



Article Breaking Barriers: Unraveling the Connection between Mental Health Literacy, Attitudes towards Mental Illness, and Self-Stigma of Psychological Help-Seeking in University Students

Katerina Koutra *, Varvara Pantelaiou and Georgios Mavroeides D

Addiction Psychology Laboratory, Department of Psychology, School of Social Sciences, University of Crete, Gallos Campus, 74100 Rethymno, Crete, Greece; pantelaiouv@gmail.com (V.P.); mavroeides@gmail.com (G.M.) * Correspondence: koutra.k@gmail.com or kkoutra@uoc.gr

Abstract: Despite the high prevalence of mental health difficulties during the period of emerging adulthood and the availability of mental health resources, young adults are reluctant to seek professional psychological help. A significant contributor to this treatment gap is the inadequate levels of mental health literacy (MHL). The present study aimed to investigate the association between MHL with attitudes toward mental illness and the self-stigma of seeking psychological treatment among university students. The sample consisted of 485 university students (24.5% males, 75.5% females) with a mean age of 19.54 years (SD = 1.45) drawn from a regional university in Greece. MHL, attitudes towards severe mental illness, and self-stigma of help-seeking were assessed using the Mental Health Literacy Scale (MHLS), the Attitudes towards Severe Mental Illness (ASMI), and the Self-Stigma of Seeking Help Scale (SSOSH), respectively. MHLS was positively correlated with three out of four subscales of ASMI, namely stereotyping, optimism, and coping, and negatively related to SSOSH. Multivariate linear regression analysis adjusting for various confounders showed that students with higher MHL were more likely to report non-stigmatizing attitudes towards mental illness and lower self-stigma of help-seeking from mental health professionals. According to our findings, higher MHL was related to more positive views regarding mental illness and lower self-stigma of help-seeking. To lessen the self-stigma of seeking professional help, MHL must be addressed as an important component of psychoeducational interventions at universities aiming to support students' help-seeking intentions and practices.

Keywords: mental health literacy; attitudes towards mental illness; stigma; self-stigma of help-seeking; university students

1. Introduction

1.1. Mental Health and Psychological Help-Seeking in Emerging Adulthood

Most mental health issues emerge before the age of 18, with the years between 18 and 25 being a particularly vulnerable period for growth in a person's life [1]. Between adolescence and full-fledged adulthood, Arnett [2] defined emerging adulthood as a stage of life with unique demographic, social, and subjective psychological characteristics. Research suggests that emerging adults are particularly vulnerable to psychological difficulties, as they may face the burden of assuming adult responsibilities without necessarily possessing the maturity required for handling these responsibilities effectively [3].

It is widely recognized that university students are more prone to experiencing mental health challenges compared to the general population [4–6]. This susceptibility is attributed to various life-stage-related factors, including the transition into adulthood, the demands of daily life, the complexities of building and sustaining relationships, and various unrelated stressors [7]. Moreover, according to the reviews by Robotham [8] and Hurst et al. [9],



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Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). university students face unique challenges compared to the general population, such as transition to university, moving to foreign countries, studying-related stressors, exams, and faculty relationships. In 2022, 77% of university students reported experiencing moderate to severe psychological distress, with 35% identifying anxiety disorders and 27% reporting depression [10]. Additionally, mental health problems among university students tripled between the years 2016/2017 and 2022/2023, as a result of stressors such as the cost of living, student loans, etc. [11]. These prevalence rates are noteworthy, especially when considering that higher education students encompass a large group of 254 million individuals globally [12] and that mental health issues faced by university students early in life may have lasting effects, impacting their psychosocial functioning in later years [3]. Thus, university students seem to be a more vulnerable cohort, in terms of their mental health, than the already vulnerable non-student emerging adults.

