Publisher homepage: www.universepg.com, ISSN: 2663-7529 (Online) & 2663-7510 (Print)

https://doi.org/10.34104/ejmhs.024.01000108

European Journal of Medical and Health Sciences

Journal homepage: www.universepg.com/journal/ejmhs

Predicting Life Satisfaction with Respect to Academic Procrastination and Decision-making Styles in Female Students

Fatemeh Khalatbari[1]* and Bahare Chaghari Farahani[2]

[1]Clinical Psychology, Islamic Azad University, Karaj Branch, Alborz, Iran; and [2]Clinical Psychology, Azad University of Garmsar, Iran.

*Correspondence: khalatbari7899@gmail.com (Fatemeh Khalatbari, Master of Clinical Psychology, Islamic Azad University, Karaj Branch, Alborz, Iran).

ABSTRACT

This study aimed to predict life satisfaction with respect to academic procrastination and decision-making styles among female students. The research design was of descriptive-cross-sectional correlational type. The statistical population included all female students studying for the master's degree in Karaj in 2022; out of them, 114 students were selected as subjects using a sampling technique. Three questionnaires were used for data collection, including the General Decision-Making Styles questionnaire (Scott & Bruce, 1995), the Procrastination Assessment Scale for Students (Solomon & Rothblum, 1984), and the Satisfaction with Life Scale (Diener *et al.,* 1989). Data analysis was performed using descriptive statistics (frequency, percent, mean, and standard deviation), Pearson correlation coefficient (r), and stepwise multivariate regression techniques through SPSS-V26. The p-value was set at 0.05. A significant and negative relationship was observed between life satisfaction and academic procrastination in female students so that academic procrastination accounts for 11.2% of changes in life satisfaction of female students. Besides, it was found that decision-making styles account for 34.1% of changes in life satisfaction of female students. Accordingly, it could be argued that it is possible to predict life satisfaction in female students with respect to decision-making styles and academic procrastination in female students.

Keywords: Academic procrastination, Life satisfaction, and Decision-making style.

INTRODUCTION:

Students are regarded as the major components of manpower, with a key role in the development of every country. Given the significant role of students in developing societies, naturally studying the effective factors in the growth of psychological needs and providing psychological and physical health care for this group of individuals is crucial (Trammell *et al.,* 2021; Beckstein *et al.,* 2021). The concept of life satisfaction has devoted a great deal of attention. It is a key indicator and cognitive component of mental wellbeing and health, which allows individuals to measure their judgment about life. Usually, individuals assess their personal life situations with respect to a set of unique criteria. By making a comparison between the past and present, it can be found that despite the fact that trying to survive was the key challenge of mental wellbeing and health in the past, now paying attention to life satisfaction is another significant challenge of mental health (Eghbali and Azimi, 2022). As one of the inner wellbeing components, life

satisfaction includes individual attitude, her/his general assessment of her/his personal life as a whole, or a number of life dimensions like educational experience and family life (Shams al-Dini *et al.,* 2021; Osmani *et al.,* 2020). Life satisfaction has been reported to be low among students, so that 62.7% of respondents had moderate life satisfaction, and just 37.2% had high-level life satisfaction (Motevaliyan *et al.,* 2019; Hussen *et al.,* 2023).

According to the literature, some factors may affect the life satisfaction of students, including academic structures, performance, and procrastination. The majority of students have trouble with academic procrastination, which is a usual phenomenon in academic environments so that approximately 40-95% of academic environments deal with it (Gharaviri *et al.,* 2022; Karimi *et al.,* 2022). The decision-making styles are also another factor that may affect life satisfaction. This factor is defined as a process in which a person chooses the best alternative from several options in following a certain purpose. In other words, it can be referred to as a learned and habitual pattern individuals use for making decisions under different conditions. Thus, it may be inferred that individuals benefit from effective or ineffective decision-making styles with respect to a variety of conditions. In an effective decision-making style, a person wants to identify all accessible options and solutions and begins to assess the results and completely analyze the existing information to achieve thoughtful and logical solutions (Goudarzi *et al.,* 2018). In ineffective decision-making styles, a person makes emotional decisions without prior planning and thinking only with respect to others' opinions and thoughts and attempts to stay away from the situations ahead by escaping and putting back their responsibilities (Esmaeil Beigi, 2022). Scott and Bruce identified five decision-making styles in this regard: rational, intuitive, dependent, avoidant, and spontaneous. For example, the dependent decision-making style is characterized by the decision-makers' intellectual independence and search for guidance and support from others when making crucial decisions. The avoidant decision-making style is characterized by a tendency to postpone decision-making whenever possible and to make last-minute decisions. To avoid making important decisions until the pressure is on is typical for the avoidant style, possibly because thinking about them leads to feelings of uneasiness. In other words, in the avoidant decision-making style, the person denies the necessity of making decisions or hopes that all the required conditions for making decisions will be provided spontaneously or resort to the procrastinating decision-making technique (Raziei *et al.,* 2022).

