



# Examining the Relationship Between Financial Literacy, Attitude and Behavior Levels and Psychological Distress Levels of Healthcare Professionals

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## ABSTRACT

The main purpose of this study is to investigate whether there is a relationship between the financial literacy attitudes and behaviors of healthcare professionals and their psychological distress levels. The universe of the study consists of healthcare professionals working in a public hospital in Mersin City Center. The study was evaluated with data obtained from 281 healthcare professionals using a survey method. The data in the study were obtained using the “Personal Information Form”, “Financial Literacy Attitude and Behavior Scale” and “Psychological Distress Scale”. In the study, Student t test, One-Way ANOVA test and Correlation analysis were applied statistically. The study results revealed that there is a positive and moderately significant relationship between the financial literacy attitude and behavior levels of healthcare professionals and their psychological distress levels. In addition, it is concluded that there is relationship between the financial literacy attitude and behavior scale and the variables of gender, education level, age and income status; and between the psychological distress scale and the variables of occupation and income status.

**Keywords:** Healthcare Professionals, Financial Behavior, Attitude, Psychological Distress

**JEL Classifications:** G4, I0, I1

## 1. INTRODUCTION

The World Health Organization (WHO) defines everyone who works to protect, develop and strengthen public health as a health professional (WHO, 2006). The number, distribution and performance of healthcare professionals, who are a fundamental part of healthcare service delivery, directly affect health outcomes (Witter et al., 2021). The critical roles of healthcare professionals in our lives, whose working hours are extremely intense, requiring teamwork and providing service 24/7, become even more evident in extraordinary situations such as epidemics and natural disasters. Therefore, improving the well-being of healthcare professionals will increase their quality of life by facilitating the management of their working lives (Ağırkaya and Erdem, 2023).

Financial literacy refers to personal knowledge and understanding of financial concepts (YiShih and Chen Ke, 2013). It is a part of human capital that can be used in financial actions to increase the expected lifetime utility from consumption, that is, behaviors that increase financial well-being (Huston, 2010). In today's world, the financial decision-making process has become more complex due to the development of technology and the developments and advancements in the economic order, and this has increased the importance of financial literacy, and it is an important subject that people from every profession should have a certain level of knowledge about. Financial literacy, which refers to the process of being equipped with basic financial information that enables people to make complex investment and credit decisions as well as financial problems encountered in daily life, helps individuals build a financially sound and secure future (Bilir and Ergün, 2024).

The financial literacy of an individual helps to reduce psychological pressures, stress and family conflicts, while increasing the economic well-being of households. In working life, productivity and job satisfaction increase, while absenteeism rates, emotional stress and anxiety levels decrease (Taft et al., 2013). Financial attitudes and behaviors, which are the basic elements of financial literacy, are complementary to each other, and financial behaviors occur as a result of financial attitudes (Yıldırım, 2022). Financial attitude is thinking that money is not only for spending but also for saving, preferring to save before short-term expenses. Financial behavior is practices such as financial planning and paying off debts on time (Karabudak, 2022). Financial attitudes are of psychological origin and are effective in the financial decision-making process, and the decision turns into financial behavior (Yıldırım, 2022).

In the WHO Constitution (1948), health is defined as “a state of complete physical, social and mental well-being and not merely the absence of disease or infirmity” (World Health Organization, 2021). According to the WHO’s definition, being healthy does not only include physical and social well-being, but also spiritual well-being. Spiritual well-being is the individual’s ability to be in harmony with the society in which he lives, to be happy and peaceful in his relationships, to be able to understand others and to express his thoughts (WHO, Principles, 2024). The relationship between mental disorders and financial circumstances appears to be stronger than the relationship between mental disorders and education or social class (Darin-Mattsson et al., 2018). Psychological distress, which is a state of emotional suffering, loss of interest, sadness, hopelessness and restlessness that affects the level of functioning, is a mental health problem that prevents our actions in daily life and is widespread in society (Mirowsky and Ross, 2002).

Psychological distress, an important concept in mental health epidemiology, has shown different rates of psychological distress or poor mental health outcomes depending on various variables such as unemployment, poverty, work and life stressors, and socioeconomic disadvantage (Taylor et al., 2012). With increasing income inequality likely to be associated with negative mental health outcomes, understanding the relationship between financial hardship and mental health has become increasingly important (Tsuchiya et al., 2020). Any kind of distress that affects psychological health can affect the individual’s mood, thoughts and behavior (Ghazi, 2022).

This study will be a guide to understanding the financial literacy attitudes and behaviors of healthcare professionals and their psychological distress levels. When the literature is examined, no research is found that directly addresses the relationship between the financial literacy attitudes and behaviors of healthcare professionals and their psychological distress levels. This study aims to contribute to the literature and provide ideas for similar future research.

## 2. LITERATURE REVIEW

Taylor et al. (2011), used a nationally representative survey to examine whether financial capability has effects on psychological

health independent of income and financial resources. They concluded that financial capability has significant effects on psychological health, and that having low financial capability further increases the psychological costs associated with unemployment and divorce.

