

Determination of Mental Health Literacy, Help-Seeking Behaviours and Psychological Distress Levels of Health Science Students

ABSTRACT

Background and Objective: Mental health literacy and psychological distress levels in students of health sciences are essential because these students are candidates of future health professionals who are supposed to be equipped with robust psychological endurance. This study aims to determine mental health literacy levels among health sciences students and its relationship with psychological distress status, mental well-being condition, and their seeking psychological professional help.

Materials and Methods: Using a cross-sectional design, four interviewer-administered scales were applied to students of Health Sciences Faculty in Istanbul, Türkiye, with 2.791 students during the spring term of the 2021-22 academic year. Although all students of the faculty were invited to participate in the study, only 505 responded. Data were analysed using correlation and linear regression methods.

Results: On a 22-point scale, the mean MHL Scale score was 14.53 ± 3.31 , with higher scores in females than in males (14.96 versus 12.82). MHL scores were positively affected by having friends with mental health problems and in attendees of higher grades and health-specific departments. MHL levels and psychological help-seeking attitudes of the participants were correlated with higher educational activities and health-related courses. A significant proportion of participants (36%) obtained information on mental health from social media/internet sources. Increased psychological distress negatively affected the student's academic achievement.

Conclusion: The mental health literacy was positively and significantly affected by greater attitudes toward seeking psychological professional help, mental well-being, female gender, and availability of information for mental health.

Paper Type: Research Article

Keywords: Help-seeking behaviour, mental health literacy, mental well-being, psychological distress.

Fatma KANTAŞ YILMAZ

* Department of Health Management, Faculty of Health Sciences, University of Health Sciences Turkey, Uskudar, Istanbul Turkey. (corresponding) fatmakantas.yilmaz@sbu.edu.tr

Pınar ÜNKÜR

Department of Health Management, Institute of Health Sciences, University of Health Sciences, Istanbul, Turkey.

Received: 19 July 2022

Accepted: 09 October 2022

Doi: 10.22038/jhl.2022.66098.1308

► **Citation:** KANTAŞ YILMAZ F, ÜNKÜR P. Determination of Mental Health Literacy, Help-Seeking Behaviours and Psychological Distress Levels of Health Science Students. *Journal of Health Literacy*. Winter 2023; 7(4): 9-20.

Introduction

Mental health is defined by the World Health Organization (WHO) as “a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community”, as well as “an integral component of health and well-being that underpins our individual and collective abilities to make decisions, build relationships and shape the world we live in”. A mental disorder, usually associated with distress or impairment in essential areas of functioning, is a clinically significant disturbance in an individual's cognition, emotional regulation, or behaviour. Mental health problems have been on the incline globally, with a 13% rise in between 2007 and 2017. Tragically, about 20% of the world's children and adolescents are reported to have a mental health condition, with suicide the second leading cause of death among 15-29-year-olds (1).

Turkey Mental Health Profile Survey (1998) reported that 17.2% of the population has a mental illness. Another study has shown that the prevalence of depression, which was declared to be diagnosed by a doctor, was 9.0%, somatization disorder 5.0%, and panic disorder 2.0% (2, 3). Mental health problems have disruptive effects on all domains of life, including school or work performance, relationships with family and friends and participation in social activities. Depression and anxiety, two of the most common mental health problems, lead to an enormous financial burden on the global economy, exceeding US\$ 1 trillion each year (4). Especially college and university students are negatively affected by depression and anxiety, causing difficulty in achieving good performance, difficulty in dealing with assignments, poor study skills and academic outcomes (5, 6).

Mental health literacy (MHL) is defined as self-awareness and knowledge about mental

problems, allowing recognition, prevention, or management and is characterised by a wide range of dimensions concerning ability, awareness, knowledge, and attitudes about the following: mental disorders, risk factors and causes, self-help interventions, help-seeking behaviour attitudes toward receiving professional help available and mental health information (7, 8). Recognizing mental health conditions is just the first step. Unless the causes and treatment of these problems are known, affected individuals will be unable to access treatment, which would prevent recovery (9).

Researchers have pointed out that university students insufficient mental health literacy skills (10, 11). In addition, previous study showed that university students have low levels of mental health literacy and that women have higher mental health literacy than men (12).

