Examining the Links between Demographics, Mental Health Literacy and Mental Well-Being: A Correlational Study

Pınar ÜNKÜR
* Research Assistant, Tokat Gaziosmanpaşa University, Faculty of Erbaa Health Sciences, Department of Health Management, Tokat/Türkiye.
(Corresponding Author):
pinar.unkur@gop.edu.tr

Muzaffer AKDOĞAN
Associate Professor, University of Health Sciences, Faculty of Hamidiye Health Sciences, Department of Health Management, İstanbul/Türkiye.

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ABSTRACT

Background and Objectives: When we think of health as a system, mental health is an inseparable part of it, and mental well-being is integrated with it. Mental health literacy and mental well-being are important due to the increasing prevalence of mental illnesses. This study adopts a correlational design to investigate the interplay between mental health literacy and mental well-being. The primary objective is to determine the extent and direction of the relationship between these variables while accounting for demographic differences across two distinct districts of Istanbul.

Materials and Methods: This cross-sectional study includes 448 participants. Data were collected using a socio-demographic data form, a mental health literacy scale, and a mental well-being scale. They were analysed using descriptive, correlation, and difference analyses in IBM SPSS 25.

Results: No significant difference in mental health literacy levels was found across the general population. However, the mental well-being of individuals residing in Adalar district was significantly higher than that of those living in Esenyurt district. Furthermore, certain demographic factors influenced mental health literacy. A positive correlation was observed between mental well-being and mental health literacy ($r=0.181$, $p<0.01$).

Conclusion: The findings indicate that enhancing mental health literacy could be a strategic pathway to improving overall mental well-being in urban populations. The results suggest that sociodemographic factors play a significant role in shaping individuals' mental health literacy and well-being in Istanbul. These findings underscore the importance of targeted interventions to address disparities in mental health literacy and well-being.

Paper Type: Research Article

Keywords: Mental Health Literacy, Mental Well-being, Population, Sociodemographic Factors.

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Introduction

Throughout human history, the evolving needs of societies have driven advancements in health, leading to the emergence of various new frameworks. Health literacy has developed in this context, focusing on the knowledge, skills, and motivation individuals need to maintain a healthy lifestyle, prevent disease, and improve their overall well-being. At its core, health literacy involves an individual's ability to understand, evaluate, and apply health information to manage their own health effectively (1, 2).

Mental health literacy (MHL) is a specific dimension of health literacy. Introduced by Jorm et al. in 1997, MHL comprises seven key components and focuses on the recognition, management, and prevention of mental illnesses, grounded in existing knowledge and beliefs about mental health (3). According to the World Health Organization, one in eight people globally—amounting to 970 million individuals—suffers from some form of mental illness (4).

The COVID-19 pandemic, which had a profound impact worldwide, significantly worsened individuals' mental health. Research suggests that quarantine practices can evoke fear, despair, and unhappiness in individuals, triggering psychological responses such as anxiety, panic attacks, and heightened stress (5, 6, 7).

Mental health is an essential component of overall health, and mental well-being is intrinsically linked to mental health. Mental well-being encompasses positive states of mind, including happiness, life satisfaction, self-actualization, and the ability to function positively in daily life (8). Consequently, improvements in mental well-being are likely to benefit mental health. Enhancing individuals' mental health literacy through health education is a critical step in strengthening mental health knowledge and promoting better mental health outcomes in society (9). Furthermore, mental health literacy is a significant factor that influences mental well-being (10). Moreover, training in this context increases individuals' mental health literacy and mental well-being (11, 12).

A deeper understanding of mental health literacy is expected to lead to improvements in both individual and community health (13). Increasing mental health literacy levels is crucial for individuals to recognize mental illnesses and make appropriate interventions when necessary. A study demonstrated that mental health literacy training for both men and women significantly improved mental health behaviours and attitudes toward mental illness within the community (14).

The objective of this study is to assess the mental health literacy and mental well-being of individuals aged 18-65 in two districts of Istanbul and to determine the extent and direction of the relationship between these variables. The lack of existing studies on this topic in the literature highlights the importance and originality of this research. The central question guiding the study is: "Do mental health literacy and mental well-being vary according to population density?". This study examines the effects of regional and demographic variables by considering differences in mental health literacy and mental well-being across regions, accounting for population factors, thereby recommending a clearer understanding of inequalities in mental health literacy and to

the d evelopment of policies appropriate to local needs.