Despite studies highlighting the prevalent challenges of mental health issues among university students, the majority of those experiencing psychological disorders choose not to seek psychological help [13]. Additionally, it has been noted that people between the ages of 18 and 24 are less likely than middle-aged adults to seek treatment for mental health issues, such as substance use disorders [14]. Given that this age group frequently exhibits poorer levels of mental well-being [15], difficulties in seeking treatment are critical. According to Goodwin et al. [16], students with higher levels of mental well-being are more likely to seek help than those with lower levels. For example, students are less likely to seek help when their mental health symptoms worsen and are more likely to when they have minor issues, as high levels of depression, anxiety, and stress are significantly linked to decreased intention to seek help [17].

1.2. Challenges and Obstacles in Seeking Psychological Help

Systemic obstacles to help-seeking have long been the subject of extended research [18,19]. A significant contributor to this treatment gap is the difficulty in recognizing symptoms, often referred to as inadequate mental health literacy (MHL), particularly among young adults [18–20], including university students [21]. MHL is the understanding of mental health issues, which helps in their prevention, identification, and treatment. Jorm and colleagues [20,22] initially described the term as the knowledge and beliefs about mental disorders that aid in recognizing, managing, or preventing mental illness. The same researchers identified six components of MHL: (a) the capacity for identifying particular disorders or various forms of psychological distress; (b) knowledge and beliefs regarding risk factors and causes; (c) knowledge and beliefs regarding available self-help interventions; (d) knowledge and beliefs regarding available professional help; (e) attitudes that facilitate recognition of disorders and appropriate help-seeking; and (f) knowledge of how to look for mental health information [22]. Jorm et al.'s [22] original MHL definition is often considered the "gold standard"; nonetheless, researchers have lately argued for a more comprehensive definition of MHL [23-25]. In that way, the notion of MHL has expanded to include maintaining positive mental health, understanding disorders and treatments, reducing the stigma associated with mental illness, and increasing one's awareness of resources for mental illnesses in order to successfully manage a mental illness [23–25].

Existing evidence from cross-sectional studies strongly suggests that MHL is associated with various aspects of psychological help-seeking [26], and initiatives to comprehend the impact of MHL on psychological help-seeking have drawn attention on an international level [27]. Various researchers investigated MHL-related aspects as well as the association between MHL and healthcare-seeking or related factors such as stigma [28–30]. According to several studies, while raising MHL has been demonstrated to promote help-seeking intentions, low levels of MHL may result in a refusal to ask for help [31–33]. Moreover, MHL promotion interventions not only report promising findings in enhancing help-seeking [34,35], but MHL is also defined to aid in the prevention of mental disorders since MHL is related to the aim of preventing mental illness [36]. However, in contrast with

the findings reported for other groups, MHL promotion alone fails to enhance university students' intention to seek help for mental health issues [37,38].

Mental health stigma is considered a consequence of insufficient or inadequate knowledge about mental illness [39,40]. Mental health stigma refers to the negative attitudes, beliefs, and stereotypes that surround individuals with mental health conditions [41,42]. It involves societal prejudices, discrimination, and the marginalization of people experiencing mental health issues. Stigma can manifest at various levels, including the societal level (social stigma, i.e., public perceptions), the professional level (biased treatment by healthcare providers), and in oneself (self-stigma, i.e., internalized negative beliefs by individuals with mental health conditions) [43]. Several studies have demonstrated that higher MHL may lead to lower levels of stigma [44,45] and greater treatment-seeking for mental health difficulties in university students [46,47].

In university students, high levels of stigmatizing sentiments against people with mental illnesses are connected with unfavorable attitudes about treatment [48] and lower future treatment-seeking intention [49]. This finding is of major importance, considering that university students appear to hold strong stigmatizing attitudes towards mental illness [50,51]. Furthermore, university students who have greater levels of self-stigma are less likely to seek therapy [52,53]. For example, whether faced with a problem linked to stress, emotions, alcohol/drugs, or family concerns, the odds of seeking help were less for university students with greater levels of self-stigma [54].