Consequently, individuals must apply the correct and rational decision-making style to affect their surroundings best; otherwise, they will be confused, negatively affecting their lives. Given the fact that the students are acknowledged as future makers in any society, paying attention to their mental wellbeing and health significantly affects the mental wellbeing and health of the whole society, as the higher the mental wellbeing and health of individuals, the better their thinking and mental ability (Zandi *et al.,* 2019). Accordingly, the present study attempts to explain the role of academic procrastination and decision-making styles in predicting life satisfaction.

METHODOLOGY:

Society, Sample, and Sampling

The research design was of descriptive-cross-sectional correlational type. The statistical population included all female students studying for the master's degree in Karaj; out of them, 114 students were selected as subjects using a sampling technique and sample size determination formula ($N \geq 50+8m$). According to ethical principles, the students were provided with a brief and comprehensive explanation of the research objectives, and then they volunteered to complete the questionnaires. The participants were assured that they would not be asked for personal or family information and may discontinue participating in the study at any point if they did not want to. The following questionnaires were used for data collection: A- The Satisfaction With Life Scale (Diener *et al.,* 1989): this self-report questionnaire was developed to measure the judgmental component of subjective wellbeing for all age groups. This questionnaire uses a seven-point Likert scale with 1 being 'strongly disagree' to 7 being strongly agree. The questionnaire included 48 questions at first, but following factor analysis, that number was lowered to 10. Finally, there were only

five questions left because of semantic overlap. Diener *et al.* (1989) reported a reliability of 0.79 for this questionnaire using Cronbach's alpha coefficient. The Satisfaction With Life Scale has correlations of 0.73 and 0.67 with the Oxford Happiness Inventory (OHI) and Beck Depression Inventory (BDI), respectively. In another work by Diener *et al.* (2003), the reliability of the Satisfaction With Life Scale was calculated to be 0.87 with a test-retest reliability of 0.82 after two months of implementation. In another study, the reliability of the questionnaire using Cronbach's alpha coefficient was reported to be 0.85 (Brunes *et al.,* 2019). Also, the reliability of the questionnaire using Cronbach's alpha coefficient and its discri-minant validity with the Bell Adjustment Inventory (1960) were reported to be 0.89 and 0.69 (Jalali, Aghaei, & Shamsipour). The reliability of the ques-tionnaire was calculated using Cronbach's alpha coefficient to be 0.78 (Mazloumzadeh *et al.,* 2021). This study estimated the reliability of the question-naire using Cronbach's alpha coefficient to be 0.79.