Materials and Methods

Participants

This study employed a cross-sectional design. According to the Turkish Statistical Institute's census data as of December 31, 2021, Istanbul comprises 39 districts, with "Esenyurt district" having the largest population (977.489 residents) and "Adalar district" having the smallest (16.372 residents) (15). Based on this information, the study population consists of individuals aged 18-65 residing in these two districts. The minimum sample size was calculated using Cochran's formula for a known population size (16):

$$n = \frac{N.Z^2.p.q}{d^2.(N-1) + Z^2.p.q}$$

Based on these parameters, the theoretical minimum sample size was determined to be 384. To account for the heterogeneous population structure and varying population densities, the disproportionate stratified sampling method was adopted (16). Disproportionate stratified sampling is a method in which a population is divided into strata based on specific characteristics, and a disproportionate number of samples are selected from each stratum relative to its size (17). In line with this method, more data than the targeted amount were collected from the Adalar district, which has a very low population density, to increase the statistical power and representativeness of the subgroup analyses. A total of 448 participants were recruited for the study: 361 from Esenyurt district and 87 from Adalar district. The total sample size (n=448) exceeds the targeted minimum sample size (n=384), ensuring the generalizability of the research results at a 95% confidence level.

Data Collection

Data were collected using a hybrid approach: 196 participants completed the survey online, while 252 participants completed it face-to-face. The study participants were selected based on specific eligibility requirements. The inclusion criteria were as follows: being between the ages of 18 and 65, residing in either the Adalar or Esenyurt districts of Istanbul, and voluntarily providing informed consent to participate in the research. Conversely, the exclusion criteria included individuals under 18 or over 65, those who did not reside in the targeted districts, and individuals who declined to provide informed consent after being briefed about the study.

Ethical approval for the research was granted by the University of Health Sciences Hamidiye Scientific Research Ethics Committee (approval date: 30.09.2022, number: 12469).

In this study, convenience sampling (18) was used to reach participants from the identified strata due to the ease of field application and the principle of voluntarism. Accordingly, individuals at central points (squares, public transport stops, and public spaces) in both districts were reached through face-to-face and online methods. Before the interview, participants were asked whether they were between 18 and 65 years old and whether they resided in the relevant district; voluntary participants who met the criteria were included in the survey.

Ethical approval for the research was granted by the University of Health Sciences Hamidiye Scientific Research Ethics

Committee (approval date: 30.09.2022, number: 12469). Informed consent was obtained from all participants before they completed the questionnaire.

Data collection occurred between October 2022 and February 2023. Data were collected through a survey administered both face-to-face and online via Google Forms. A total of 196 responses were collected online, with 61 participants from Adalar district and 135 from Esenyurt district. Additionally, 252 responses were collected via face-to-face surveys, with 26 from Adalar district and 226 from Esenyurt district.

Tools

The survey used for data collection consisted of three parts, totalling 54 questions. These included an 18-item Socio-demographic Data Form, the Mental Health Literacy Scale, and the Warwick-Edinburgh Mental Well-Being Scale.

Socio-demographic Data Form

The form included 18 questions covering age, gender, marital status, smoking and alcohol use, history of COVID-19 diagnosis, mental health disorders, and relationships with family and friends.

Mental Health Literacy (MHL) Scale

Developed by Jung et al. (19), the MHL scale measures individuals' mental health literacy across three dimensions: knowledge-oriented (items 1-10), belief-oriented (items 11-18), and resource-oriented (items 19-22). The scale consists of 22 items, with total scores ranging from 0 to 22; higher scores indicate greater mental health literacy. The first 18 items are rated on a six-point Likert scale (strongly agree to don't know), and the remaining 4 items are (yes/no). Responses of "strongly agree," "agree," and "yes" are scored as 1, while other responses are scored as 0; items 13–22 are reverse-coded. The Turkish validity and reliability study of the scale was conducted by Göktaş et al. (20).

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)

Originally developed by Tennant et al. (21), WEMWBS is used to assess individuals' mental well-being. It consists of 14 items rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The total score ranges from 14 to 70, with higher scores indicating greater mental well-being. The Turkish adaptation of the scale was performed by Keldal (22).

