016; Tillman & Sell, 2013).

Promoting mental health literacy in the social network of people with EDs can increase help-seeking. Because family and friends can play an important role in reducing stigma and barriers to receiving treatment, and can facilitate care by providing support and motivation (Hart et al., 2012; Treasure, Sepulveda, Whitaker, Todd, Lopez, & Whitney, 2007; Vogel, Wade, Wester, Larson, & Hackler, 2007). A community-based intervention for increasing mental health literacy is mental health first aid (MHFA) training which is defined as "helping someone who is engaged with a mental health problem or is in a mental health crisis." First aid is continued until receiving specialized treatment or addressing the crisis (Kitchener, Jorm, & Kelly, 2017).

MHFA contains the following interventions: supporting the person without annoying or intervening, listening without judgment, and helping him/her access the required information, services, and social support to protect him/her against further harms. MHFA is not professional consultation and is a substitute to gaining appropriate psychological information (World Health Organization, 2011). The MHFA training program was first implemented in Australia, its effectiveness has been reported in various studies, and it is now used in many developing countries (Hadlaczky, Hokby, Mkrtchian, Carli, & Wasserman, 2014; Jorm, Kitchener, Fischer, & Cvetkovski, 2010; Jorm, Kitchener, & Mugford, 2005; Kitchener & Jorm, 2002; Kitchener & Jorm, 2006; Lynch, Gennat, Celenza, Jacobs, O'Brien, & Jelinek, 2006; Hart, Jorm, Paxton, Kelly, & Kitchener, 2009).

If the burden of EDs is to be reduced, research focused on improving mental health literacy with the aim of increasing help-seeking and providing MHFA is essential (Hart et al., 2012). Given the importance of mental health literacy, the authors of the present study intended to adapt a MHFA guideline for EDs to the requirements of the general public (Hart, 2010). Therefore, conducting primary studies to assess the mental health literacy of the community can determine the required points of emphasis.

In Iran, few studies have been conducted on mental health literacy and MHFA. Previous studies have assessed depression literacy in students and adults in Tehran, Iran (Ghadirian and Sayarifard 2019; Sayarifard and Ghadirian 2018; Sayarifard, Ghadirian, Mohit, Eftekhari, Badpa, & Rajabi, 2015). Bahrami, Bahrami, and Chaman-Ara (2019) have studied the level of mental health literacy among high school girls in Chabahar, Iran. Noroozi, Khademolhosseini, Lari, and Tahmasebi (2018) have investigated the relationship between mental health literacy and health-promoting behaviors in adults in Bushehr, Iran.

Since no study has been conducted in this field in Iran so far, the current study aimed to investigate the awareness and beliefs of young people regarding MHFA literacy for EDs. The results of the current study can be used to identify and highlight community-based training aimed at the promotion of MHFA literacy for EDs in Iran.

Methods

This cross-sectional study was conducted on 250 adolescents. Sample size was calculated using the sample size formula for estimating prevalence and considering $\alpha = 0.05$, $P = 0.64$ (Sayarifard et al., 2015), and $d = 0.06$.

$$n = \frac{(Z_{1-\frac{\alpha}{2}})^2 \times p(1-p)}{d^2}$$

The statistical population consisted of all individuals aged 16 to 29 years in Tehran in 2020; this age range was considered based on the definition of adolescence

in Iran (Abbasi-Shavazi, Sadeghi, Hosseini-Chavoshi, Torabi, Mahmoudiani, & Torkashvand Moradabadi, 2013).

In this study, random digit dialing (RDD) was used for sampling (Ghadirian & Sayarifard, 2019). Due to the importance of following random sampling principles to avoid bias, telephone numbers were randomly selected using Excel software from among telephone numbers (landline) of the city of Tehran and calls were made to the selected numbers. Different methods were used to reduce the non-response rates, such as calling the participants several times and messaging them on their answering machine. The participants were selected using the in-house selection method; in each household, those within the defined age range who did not have physical-mental or linguistic problems were interviewed. After obtaining verbal consent, the participants' mobile number was received to send them the link of the online questionnaire via WhatsApp or Telegram.