B- Procrastination Assessment Scale for Students (Solomon & Rothblum, 1984) this self-report questionnaire was developed to assess the prevalence and reasons for academic procrastination. This questionnaire includes 27 questions, 21 of which relate to three subscales, including homework preparation, exam preparation, and preparing end-of-semester reports. The next six questions assess the two features of being upset about procrastinating and wanting to change this behavior. This questionnaire uses a five-point Likert scale, with 1 being 'never' to 5 being 'always' (Nikookar *et al.,* 2021). Solomon and Rothblum, (1984) reported a reliability of 0.64 for this questionnaire using Cronbach's alpha coefficient with a validity of 0.84 using internal consistency. Jokar and Delavarpour, (2007) achieved the reliability and validity for this questionnaire to be 0.91 and 0.81, respectively (Nikookar *et al.,* 2021). In another study, the reliability of this questionnaire using Cronbach's alpha coefficient was reported to be 0.71 at the level of academic procrastination score. This study estimated the reliability of the whole questionnaire using Cronbach's alpha coefficient to be 0.79 and its subscales ranging from 0.71 to 0.75. P- General Decision-Making Styles Questionnaire (Scott & Bruce, 1995): this self-report questionnaire was developed to assess five decision-making styles: rational, intuitive, dependent, avoidant, and spontaneous, with 25 questions. This questionnaire uses a five-point Likert scale with 1 being 'strongly disagree' to 5 being 'strongly agree.' Scott and Bruce, (1995) examined the validity of this five-factor questionnaire using the statistical explo-ratory factor analysis technique. In total, these factors (rational, intuitive, dependent, avoidant, and spontaneous) accounted for 51% of the variance, and the internal consistency reliability per subscale was estimated using Cronbach's alpha coefficient between 0.70 and 0.78. In a study, the reliability of this questionnaire for five factors (decision-making styles) was estimated using Cronbach's alpha coefficient between 0.68 and 0.75 (Henåker, 2022). In another work, the validity and reliability of this five-factor questionnaire were reported to be 0.84 and 0.72, respectively (Attyat *et al.,* 2022). Also, the validity of the five-factor questionnaire was examined using a confirmatory factor analysis procedure, and its five-factor construction was confirmed (Raziei *et al.,* 2021). They estimated the internal consistency reliability for all five factors using Cronbach's alpha coefficient between 0.73 and 0.79. In another work, the reliability of this five-factor questionnaire was estimated using Cronbach's alpha coefficient between 0.69 and 0.74 (Saadati Shamir & Changizi, 2018). The reliability of this five-factor questionnaire was calculated using Cronbach's alpha coefficient for intuitive decision-making style to be 0.71, dependent decision-making style to be 0.74, rational decision-making style to be 0.72, avoidant decision-making style to be 0.74, and spontaneous decision-making style to be 0.77 (Salimi *et al.,*). The present work estimated the reliability of this five-factor questionnaire using Cronbach's alpha coefficient for avoidant decision-making style to be 0.69, dependent decision-making style to be 0.70, intuitive decision-making style to be 0.70, rational decision-making style to be 0.72, and spontaneous decision-making style to be 0.73. Data analysis was performed using descriptive statistics, Pearson correlation coefficient (r), stepwise multivariate regression, considering the regression assumptions (e.g., Kolmogorov-Smirnov test, Durbin-Watson test, variance inflation factor, and variance tolerance factor) using SPSS-V26 by setting p-value at 0.05.

RESULTS:

According to demographic information, the subjects were divided into two age groups: 70% (79 subjects) fall into the age range of 28-32 years, and 30% (35 subjects) fall into the age range of 33 years and older. Besides, 59% (67 subjects) were single, and 41% (47 subjects) were married, with 57% (65 subjects) as employed (self-employed/government job) and 43% (49 subjects) as unemployed/students. The descriptive statistics of variables in research and corresponding elements were given in **Table 1**. As shown in the table, the maximum (22.13) and minimum (19.46) scores relate to homework preparation and exam preparation, respectively.

Table 1: Mean and standard deviation of variables in research in female students.

Variable	Number	Mean	Standard deviation	Correlation coefficient	p-value
Homework preparation	114	22.133	4.11	-0.041**	0.014
Exam preparation	114	19.46	2.44	-0.063**	0.012
Preparing end-of-semester report	114	20.73	3.03	-0.033**	0.010
Intuitive decision-making style	114	18.03	3.36	-0.315**	0.009
Rational decision-making style	114	17.11	4.01	0.168**	0.016
Dependent decision-making style	114	15.14	2.60	-0.215**	0.014
Spontaneous decision-making style	114	19.23	4.16	-0.189**	0.021
Avoidant decision-making style	114	15.02	3.53	0.446**	0.008
Life satisfaction	114	40.63	6.29	-	-
**p-value <0.05					

The results from the one-sample Kolmogorov-Smirnov test were given in **Table 2**. As shown in the table, there is a normal score distribution for variables in research (p-value < 0.05). Further, according to the results from the skewness and kurtosis test for the normal score distribution, the value for skewness and kurtosis of variables in research is between 2 and -2. Thus, the distribution of all variables in research is normal. The independence of errors was examined using the Durbin-Watson test. The Durbin-Watson statistics were achieved between 1.5 and 2.5, indicating the absence of correlation between errors.