Statistical Analysis

Data analysis was performed using Statistical Package for the Social Sciences (SPSS) version 25. Frequency tables were generated for socio-demographic variables. The scales used in the study were found to follow a normal distribution, as indicated by the skewness and kurtosis values. According to Kline (23), data are considered normally distributed when skewness values fall between -3 and +3, and kurtosis values range from -10 to +10. To compare means of normally distributed variables, independent-samples t-tests were used for two-group comparisons, while One-Way ANOVA was used for comparisons involving three or more groups. For ANOVA, the LSD test was used when variances were homogeneous, and Dunnett's C test was applied when variances were not homogeneous. Pearson Correlation analysis was conducted to examine the relationships and directionality between scales and variables.

Results

Sample Characteristics

A total of 448 participants who met the inclusion criteria completed the questionnaire. The sample consisted predominantly of women, who made up 58.7% of the total participants (n=263). The largest age group was those between 18-25 years (53.8%) and 69% of participants were single. In terms of lifestyle habits, 21% of participants reported alcohol consumption, and 35.5% indicated that they smoked. Descriptive statistics for other demographic and lifestyle variables are presented in Table 1.

Table 1. Demographic data of the participants (n=448)

Variables	Group	N (%)
Gender	Female	263 (58.7)
	Male	185 (41.3)
Age (years)	18-25	241 (53.8)
	26-34	94 (21)
	35-42	47 (10.5)
	43≤	66 (14.7)
District	Esenyurt	361 (80.6)
	Adalar	87 (19.4)
Employment	Yes	219 (48.9)
	No	229 (51.1)
Diagnosis of COVID-19	Yes	205 (45.8)
	No	243 (54.2)
Marital status	Single	309 (69)
	Married	139 (31)
Educational status	Never went to school	7 (1.6)
	Primary school	30 (6.7)
	Secondary school	31 (6.9)
	High school	162 (36.2)
	University	192 (42.9)
	Postgraduate	26 (5.8)
Job	Student	195 (43.5)
	Teacher	15 (3.3)
	Health professionals	19 (4.2)
	Officer	23 (5.1)
	Employee	81 (18.1)
	Housewife	38 (8.5)
	Tradespeople	26(5.8)
	Other	51 (11.4)
Income status	No wage	207 (46.2)
	Minimum wage	84 (18.8)
	Below minimum wage	21 (4.7)
	Above minimum wage	136 (30.4)
Alcohol use	Yes	94 (21)
	No	354 (79)
Cigarette use	Yes	159 (35.5)
	No	289 (64.5)

Mental Health and Chronic Disease Status, and Sources of Psychological Information

Among the participants, 205 individuals (45.8%) had been diagnosed with COVID-19, and 273 participants (60.9%) reported that the COVID-19 pandemic had negatively impacted their mental health. Additionally, 17.2% of participants had a chronic illness, while 9.6% had a diagnosed mental illness. Furthermore, 13.2% of participants reported having a family member with a mental illness, and 29.9% reported having a friend with a mental illness. Regarding sources of mental health information, participants most relied on social media (31.5%) and their social environment (24.8%) (Table 2).

Table 2. Findings regarding the participants' mental-chronic disease status and the sources from which they obtained psychological information (n=448).

Variables	Group	N (%)
State of mental health being negatively affected by COVID-19	Yes	273 (60.9)
	No	175 (39.1)
Having a chronic illness	Yes	77 (17.2)
	No	371 (82.8)
Having a mental illness	Yes	43 (9.6)
	No	405 (90.4)
Family with mental health problems	Yes	59 (13.2)
	No	389 (86.8)
Friends with mental health problems	Yes	134 (29.9)
	No	314 (70.1)
Treatment for mental health	Not receiving treatment	21 (4.7)
	Psychotherapy	207 (46.2)
	Medication	84 (18.8)
Source of information for mental health	Academic	52 (11.6)
	Education activities	52 (11.6)
	Social media	141 (31.5)
	Book	53 (11.8)
	Social environment	111 (24.8)
	Other	39 (8.7)
Diagnosis of COVID-19	Yes	205 (45.8)
	No	243 (54.2)

Descriptive Statistics, Normality Tests, and Reliability Analysis

The descriptive statistics revealed that the participants had a mean mental health literacy score of 13.77±3.87. For Mental Well-Being, the mean score was calculated as 51.31±9.70. The scales used in the study showed normal distributions, and the reliability analysis indicated that both scales were reliable. Given that the scales were Likert-type, Cronbach's Alpha coefficient was used to evaluate reliability.