Although mental health literacy of university students has been examined in several studies, research on medical faculty or health sciences students is limited. To our knowledge, mental health literacy of health sciences students has neither been addressed nor examined in the Turkish literature. Addressing this gap is of particular importance, given that health sciences students will be potential health workers in the future.

This study was carried out to determine mental health literacy levels among health sciences students and its relationship with psychological distress status, mental well-being condition, and their seeking psychological professional help. Our research focuses on the individual effects of the variables on the MHL scale and correlation analysis among scales, including Mental Health Literacy Scale, Warwick-Edinburgh Mental Well-Being Scale, The Attitudes Toward Seeking Professional Psychological Help Scale, and Kessler Psychological Distress Scale.

Materials and Methods

The current study was designed as a cross-sectional study using a face-to-face questionnaire conducted by the investigators, including nine undergraduate students who receive health literacy elective course and survey training. These investigators collected data by inviting participants from each programme and using printed survey. The questionnaire was administered to 505 students of the Health Sciences Faculty of the University of Health Sciences, Türkiye during the spring term of the 2021-22 academic year. Participants were chosen from all programs of our faculty, including child development, health management, speech and language therapy, midwifery, nutrition and dietetics, occupational health and safety, occupational therapy, physiotherapy and rehabilitation, social services. Students of other faculties were excluded. The minimum sample size was calculated using the confidence interval formula, which yielded a minimum of 384 participants (margin of error 4%, confidence level 95%, and response distribution 50%) for a universal sample of 2.791. Of all students of the faculty invited to participate in the study only 505 students responded.

The instruments comprised of five interviewer-administered parts, including 16 items for sociodemographic characteristics, along with the Mental Health Literacy Scale (MHL), the Kessler Psychological Distress Scale (k10), the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) and the Attitudes Toward Seeking Psychological Professional Help Scale.

Sociodemographic form; it inquired into age, gender, faculty programs, grades, employment status, marital status, monthly family income, the grade point average (GPA), the presence or absence of a Covid-19 diagnosis, mental disorders,

family and friends with mental problems and treatment for mental health.

The Mental Health Literacy Scale; this scale was developed by Jung et al., (13) to measure the mental health literacy level using 3 domains and a total of 22 items. It was validated by Göktaş et al. (14) for the Turkish language. The 3 domains include knowledge-oriented MHL (the first ten items), beliefs-oriented MHL (11-18 items) and resource-oriented MHL (19-22 items). The first two domains use a six-point Likert scale, while the latter uses a 'yes' or 'no' answer options. The answers showing "agree", "strongly agree" and "yes" are rated as 1 point each, while all the remaining answers are rated as zero (0). Items on the beliefs-oriented MHL are reversely scored. The total score ranges from 0 to 22. According to validity and reliability of the Turkish version, factor loadings were 0.36-0.84 in the Exploratory Factor Analysis (EFA) and the compliance indices in the Confirmatory Factor Analysis (CFA) were acceptable. The Cronbach's alpha coefficient of the MHL Scale was 0.71 (14).

The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS); this scale was developed by researchers from the universities of Warwick and Edinburgh (15). It was validated by Keldal (16) for the Turkish populations, with a Cronbach's alpha coefficient of 0.92. The factor loads of the items varied between .55 and .82. It encompasses 14 items with a five-point Likert scale, including a scale of 1 (none of the time) to 5 (all of the time). It inquires into subjective wellbeing and psychological functioning. The lowest score is 14, while the highest score is 70, where higher scores indicated higher levels of mental well-being (12, 16).

The Attitudes Toward Seeking Professional Psychological Help Scale–Short Form (ATSPPH-SF); this scale was developed by Fischer & Farina (17) consisting of 10 items on a 4-point Likert

scale (0,1,2,3 scores). The Turkish version of the short form was validated by Topkaya (18). The factor load values of all items were statistically significant. The items 2, 8, 9 and 10 of the scale are reversely scored. Due to the omission of the fourth item during the Turkish validity-reliability study, the highest possible score for the Turkish version is 27 instead of 30. Cronbach's alpha coefficient of the scale was .76 (18).