Taft et al. (2013), investigated the relationship between financial literacy, financial well-being and financial concerns, and found that age and education had a positive effect on financial literacy and financial well-being. They also found that higher financial literacy resulted in increased financial well-being and decreased financial concerns.

Ünal and Düger (2015), aimed to determine the financial behavioral tendencies of academic staff working in all units of Dumlupınar University and to examine the effects of these tendencies on financial well-being. The findings of the study revealed that the participating academic staff were partially satisfied with their financial well-being levels and that financial behavioral tendencies had a positive effect on financial well-being.

Kadoya and Khan (2020), aimed to examine the relationship between demographic and socioeconomic factors in Japan and financial literacy in their study. As a result of the research, it was found that men were more financially knowledgeable than women, but women were more positive than men in terms of financial behavior and attitude. It was also found that middle-aged individuals in Japan were more financially knowledgeable and that the experience of financial distress had a negative relationship with financial knowledge, attitude and behavior.

Wangi and Baskara (2021), studied the effects of financial attitude, financial behavior, financial knowledge and sociodemographic factors on individual investment decisions of 200 people living in Denpasar (Indonesia) and investing in the stock market through BNI (Business Networking) Sekuritas. As a result of the research, it was determined that financial attitude, financial behavior, financial knowledge and sociodemographic factors positively affect individual investment decisions.

Mustafa et al. (2023), used structural equation modeling in their study to determine the relationship between financial attitude, financial literacy and health literacy of self-employed individuals towards sustainable financial retirement planning in Malaysia. As a result of the study, it was determined that financial attitude and financial literacy significantly affect retirement planning.

Chai (2023), aimed to examine the relationship between financial distress and psychological distress among middle-aged and older adults using a subsample of adults aged 50 and older from the 2018 National Health Interview Survey administered through the Census Bureau and the National Center for Health Statistics. They investigated how this relationship was mediated by sleep problems and moderated by marital status. They found that financial distress was associated with higher psychological distress, with sleep problems partially mediating this relationship. Marital status also moderated the relationship between sleep problems and psychological distress and between financial distress

and psychological distress, but did not moderate the relationship between financial distress and sleep problems.

Koramşa and Yaman (2023), examined the effect of financial situations on the relationship between working conditions and motivation of healthcare professionals, and collected data from 313 healthcare professionals using a survey method. As a result of the study, it was concluded that there was a negative, weakly significant relationship between the working conditions scale of healthcare professionals and financial well-being, and that there was no significant relationship between the motivation scale and financial well-being.

Bilir and Ergün (2024), in the study aimed to determine the financial literacy attitude and behavior levels of a group consisting of teachers, doctors, academicians, engineers and nurses, it was determined that the financial literacy attitude and behavior levels of nurses were higher than the financial literacy attitude and behavior levels of other professionals.

Şakar and Yaman (2024), in the study, which aims to examine the relationship between financial literacy and financial management behavior of community pharmacists actively working in the city center of Mersin, data was collected from 179 community pharmacists using a survey method. As a result of the study, it was determined that there was a significant difference between the total score of the financial management behavior scale of community pharmacists and the variables of average monthly income level and education demand. It was observed that there was a significant difference between the sub-dimensions of the financial management behavior scale, namely credit management and marital status variable, savings-investment management and income level variable, insurance management and income level and education demand variables. There was a significant difference between the financial literacy attitude and behavior scale average score and the variable of education demand in the field of finance. A moderate negative significant relationship was determined between financial literacy and financial management.

### 3. MATERIALS AND METHODS

#### 3.1. Purpose and Type of the Study

The main purpose of this cross-sectional study is to examine the relationship between the financial literacy attitudes and behaviors of healthcare professionals and their psychological distress levels.

#### 3.2. Universe of the Study

The universe of the study consists of a total of 1042 healthcare professionals, including 200 physicians, 379 nurses, 92 midwives and 371 other healthcare personnel (pharmacists, physiotherapists, psychologists, laboratory technicians, technicians) working at Mersin Toros State Hospital.

#### 3.3. Sample of the Study

The minimum sample size of the study was calculated as 281 people with a 95% confidence interval, 50% frequency and  $\pm 5$  margin of error using the Open Epi 3.01 program.

#### 3.4. Application of Data Collection Tools

Data collection tools were applied by the researcher at Mersin Toros State Hospital between August 02, 2023-January 05, 2024. After the purpose of the study was explained to the participants by the researcher conducting the study, data collection forms were given to those who volunteered to participate in the study. Filling out the data took approximately 10-15 min for each participant.

#### 3.5. Data Collection Tools

In this study, “Personal Information Form”, “Financial Literacy Attitude and Behavior Scale” and “Psychological Distress Scale” were used as data collection tools.

##### 3.5.1. Personal information form

The Personal Information Form consists of twelve items created by the researchers and containing descriptive information of healthcare professionals.

##### 3.5.2. Financial literacy attitude and behavior scale

In order to measure the financial attitude and behavior levels of individuals, there is a “Financial Literacy Attitude and Behavior Scale” developed by Sarıgül (2015) and whose validity and reliability were calculated. The Financial Literacy Attitude and Behavior Scale is a five-point Likert-type scale and consists of 14 items and four factors. Validity and reliability analyses were performed by the person who created the scale, and the Cronbach’s alpha value for the entire Financial Literacy Attitude and Behavior Scale was found to be 0.72 (Sarıgül, 2015). In this study, the Cronbach Alpha value of the scale was found to be 0.726. In statistical analyses, the average of the scores given to the questions in the scale was taken when calculating the scale score.