For data gathering, the Mental Health Literacy Questionnaire (MHLQ) was used. The MHLQ was based on Jorm's protocol (Jorm, 2012), was modified for EDs by Mond, and has been widely used in mental health literacy studies (Hart et al., 2012; Mond et al., 2006b; Mond et al., 2006a; Mond, 2014; Mond et al., 2009). In this questionnaire, after providing a vignette describing a character with a psychiatric disorder, the interviewee's mental health literacy is evaluated in various fields including recognition of disorders, intention to seek help, beliefs and intentions about first aid, beliefs about interventions, and beliefs about people who could possibly help the vignette character. The questionnaire was translated into Persian, and then, the relevancy and clarity of its items were confirmed by 10 experts. To determine face validity, 10 adolescents and young people were interviewed and asked to express any ambiguity in the words and phrases, and if necessary, corrections were made. The reliability was checked using a pretest-posttest method on a sample of 40 individuals and Cronbach's alpha ($\alpha = 0.71$).

In the current study, after providing a vignette of a character with ED, respondents' literacy regarding recognition, help-seeking, confidence in the ability to help the person, first aid, and people that could be helpful was assessed.

The vignette in question was as follows (Chen, Mond, and Kumar, 2010):

"Maryam/Ali is a 20-year-old girl/boy who thinks he/she is overweight, but her/his current weight is below the average for her/his age and height. Therefore, S/he started to diet and stopped eating all fatty foods and snacks. S/he tried to eat healthy foods (mostly fruits, vegetables, bread, and rice) and also started exercising and running, which has resulted in a few kilograms of weight loss. However, maintaining the lost weight is difficult for s/he, and her/his weight has been fluctuating (about 5 kg per week) for the past 18 months. S/he has difficulty in controlling her/his eating habits. In addition, it is difficult for s/he to control her/his diet at nights, although s/he is able to limit her/his diet throughout the day. To compensate for this overeating at nights, s/he forces herself/himself to vomit or uses laxative pills. "Due to this difficult diet and exercising, s/he has become socially isolated."

The questionnaire link was sent to about 450 potential participants, and the response rate was 57. Questionnaires in which less than 80 of the questions were answered were omitted. Eventually, 252 questionnaires were analyzed.

Data were analyzed using SPSS software (version 18; SPSS Inc., Chicago, IL, USA). Quantitative data were reported as mean and standard deviation, and qualitative data were reported as frequency.

To determine the demographic variables that predict participants' literacy concerning EDs, logistic regression analysis was used. To correctly diagnose the

disorder, help-seeking, first aid, and confidence in the ability to help were considered as dependent variables and demographic and exposure variables were considered as independent variables. Age was divided into 2 subgroups of younger than 22 years and older than 22 years, education was also divided into 2 subgroups of pre-diploma education and diploma and higher, diagnosis was divided into 2 subgroups of EDs and other diagnoses, confidence in the ability to help was divided into 2 subgroups of completely or relatively confident and refusing to help. In questions related to first aid (9 items), the correct belief was given a score of +1, and the false belief was given a score of 0 (total scores of participants ranged from 3 to 9). The mean score for first aid items was 5.87, and the scores equal to and above the mean were considered as high literacy, and the scores below the mean were considered as low literacy. A P-value of less than 0.05 was considered as statistically significant.

Results

The mean age of the participants was 22.21 ± 4.56 years. Among the participants, 123 (48.8) were younger than 22 years of age, and 129 (51.2) were 22 years and older, 108 (42.95) had a diploma or lower and 144 (57.1) had higher education, and 201 (79.8) were women and 51 (20.2) were men.

In response to the question "In your opinion, what is the main problem in this vignette?", 137 (54.4), 56 (22.2), 29 (11.5), 26 (10.3), and 4 (1.6) replied depression, poor diet, EDs, no particular problem, and sport-related problems, respectively.

In response to the question "If you had a similar problem to that described in this vignette, would you ask for help?", 159 (63.1) said yes, and 93 (36.95) said no.