The Kessler Psychological Distress Scale (K10); this scale measures individuals' state of distressful emotions (anger, hopelessness, sadness, worthlessness, and tiredness) using 10 items. Item-total score correlations ranged between 0.720 and 0.887. At the cut-off point of >20, the sensitivity value was 92.0%, and specificity value was 90.4%. It was adapted to the Turkish language by Altun (19). It inquires into the individuals emotions over the past month using a 5-point Likert scale, indicating their level of agreement on a scale of 1 (none of the time) to 5 (all of the time). The total score ranges from 10 to 50, with higher scores indicating increased mental distress (12). According to Turkish adaptation study, reliability (cronbach's alpha) was 0.95 (19).

Data Analysis; data were analysed using SPSS version 22.00. Descriptive statistics were expressed as numbers and frequencies. For two groups, the independent two-sample T-test was used, while for three or more groups, the one-way ANOVA analysis was used. When there was an insufficient number of samples, the non-parametric Mann-Whitney U-test was used for two groups and the non-parametric Kruskal-Wallis H-test was used for three or more groups. Normally distributed variables were analysed using the Pearson correlation coefficient and non-normally distributed variables with the Spearman correlation analysis. A simple linear regression analysis was used to determine the

individual effects of the variables on the MHL scale. The significance levels were set at $p < 0.05$, 0.01 and 0.001.

Results

Sample Characteristics

The vast majority of the 505 participants were women ($F=404$, $M=101$), and the mean age was 19.8 ± 1.7 . About 26% of the participants had a previous diagnosis of COVID-19, 8% had a family history of mental illness, and 18% had a friend with a mental illness. First- and second-grade students accounted for 73% of the participants. The participants received information about mental health problems from social media (36.4%), academic environment (19%), books (11.5%), social environment (13.1%), other sources (11.5%) and educational activities (8.5%). The grade point average (GPA) ($n=231$) was 3.3 ± 0.4 , the average number of family members with COVID-19 was 1.1 ± 1.6 , and the average monthly family income was 5700 ± 3713 Turkish Liras (Table 1).

Correlation Analyses

Table 2 summarizes the correlations between the variables analysed in the study. The Attitudes Toward Seeking Psychological Professional Help Scale showed weak correlations with overall MHL ($r=.347$; $p=.000$). MHL-knowledge-oriented ($r=.278$; $p=.000$) and MHL-belief-oriented ($r=.323$; $p=.000$) dimensions. The Warwick-Edinburgh Mental Well-Being Scale showed a weak correlation with overall MHL ($r=.100$; $p=.025$) and an inverse moderate correlation with the psychological distress scale ($r=-.516$; $p=.000$). The overall MHL showed strong correlations with the knowledge-oriented ($r=.763$; $p=.000$) and belief-oriented ($r=.713$; $p=.000$) dimensions. The Kessler Psychological Distress Scale (K10) showed a weak correlation with the number of family members with COVID-19 ($r=.222$; $p=.000$).

The impacts of the parameters on the scales

Table 1. Demographic characteristics of the participants (n=505)

Variable	Group	n (%)
Gender	Female	404 (80)
	Male	101 (20)
Age (years)	19.8±1.7	Min=18 Max=35
Employment	Yes	49 (9.7)
	No	456 (90.3)
Diagnosis of Covid-19	Yes	131 (26)
	No	374 (74)
Friends with mental health problems	Yes	90 (17.8)
	No	415 (82.2)
Family history of mental health problems	Yes	41 (8.1)
	No	464 (91.9)
Treatment for mental health	Yes	23 (4.6)
	No	482 (95.4)
University year	1st	261 (51.7)
	2nd	108 (21.4)
	3rd	93 (18.4)
	4th	43 (8.5)
Source of information for mental health	Academic	96 (19)
	Education activities	43 (8.5)
	Social media	184 (36.4)
	Book	58 (11.5)
	Social environment	66 (13.1)
	Other	58 (11.5)
Accommodation	With family	280 (55.4)
	Other	225 (44.6)
Faculty programs	Health management	103 (20.4)
	Social service	38 (7.5)
	Physiotherapy reh.	37 (7.3)
	Nutrition and dietetics	47 (9.3)
	Child development	71 (14.1)
	Midwifery	40 (7.9)
	Occupational therapy	37 (7.3)
	Occupational health & safety	50 (9.9)
	Speech and language therapy	32 (6.3)
	Other	49 (9.7)
Grade point average (GPA)	n=231	3.3±0.377
Monthly family income (TL)	n=427	5701±3714
Family members with Covid-19	n=503	1.1±1.6