Although the Kolmogorov-Smirnov test indicated a deviation from normality ($p<.001$), the distribution was deemed suitable for parametric testing. This decision

was based on the skewness (-3 and +3) and kurtosis (-10 and +10) values being within the acceptable range and the strength of the Central Limit Theorem (24) given the large sample size (n=448) (Table 3).

Table 3. Descriptive Statistics and Normality Tests for Statistical Data and Reliability Analysis

Scale	Mean (Sd)	Kolmogorov-Smirnov (p)	Skewness	Kurtosis	Cronbach's alpha
MHL Scale	13.77±3.87	0.000	-0.723	0.764	0.741
Knowledge-oriented MHL	7.35±2.20	0.000	-1.035	893	0.679
Beliefs-oriented MHL	3.72±2.00	0.000	-0.047	0.571	0.659
Source-oriented MHL	2.69±1.28	0.000	-0.619	-0.747	0.673
WEMWB Scale	51.31±9.70	0.000	-0.486	0.378	0.903

Sd: Standard Deviation, MHL: Mental Health Literacy, WEMWB: Warwick-Edinburgh Mental Well-Being

Correlation Analyses

A statistically significant positive correlation was found between the MHL Scale and the WEMWBS (r=0.181, p<0.01). The detailed results of the correlation analysis are presented in Table 4.

Table 4. Pearson Correlation Analysis findings between scales and variables.

No.	Parameter	1	2	3	4	5	6	7	8
1	MHL Scale	1							
2	Beliefs-oriented MHL	0,712**	1						
3	Knowledge-oriented MHL	0,791**	0,264**	1					
4	Source-oriented MHL	0,549**	0,136**	0,259**	1				
5	WEMWBS	0,181**	0,056	0,149**	0,202**	1			
6	Age	-0,040	0,016	-0,024	-0,104*	0,124**	1		
7	Education status	0,231**	0,142**	0,202**	0,129**	-0,020	-0,322**	1	
8	Income status	0,076	0,076	0,078	-0,024	0,150**	0,376**	0,172**	1

**p< 0.01, *p<0.05 *: %95 confidence level **: %99 confidence level *p < 0.05; **p < 0.01, MHL: Mental Health Literacy, WEMWBS: Warwick-Edinburgh Mental Well-Being Scale.

Comparative Analysis Findings

The Mental Health Literacy (MHL) Scale

The mental health literacy scores were significantly higher among several demographic and health-related groups. Women reported an average MHL score of 14.43 ± 3.45 (p=.001), while individuals whose mental health was adversely affected by the COVID-19 pandemic scored 14.16 ± 3.60 (p=.012). Similarly, those with chronic diseases (14.48 ± 3.02) (p=.037), family members with mental illness (14.74 ± 3.89) (p=.040), and friends with mental illness (14.46 ± 3.65) (p=.015) also demonstrated higher MHL scores (p<0.05). However, no significant difference was found in MHL scores based on the district variable (p>0.05) (Table 5).

The resource-oriented MHL scores of single individuals (2.77±1.28) were significantly higher than those of married individuals (2.50 ± 1.27) (p=.035). Additionally, individuals diagnosed with COVID-19 (3.93 ± 1.92) (p=.045) and those

with a mental illness (4.25 ± 1.60) (p=.032) had significantly higher belief-oriented MHL scores.

Participants receiving medication for mental health issues showed statistically higher MHL scores compared to those not undergoing treatment (F=3.505; p=.031). Furthermore, individuals who obtained knowledge from academic environments exhibited significantly higher MHL scores than those who gained knowledge from social environments or other sources (F=3.789; p=.002). Professionals such as teachers and healthcare workers scored significantly higher on the MHL scale (F=3.136; p=.003) compared to students, workers, homemakers, tradespeople, and individuals in other professions. In terms of education status, high school and university graduates had significantly higher resource-oriented MHL scores than primary school graduates (F=3.561; p=.004) (Table 5).

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)

No significant difference in WEMWBS scores was observed between gender groups (p>0.05). However, participants residing in the Adalar district reported significantly higher well-being scores (55.49 ± 8.70) (p=.001) than those living in Esenyurt district (50.30 ± 9.67). Married individuals (53.04 ± 9.48) (p=.011), those without a mental illness (51.62 ± 9.68) (p=.037), and those whose family members did not have a mental illness (52.01 ± 9.34) (p=.001) also showed significantly higher WEMWBS scores (Table 5).