##### 3.5.3. Psychological distress scale

It was developed by Kessler and colleagues with the support of the US National Center for Health Statistics to measure individuals’ psychological distress levels, and was translated into Turkish by Altun et al. (2019) to ensure its validity and reliability. Validity and reliability analyses were conducted by the person who created the scale, and the Cronbach alpha value for the entire scale was found to be 0.95 (Altun et al., 2019).

The scale consists of 10 questions about psychological distress and aims to measure the level of current and depressive symptoms experienced by a person in the 4 weeks prior to the interview. The response options are formed with a five-point Likert-type scale ranging from 1 (never) to 5 (always). Participants can receive a minimum of 10 and a maximum of 50 points when they answer the scale. An increase in the total score a person receives from the scale indicates an increase in the level of psychological distress (Wooden, 2009). In this study, the Cronbach alpha value of the scale was determined as 0.921. In statistical analyses, the average of the scores given to the questions in the scale was taken when calculating the scale score.

#### 3.6. Ethical Aspects of the Study

In order to conduct the research, ethics committee permission numbered 96 dated May 02, 2023 was obtained from Mersin University Social and Human Sciences Research Ethics

Committee. Research permission was obtained from Mersin Provincial Health Directorate and Mersin Toros State Hospital Chief Physician's Office where the research would be conducted on August 08, 2023.

### 3.7. Analysis of Data

The research data were transferred to the computer environment between December 10, 2023 and February 12, 2024. The data were evaluated using a computer-based statistics program. Before the data were analyzed, it was tested whether the data set to be studied met the assumptions of the analysis. In evaluating the conformity of the data obtained from the research to the normal distribution, the decision was made according to the Skewness and Kurtosis values.

According to Tabachnick and Fidell (2001), when examining the normality distribution of the data obtained from the research, the variables are accepted to have a normal distribution when the z-scores obtained by dividing the skewness and kurtosis values by the standard error values are between  $-1.96$  and  $+1.96$ . This range shows that the data is close to a normal distribution and parametric tests can be applied. The z-scores obtained by dividing the skewness and kurtosis statistics by the standard error values should be between  $-1.96$  and  $+1.96$ , and the results are shown in Table 1. According to these values, the skewness z-scores are not in the range of  $-1.96$  and  $+1.96$ , but they are close to this range. On the other hand, the kurtosis z-scores are in the range of  $-1.96$  and  $+1.96$ . Within the framework of these results, it was accepted that the financial literacy attitude and behavior scale and psychological distress scale data conform to normal distribution.

In the data analysis process, Student's t test was used for two group comparisons. One-way ANOVA test was used for more than two group comparisons. *post hoc* Gabriel test was used to reach the sources of differences between groups. Cronbach's Alpha values were calculated to evaluate the reliability of the scales. Pearson Correlation Analysis was applied to test the relationship between the Financial Literacy Attitude and Behavior Scale and the Psychological Distress Scale. Statistical significance value was taken as 5% in the study. The hypotheses of the research are given below.

### 3.8. Hypotheses of the Research

- $H_1$ : There is a significant relationship between the financial literacy attitudes and behavior levels of healthcare professionals and their gender.
- $H_2$ : There is a significant relationship between the financial literacy attitude and behavior levels of healthcare professionals and their marital status.
- $H_3$ : There is a significant relationship between the financial literacy attitudes and behaviors of healthcare professionals and their educational status.

- $H_4$ : There is a significant relationship between the financial literacy attitudes and behaviors of healthcare professionals and their ages.
- $H_5$ : There is a significant relationship between the financial literacy attitudes and behaviors of healthcare professionals and their professions.
- $H_6$ : There is a significant relationship between the financial literacy attitudes and behavior levels of healthcare professionals and their income status.
- $H_7$ : There is a significant relationship between the financial literacy attitudes and behaviors of healthcare professionals and their education/course status on finance.
- $H_8$ : There is a significant relationship between the psychological distress levels of healthcare professionals and their gender.
- $H_9$ : There is a significant relationship between the psychological distress levels of healthcare professionals and their marital status.
- $H_{10}$ : There is a significant relationship between the psychological distress levels of healthcare professionals and their educational status.
- $H_{11}$ : There is a significant relationship between the psychological distress levels of healthcare professionals and their age.
- $H_{12}$ : There is a significant relationship between the psychological distress levels of healthcare professionals and their profession.
- $H_{13}$ : There is a significant relationship between the psychological distress levels of healthcare professionals and their income status.
- $H_{14}$ : There is a significant relationship between the psychological distress levels of healthcare professionals and their education/course status on finance.
- $H_{15}$ : There is a significant relationship between the financial literacy attitudes and behaviors of healthcare professionals and their psychological distress levels.