Table 2. Correlation Analysis between the variables in the study

	1	2	3	4	5	6	7	8	9	10	11
ATSPPH-SF (1)	1										
WEMWBS (2)	.085	1									
	.055										
MHLS (3)	.347**	.100*	1								
	.000	.025									
Knowledge-oriented MHL (4)	.278**	.083	.763**	1							
	.000	.061	.000								
Beliefs-oriented MHL (5)	.323**	-.019	.713**	.234**	1						
	.000	.663	.000	.000							
K10 (6)	-.028	-.516**	-.056	-.038	.013	1					
	.532	.000	.207	.393	.769						
GPA (7)	.082	.090	.036	.022	-.006	-.130*	1				
	.216	.172	.591	.743	.931	.048					
Income (8)	-.017	-.002	.026	-.035	.022	-.006	-.071	1			
	.727	.969	.596	.474	.655	.906	.304				
Family members (9)	-.066	.011	.044	-.002	.066	.044	-.118	-.087	1		
	.141	.809	.328	.965	.140	.327	.074	.072			
Family members with Covid-19 (10)	-.047	-.037	.046	.016	.062	.026	.014	.111*	.222**	1	
	.296	.410	.307	.712	.162	.556	.832	.022	.000		
Age (11)	.062	.103*	.086	.075	.084	-.010	-.024	-.030	-.003	-.077	1
	.162	.021	.052	.093	.058	.819	.719	.538	.943	.084	

*: %95 confidence level **: %99 confidence level *P < 0.05; **P < 0.01, MHL: Mental Health Literacy Scale, K10: the Kessler Psychological Distress Scale, WEMWBS: the Warwick-Edinburgh Mental Well-Being Scale, ATSPPH-SF: the Attitudes Toward Seeking Psychological Professional Help Scale

used in the current study are summarized in Table 3. The presence or absence of a positive Covid-19 diagnosis had no significant effect on all scales.

The Mental Health Literacy Scale

MHL scores were significantly higher in female participants (14.96 ± 3.06) than in male participants (12.82 ± 3.69) ($p < .05$). Female participants also had higher scores on knowledge-oriented MHL and belief-oriented MHL dimensions. Having friends with mental health problems had an increasing role in belief-oriented MHL scores ($p < .05$). Understandably, attendees of higher grades and health-specific departments had

significantly higher overall MHL and belief-oriented MHL scores ($p < .05$).

The Attitudes Toward Seeking Psychological Professional Help Scale

Females, unemployed participants, and those who did not receive mental treatment showed increased attitudes toward seeking psychological professional help (Table 4). Attendees of higher grades, health-specific departments and those who elicited mental health information from academic environment, educational activities and books were more likely to seek psychological professional help.