In response to the question "How confident would you be in your ability to help the vignette character?", 138 (54.85) responded relatively confident, 87 (34.5) not confident at all, and 27 (10.7) completely confident.

In response to the question "Has anyone in your family or close friends ever had a problem similar to the vignette character?", 93 (36.9) said yes.

Participants' responses regarding their beliefs about initial actions or people who can be helpful are presented in table 1.

The results of the logistic regression analysis indicated that higher education significantly predicts the ability to correctly diagnose the disorder ($P = 0.03$) and help-seeking ($P = 0.002$) (Table 2). Only the history of exposure to similar behavior as that described in the vignette among relatives significantly predicted a high score in identifying useful first aid ($P = 0.02$). However, confidence in the ability to help was not significantly related to any of the variables.

Discussion

Today, the high prevalence of psychological problems such as EDs in the community can increase the chance of contact with those who have such disorders. The society's reactions to these disorders affect the help-seeking behaviors of individuals with such disorders as well as the effectiveness of therapeutic interventions. The best reaction of society is achieved as a result of having sufficient knowledge and appropriate skills. Therefore, the present study was conducted to assess youth's knowledge and beliefs regarding MHFA literacy for EDs.

In the current study, nearly 55% of the participants interpreted the vignette as depression, and only 11.5% as ED. O'Connor, McNamara, O'Hara, and McNicholas (2016), in a study on adolescent's literacy and attitudes toward ED, found that this group recognizes depressive symptoms more significantly than ED.

Table 1. Participants’ beliefs about each option or individual that could be helpful

		n (%)	95 CI of Percentage
Participants’ beliefs about each option that could be helpful	Obtaining more information about the problems described in the vignette and available services	219 (86.9)	83-91
	Listening to the problems of the vignette character in an understanding way	183 (72.6)	67-78
	Keeping the vignette character busy to keep (his/her) mind off problems	175 (69.4)	64-75
	Talking about the vignette character’s problem with a family member or close friend	165 (65.5)	60-71
	Working with a mental health professional to change the vignette character’s thoughts and behaviors	162 (64.3)	58-70
	Getting advice about diet or nutrition to the vignette character	146 (57.9)	52-64
	Getting advice about weight-loss program to the vignette character	140 (55.6)	49-62
	Ignoring the vignette character until (he/she) gets over it	36 (14.3)	10-19
	Suggesting that the vignette character smoke cigarettes to relax	12(4.8)	2-7
	Participants’ beliefs about people who could possibly help the vignette character	Close friend	200 (79.8)
Close family member		159 (63.1)	57-69
Psychologist		158 (62.7)	57-69
Psychiatrist		150 (59.5)	53-66
Nutritionist		142 (56.3)	50-63
Sports coach		137 (54.4)	48-61
GP or family doctor		126 (50)	44-56
Consultant		133 (44.8)	39-51
	Teacher or professor	117 (46.4)	40-53

Chen et al. (2010), in a study on Singaporean young women's health literacy regarding bulimia nervosa, reported that 39.6% of the participants believed that the problem was related to ED, and 13% attributed it to mental health problems and depression. The main explanation for this discrepancy is the difference in the health literacy levels of the two communities regarding EDs. However, studies have shown that although different EDs have various definitions in psychiatry, most individuals in a society are still not aware of them, so they do not recognize these disorders correctly and do not agree on therapeutic interventions with mental health professionals.

Table 2. Logistic regression for recognition, help-seeking, confidence in ability to help, and first aid score

	Recognition		Help-seeking		Confidence in ability to help		First aid score	
	Odd ratio (95CI)	P-value	Odd ratio (95CI)	P-value	Odd ratio (95CI)	P-value	Odd ratio (95CI)	P-value
Age (<22)	0.68 (0.2-2.2)	0.52	0.69 (0.33-2)	0.5	1.58 (0.59-4.22)	0.36	1.31 (0.49-3.47)	0.58
Gender (male)	1.3 (0.5-3.54)	0.58	0.93 (0.46-1.86)	0.84	0.69 (0.36-1.33)	0.27	0.46 (0.32-1.27)	0.2
Education (<diploma)	4.6 (1.2-17.3)	0.03	5.37 (-1.81-15.89)	0.002	0.81 (0.3-2.17)	0.67	1.21 (0.46-3.19)	0.69
Exposure (no)	0.79 (0.36-1.7)	0.56	1.74 (0.96-3.14)	0.07	0.56 (0.32-1)	0.05	1.95 (1.1-3.46)	0.02
Constant	0.06	<0.001	0.73	0.37	0.76	0.42	1.61	0.17

Bold texts indicate predictor variables in the demographic subgroups that are considered as reference groups for the dummy-coded variables.