## 4. FINDINGS

Of the 281 healthcare professionals who participated in the study, 194 (69.0%) were female, 186 (66.2%) were married, 188 (66.9%) had a bachelor's degree, and 91 (32.4%) were between the ages of 40 and 49. In addition, 54 (19.2%) of the healthcare professionals who participated in the study were physicians, 102 (36.3%) were nurses, 25 (8.9%) were midwives, and 100 (35.6%) were other healthcare professionals (pharmacists, physiotherapists, psychologists, laboratory technicians, technicians). Of the participants in the study, 185 (65.8%) had less income than expenses, 247 (87.9%) actively used credit cards, 205 (73.0%) owned a house/car or any other property, 263 (93.6%) did not receive education/course on finance. 153 (54.4%) of their colleagues felt economically inadequate and did not experience psychological distress.

**Table 1: Skewness and Kurtosis values of variables**

Variables	Skewness			Kurtosis		
	Statistics	Standard error	Z-score	Statistics	Standard error	Z-score
Financial literacy attitude and behavior scale	0.474	0.145	3.26	0.305	0.290	1.20
Psychological distress scale	0.599	0.145	3.88	0.176	0.290	0.60



When Table 2 is examined, it was determined that the average score obtained by healthcare professionals from the financial literacy attitude and behavior scale was 38.06, the standard deviation was 8.21, and the minimum score was 19.00 and the maximum score was 70.00.

The mean score of the participants' psychological distress scale was 26.55, and the standard deviation was 8.65, and it was determined that 78.9% of the healthcare professionals had psychological distress. When Table 3 was examined, it was seen that 23.8% of the participants had mild psychological distress, 23.8% had moderate psychological distress, and 31.3% had severe psychological distress according to the scores they received.

When Table 4 is examined, it was determined that the total financial literacy attitude and behavior scale mean scores of healthcare professionals showed a significant difference according to their gender ( $t = -2.196$ ;  $P = 0.029$ ,  $P < 0.05$ ). It was determined that the total financial literacy attitude and behavior scale mean scores of women (2.770) were higher than the total financial literacy attitude and behavior scale mean scores of men (2.605). It was determined that the total psychological distress scale mean scores of healthcare professionals did not show a significant difference according to their gender ( $t = -0.232$ ;  $P = 0.817$ ,  $P > 0.05$ ).

**Table 2: Financial literacy attitude and behavior scale total score**

Scale	N	Min.	Max.	Mean	Standard deviation
Financial literacy attitude and behavior scale	281	19.00	70.00	38.06	8.21

**Table 3: Psychological distress levels according to scores obtained from the psychological distress scale**

Level of psychological distress	K10 total score	n	%
Possibly good	10-19	59	21.0
Possible mild mental disorder	20-24	67	23.8
Possible moderate mental disorder	25-29	67	23.8
Possible severe mental disorder	30-50	88	31.3
Total		281	100.0

**Table 4: Comparison of scale mean scores according to gender of employees**

Variables	Groups	N	Mean	Standard deviation	t-test		
					t	df	P
Financial literacy attitude and behavior scale	Female	194	2.770	0.585	-2.196	279	0.029*
	Male	87	2.605	0.576			
Psychological distress scale	Female	194	2.663	0.845	-0.232	279	0.817
	Male	87	2.637	0.913			

\* $p < 0.05$  shows a significant difference at the level of

**Table 5: Comparison of scale mean scores according to marital status of employees**

Variables	Groups	N	Mean	Standard deviation	t-test		
					t	df	P
Financial literacy attitude and behavior scale	Married	186	2.67	0.57	-1.843	279	0.066
	Single	95	2.80	0.60			
Psychological distress scale	Married	186	2.60	0.83	-1.458	279	0.146
	Single	95	2.76	0.92			

When Table 5 is examined, it is seen that the mean score of the financial literacy attitude and behavior scale ( $t = -1.843$ ;  $P = 0.066$ ,  $P > 0.05$ ) and the mean score of the total psychological distress scale ( $t = -1.458$ ;  $P = 0.146$ ,  $P > 0.05$ ) of healthcare professionals do not show a significant difference according to their marital status.

When Table 6 is examined, it is stated that the average financial literacy attitude and behavior scores of healthcare professionals ( $F = 5.124$ ;  $P < 0.05$ ) show a significant difference depending on the education level of the workers. However, it is seen that the total psychological life scores ( $F = 0.448$ ;  $P > 0.05$ ) do not show a significant difference according to the education level variable. According to the Post Hoc Gabriel Test, it was determined that the economic literacy attitudes and behaviors mean score (2.97) of high school graduate health workers was significantly higher than that of master's degree (2.56) and doctorate degree (2.41) graduates. In addition, the mean scores of undergraduate health workers (2.75) and doctorate degree graduates (2.41) were statistically significantly higher.

When Table 7 is examined, it was determined that the mean scores of the financial literacy attitude and behavior scale of healthcare professionals ( $F = 7.245$ ;  $P < 0.05$ ) showed a significant difference depending on the age variable. However, it was determined that the mean scores of the total psychological distress scale ( $F = 1.338$ ;  $P > 0.05$ ) did not show a significant difference depending on the age variable. Post Hoc Gabriel test was applied between the groups where the variances were homogeneously distributed to determine which age groups there were differences. According to the test results, it was determined that the mean scores of the financial literacy attitude and behavior scale of healthcare professionals in the 19-29 age group (2.97) were statistically significantly higher than the mean scores of the financial literacy attitude and behavior scale of healthcare professionals in the 40-49 and 50-59 age groups (2.55 and 2.48, respectively).