Table 3. The impacts of the parameters on the scales used in the current study

Variables	Mental Health Literacy Scale			MHL scale- knowledge oriented			MHL scale- beliefs-oriented			The Attitudes Toward Seeking Psychological Professional Help Scale			Warwick Edinburgh Mental Well-Being Scale			The Kessler Psychological Distress Scale		
	SS	Test	p	SS	Test	p	SS	Test	p	SS	Test	p	SS	Test	p	SS	Test	p
Gender																		
Female	14,96	3,06	t=6,05 ,000	8,07	1,73	t=4,394 ,000	4,15	1,94	t=5,520 ,000	17,86	4,08	t=6,039 ,000	48,63	9,54	t=-1,681 ,093	27,24	8,48	t=1,682 ,093
Male	12,82	3,69		7,00	2,27		2,93	2,16		15,15	3,79		50,45	10,37		25,63	9,10	
Employment																		
Yes	13,77	3,66	t=-1,688 ,092	7,53	1,91	t=-1,281 ,201	3,38	2,37	t=-1,631 ,109	15,75	4,44	t=-2,790 ,05	49,91	12,17	t=-,693 ,489	28,59	10,84	t=1,157 ,253
No	14,61	3,26		7,89	1,90		3,96	2,00		17,49	4,10		48,90	9,44		26,74	8,34	
Diagnosis of Covid-19																		
Yes	14,70	3,12	t=-712 ,477	7,94	1,84	t=-595 ,552	3,94	2,03	t=-,258 ,797	17,13	3,91	t=-,591 ,555	48,65	10,17	t=-,472 ,637	27,35	8,68	t=-,608 =,544
No	14,47	3,37		7,83	1,92		3,89	2,04		17,38	4,25		49,12	9,58		26,77	8,61	
Friends with mental health problems																		
Yes	15,00	3,30	t=-1,479 ,140	7,91	1,91	t=-273 ,785	4,35	1,95	t=-2,306 ,022	17,20	4,69	t=-,308 ,758	48,47	9,28	t=-,563 ,574	30,11	8,98	t=-,283 ,777
No	14,43	3,30		7,85	1,90		3,80	2,05		17,34	4,04		49,11	9,83		26,23	8,40	
Family history of mental health problems																		
Yes	15,02	3,75	t=-992 ,322	7,78	1,95	t=-,284 ,777	4,43	2,02	t=-1,742 ,082	17,04	4,64	t=-,439 ,661	46,04	8,85	t=-2,033 ,043	30,09	8,21	t=-,236 ,814
No	14,48	3,26		7,86	1,90		3,85	2,04		17,34	4,12		49,26	9,77		26,64	8,61	
Treatment for mental health																		
Yes	14,50	3,26	z=-1,496 ,135	7,85	1,87	z=-1,052 ,293	3,88	2,03	z=-1,204 ,228	17,20	4,08	z=-2,338 ,019	49,27	9,69	z=-3,246 ,001	26,58	8,43	z=-3,629 ,000
No	15,04	4,20		8,00	2,48		4,43	2,12		19,69	5,16		43,30	9,03		34,04	9,62	
University year																		
1st	14,08	3,10	F=4,316 ,05	7,70	1,81	F=2,639 ,049	3,62	1,90	F=4,583 ,004	16,71	4,02	F=4,934 ,002	48,86	9,67	F=,048 ,986	25,92	8,25	F=2,605 ,051
2nd	14,64	3,41		7,76	1,90		4,05	2,10		17,64	4,06		49,10	8,94		28,01	8,86	
3rd	15,43	3,39		8,30	1,86		4,49	1,97		18,55	4,13		49,29	10,62		28,32	9,13	
4th	15,02	3,69		8,11	2,35		4,00	2,55		17,51	4,70		48,93	10,27		27,20	8,64	

Source of information for mental health																								
Academic	15,07	3,03	F=4,040	,001	8,17	1,67	F=2,966	,012	4,09	2,17	F=2,242	,049	18,79	3,88	F=3,619	,003	50,38	8,93	F=,713	,614	26,64	7,49	F=,848	,516
Education activities	15,48	2,91			8,25	1,91			4,27	1,77			17,72	4,53			48,76	9,52			28,37	9,32		
Social media	14,43	3,11			7,92	1,82			3,73	2,05			16,92	3,95			48,17	9,82			26,53	8,38		
Book	15,27	3,53			7,96	1,85			4,48	1,97			17,08	3,74			49,46	10,71			25,72	8,82		
Social environment	13,68	3,62			7,34	2,01			3,72	1,92			16,37	4,50			49,34	9,14			27,39	8,94		
Other	13,46	3,58			7,31	2,22			3,48	2,07			17,15	4,52			48,63	10,58			28,18	10,00		
Faculty programs																								
Health Management	14,35	3,25	1,899	,050	8,00	1,84	2,355	,013	3,62	2,18	2,169	,023	17,22	4,38	F=2,062	,031	48,70	11,25	F=,775	,639	29,23	8,82	F=2,166	,023
Social Service	14,18	2,80			7,94	1,94			3,55	1,91			16,68	4,36			48,65	7,36			27,05	6,99		
Physiotherapy reh.	13,91	3,22			7,37	1,73			3,72	1,82			17,70	3,99			50,78	7,63			25,29	8,23		
Nutrition dietetics	14,72	4,33			7,55	2,16			4,21	2,07			17,08	3,62			50,46	8,49			25,63	7,67		
Child Development	15,54	3,27			8,30	1,62			4,50	1,85			18,63	4,18			48,42	7,82			26,77	7,04		
Midwifery	14,60	2,99			7,97	1,70			4,22	1,71			18,20	4,32			48,07	11,33			26,62	9,54		
Occupational therapy	14,43	2,39			7,89	1,52			3,78	2,02			16,59	3,73			50,05	12,27			25,54	8,41		
Occupational health & safe	13,32	3,54			6,98	2,34			3,20	2,07			15,88	4,16			50,42	9,81			23,76	9,86		
Speech and language therapy	15,03	3,80			7,93	2,43			4,09	2,61			16,90	3,82			47,93	9,22			27,75	9,32		
Other	14,87	2,70			8,20	1,44			4,22	1,79			17,75	4,07			47,00	9,78			28,28	8,99		