1.3. MHL, Attitudes towards Mental Illness, and Psychological Help-Seeking in Greece

The cultural environment is critical in the creation of stigmatizing views. A recent systematic review of mental illness stigma prevalence in Greece identified moderate and high proportions of such stigma, primarily characterized by social discrimination and restriction, social isolation, and authoritarianism [55]. Compared to other countries, Greece is shown to have more stigma and stigmatizing views toward those who are mentally ill, which is supported by pertinent cross-cultural research [56–58]. Furthermore, attitudes about psychiatric medication were particularly negative, and they had a significant impact on help-seeking intentions [59].

In Greece, the research on help-seeking for mental health problems is limited [59]. A recent study by Hantzi et al. [60] proposed a comprehensive model that included both potential facilitators and barriers to seeking professional psychological help, including contact with people who have mental illnesses and self-stigma about needing help. The findings on stigma revealed that only self-stigma—as opposed to public stigma—had a substantial impact on attitudes toward seeking treatment. However, there is little information available about the obstacles to obtaining mental health treatment for university students, and attempts to identify these interrelated aspects have just recently been recorded [61,62].

1.4. The Current Study

Compared with the increasing research regarding attitudes towards mental illness (for review, see [55]) and self-stigma of seeking psychological help (for reviews, see [63,64]), less empirical effort has been directed toward MHL among university students. Existing research suggests that MHL promotion fails to enhance help-seeking during emerging adulthood and university students hold strong stigmatizing attitudes, which aggravate their help-seeking intentions. Furthermore, MHL is a multifaceted construct that comprises cognitive, affective, and behavioral components. Attitudes towards mental illness and self-stigma of help-seeking are integral parts of MHL, but they also represent distinct dimensions. By investigating attitudes towards mental health and the self-stigma of help-seeking as separate dependent outcomes, we acknowledge the intricate nature of MHL. This approach recognizes that both attitudes and self-stigma pertaining to help-seeking for mental health issues may not consistently correlate with individuals' levels of knowledge. Furthermore, while university students may not fully represent the general population, they represent a diverse demographic, encompassing individuals from various

backgrounds, cultures, and life experiences. Their diversity enriches the depth of data collected and allows researchers to explore a wide range of perspectives on MHL and attitudes toward mental illness. Moreover, university students often serve as a reflection of future generations, making their insights particularly relevant for understanding evolving attitudes and beliefs toward mental health. Additionally, university students are often at a critical stage of personal and intellectual development, characterized by exploration, questioning, and growth. Their engagement with academic content, including mental health education, can shape their perceptions and attitudes toward mental illness. By studying university student cohorts, researchers gain insights into the factors that influence the formation of attitudes and beliefs about mental health during this formative period.

Therefore, the aim of the present study was to investigate the association between MHL with attitudes towards mental illness and self-stigma of seeking psychological treatment among university students. To our knowledge, there is limited research available within this framework among Greek university students. We hypothesized that increased levels of MHL would be associated with positive attitudes towards mental illness (such as reduced stereotyping, greater optimism, enhanced coping, and improved understanding) and decreased self-stigma of psychological help-seeking. Conversely, decreased levels of MHL would be associated with the opposite outcomes.

2. Materials and Methods

2.1. Participants

Participants were eligible to participate in this study if they were 18–25 years old and had a good knowledge of the Greek language. No specific exclusion criteria were used. A total of 530 students returned completed questionnaires, of which 45 were removed from the analysis due to incomplete data. Finally, participants in this study were 485 students, of whom 119 were men (24.5%) and 366 were women (75.5%), with a mean age of 19.54 years (SD = 1.45, range 18–25). Participants were derived from the School of Social Sciences at the University of Crete in Rethymnon, Greece, with the majority of them coming from the Psychology Department (66.4%). A noteworthy proportion of 35.5% of participants reported mental health difficulties—mainly anxiety and depressive symptoms or family issues and difficulties with studies—and had a previous history of help-seeking. Of those who sought help for mental health difficulties, most preferred consultation from a psychologist (93.0%). Table 1 summarizes participant characteristics.

Table 1. Sociodemographic characteristics of participants (n = 485).