In terms of sources of information, individuals who obtained mental health knowledge from academic environments scored significantly higher on the WEMWBS (p=.024) than those who sourced information from social environments or social media (p<0.05). Additionally, individuals who received mental health information from their social environment had significantly different WEMWBS scores (p=.024) compared to those who obtained information from social media (Table 5).

Discussion

This study aimed to investigate the relationship between mental health literacy and mental well-being among 448 participants residing in the Esenyurt and Adalar districts of Istanbul, and to examine how these variables vary across population density levels.

The findings showed that women had significantly higher MHL scores than men. However, the literature is divided on this issue; some studies report results consistent with ours (25, 26, 27), while others report no significant difference in the gender variable (10, 20, 28). In contrast, no significant gender differences were observed in the WEMWBS scores in this study, although previous research has identified such disparities (29). The lack of significant differences observed in the current study may be attributed to factors such as changing social roles, sample homogeneity, and the fact that recent global crises affect all individuals similarly, regardless of gender.

When analysing marital status, no significant differences were found in MHL scores between married and single participants, which aligns with earlier research (25, 30).

Table 5. Comparative analysis findings in terms of scales and parameters used in the current study (T-Test and One-Way Anova)

Variables	Mental Health Literacy Scale			MHL Scale-knowledge oriented					MHL Scale-belief oriented				MHL Scale-resource oriented				Warwick Edinburgh Mental Well-Being Scale			
	x	ss	Test	p	x	ss	Test	p	x	ss	Test	p	x	ss	Test	p	x	ss	Test	p
Gender																				
Female	14.43	3.45	t=4.215	**.001***	7.62	1.94	t=3.021	**.003***	4.02	1.84	t=3.644	**.001***	2.78	1.20	t=1.785	.075	51.82	9.46	t=1.344	.180
Male	12.84	4.25			6.96	2.48			3.31	2.14			2.76	1.38			50.57	10.02		
District																				
Esenyurt	13.77	3.81	t=-.068	.945	7.34	2.21	t=-.115	.909	3.72	2.02	t=-.089	.929	2.69	1.27	t=.129	.897	50.30	9.67	t=-4.575	**.001***
Adalar	13.80	4.15			7.37	2.18			3.74	1.93			2.67	1.34			55.49	8.70		
Marital status																				
Married	13.79	3.94	t=.071	.943	7.50	2.16	t=.957	.339	3.79	1.89	t=.435	.664	2.50	1.27	t=-.2.112	**.035***	53.04	9.48	t=2.546	**.011***
Single	13.77	3.85			7.28	2.22			3.70	2.05			2.77	1.28			50.53	9.71		
Diagnosis of Covid-19																				
Yes	14.04	3.71	t=1.329	.185	7.43	2.07	t=.705	.481	3.93	1.92	t=2.011	**.045***	2.67	1.22	t=-.320	.749	51.18	9.77	t=-.254	.799
No	13.55	4.00			7.28	2.31			3.55	2.06			2.71	1.33			51.41	9.66		
State of mental health being negatively affected by Covid-19																				
Yes	14.16	3.60	t=2.534	**.012***	7.59	2.03	t=2.777	**.006***	3.86	2.10	t=1.779	.076	2.70	1.28	t=.187	.852	50.63	9.50	t=-1.854	.064
No	13.18	4.21			6.98	2.41			3.52	1.81			2.68	1.29			52.37	9.94		
Having a chronic illness																				
Yes	14.48	3.02	t=2.102	**.037***	7.70	1.61	t=1.906	.059	4.07	1.86	t=1.677	.094	2.70	1.19	t=.053	.958	51.76	9.28	t=.450	.653
No	13.63	4.02			7.28	2.30			3.65	2.02			2.69	1.30			51.21	9.80		
Having a mental illness																				
Yes	14.02	3.60	t=.434	.665	7.30	2.04	t=-.164	.870	4.25	1.60	t=2.197	**.032***	2.46	1.16	t=-1.229	.220	48.37	9.50	t=-2.097	**.037***
No	13.75	3.90			7.36	2.22			3.67	2.03			2.71	1.29			51.62	9.68		
Family history of mental health problems																				
Yes	14.74	3.89	t=2.062	**.040***	7.93	1.90	t=2.166	**.031***	4.20	1.83	t=1.953	.051	2.61	1.27	t=-.538	.591	46.69	10.83	t=-3.986	**.001***
No	13.63	3.85			7.26	2.23			3.65	2.02			2.70	1.28			52.01	9.34		
Friends with mental health problems																				
Yes	14.46	3.65	t=2.451	**.015***	7.79	1.80	t=3.101	**.002***	4.17	1.99	t=3.076	**.002***	2.49	1.31	t=-2.177	**.030***	50.49	9.79	t=-1.168	.243
No	13.48	3.93			7.16	2.33			3.54	1.98			2.78	1.26			51.66	9.66		
Age (Years)																				
18-25[1]	13.94	3.63	F=.451	.717	7.40	2.15	F=.645	.587	3.70	2.01	F=.078	.972	2.84	1.28	F=2.574	.053	50.34	9.36	F=2.438	.064
26-34[2]	13.51	4.01			7.23	2.28			3.72	1.90			2.55	1.20			51.75	9.74		
35-42[3]	13.89	3.18			7.65	1.69			3.85	1.97			2.38	1.31			51.78	10.92		
43 +[4]	13.46	4.91			7.13	2.57			3.75	2.17			2.57	1.34			53.86	9.67		
Treatment for mental health																				
Not receiving treatment[1]	13.70	3.86	F=3.505	**.031***	7.34	2.21	F=1.822	.163	3.66	2.00	F=5.636	**.004***	2.69	1.29	F=1.597	.204	51.45	9.69	1.299	.274
Psychotherapy[2]	13.80	3.96	**Difference**		6.70	2.11			5.00	1.69	**Difference**		2.10	.99			46.60	8.94		
Medication[3]	16.81	3.21	3>1		8.45	1.50			5.27	1.34	2,3>1		3.09	1.04			50.18	10.57		