Psychological distress scale

The severity of psychological distress was greater in participants who did not receive treatment for mental health than those who had been receiving treatment ($p < .05$). Moreover, students from the health management department had higher distress scores than those from the department of occupational health and safety. Increased psychological distress negatively affected the students' academic achievement (Table 2)

Warwick Edinburgh Mental Well-Being Scale

Absence of a positive family history and receipt

of treatment for mental health were significant determinants of increased mental well-being scores ($p < .05$).

Regression Analyses

Table 4 presents the findings of linear regression analysis. The mental health literacy scale scores were positively and significantly affected by the scores of the following: the Attitudes Toward Seeking Psychological Professional Help Scale, Warwick-Edinburgh scale, female gender, higher grades, and source of information for mental health.

Table 4. linear regression analysis

Predicted	Predictor	Unstandardized Coefficient		Standardized Coefficient	t	p	F	R
		β	S.H.	β			(p)	R2
MHL Scale	(Constant)	10.026	1.086		9.231	.000	10.609	0.437
	ATSPPH-SF Scale	.216	.034	.272	6.293	.000	(0.000*)	0.191
	WEMWBS	.030	.014	.089	2.182	.030		
	Gender	-1.506	.356	-.182	-4.228	.000		
	University year							
	2nd	.350	.351	.043	.999	.318		
	3rd	.831	.384	.097	2.163	.031		
	4th	.956	.506	.081	1.889	.059		
	Source of information for mental health							
	Academic	.669	.516	.079	1.296	.195		
	Educational Activities	1.503	.611	.127	2.458	.014		
	Social Media	.867	.456	.126	1.900	.058		
	Book	1.469	.567	.142	2.593	.010		
	Social environment	.215	.546	.022	.393	.695		

Discussion

The current study provided an insight into the mental health literacy levels of students studying health sciences and the relationship between their mental health literacy status and psychological help-seeking behaviours, mental well-being, and psychological distress levels.

On a 22-point scale, the mean mental health literacy score was found to be 14.53 ± 3.31 , which can be considered to be relatively low for students of health sciences. It is remarkable that the highest mental health literacy score was reported for healthcare professionals with 17 ± 3.30 (20), followed by the students of Faculty of Medicine with 16.46 ± 3.12 , with the lowest score (12.06 ± 3.80) obtained from students of Faculty of Economics Sciences (14). In line with our findings, previous studies showed that healthcare professionals and students from medicine expectedly had higher MHL scores because of their specialized field and training programmes.

In line with previous studies (12, 21, 22), women were found to score higher on the MHL scale with a mean score of 14.96 as compared with 12.82 for men. Women also outperformed men with higher scores (17.86 ± 4.08 versus 15.15 ± 3.79) on the psychological help-seeking attitude scale. This difference favouring woman may be explained by their higher communication skills, increased tendency for sharing information and interest in health-related issues (21).

Our findings clearly show that MHL levels of students and their psychological help-seeking attitudes can be promoted by educational activities and health-related courses. Grade 3 students attained higher scores in comparison with lower grade students. Similarly, the curriculum involving psychology, family education and child mental health subjects seems to contribute to higher MHL levels and psychological help seeking

attitudes of students of the child development department. As recognizing mental health problems and determining risk factors of mental issues are essential of components of MHL, it is reasonable that child development students score better on these subjects.