	Ν	%
Gender		
Male	119	24.5
Female	366	75.5
Nationality		
Greek	475	97.9
Other	10	2.1
Department of study		
Psychology	322	66.4
Sociology	102	21.0
Political Science	39	8.0
Economics	22	4.5
Previous help-seeking		
Yes	172	35.5
No	313	64.5
Type of difficulty (n = 172)		
Anxiety symptoms	100	58.1
Depressive symptoms	29	16.9
Other reasons (i.e., family issues, difficulties with studies, etc.)	43	25.0

Table 1. Cont.

	Ν	%
Mental health professional (n = 172)		
Psychologist	159	93.0
Psychiatrist/other	13	7.0
Type of therapy $(n = 172)$		
Psychotherapy	159	93.0
Pharmacotherapy/combined therapy	13	7.0
	Mean	SD
Age (years)	19.54	1.45
Current educational year	2.10	1.17

2.2. Measures

2.2.1. Sociodemographic Data and History of Previous Help-Seeking

Age, gender, nationality, academic year, and department were among the sociodemographic data gathered. Additionally, we collected data on prior experiences and the type of mental health help-seeking.

2.2.2. Mental Health Literacy Scale (MHLS)

The MHLS is a 35-item unidimensional measurement scale of MHL [65]. The scale encompasses the following six attributes derived from Jorm and colleagues' conceptualization of MHL [20,22]: recognition of mental health problems, knowledge and beliefs about risk factors and causes, awareness of self-help interventions, knowledge and beliefs about available professional help, attitudes that support recognition and appropriate help-seeking, and knowledge about how to seek relevant mental health information. Each section consists of items measured on Likert scales, with varying response options and some items being reverse-scored to mitigate response bias. The scale yields a total score ranging from 35 to 160, with higher scores indicating greater levels of MHL. The MHLS has been demonstrated to have good internal consistency (Cronbach's alpha of 0.873), test-retest reliability (r = 0.797, p < 0.001) [66], and content and structural validity [65]. For the purposes of the present study, the MHLS was translated and cross-culturally adapted utilizing globally approved procedures, including forward translation, backward translation, a cognitive debriefing process, and pretesting. The MHLS questions nine and ten were changed to be more appropriate to the Greek setting, with "Australia" replaced with "Greece". The MHLS has a Cronbach's alpha of 0.751 in the current analysis, showing strong internal consistency.

2.2.3. Attitudes towards Severe Mental Illness (ASMI)

The Greek Attitudes towards Severe Mental Illness (ASMI) scale is a measure used to assess individuals' attitudes toward people with severe mental illnesses [67]. The scale includes 30 items in the form of statements. The ASMI examines attitudes regarding mental health in four areas: (i) stereotyping (factor A) includes 11 items that address commonly held negative perceptions of severe mental illness, (ii) optimism (factor B) includes six items that address positive beliefs and attitudes about severe mental illness and patients, (iii) coping (factor C) includes seven items describing strategies for coping with the illness and the stigma associated with it, and (iv) understanding (factor D) consists of six measures that assess how well responders can empathize with patients and see through their perspective. A 5-point Likert scale is used to rate the ASMI scale. While agreement with the assertions of component A indicates stigmatized attitudes, agreement with the statements of factors B, C, and D reveals non-stigmatized ideas and attitudes. As a result, statements of factor A are reverse-coded. Higher ratings across the board suggested non-stigmatizing attitudes and viewpoints, which was consistent with the findings. Good psychometric qualities are included in the scale [67]. The ASMI showed acceptable internal consistency in the current study: Cronbach's α coefficient was 0.651 for stereotypes, 0.693 for optimism, 0.595 for coping, and 0.715 for understanding.