When Table 8 is examined, it is seen that the mean scores of the financial literacy attitude and behavior scale of healthcare professionals ( $F = 2.170$ ;  $P > 0.05$ ) do not show a significant difference according to their professions. However, it was

determined that the mean scores of the total psychological distress scale ( $F = 2.647$ ;  $P < 0.05$ ) showed a significant difference according to their professions. According to the Post Hoc Gabriel Test results, the mean scores of the psychological distress scale of nurses (2.83) were found to be statistically significantly higher than the mean scores of the psychological distress scale of other healthcare personnel (pharmacists, physiotherapists, psychologists, laboratory technicians, technicians) (2.49). This difference was found to be statistically significant ( $P < 0.05$ ).

When Table 9 is examined, it was determined that the financial literacy attitude and behavior scale mean scores ( $F = 5.597$ ;

$P < 0.05$ ) and the total psychological distress scale mean scores ( $F = 5.894$ ;  $P < 0.05$ ) of healthcare professionals showed a significant difference according to their income status. According to the Post Hoc Gabriel Test results; it was determined that the financial literacy attitude and behavior scale mean scores (2.80) of healthcare professionals whose income is less than their expenses were statistically significantly higher than the financial literacy attitude and behavior scale mean scores (2.58 and 2.51, respectively) of healthcare professionals whose income is equal to their expenses and whose income is more than their expenses. In addition, it was found that the total psychological distress scale mean score of healthcare professionals whose income is less than

**Table 6: Comparison of scale mean scores according to the education level of employees**

Scales	Variables	N	Mean	Standard deviation	F	P	Difference between groups
Financial literacy attitude and behavior scale	High School (1)	27	2.97	0.59	5.124	0.002*	There is a difference 1-3, 1-4, 2-4
	License (2)	188	2.75	0.54			
	Master's (3)	42	2.56	0.68			
	Doctorate (4)	24	2.41	0.53			
Psychological distress scale	High School (1)	27	2.72	0.95	0.448	0.719	There is no difference
	License (2)	188	2.66	0.81			
	Master's (3)	42	2.67	1.01			
	Doctorate (4)	24	2.46	0.87			

\* $p < 0.05$  shows a significant difference at the level of

**Table 7: Comparison of scale score averages according to age of employees**

Scales	Variables	N	Mean	Standard deviation	F	P	Difference between groups
Financial literacy attitude and behavior scale	19-29 (1)	71	2.97	0.62	7.245	0.000*	There is a difference 1-3, 1-4
	30-39 (2)	90	2.74	0.58			
	40-49 (3)	91	2.55	0.50			
	50-59 (4)	27	2.48	0.46			
	60 and above (5)	2	3.21	0.10			
Psychological distress scale	19-29 (1)	71	2.78	0.88	1.338	0.256	There is no difference
	30-39 (2)	90	2.67	0.85			
	40-49 (3)	91	2.63	0.87			
	50-59 (4)	27	2.35	0.75			
	60 and above (5)	2	2.20	1.41			

\* $p < 0.05$  shows a significant difference at the level of

**Table 8: Comparison of scale score averages according to the profession of the employees**

Scales	Variables	IRMM_20885_ melezmeoglu_okey	Mean	Standard deviation	F	P	Difference between groups
Financial literacy attitude and behavior scale	Physician (1)	54	2.53	0.62	2.170	0.092	There is no difference
	Nurse (2)	102	2.77	0.59			
	Midwife (3)	25	2.75	0.48			
	Other health personnel (4)	100	2.75	0.57			
Psychological distress scale	Physician (1)	54	2.65	0.95	2.647	0.049*	There is a difference 2-4
	Nurse (2)	102	2.83	0.86			
	Midwife (3)	25	2.59	0.72			
	Other health personnel (4)	100	2.49	0.82			

\* $p < 0.05$  shows a significant difference at the level of

**Table 9: Comparison of scale score averages according to employees' income status**

Scales	Variables	N	Mean	Standard deviation	F	P	Difference between groups
Financial Literacy Attitude and Behavior Scale	My income is less than my expenses (1)	185	2.80	0.58	5.597	0.004*	There is a difference 1-2, 1-3
	My income is equal to my expenses (2)	63	2.58	0.53			
	My income is more than my expenses (3)	33	2.51	0.60			
Psychological Distress Scale	My income is less than my expenses (1)	185	2.78	0.84	5,894	0.003*	There is a difference 1-2, 1-3
	My income is equal to my expenses (2)	63	2.44	0.87			
	My income is more than my expenses (3)	33	2.35	0.85			

\* $p < 0.05$  shows a significant difference at the level of

**Table 10: Comparison of the mean scores of the scales according to the status of employees receiving education/courses on finance**

Variables	Groups	N	Mean	Standard deviation	t-test		
					t	df	P
Financial literacy attitude and behavior scale	Yes	18	2.69	0.48	-0.184	279	0.854
	No	263	2.72	0.59			
Psychological distress scale	Yes	18	2.58	0.58	-0.367	279	0.714
	No	263	2.66	0.88			

their expenses (2.78) was statistically significantly higher than the total psychological distress scale mean scores of healthcare professionals whose income is equal to their expenses and whose income is more than their expenses (2.44 and 2.35, respectively).