The public even have optimistic attitudes toward the interventions and often take strict views. Much of the mental health-related information available to the public is misleading. Eventually, low mental health literacy can lead to stigma towards the person with such disorders and the society overlooking them (Jorm, Kanowski, Kelly, & Kitchener, 2007; Reas, 2017; Mond, 2014).

In the current study, nearly 35% of the respondents were not confident about their ability to help the vignette character. Consistent with this finding, Sayarifard and Ghadirian (2018), who investigated adult's beliefs about MHFA, reported that nearly 20% of participants were unsure of their ability to help. Self-confidence has been defined by Fahimnia and Momtazan (2018) as "the belief that one is able to organize phenomena and events to achieve her/his desired situation by appropriate behaviors and actions." Self-confidence is one of the effective factors in help-seeking among people with disorders, and higher health literacy results in more help-seeking (Hart, 2010). Therefore, this finding is further evidence to support the claim that participants of the current study did not have the necessary health literacy concerning EDs. Moreover, more than one-third of the participants of the current study stated that if they were faced with the same problems, they would not seek help. Two studies conducted in Iran reported a help-seeking behavior rate of 64% and 54% for students and in the city of Tehran, respectively, (Sayarifard et al., 2015; Ghadirian & Sayarifard, 2019) which is similar to the current study results. In the systematic review conducted by Hart, Granillo, Jorm, and Paxton (2011) on 14 studies on EDs, only 23% of individuals with mental disorders sought treatment; thus, the results of the current study are more promising. However, the results of these studies are not a realistic representation of reality. Help-seeking can be defined as "any relationship to a problem or painful event to receive support, advice, or assistance," which can be categorized into formal help-seeking (from trained individuals including psychiatrists, psychologists, and counselors) and informal help-seeking (from social networks including family members and friends) (Hart, 2010). Given that help-seeking requires interactions, reasons for refusing to seek help include fear of stigma, concerns about confidentiality, lack of awareness of available services, the perception that psychological distress is only a temporary crisis at a certain age, and not receiving appropriate responses from others (Hart, 2010; Rickwood, Deane, & Wilson, 2007; Gulliver, Griffiths, & Christensen, 2010).

Most of the participants selected "obtaining more information about the problems described in the vignette and available services" and "listening to the problems of the vignette character in an understanding way" as the main appropriate first aid interventions. The results of a study conducted by Mond et al. (2006b) on the treatment and treatment-seeking for EDs among girls show that the most important action to help the vignette character was consulting with a mental health professional and receiving advice on diet or nutrition, and finding a new hobby. In the study by Chen et al. (2010), participants reported receiving dietary advice and counseling, and talking to a friend or a family member about the problem, respectively. The results of these two studies are somewhat different. According to the first aid guidelines of the Mental Health First Aid Australia (2008), as early measures increase the chance of recovery, others' actions should be in the direction of encouraging the patient to seek the help of trained and specialized people. Moreover, in response to the decisions made by an individual affected by mental disorders, one should not force or threaten her/him to end the relationship, but should always be supportive, encouraging, and positive (Mental Health First Aid Australia, 2008).

Considering what was mentioned about the need to expedite treatment and the importance of the supportive role of relatives and friends, strategies such as "keeping the vignette character busy to keep (his/her) mind off problems", which was mentioned by a significant number of the respondents (69%), and "ignoring the vignette character until (he/she) gets over it" cannot be useful measures. Thus, correct and targeted training is required. Given the effects of the suggestions of relatives and friends on the patient's choices, their inadequate and inefficient health literacy is a threat to the health of individuals with mental disorders and hinders the effectiveness of treatment (Fahimnia & Momtazan, 2018).