2.2.4. Self-Stigma of Seeking Help Scale (SSOSH)

The Self-Stigma of Seeking Help Scale (SSOSH) is a measure used to assess an individual's self-stigmatizing beliefs related to seeking help for mental health issues [68]. The scale consists of 10 items scored on a 5-point, partially anchored scale ranging from 1 (strongly disagree) to 5 (strongly agree). The total score ranges from 10 to 50; higher SSOSH scores indicate more self-stigma endorsements or greater stigma toward seeking psychological help. In previous research by Vogel et al. [68] in a sample of young adults in the United States, the SSOSH demonstrated a unidimensional structure with good reliability ($\alpha = 0.913$), test–retest reliability ($\mathbf{r} = 0.722$), and construct validity. Vogel et al. [68] also reported SSOSH criterion validity and predictive validity. Furthermore, SSOSH validity and reliability were investigated across samples from six different nations, with the results indicating that the scale has a comparable unidimensional structure throughout the countries [69]. The SSOSH has been validated for use in the Greek population [70]. Internal consistency for this scale was $\alpha = 0.731$ in the current research.

2.3. Procedure

Participants were recruited through the distribution of posters across the university campus and postings on social media platforms such as Facebook, where calls for research volunteers were made. It was clearly communicated to participants that their involvement would be both anonymous and voluntary. Each participant was provided with the mentioned scales, a consent form, and a demographic questionnaire. Prior to the commencement of data collection, one of the researchers (the second author) explained the study's objectives to all participants. They were encouraged to respond truthfully, carefully read all items and instructions, and complete all questionnaires. The survey, on average, took approximately 20 min to complete, and the researcher was available to address any questions or concerns during the data collection sessions. All participants provided written informed consent. The study was conducted in adherence to the ethical standards outlined in the Declaration of Helsinki, and ethical approval was obtained from the University of Crete's Research Ethics Committee.

2.4. Statistical Analysis

The mean and standard deviation of all variables were described using descriptive analysis. We used Student's *t*-test and ANOVA to investigate bivariate relationships between normally distributed continuous dependent variables and categorical independent factors. To measure the strength of the link between continuous dependent and independent variables, Pearson's r correlation coefficient was utilized. After controlling for confounding factors, multivariate linear regression models were used to determine the associations between MHL, attitudes toward mental illness, and self-stigma of help-seeking. Potential confounders linked to both the outcome and/or the exposure of interest were included in the multivariable models with a *p*-value < 0.05 in the bivariate correlations. Separate multivariable models were built with an outcome for each one of the four subscales of ASMI as well as the SSOSH, while all confounders were simultaneously entered into the model. We described the estimated associations using β coefficients (beta) and their 95% confidence intervals (CIs). Hypothesis testing was conducted assuming a significance level of 0.05 and a two-sided alternative hypothesis. We performed all statistical tests with the SPSS Statistics 29 software (IBM, Armonk, NY, USA).

3. Results

3.1. Descriptive Results and Intercorrelations between the Study Variables

Table 2 shows the means, standard deviations, and intercorrelations for all measures used in the present study. MHLS was positively correlated with three out of four subscales of ASMI, namely stereotyping (r = 0.368, p < 0.001), optimism (r = 0.341, p < 0.001), and coping (r = 0.335, p < 0.001), and negatively related to SSOSH (r = -0.369, p < 0.001). Furthermore, statistically significant associations between SSOSH with stereotyping (r = -0.157,

p < 0.01), optimism (r= -0.144, p < 0.01), and coping (r = -0.186, p < 0.01) were found. Finally, the four subscales of the ASMI were positively intercorrelated with each other.

Table 2. Means, standard deviations, and intercorrelations between the study variables (n = 485).

		Mean	SD	1	2	3	4	5	6
1.	MHLS	121.94	9.98	1					
2.	ASMI Stereotyping	34.22	6.31	0.368 ***	1				
3.	ASMI Optimism	18.44	4.30	0.341 ***	0.456 ***	1			
4.	ASMI Coping	25.90	2.95	0.335 ***	0.285 ***	0.233 ***	1		
5.	ASMI Understanding	16.77	4.73	0.082	0.145 **	0.143 **	0.147 ***	1	
6.	SSOSH	21.91	5.04	-0.369 ***	-0.157 **	-0.144 **	-0.186 **	-0.045	1

Abbreviations: ASMI: Attitudes towards Severe Mental Illness; MHLS: Mental Health Literacy Scale; SSOSH: Self-Stigma of Seeking Help Scale. ** p < 0.01, *** p < 0.001.