Variables	Mental Health Literacy Scale			MHL Scale-knowledge oriented				MHL Scale-belief oriented				MHL Scale-resource oriented				Warwick Edinburgh Mental Well-Being Scale			
Source of information for mental health																			
Education activities[1]	15.21	3.15	F=3.789	**.002***	8.23	1.62	F=3.364 **.005***	3.86	2.17	F=1.868	.099	3.11	1.14	F=4.175	**.001***	52.05	9.12	F=2.613	**.024***
Social media[2]	13.81	4.03	**Difference**	7.34		2.32	**Difference**	3.84	2.05			2.62	1.28	**Difference**		49.72	9.85	**Difference**	
Book[3]	13.77	3.97	1>2,4,6	6.88		2.25	1>2,3,4,6 5>3,6	3.96	1.89			2.92	1.07	1>4,5		51.37	8.36	5>2,4 4>2	
Social environment[4]	12.86	3.83		7.23		2.09		3.23	2.01			2.39	1.44			52.23	10.04		
Academic[5]	14.78	3.76		7.75		2.15		3.96	2.01			3.07	1.04			54.51	9.33		
Other[6]	13.00	3.60		6.66		2.40		3.92	1.49			2.41	1.27			49.07	10.10		
Job																			
Student[1]	13.88	3.72	F=3.136	**.003***	7.43	2.18	F=3.105 **.004***	3.67	1.98	F=2.159	**.037***	2.77	1.29	F=1.065	.385	50.13	9.35	F=1.526	.156
Teacher[2]	16.00	3.35	**Difference**	8.60		1.63	**Difference**	4.80	1.74	**Difference**		2.60	1.05			54.46	7.49		
Health professionals[3]	15.84	3.89	2,3>5,6,7,8 1,2,3,4,5,6, 8>7	8.57		1.77	2>1,3,5,7,8 3>1,5,6,7,8 4>7,8	4.42	1.86	2>1,6,7 1,2,3,4,5>7		2.84	1.50			50.63	11.96		
Officer[4]	14.65	3.74		7.86		2.09		4.34	2.01			2.43	1.27			51.86	10.75		
Employee[5]	13.54	3.64		7.19		2.08		3.76	2.15			2.58	1.31			51.50	8.83		
Housewife[6]	13.52	3.73		7.31		2.15		3.42	1.74			2.78	1.16			54.73	9.02		
Tradespeople[7]	11.61	4.32		6.57		2.13		2.84	2.09			2.19	1.49			50.19	13.41		
Other[8]	13.21	4.29		6.68		2.55		3.70	1.93			2.82	1.16			52.58	9.48		
Income status																			
No wage[1]	13.94	3.63	F=.995	.395	7.40	2.15	F=1.166 .322	3.70	2.01	F=1.171	.320	2.84	1.28	F=.676	.567	50.34	9.36	F=5.550	**.001***
Minimum wage[2]	13.51	4.01		7.23		2.28		3.72	1.90			2.55	1.20			51.75	9.74	**Difference**	
Below minimum wage[3]	13.89	3.18		7.65		1.69		3.85	1.97			2.38	1.31			51.78	10.92	4>1,2 3>2	
Above minimum wage[4]	13.46	4.91		7.13		2.57		3.75	2.17			2.57	1.34			53.86	9.67		
Education status																			
Never went to school[1]	11.00	3.05	F=5.139	**.000***	4.85	2.79	F=4.240 **.001***	3.14	1.34	F=2.280	**.046***	3.00	1.00	F=3.561	**.004***	52.85	6.89	F=.781	.564
Primary school[2]	11.50	4.10	**Difference**	6.53		2.25	**Difference**	3.13	1.92	**Difference**		1.83	1.34	**Difference**		52.56	8.16		
Secondary school[3]	13.12	3.88	6>1,2,3,4 5>1,2,4 4>2	6.96		2.12	5>2 6>1,2,3,4 3,4,5>1	3.61	2.13	6>2,4		2.54	1.36	4,5>2		49.12	9.76		
High school[4]	13.50	3.92		7.26		2.18		3.54	1.97			2.69	1.33			51.91	10.43		
University[5]	14.35	3.72		7.59		2.19		3.90	2.05			2.85	1.21			50.74	9.61		
Postgraduate[6]	15.42	3.02		8.19		1.47		4.61	1.60			2.61	1.06			52.50	7.65		