The participants' believed that friends and/or relatives are the key people who can help the vignette character. Similar findings are reported in other studies conducted in the Iranian society (Sayarifard et al., 2015; Ghadirian & Sayarifard, 2019). Furthermore, Ross, Hart, Jorm, Kelly, and Kitchener (2012) argued that young people avoid receiving professional therapies for mental disorders, yet they prioritize sharing problems with their peers. However, there have been reports of the higher prioritization of the recommendations of professionals such as general practitioners, specialists, psychologists, psychiatrists, counselors, and diet therapists (Chen et al., 2010; Reavley, McCann, & Jorm, 2012); since the populations surveyed in these studies have higher mental health literacy, the difference between the results of these studies and our study is not unusual. To justify this finding, it can be said that in Eastern societies, issues and problems are often raised in the family, and the family tries not to recount the problem to the community. Moreover, compared to talking to friends, referring to health professionals is more likely to result in stigma (Sayarifard et al., 2015; Chen et al., 2010), which prevents patients from referring to trained therapists. In any case, relatives and friends are the most important sources of help-seeking for individuals with mental disorders, and thus, even after seeking professional treatment, they can influence the patient's attitude and adherence to the treatment (Jorm et al., 2007). This adds to the importance of the familiarity of this group with EDs first aid.

The findings of the present study showed that higher education significantly increases the ability to correctly recognize a disorder and the help-seeking behaviors. Tavousi et al. (2016) also reported similar conclusions about the effect of education on mental health literacy (i.e., health literacy improves with increasing education). Hart (2010) also mentioned education as an effective factor in help-seeking in persons with ED. Moreover, in another study, lower level of education was associated with lower level of mental health literacy (Van Der Heide, Wang, Droomers, Spreuwenberg, Rademakers, & Uiters, 2013). Mental health education should be provided in a way that is appropriate for those with computational and reading difficulties so that such education can be understandable and accessible (Van Der Heide et al., 2013). Furnham, Cook, Martin, and Batey (2011) also emphasized that in people with a health-related college degree, the relationship between education and mental health literacy is expected to be true. Although the systematic teaching of mental health issues in the education system of the country has thus far been overlooked, due to the willingness of the Iranian society to learn, this training can be provided in schools and universities. To enhance the knowledge of families and individuals who are not studying in schools or universities, or have lower levels of education, training persons on MHFA through valid courses by the Ministry of Health and Medical Education and Iranian Red Crescent Society (IRCS), which can provide participants with a certificate, would be a useful step. The training should be in a simple language

and with an emphasis on seeking professional services rather than giving advice on nutrition, diet therapy, and exercise, and distracting the affected person.

According to the results of the current study, a history of exposure to situations similar to that of the vignette is significantly associated with the ability to provide appropriate assistance ($P = 0.02$). Johnston, Smethurst, and Gowers (2005), in a study on the employment of people with a history of EDs as therapist, reported that employing these people can have a therapeutic benefit for their patients with EDs. In their study, de Vos, Netten, and Noordenbos (2016) argued that from the perspective of patients with EDs, the presence of a therapist with a history of EDs has a positive effect on the recovery process. Therapists who have a history of a mental disorder have gained empirical knowledge about the disorder and its treatment process. Other reasons for using those with a history of mental disorders as the therapist are their appropriate empathy, expertise in the subject, being a model for the patient, and establishing a proper relationship with the patient (de Vos et al., 2016).

Using an online questionnaire reduced costs, saved time, and facilitated the implementation of the research. Nevertheless, it caused problems for those who did not have a smartphone or computer; we attempted to address this limitation through increasing the sample size.

Conclusion

According to the results, health literacy regarding EDs and respondents' confidence in their ability to help was low. Given the prevalence of EDs among the youth and the direct association between education and mental health literacy, MHFA education programs, particularly in the field of EDs, should be included in education systems in such a way that non-targeted mental health literacy takes a formal and systematic form in schools and universities.

Conflict of Interests

Authors have no conflict of interests.

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