3.2. Association of Participants' Characteristics with MHL, Attitudes towards Mental Illness, and Self-Stigma of Help-Seeking

Regarding gender differences, females showed higher scores than males in MHLS. Furthermore, females reported higher scores in coping and understanding subscales of the ASMI, as well as lower mean levels of self-stigma of help-seeking than males. Psychology students scored higher in MHLS, all scales of ASMI, and SSOSH, thus indicating positive attitudes and lower self-stigma than those studying other social sciences (i.e., sociology, economics, and political sciences). Individuals with a history of previous help-seeking had higher scores in MHLS and the stereotyping scale of ASMI, thus indicating more positive attitudes about mental illness, and lower scores in the SSOSH scale, thus indicating lower self-stigma of help-seeking. Participants' age was positively correlated with MHLS and the stereotyping subscale of the ASMI and negatively associated with the understanding subscale. Finally, the academic year was positively associated with MHLS, as well as the stereotyping and optimism scales of the ASMI (Table 3).

Table 3. Associations of participants' characteristics with MHL, attitudes towards mental illness, and self-stigma of help-seeking (n = 485).

	MHLS	ASMI Stereotyping	ASMI Optimism	ASMI Coping	ASMI Understanding	SSOSH
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Gender						
Male	118.39 (11.59) ***	34.17 (6.24)	18.47 (3.88)	24.87 (3.77) ***	15.76 (5.00) **	23.50 (5.00) ***
Female	123.09 (9.13)	34.23 (6.34)	18.43 (4.43)	26.24 (2.54)	17.10 (4.60)	21.40 (4.94)
Department of study			, , ,		, ,	. ,
Psychology	123.25 (9.37) ***	34.77 (6.24) **	18.42 (4.36) **	26.10 (2.91) **	16.94 (4.64) **	21.52 (4.94) **
Other social sciences	119.34 (10.67)	33.12 (6.32)	18.47 (4.03)	25.31 (3.21)	16.44 (4.90)	22.83 (5.19)
Previous help-seeking	, , , , , , , , , , , , , , , , , , ,		, , ,		, ,	. ,
Yes	124.81 (9.17) ***	35.14 (6.08) **	18.47 (4.08)	26.14 (2.88)	17.23 (4.17)	21.26 (4.97) **
No	120.36 (10.07)	33.71 (6.38)	18.42 (4.42)	25.77 (2.98)	16.51 (5.00)	22.27 (5.04)
Age	r = 0.138 **	r = 0.120 **	r = 0.086	r = -0.071	r = -0.101 *	r = -0.026
Academic year	r = 0.160 **	r = 0.184 ***	r = 0.118 **	r = -0.015	r = -0.085 *	r = -0.026

Abbreviations: ASMI: Attitudes towards Severe Mental Illness; MHLS: Mental Health Literacy Scale; SSOSH: Self-Stigma of Seeking Help Scale. * p < 0.05, ** p < 0.01, *** p < 0.001.

3.3. Multivariate Associations of MHL with Attitudes towards Mental Illness and Self-Stigma of Help-Seeking

Multivariate analysis adjusting for confounding variables, such as participants' gender, age, department type, academic year, and prior psychological help-seeking, indicated that higher scores in MHLS were related to higher scores in ASMI subscales (indicating more positive attitudes towards mental illness) in terms of stereotyping (β coefficient 0.209, 95% CI: 0.152, 0.265), optimism (β coefficient 0.162, 95% CI: 0.123, 0.201), and coping

(β coefficient 0.098, 95% CI: 0.070, 0.126). The model explained 17.2% (adjusted 16.2%) of the variance in stereotyping scores ($R^2 = 0.172$), 13.4% (adjusted 12.4%) of the variance in optimism scores ($R^2 = 0.134$), and 13.3% (adjusted 12.2%) of the variance in coping scores ($R^2 = 0.133$). Furthermore, increased scores of MHL were associated with lower scores on the SSOSH scale (β coefficient -0.173, 95% CI: -0.219, -0.128), which may indicate less self-stigma associated with seeking help. The model explained 15.1% (adjusted 14.0%) of the variance in self-stigma of help-seeking scores ($R^2 = 0.151$) (Table 4).