When Table 10 is examined, it is seen that the total financial literacy attitude and behavior scale mean scores of healthcare professionals ( $t = -0.184$ ;  $P = 0.854$ ,  $P > 0.05$ ) do not show a significant difference according to their education/course status on finance. It is seen that the total psychological distress scale mean scores ( $t = -0.367$ ;  $P = 0.714$ ,  $P > 0.05$ ) do not show a significant difference according to their education/course status on finance.

According to Tavşancıl (2006), the strength of the relationships is generally evaluated as follows: weak relationship (0.00-0.30), medium relationship (0.31-0.49), strong relationship (0.50-0.69), very strong relationship (0.70-1.00). According to the analysis, when Table 11 is examined it was determined that there was a positive and moderately significant relationship ( $r = 0.325$ ;  $P = 0.000$ ) between the financial literacy attitude and behavior levels of healthcare professionals and their psychological distress levels.

## 5. DISCUSSION AND CONCLUSION

Health services are provided in a labor-intensive manner by health workers who are categorized according to their areas of expertise and various job descriptions in order to protect, diagnose, treat and provide care for public health. The study included physicians, nurses, midwives and other health personnel (pharmacists, physiotherapists, psychologists, laboratory technicians, technicians) who play an active role in the diagnosis, treatment and care processes in health services. This study aims to examine the relationship between the financial literacy attitudes and behaviors of healthcare professionals and their psychological distress levels. In this section of the study, the findings will be discussed in line with the determined hypotheses.

In the study, it was determined that the total financial literacy attitude and behavior scale score averages of healthcare professionals showed a significant difference according to their gender. It was determined that the total financial literacy attitude and behavior scale score averages of women participating in the study were higher than the total financial literacy attitude and behavior scale score averages of men. In the study, no significant difference was found between the total psychological distress scale score averages of healthcare professionals and the gender variable. In a study examining the financial literacy, financial attitude and behavior levels of university students, it was determined that there was a significant relationship between the gender of the

**Table 11: Relationship between financial literacy attitudes and behaviors of healthcare professionals and their psychological distress**

Variables	1	2
Financial literacy attitude and behavior scale	1	
Psychological distress scale	0.325**	1

\*\*Correlation is significant at the 0.01 level

participants and their financial behavior average scores. According to the research results, it was determined that the financial behavior average scores of female students were higher than those of male students (Bayındırlı, 2020). In a study examining the relationship between demographic and socio-economic factors and financial literacy in Japan, financial literacy was considered in three separate dimensions: financial knowledge, attitude and behavior. In the study, it was determined that men had a significant negative relationship with financial behavior and financial attitude (Kadoya and Khan, 2020). In their study examining the relationship between financial concerns and psychological distress in US adults, they found that the mean psychological distress was higher in women than in men (Ryu and Fan, 2023). In the study aiming to examine the perceived social support, burnout and psychological distress levels of Firat University Faculty of Medicine students, it was determined that among the participating students, female psychological distress scores were statistically higher than males (Dartılmak, 2021).

In the study, no significant difference was found between the total financial literacy attitude and behavioral behavior score averages and the total psychological stress reproduction score averages of healthcare professionals and the marital status variable. Şengüloğlu (2019), in the study conducted to determine the financial literacy levels of individuals living in Düzce province, it was determined that the marital status of individuals did not create a statistically significant difference in financial literacy, attitude and behavior levels. Ekinci (2022) in the study conducted to determine the financial literacy level of households living in Konya province, it was determined that the financial literacy levels of individuals did not show a statistically significant difference according to their marital status. Yazar (2021) in this study, we aimed to examine the psychological distress, psychological resilience, burnout levels, stress coping attitudes and personality traits of market workers during the Covid-19 outbreak. When the psychological distress levels of market workers during the Covid-19 process were evaluated in terms of the marital status variable, no difference was found in the levels of psychological distress between married and single workers.

In the study, while the mean scores of the financial literacy attitude and behavior scale of healthcare professionals showed a significant difference according to the variable of education

status, the mean scores of the total psychological distress scale did not show a significant difference according to the variable of education status. It was determined that the mean scores of the financial literacy attitude and behavior scale of healthcare professionals who graduated from high school were higher than the mean scores of the financial literacy attitude and behavior scale of healthcare professionals who graduated from master's and doctorate degrees. Lusardi (2008), a study conducted in the USA examined the financial literacy rate among different demographic groups and concluded that individuals with lower levels of education had lower levels of financial literacy. Ada (2017) in his study, he determined that the financial behaviors of nurses showed a significant difference according to their level of education. He stated that this difference was between nurses who graduated from high school and nurses who had postgraduate education. In addition, it was emphasized that the behaviors related to personal finance were more positive in nurses with postgraduate education compared to nurses at the high school level. Yazar (2021), in the study, which aimed to examine the psychological distress, psychological resilience, burnout levels, stress coping attitudes and personality traits of market employees during the COVID-19 outbreak, it was seen that the general psychological distress levels of market employees were evaluated in terms of the educational status variable. According to the research results, no significant difference was found in terms of psychological distress levels among market employees who graduated from primary/secondary school, high school and university.