Concerning distress levels, students from the health management department had higher psychological distress scores than those from the department of occupational health and safety. Increased psychological distress negatively affected the students' academic achievement. Our findings also emphasize the value of mental treatment in reducing psychological distress and promoting mental well-being. Overall, all participants who received mental treatment had lower psychological distress scores and higher mental well-being scores than non-recipients, irrespective of their study departments. Engagement in academic-educational activities and reading books had similar beneficial effects on the MHL scores.

Unfortunately, more than a third of participants (36%) obtained mental information from social media/internet sources, even at higher rates than reported in previous studies (20, 21). Theoretically, utilization of social media in health-related issues should do harm more than benefits. However, in the current study, the effect of social media did not seem to play an adverse role in the MHL score and psychological help-seeking attitudes.

Strengths and Limitations: The present study has several limitations. First, due to its single-centre design and participants limited to university students of health sciences, our result may not reflect the mental health literacy in the whole population. Secondly, many participants were undergraduate students, so further studies with a larger sample (such as graduate and postgraduate) size are needed. In addition, the current study

was conducted during the COVID-19 pandemic, which might have adversely affected mental health of university students.

Determination of mental health literacy and psychological distress levels in students of health sciences is essential because these students are candidates of future health professionals who are supposed to be equipped with robust psychological endurance.

Conclusion

Our findings showed that mental health literacy was positively and significantly affected by greater attitudes toward seeking psychological professional help, mental well-being, female gender, and availability of information for mental health. The mean the MHL Scale score was higher in females than in males. MHL scores were positively affected by having friends with mental health problems and in attendees of higher grades and health-specific departments. MHL levels and psychological help-seeking attitudes of the participants were correlated with higher educational activities and health-related courses. A significant proportion of participants (36%) obtained information on mental health from social media/internet sources. Students from the health management department had higher psychological distress scores. Increased psychological distress negatively affected the students' academic achievement. The higher level of mental health literacy, the higher level of mental well-being and the lower level of psychological distress.

Our research focused on mental health literacy as a predicted variable, but more research is necessary to evaluate the mental well-being and psychological distress as a predictor variable by using regression analysis. The current study can be used by other investigators to improve clinical practice. With respect to strengths, our

study used face-to-face inquiries to collect data, which would considerably be superior to other data collection methods.

Acknowledgement: We are grateful to surveyors for their valuable contributions to the data collection process. We also thank all the participants in our study

Conflicts of Interests: No potential conflict of interest was reported by the author.

Ethical Consideration: This study had received ethical approval by the institutional ethics committee, the University of Health Sciences, Türkiye (No: E-46418926-050.99 —118613) and conformed to the Declaration of Helsinki.

Author contributions: Study design: Fatma KANTAŞ YILMAZ & Pinar ÜNKÜR, Data collection: Fatma KANTAŞ YILMAZ & Pinar ÜNKÜR, Data analysis: Fatma KANTAŞ YILMAZ & Pinar ÜNKÜR, - Manuscript writing: Fatma KANTAŞ YILMAZ & Pinar ÜNKÜR

References

1. WHO. Mental health: strengthening our response 2022 [Available from: <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>.
2. Belgin Ünal GE, Gönül Dinç Horosan, Sibel Kalaça, Kaan Sözen. Frequency Study Of Chronic Diseases And Risk Factors In Turkey: Key Findings. Ergör BÜG, editor. ANKARA The Minister of Health; 2013. 139 p.
3. Kılıç C. Current Status of Prevalence of Psychiatric Disorders and Their Treatment in Turkey. . Community and Physician. 2020;35(3):179-87.
4. WHO. Mental health n.d. [Available from: https://www.who.int/health-topics/mental-health#tab=tab_1.
5. Bamber MD, Schneider JK. Mindfulness-based meditation to decrease stress and anxiety in college students: A narrative synthesis of the research. Educational Research Review. 2016;18:1-32. <https://doi.org/10.1016/j.edurev.2015.12.004>
6. Maharani FA, Dewi EI, Kurniyawan EH. The correlation of peer social support with anxiety levels of students working on undergraduate thesis at the faculty of nursing, University of Jember. Nursing and Health Sciences Journal (NHSJ). 2022;2(1):56-62. <https://doi.org/10.53713/nhs.v2i2.92>
7. Jorm AF. Mental health literacy: Public knowledge and beliefs about mental disorders. The British Journal of Psychiatry. 2000;177(5):396-401.