Table 4. Associations of MHL with attitudes towards mental illness and self-stigma of help-seeking:

 multivariate analysis.

	MHLS ‡			
	β Coefficient	95% CI	<i>p</i> -Value	
ASMI Stereotyping	0.209	(0.152, 0.265)	<0.001	
ASMI Optimism	0.162	(0.123, 0.201)	< 0.001	
ASMI Coping	0.098	(0.070, 0.126)	< 0.001	
ASMI Understanding	-0.028	(-0.018, 0.074)	0.228	
SSOSH	-0.173	(-0.219, -0.128)	<0.001	

Abbreviations: ASMI: Attitudes towards Severe Mental Illness; MHLS: Mental Health Literacy Scale; SSOSH: Self-Stigma of Seeking Help Scale. $\ddagger \beta$ coefficients and 95%CI of β retained from linear regression. All models adjusted for participants' gender, age, type of department, academic year, and previous psychological help-seeking. Bold font indicated statistically significant associations.

4. Discussion

The present study examined the associations of MHL with attitudes toward mental illness and self-stigma of psychological help-seeking in a large sample of university students in Greece. For the first time in a Greek population, we investigated university students' understanding of mental illness within an MHL framework. Analyzing attitudes towards mental illness and self-stigma of help-seeking as separate dependent outcomes contributes to the enhancement of our understanding concerning the complex interplay between cognitive, affective, and behavioral factors in shaping individuals' responses to mental health issues. As hypothesized, participants who demonstrated a greater understanding of mental health exhibited more favorable attitudes toward mental illness and lower levels of perceived self-stigma related to psychological help-seeking. This suggests a higher willingness among individuals with enhanced mental health knowledge to seek psychological help from mental health professionals.

In our study, the assessment of MHL covered multiple dimensions, including the capability to identify disorders, awareness of where to find information, comprehension of risk factors and causes, familiarity with self-treatment options, understanding of available professional help, and possession of attitudes that support recognition and appropriate help-seeking behavior [65]. Overall, Greek university students' MHL was lower than that of Australian [65] and UK [71] students using the same instrument. In light of previous findings suggesting that Greek young people have more severe mental health issues than their peers from other countries [72,73], the lower level of Greek university students' MHL is considered critical for public mental health in this country.

Our findings indicated that higher MHLS scores were significantly associated with the stereotyping, optimism, and coping subscales of the ASMI, indicating non-stigmatizing attitudes and opinions. More specifically, increased levels of MHL were found to have a positive impact on attitudes, particularly evident in positive conceptualizations of severe mental illness. This includes fostering an optimistic outlook on the potential for recovery and maintaining positive beliefs and attitudes regarding the coping mechanisms employed by individuals managing mental illness and the associated stigma. A similar study in adolescents has shown that increasing awareness of mental diseases led to more empathy and sensitivity toward those with mental health problems [74]. This positive shift in attitudes found in our study, influenced by greater MHL, may contribute to a more supportive environment for psychological help-seeking. Individuals with enhanced MHL are likely to view mental health challenges with greater understanding, empathy, and openness to utilizing various coping strategies, ultimately fostering a more favorable atmosphere for seeking psychological help. The present findings agree with earlier findings suggesting that higher levels of MHL contribute to reducing stigma surrounding mental health [44,45].

Moreover, we found that MHL was significantly correlated with the self-stigma of helpseeking. Specifically, our results showed that participants with higher MHL levels had lower levels of self-stigma and were more likely to seek help for mental health issues in person or via other means. This finding is consistent with previous studies [26,27,30,31,33,65] and a very recent study which found that psychology students have more optimistic views and less self-stigma than students from other social science departments, emphasizing the role of MHL in decreasing stereotypes, pessimistic beliefs, and self-stigma [62]. Acknowledging a mental health concern and being aware of the availability of professional help constitute the initial stages of seeking assistance from a mental health professional. This aligns with previous research indicating that a significant number of university students express their intention to seek professional help for mental health issues, whether through university resources or community services, which suggests a positive shift in mental health-related knowledge, attitudes, and behaviors among students in favor of improved mental healthrelated knowledge and mental health attitudes and behaviors [75]. In contrast, failure to recognize the signs and symptoms of a mental health issue or not knowing the available sources of professional support is likely to delay help-seeking, resulting in poor outcomes.