The variance inflation and tolerance factors were estimated to examine the non-multicollinearity. There is a strong multicollinearity when the tolerance factor approaches zero, and the standard deviation of regression coefficients tends to be large. Based on the values of the variance inflation factor, the indices are only close to 10, which indicates that there is no trouble in using linear regression. Hence, considering the absence of multicollinearity in predictor variables, it is possible to use the parametric tests of multivariate regression and Pearson correlation coefficient, which give reliable results.

Table 2: The results from Kolmogorov-Smirnov and skewness and kurtosis tests for the normality of the score distribution.

Variable	Skewness		Kurtosis		K-S	p-value
	Statistics	Standard deviation	Statistics	Standard deviation	Statistics	
Homework preparation	0.529	0.182	0.360	0.198	0.114	0.214
Exam preparation	0.260	0.182	0.190	0.198	0.206	0.131
Preparing end-of-semester report	0.407	0.182	0.221	0.198	0.184	0.541
Intuitive decision-making style	0.333	0.182	0.151	0.198	0.416	0.200
Rational decision-making style	0.742	0.182	0.602	0.198	0.172	0.190
Dependent decision-making style	0.551	0.182	0.333	0.198	0.281	0.215
Spontaneous decision-making style	0.768	0.182	0.546	0.198	0.331	0.612
Avoidant decision-making style	0.589	0.182	0.379	0.198	0.151	0.410

As shown in below **Table 3**, variables can significantly predict life satisfaction in subjects in four steps using a stepwise multivariate regression formula (p-value < 0.05).

Table 3: Summary of the regression model of life satisfaction with respect to academic procrastination and decision-making styles.

Model	Multicollinearity	Coefficient Of Determination (R2)	Adjusted R^2
1	0.314	0.107	0.106
2	0.513	0.262	0.262
3	0.562	0.315	0.314
4	0.613	0.375	0.374

Model 1: Academic procrastination; Model 2: Academic procrastination and spontaneous style; Model 3: Academic procrastination, spontaneous and avoidant styles; and Model 4: Academic procrastination, spontaneous, avoidant and rational styles.

In the first step, 10.7% of the changes in the life satisfaction of subjects can be clarified by academic procrastination (R^2=0.107). In the second step, 26.3% of the changes in the life satisfaction of subjects can be clarified by academic procrastination and spontaneous decision-making style (R^2=0.262204). In the third step, 31.5% of the changes in the life satisfaction of subjects can be clarified by academic procrastination and spontaneous and avoidant decision-making styles (R^2=0.315). Finally, in the fourth step, 37.5% of the changes in the life satisfaction of subjects can be clarified by academic procrastination, spontaneous, avoidant, and rational decision-making styles (R^2= 0.375). Here, intuitive and dependent decision-making styles were not considered in predicting life satisfaction.

Table 4: The results from one-way analysis of variance of life satisfaction regression with respect to academic procrastination and decision-making style.

Model		Sum of squares	df	Mean square	F-statistic	F-value
1	Regression	412/842	1	412/842	133/791	0/001
	Remaining	703/545	112	3/086	-	-
	Total	1116/387	113	-	-	-
2	Regression	530/768	2	265/384	102/896	0/001
	Remaining	585/619	111	2/580	-	-
	Total	1116/387	113	-	-	-
3	Regression	718/495	3	239/498	136/034	0/001
	Remaining	397/892	110	1/761	-	-
	Total	1116/387	113	-	-	-
4	Regression	731/623	4	182/906	106/959	0/001
	Remaining	384/763	109	1/710	-	-
	Total	1116/387	113	-	-	-

As shown in **Table 4**, the F-statistics from model 1 to model 4 are133/791, 102/869, 136/034, and 106/959, respectively, which are statistically significant for $\alpha < 0.05$ and demonstrate that three spontaneous, avoidant and rational decision-making styles and academic procrastination can predict well the changes in the degree of life satisfaction among subjects, indicating the usefulness of the suggested regression model. The multivariate regression coefficients of the life satisfaction measure of subjects with respect to predictor variables of three spontaneous, avoidant, and rational decision-making styles and academic procras-tination were given in **Table 5**.

Table 5: Multivariate regression coefficients of life satisfaction with respect to predictor variables.