In the study, while the mean scores of the financial literacy attitude and behavior scale of healthcare professionals show a significant difference according to the age variable, the mean scores of the total psychological distress scale do not show a significant difference according to the education status variable. It was determined that the mean scores of the financial literacy attitude and behavior scale of healthcare professionals in the 19-29 age group were higher than the mean scores of the financial literacy attitude and behavior scale of healthcare professionals in the 40-49 age group and 50-59 age group. Karabudak (2022), In the research examining whether the financial attitudes and behaviors of individuals working in technoparks in Turkey differ according to demographic factors, it was determined that the financial attitudes and behaviors of employees exhibited significant differences depending on the age factor. It was determined that individuals between the ages of 18-25 in particular showed significant differences in terms of financial attitudes and financial behaviors compared to older age groups. Payziner (2017), examined the relationship between the financial literacy attitudes and behaviors of health management department students and their age groups and found that the financial literacy attitudes and behavior scores of students aged 24 and over were higher than other age groups. In addition, it was determined that students aged 24 and over had a higher interest in financial issues, while students aged 19 and under had more positive financial attitudes compared to other age groups. Nwachukwu et al. (2020), in the study conducted, it was determined that young adults had higher levels of psychological distress compared to older adults. Gül (2021), in the study examining individuals' COVID-19 phobia, psychological well-being and psychological distress during the

pandemic period, it was determined that the psychological distress levels of individuals showed a statistically significant difference according to age groups. In the study, it was determined that the psychological distress levels of individuals, especially in the 18-24 age group, were significantly higher compared to other age groups.

In the study, while the mean scores of the health workers in the financial literacy attitude and behavior scale did not show a significant difference according to the occupation variable, the mean scores of the total psychological distress scale showed a significant difference according to the occupation variable. It was determined that the mean scores of the nurses in the psychological distress scale were higher than the mean scores of the other health workers (pharmacists, physiotherapists, psychologists, laboratory technicians, technicians). Kınış and Boztosun (2022), They aimed to determine the effect of financial well-being levels of healthcare professionals on job performance in terms of factors such as gender, age, education level, type of institution, seniority. As a result of the study, it was determined that there was no statistically significant difference between the financial well-being levels of healthcare professionals and the occupation variable. Ceri and Cicek (2021), In their study, they investigated psychological well-being, depression and stress among healthcare professionals and non-healthcare professionals in Turkey. As a result of the study, the psychological well-being and depression levels of doctors, nurses and healthcare technicians were found to be statistically significantly different. It was determined that both depression and psychological well-being levels of doctors were higher than other healthcare professionals. According to Tukey analysis, it was observed that psychological well-being scores were highest in doctors, while the lowest scores were in nurses. It was determined that while other healthcare professionals had the highest depression scores, the lowest depression scores were in doctors. Deasy et. al (2014), In their study to determine self-reported psychological distress, coping processes and lifestyle behaviour of undergraduate nursing/midwifery and teacher education students at an Irish university, a significant percentage of respondents (41.9%) reported being psychologically distressed.

In the study, a significant difference was found between the total financial literacy attitude and behavior scale mean scores and total psychological distress scale mean scores of healthcare professionals and the income status variable. It was found that the financial literacy attitude and behavior scale mean scores of healthcare professionals whose income is less than their expenses are higher than the financial literacy attitude and behavior scale mean scores of healthcare professionals whose income is equal to their expenses and whose income is more than their expenses. It was found that the total psychological distress scale mean scores of healthcare professionals whose income is less than their expenses are higher than the total psychological distress scale mean scores of healthcare professionals whose income is equal to their expenses and whose income is more than their expenses. Ekinci (2022) In this study, it was aimed to determine the financial literacy level of households living in Konya province. In the study, it was determined that the financial attitude levels of individuals showed significant differences according to the monthly income variable



and that the financial attitude levels of individuals with a monthly income of 2000 TL and below and 4001-6000 TL were higher than those with higher monthly income. Namlı and Kaya (2018), In their study examining the financial attitudes and behaviors of undergraduate students at the faculty of sports sciences, they found that there were differences between monthly income and financial attitudes and behaviors. Dartılmak (2021), In the study aiming to examine the extent of perceived social support, burnout and psychological distress levels of Firat University Faculty of Medicine students, the scores obtained from the Psychological Distress Scale showed a statistically significant difference according to the perception of economic status. It was observed that the Psychological Distress Scale scores of the students who stated that their economic status was bad were significantly higher than those of the students who stated that their economic status was good and moderate. Browne et al. (2010), In their study comparing two versions of the Kessler 10-item scale measuring population mental health in New Zealand, they found that levels of psychological distress decreased in groups where household income increased.