- <https://doi.org/10.1192/bjp.177.5.396>
PMid:11059991
8. Jorm AF, Korten AE, Jacomb PA, Christensen H, Rodgers B, Pollitt P. "Mental health literacy": a survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *Medical journal of Australia*. 1997;166(4):182-6. <https://doi.org/10.5694/j.1326-5377.1997.tb140071.x> PMid:9066546
 9. Tay JL, Tay YF, Klainin-Yobas P. Mental health literacy levels. *Archives of psychiatric nursing*. 2018;32(5):757-63. <https://doi.org/10.1016/j.apnu.2018.04.007> PMid:30201205
 10. Hunt J, Eisenberg D. Mental health problems and help-seeking behavior among college students. *Journal of adolescent health*. 2010;46(1):3-10. <https://doi.org/10.1016/j.jadohealth.2009.08.008> PMid:20123251
 11. Wei Y, Hayden JA, Kutcher S, Zygmunt A, McGrath P. The effectiveness of school mental health literacy programs to address knowledge, attitudes and help seeking among youth. *Early intervention in psychiatry*. 2013;7(2):109-21. <https://doi.org/10.1111/eip.12010> PMid:23343220
 12. Gorczynski P, Sims-Schouten W, Hill D, Wilson JC. Examining mental health literacy, help seeking behaviours, and mental health outcomes in UK university students. *The Journal of Mental Health Training, Education and Practice*. 2017. <https://doi.org/10.1108/JMHTEP-05-2016-0027>
 13. Jung H, von Sternberg K, Davis K. Expanding a measure of mental health literacy: Development and validation of a multicomponent mental health literacy measure. *Psychiatry research*. 2016;243:278-86. <https://doi.org/10.1016/j.psychres.2016.06.034> PMid:27423635
 14. Göktaş S, IŞIKLI B, Önsüz MF, Yenilmez Ç, Metintaş S. Evaluation of Validity and Reliability of the Turkish Version of the Mental Health Literacy Scale (MHL Scale). *Konuralp Medical Journal*. 2019;11(3):424-31. <https://doi.org/10.18521/ktd.453411>
 15. Tennant R, Hiller L, Fishwick R, Platt S, Joseph S, Weich S, et al. The Warwick-Edinburgh mental well-being scale (WEMWBS): development and UK validation. *Health and Quality of life Outcomes*. 2007;5(1):1-13. <https://doi.org/10.1186/1477-7525-5-63> PMid:18042300 PMCID:PMC2222612
 16. Keldal G. Turkish Version of the Warwick-Edinburgh Mental Well-Being Scale: A validity and reliability study. *The Journal of Happiness & Well-Being*. 2015;3(1):103-15.
 17. Fischer EH, Farina A. Attitudes toward seeking professional psychological help: A shortened form and considerations for research. *Journal of college student development*. 1995. <https://doi.org/10.1037/t05375-000>
 18. Topkaya N. Structural equation analysis of willingness to seek psychological help by the roles of social stigma, treatment fears, anticipated benefits, risks, and attitudes toward therapy: Ege University; 2011.
 19. Altun Y, Ozen M, Kuloglu MM. Turkish adaptation of Kessler Psychological Distress Scale: validity and reliability study. *Anatolian Journal of Psychiatry*. 2019;20(SI 1):23-32. <https://doi.org/10.5455/apd.12801>
 20. Oztas B, Aydoğan A. Assessment of mental health literacy of health professionals. 2021. <https://doi.org/10.14744/phd.2021.43265>
 21. Çevre E. Determination of mental health literacy level and investigation of affecting factors: The case of Bursa province: The University of Health Sciences; 2021.
 22. Cotton SM, Wright A, Harris MG, Jorm AF, McGorry PD. Influence of gender on mental health literacy in young Australians. *Australian & New Zealand Journal of Psychiatry*. 2006;40(9):790-6. <https://doi.org/10.1080/j.1440-1614.2006.01885.x> PMid:16911755