Model	Predictor variable	Non-standard coefficients		Standard coefficients	t	P-value
		B	Standard error	β		
1	Constant	0/706	0/437	-	10/614	0/001
	Academic procrastination	-1/639	0/185	-0/503	-13/480	0/001

2	Constant	2/493	0/479	-	15/203	0/001
	Academic procrastination	-0/532	0/094	-0/466	9/765	0/001
	Spontaneous style	0/476	0/105	0/671	12/760	0/001
3	Constant	3/391	0/405	-	8/366	0/001
	Academic procrastination	-0/108	0/007	-0/596	-15/472	0/001
	Spontaneous style	0/117	0/010	0/558	11/891	0/001
	Avoidant style	-0/228	0/022	-0/733	-10/326	0/001
4	Constant	0/121	0/415	-	7/921	0/001
	Academic procrastination	-0/108	0/008	-0/257	15/735	0/001
	Spontaneous style	0/040	0/010	0/376	7/031	0/003
	Avoidant style	-0/070	0/029	-0/399	-5/962	0/005
	Rational style	0/176	0/027	0/412	11/068	0/001

As shown in **Table 5**, the multivariate regression coefficients of predictor variables demonstrate that three spontaneous, avoidant, and rational styles and academic procrastination can predict statistically significant changes in the degree of life satisfaction among subjects. Based on the results achieved in the fourth step, the rational decision-making style is more crucial than other variables in **Table 5**. The weight factor of the rational style (B=0.176, t=11.068, P<0.001) indicates that the rational style, together with other study variables, can predict life satisfaction among subjects with 99% confidence. The beta-weight (β) of the rational style will be 0.412 if the study sample is generalized to the population.

DISCUSSION AND CONCLUSION:

This study aimed to predict life satisfaction with respect to academic procrastination and decision-making styles among female students. A significant and negative relationship was observed between life satisfaction and academic procrastination in female students so that academic procrastination accounts for 11.2% of changes in life satisfaction among female students. Our results agree with those reported by (Chapan, 2011; Okal and Kubilai, 2016; Tamnnaifar and Mansouri Nik, 2014; Hatefnia *et al.,* 2019). Academic procrastination is recognized as a bad behavioral habit that a large number of students deal with in their academic performance. It is specified by exam preparation, attending class sessions, and doing homework. Academic procrastination is one of the usual challenges among students so that according to research, the prevalence of problematic academic procrastination among students is relatively high. Students with academic procrastination experience severe anxiety and stress during the exam because they put back exam preparation until the exam night, which in turn will impose more psychological and emotional pressures on students in the future, which will gradually and with the passage of time cause a feeling of low competency and efficiency, excessive emotional fatigue, a feeling of academic failure, and ultimately life dissatisfaction. Academic procrastination affects students' self-esteem and is associated with high-level anxiety and depression. Students who put back their crucial and pre-planned tasks to another time without any rational reason experience psychological problems, including low self-esteem, anxiety, guilt, depression, academic outcomes like low scores in educational courses, losing the deadline for a certain task, periodic opting out, cheating, and psychological pressures, leading to significant failures at school, university, home, or relationships. Another study found that decision-making styles account for 11.2% of changes in life satisfaction among female students. Our finding agrees with those reported by some researchers, for example, (Sari 2022; Javier *et al.,* 2021; Moyano-Diaz, 2021; Khansari and Nilforoushan, 2020).

Clearly, decisions and decision-making are the foundation of actions and interactions, and the actions of all human beings, especially students, are correlated with decision-making, and this is why it can be said that there is a close relationship between happiness and life satisfaction. This can be considered a turning point from which the directions and next stages of scientific, social, and personal works and activities will practically begin. It is noteworthy that taking advantage of capabilities, creativities, skills, know-