4.1. Strengths and Limitations

There are strengths to this study that should be mentioned. While university students may not fully represent the broader population, their unique characteristics and perspectives make them valuable subjects for investigation. Furthermore, the sample size was substantial, allowing sufficient power to detect small effects; also, well-validated measures were used.

However, there are also various limitations that deserve acknowledgment. The crosssectional design of this study makes it impossible to establish causal links. Furthermore, attitudes toward mental illness and self-stigma of help-seeking are included within the MHLS, and this could complicate analysis due to possible overlap or interrelation with MHL. Moreover, the inclusion of participants with prior experience of mental illness could introduce bias, as their responses may be influenced by personal experiences, potentially affecting the overall findings and interpretation of results. Additionally, as this study sampled university students from a large educational institution in Crete, Greece, and as university students are frequently thought to have a better sociodemographic background (e.g., better education and economic level) than young adults who are not university students, the results should be interpreted with caution. In a similar vein, the majority of the sample (75.5%) was female, and this might influence the results regarding perceptions of MHL levels, perceptions of attitudes toward mental illness, and help-seeking behavior, given gender differences have been reported in other studies. Also, the majority of participants were psychology students (66.4%). Due to their academic background and exposure to psychological concepts, these students may possess higher levels of awareness and sensitivity towards the constructs being investigated compared to students of other academic fields or the general population. All of the above in our sample may constrain the generalizability of our findings to other groups. Finally, characteristics not explored in this study, such as information about the availability of mental health services and other perceived barriers, might impact the intention to use mental health services. Future research might look at these issues more thoroughly, while also examining sociocultural factors such as religion and ethnicity, as help-seeking behavior varies among cultures and countries.

4.2. Implications for Practice

The overall findings of this study have considerable implications for supporting university students, mainly in enhancing their MHL levels, ameliorating their negative attitudes toward mental illness, and supporting help-seeking behaviors. University students present a promising setting for prevention and treatment, which can put late adolescents and young adults on a path to success and well-being given the significant burden of mental illness among young adults. In light of our study's findings, it appears that during emerging adulthood, enhancing help-seeking may involve more than psychoeducation or MHL promotion alone (i.e., concurrent anti-stigma efforts), due to the more prevalent stigmatizing attitudes in emerging adults compared to persons of other age groups [76,77]. Therefore, it is not enough to address MHL unilaterally to lessen the self-stigma of seeking professional help in order to enhance help-seeking among university students; thus, stigmatizing attitudes towards mental illness must be included as an integral part of interventions aiming at enhancing help-seeking.

Moreover, our findings indicate a greater need for psychoeducational campaigns and interventions to improve knowledge of mental health in young Greek people in relation to their peers from Australia and the UK. For instance, there are educational interventions, both in live presence [78] and digital [79], that enable students to continuously acquire knowledge related to mental health, but also there are video-based interventions that aim at increasing MHL [80] and students' help-seeking intentions [81] or at reducing stigma and enhancing help-seeking attitudes [82]. In addition to video-based interventions, even mobile apps can increase mental health literacy and reduce stigma [83]. Social media can also have a major role in increasing mental health literacy and help-seeking, especially when mental health professionals leave posts related to mental health on their accounts [84]. Based on future research on these factors, psychoeducational campaigns about the etiology and treatment of mental illness, as well as digital methods, can be designed in Greece. These campaigns will target young people who are at risk of developing mental illnesses as well as their families, who have a strong tendency to affect their loved ones' willingness to seek help. The ultimate goal may be to eliminate the stigma associated with mental illness and therapy, but this is still a crucial first step.

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