In the study, no significant difference was found between the total financial literacy attitude and behavior scale mean scores and the total psychological distress scale mean scores of the healthcare professionals and the variable of receiving education/course on finance. Er et al. (2017), they examined whether the financial literacy levels of university students differ according to their ability to perform basic financial transactions such as student loans or credit cards. As a result, it was determined that the financial literacy knowledge levels of the students were low and that financial education and literacy levels did not create a significant difference in the financial actions they performed. Özbek (2019), in a study conducted on 421 students studying at Gümüşhane University in 2019, the financial health status of the students was examined. As a result of the study, it was determined that the students widely used borrowing tools such as loans and credit cards, and also acted unconsciously in using credit cards. In addition, it was determined that the housing difficulties and debt situations of the students during their education process caused them to experience financial stress and anxiety.

In the study, it was concluded that there was a positive and moderately significant relationship between the total financial literacy attitude and behavior scale mean scores of healthcare professionals and the total psychological distress scale mean scores. Bierman et al. (2023), in their study, guided by a sociological perspective on mental health, they examined the role of mastery, self-esteem, and significance in explaining how financial strain is associated with symptoms of depression, anxiety, and anger in older adults. They found that financial strain is associated with greater psychological distress. Alhomsı et al. (2023), In their study examining the relationship between financial strain and mental health among adults living in the United States, they found that as the level of financial strain increased, the prevalence and severity of psychological distress (anxiety-depression symptoms, perceived stress, and loneliness-isolation) also increased. Taylor et al. (2012) In their study, they investigated the mechanisms and processes that

may influence the distribution of psychological distress, including individual and societal level socioeconomic determinants, and found an association between lower socioeconomic status and higher rates of psychological distress. Isaacs et al. (2018), In their study examining rates of psychological distress among Australians, which vary according to income, they found a strong association between low income levels and increased psychological distress.

## 6. SUGGESTIONS AND LIMITATIONS

Financial literacy is a concept that plays an important role in individuals' ability to make effective and accurate decisions by affecting their financial attitudes and behaviors. Individuals can secure their lives and futures through correct financial choices. Correct financial choices can be made by obtaining sufficient information on financial knowledge, attitudes and behaviors. For this reason, understanding the importance of financial literacy and receiving training in this field will contribute to increasing the level of financial literacy and behavior of individuals. In this context, it may be beneficial to add elective courses to education programs and organize seminars by experts in order to develop financial literacy. Such training can support individuals to access financial opportunities, evaluate these opportunities effectively and take an active role in the economic order.

In order to improve the financial and psychological health levels of healthcare professionals and to increase their financial awareness and to ensure that they take a more active role in financial markets, financial literacy courses can be added to their vocational or academic training. The financial knowledge that individuals will gain as a result of the courses they take will contribute to making the right decisions regarding the financial events they will encounter in their lives, thus providing significant support for both increasing their financial, mental and social well-being levels and improving the country's economy. For healthcare professionals who spend a large portion of their time in hospitals, improvements are needed in areas such as psychosocial support, economic improvements and the regulation of working conditions.

Healthcare workers who have not received training/courses in finance can be informed about the importance of financial literacy training and their awareness can be raised. In this way, increasing the awareness of individuals on financial issues will contribute to shaping their financial attitudes and behaviors with informed decisions. It has been determined that the financial literacy attitude and behavior scale average scores of healthcare professionals in the 19-29 age group are higher than healthcare professionals in the 40-49 age group and 50-59 age group. In this context, trainings can be organized on relevant subjects in order to improve the financial behaviors and attitudes of healthcare professionals in the 40-49 and 50-59 age groups.

It was concluded that the mean scores of nurses on the psychological distress scale were higher than those of other health personnel (pharmacists, physiotherapists, psychologists, laboratory technicians, technicians). It is thought that nurses feel unhappy and psychologically distressed compared to other professional groups because they are directly involved in patient

care and can carry out their work by staying in contact with patients and their relatives for a longer period of time. Therefore, psychological and moral support provided to nurses throughout their professional lives will enable them to cope with the situation they are in more easily.

It was determined that the total psychological distress scale score averages of employees whose income is less than their expenses are higher than those of healthcare professionals whose income is equal to their expenses and those whose income is more than their expenses. It is thought that improvements in the wages of healthcare professionals may contribute to the reduction of their concerns about their financial situation.

It was determined that there was a positive and moderately significant relationship between the mean scores of the financial literacy attitude and behavior scale and the mean scores of the psychological distress scale of the healthcare professionals participating in the study. An increase in the mean score of the financial literacy attitude and behavior scale of the individual results in an increase in the mean score of the psychological distress scale; this suggests that higher financial concerns may be associated with greater psychological distress. It was determined that the mean scores of the financial literacy attitude and behavior scale and the total psychological distress scale of the healthcare professionals whose income is less than their expenses are higher than the healthcare professionals whose income is equal to their expenses and whose income is more than their expenses. This finding suggests that an increase in the level of financial difficulty may also lead to an increase in psychological distress.

### 6.1. Limitations of the Study

- The research was conducted only at Mersin Toros State Hospital,
- The research included physicians, nurses, midwives and other health personnel (pharmacists, physiotherapists, psychologists, laboratory technicians, technicians),
- It was limited to data collected between certain dates.

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