ledge, coherent vision, special intelligence, and talents is necessary to make effective decisions in the current complicated and challenging world. If the role of specialized factors and individuals' perceptions are considered, the decision-making process can be guided in such a way that by applying effectiveness factors, it is possible to achieve favorable outcomes through strategic decisions, and necessary preparations should be made for unfavorable outcomes. The quality of schemes and programs, the effectiveness and efficiency of strategies, and the quality of the results from their application all depend on the quality of the decisions made by a person. The rational decision-making style is defined in such a way that a person always makes the best possible decisions that maximize the possibility of achieving his objectives. The rational decision-making style has a positive relationship with life satisfaction. In this style, the person is aware of all the solutions and knows what result each decision leads to. They can prioritize and categorize decision-making outcomes according to their benefits to maximize achieving objectives by employing an optimal strategy. Therefore, individuals in this style determine and evaluate all possible solutions and choose the best solution by determining the outcomes of each one. Thus, such a person experiences a more successful personal and academic life and, subsequently, high life satisfaction. Since such a person searched for information before taking action, included many factors in his/her decision, and made a deliberate and purposeful decision, even if he/she did not achieve the desired results, her/his life satisfaction does not reduce because he/she did not act hastily. Also, Parker et al. believe that the dependent decision-making style shows the intellectual and practical dependency of the decision-makers and the search for guidance and support from others when making important decisions. The opinions of others play a key role in this decision-making type. Thus, in this style, the decision maker appeals to the opinions of others when making a decision, and the person himself has a passive role. Accordingly, it is not unlikely that such a person, even despite achieving desirable results, still cannot feel efficiency and satisfaction because he/she interprets success as external documents and sees herself/himself passive in achieving the results, then her/his life satisfaction is affected by judgment and behavior of others. However, the spontaneous decision-making style indicates that individuals make their important decisions under emergency conditions in the shortest possible time without previous intellectual support. In this style, a person makes decisions based on her/his experience and information, so using this style does not mean making crude and immature decisions. Hence, it can be claimed that since the person makes important decisions hastily along with inefficient information processing, he/she always experiences life dissatisfaction. Since this group of individuals have negative emotional and behavioral experiences, their life satisfaction also reduces under the influence of their emotions and moods. Also, Parker *et al.* believe that the avoidant decision-making style represents a person who puts back decision-making when facing difficulty and escaping the response to the problems occurred. In this style, the decision maker wants to escape making any decision and stay away from the decision-making situations as much as possible, in such a way that it may be argued that individuals are afraid of making decisions and are worried about their decision outcomes. It is evident that when a person makes decisions and acts obsessively with fear, the probability of making a wrong choice increases. According to a large number of cognitive-behavior approaches, acceptance and commitment problems, and anxiety and mood disorders increase in such people, and they always apply ineffective emotional and avoidant strategies to solve the problem, leading to an increase in undesirable experiences and, as a result, life dissatisfaction. The present research relates to the population of female students; thus, generalization of the results of the present study to other students, including students studying for bachelor's degrees and doctoral degrees, as well as male students and school students, is limited. The research information was collected from individuals using three questionnaires, which may be associated with research bias, for example, subjects' answers higher or lower than the actual situation. The research design was of descriptive-cross-sectional correlational type, so results should not be interpreted and concluded as a cause and effect, as in experimental research. It is recommended to perform similar studies on other groups of students (both university and school students). To avoid biases due to the nature

of the data, in addition to self-reported data, data obtained from the evaluation of clinical experts, observations, and interviews should also be used. Further, it is also recommended to use other research methods than a descriptive-cross-sectional correlational type like causal-comparative research and quasi-experiment research (pretest-posttest design with a control group) in the future. Researchers can use our results for a more compre-hensive study of the study samples, and they can be applied to educational planning. Since the study statis-tical population included female students studying for the master's degree in District 7, Karaj, academic officials can use the results of this study to improve students' life satisfaction and increase awareness about decision-making styles by holding educational workshops to prevent academic procrastination.

ACKNOWLEDGEMENT:

We are grateful to all the dear professors for providing their information regarding this research.

CONFLICTS OF INTEREST:

No conflicts of interest.