Note: The numbers in superscript (1, 2, 3) represent the specific categories of the demographic variables as listed in the first column. Significant differences between groups are indicated based on these numerical identifiers according to the post-hoc analysis.

However, married individuals had significantly higher WEMWBS scores compared to single individuals. This result may be attributed to the stronger communication and supportive family relationships often found in married life, which are known to enhance well-being.

Chronic diseases contribute to approximately 74% of global mortality, causing 41 million deaths annually (31). In this study, individuals with chronic or mental illnesses showed significantly higher MHL scores, suggesting that living with such conditions may lead to increased awareness and understanding of mental health issues. This finding aligns with the concept of MHL, which encompasses recognizing, understanding, managing, and preventing mental health challenges (3). However, contrasting evidence exists, indicating that chronic illnesses can negatively impact MHL, underscoring the complexity of these interactions (28).

Mental health disorders affect approximately one in four individuals globally during their lifetime (32). A substantial portion of society consists of individuals who have a family member with a mental illness (33). Research conducted in the United States indicates that around 22 million children have a parent diagnosed with major depression (34). Children of parents with mental illnesses are at a higher risk of developing mental health disorders themselves and are more prone to experiencing behavioural, emotional, and developmental challenges (35, 36).

MHL scores did not significantly differ based on population density. However, a study by Griffiths and colleagues found that individuals in densely populated areas had better levels of awareness of mental illnesses and treatment methods compared to rural areas (37). Similarly, Goldney and colleagues identified differences in mental health literacy across the regions included in their study (38). These differences may stem from sample characteristics, cultural structure, and levels of access to healthcare services.

WEMWBS scores were notably higher among residents of the Adalar district compared to Esenyurt district. A study by Houlden and colleagues in the UK found that people living in areas with higher proportions of green space had better mental well-being (39). Furthermore, a study conducted at the University of Exeter found that individuals living near the sea had better mental health (40). Our findings indicate that environmental factors such as proximity to natural elements like the sea and forests, as seen in Adalar district included in our study, may positively impact mental well-being, providing residents with a sense of peace and comfort.

In this study, the MHL levels of individuals with family members or friends diagnosed with mental illness were found to be statistically significant. Previous research suggests that health sciences students with friends diagnosed with mental illnesses tend to have higher MHL scores (41). Children of parents with mental health conditions are more likely to gain accurate knowledge about these conditions, and the process of learning how to respond to these illnesses and treatment can foster a sense of well-being (42). One study highlighted that children from families affected by mental illness demonstrate a strong understanding and skill set during the recovery process (43).

Additionally, previous diagnoses of mental illness in individuals have been shown to correlate with higher MHL levels (44).

No significant differences in MHL scores were observed across different age groups in this study, which is consistent with some existing literature (20, 25). However, other research suggests that age may influence MHL levels, indicating that further investigation is needed (28, 45, 46).

Participants undergoing drug treatment for mental health issues demonstrated significant differences in MHL scores. Research on individuals receiving treatment for mental illness has shown that such treatment can enhance patients' quality of life and improve both general and social functioning (47). Another study found that engaging in specific exercises can help reduce depression and anxiety levels in individuals with mental illnesses, leading to improved quality of life (48).

The study found that participants who obtained mental health information from academic and educational activities had significantly higher MHL scores. This result is consistent with earlier findings among health sciences students (41). However, over half of the participants relied on social media and their social circles for mental health information, raising concerns about the spread of misinformation (49). Many websites providing health-related information lack scientific rigor and may prioritize advertising over accurate content (50). This emphasizes the need for initiatives to guide the public toward more reliable and credible sources of mental health information.

Participants with postgraduate education had significantly higher MHL scores, suggesting that advanced education fosters greater awareness and understanding of mental health issues. This finding aligns with studies showing that MHL tends to increase with higher levels of education (51, 52, 53, 54). Teachers and healthcare professionals were also found to have notably higher MHL scores, possibly due to their exposure to relevant knowledge during their training. Similar trends have been observed in other studies (30). Although results for healthcare workers vary (45, 55), the tendency for higher MHL scores among these professionals remains apparent. Conversely, the low MHL scores among tradespeople highlight the need for targeted educational initiatives, as this group frequently interacts with the public and could play a key role in fostering community awareness.

The study found that income status did not significantly affect MHL scores, consistent with some research (45). However, other studies suggest that higher economic status can improve MHL (56, 57). Income level did have a significant impact on WEMWBS scores, with individuals from higher-income backgrounds reporting better mental well-being, likely due to increased opportunities for social activities and experiences that promote well-being. This relationship can be explained by the fact that families with greater financial resources can engage in more social activities and experiences that promote mental well-being.

Study Limitations and Strengths: This study has several strengths. The timing of this study, conducted after the COVID-19 pandemic, provides valuable insights into the

pandemic's impact on mental health and well-being. The pandemic brought global attention to mental health issues, highlighting the importance of mental health literacy and effective strategies to support mental well-being in diverse communities. Selecting Esenyurt district, Türkiye's most densely populated district, and Adalar district, which has the lowest population and a more isolated structure, allowed us to examine the relationship between population density, urban complexity, and social environment with mental health literacy and mental well-being from a different perspective. In the Adalar district, while typically only a small number of people would need to be reached relative to the population, the large number prevented mental health awareness among individuals living in low-population areas from being excluded from the analysis. It increased the statistical power of the inter-district comparison. The study's consideration of both mental health literacy and mental well-being alongside sociodemographic factors provides holistic data for public health policies.

In addition to its strengths, this study has several limitations. Firstly, the research was conducted in only two districts of Istanbul—Esenyurt and Adalar—which restricts the generalizability of the findings to other regions. The unique characteristics of these districts limit the extent to which the results can be applied to other populations or areas. Secondly, while the selected districts vary significantly in population density, they also exhibit distinct demographic and socioeconomic structures. Thus, although the study provides insights into Adalar and Esenyurt districts, a more in-depth analysis of these differences would be required for a comprehensive understanding.

Another limitation is participants' concern about the accessibility of mental health services. This indicates a potential gap in knowledge and awareness about where to seek mental health support. Addressing this issue through targeted educational programs could be beneficial. Future studies should employ both qualitative and quantitative research methods to gain a deeper understanding of the factors influencing mental health literacy and well-being, enabling a more nuanced exploration of the issues identified. Addressing these limitations in future research will enhance the reliability and applicability of the findings.

Conclusion

In conclusion, this study contributes to understanding the factors influencing mental health literacy and mental well-being, emphasizing the need for targeted initiatives to enhance mental health awareness and well-being across diverse demographic and occupational groups. The findings indicate that enhancing mental health literacy could be a strategic pathway to improving overall mental well-being in urban populations. The results suggest that sociodemographic factors play a significant role in shaping individuals' mental health literacy and well-being in Istanbul. These findings underscore the importance of targeted interventions to address disparities in mental health literacy and well-being. Therefore, on a global scale, it becomes clear how important it is to develop individuals mentally to achieve societies with a high level of mental health literacy.

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