REFERENCES:

1) Attyat, A. O., Morsy, S. M., & Hossny, E. K. (2022). Decision Making Styles of Nursing Managers at Assiut University Hospitals and South Egypt Cancer Institute. *Assiut Scientific Nursing Journal*, **10**(28), 252-244. https://doi.org/10.21608/ASNJ.2022.113984.1291
2) Beckstein, K., Britton, E., & Best, S. (2021). The Relationship Between Alternative Fieldwork Approaches and Student Competence and Confidence for Occupational Therapy in Behavioral Health. *Student J. of Occupational Therapy*, **2**(1), 21-51
3) Brunes, A., Hansen, M. B., & Heir, T. (2019). Loneliness among adults with visual impairment: prevalence, associated factors, and relationship to life satisfaction. *Health and quality of life outcomes*, **17**(1), 24. https://www.visionaustralia.org/services/find-services/older-adults/diagnosi
4) Chengizi, Mansoura and Saadati Shamir, Abutaleb. (2017). Predicting mindfulness based on decision-making styles and moral reasoning. *Two quarterly journals of sociology of education*, **9**(6),110-98.
5) Esmail Beigi, Behjati Ardakani, Najibi, Seyed-hamid and Fatemi Aghda. (2022). The relationship between self-acceptance and decision-making styles with life expectancy in homeless and abused students. *Family and Research Quarterly*, **18**(4), 81-96
6) Gudarzi, Mohammad Ali, & Ibrahim. (2017). Problem solving and decision making skills. Academic Publishing Center, Comprehensive University of Applied Sciences, Tehran.
7) Hatifnia, Dartaj, & Noorali. (2017). The effect of academic procrastination on psychological well-being: the mediating roles of buoyancy, positive-negative emotions and life satisfaction. *Social Psychology Research*, **9**(33), 53-76. https://www.socialpsychology.ir/article_91536.html?lang=en
8) Henåker, L. (2022). Decision-making style and victory in battle-Is there a relation?. *Comparative Strategy*, **41**(4), 415-436
9) Hussen S, Rahim MA, Rahman A, Pinky KTK, Akter R, Utpal DMNA, and Hossain MI. (2023). Prevalence of anemia and associated factors among female students in a health science college, *Eur. J. Med. Health Sci*., **5**(2), 14-21. https://doi.org/10.34104/ejmhs.023.014021
10) Iqbali, Ali & Azimi, Mohammad (2022). Prediction of life satisfaction based on attitude and practical commitment to prayer in female students of Farhangian University of Tabriz. *Research in religion and health*, **8**(2), 19-9
11) Jalali, Dariush; Aghaei, Asghar and Shamsipour, Maryam. (2022). The effectiveness of parenting training based on acceptance and commitment therapy on oppositional defiant disorder of preschool children and life satisfaction of mothers. *J. of knowledge and research in applied psychology*, **23**(1),154-137
12) Karimi, Amini, Mustafa, Abadi. (2022). Methods of evaluating learners in electronic education and its consequences on academic procrastination. *Quarterly J. of Information and Communication Technology in Educational Sciences*, **12**(3 (consecutive 47)), 45-62.

13) Mutolian, Dukushkani, & Suleiman. (2019). Investigating the level of life satisfaction among Mazandaran University students and its relationship with personality dimensions. *Cognition Scientific Research Quarterly*, **6**(1), 23-34.
14) Mazloumzadeh, Mohammad Reza; Ghanbari Hashem Abadi, & Jahangiri, Atefe. (2021). The relationship between personality traits and life satisfaction with the mediating role of emotional intelligence. *Quarterly J. of Excellence in Counseling and Psychotherapy*, **10**(2), 103-88. https://srb.sanad.iau.ir/en/Article/932025
15) Nikokar, Hassan, Mahdian, Hossein and Ghasemi Mutlaq, Mahdi. (2021). Structural relationships of mindfulness and family functioning with academic procrastination mediated by adaptation in male students. *A quarterly Islamic lifestyle magazine focusing on health*. **5**(4), 220-211.
16) Osmani, Soleimani, Zainali. (2020). Examining the structural equation model of perceived social support and life satisfaction with Internet addiction: with the mediating role of social capital. *Social Order Quarterly*, **12**(2), 101-122.
17) Qaraviri, Raushi, Kazemi and Amena Sadat. (2022). The effectiveness of neuro-verbal programming training on academic procrastination and emotional self-regulation of students. *Scientific journal Roish Psychology*, **11**(2), 169-180.
18) Razi, Zahra; Fatahi Andabil, Azam and Dukanei Fard, Farida. (2021). The relationship between decision-making styles and happiness with the mediating role of lifestyle in adolescent girls. *Roish J. of Psychology*, **11**(1), 222-212.
19) Salimi, Mehdi; Hosseini, Mohammad Sultan and Mirsafarian, Hamidreza. (2018). Investigating the general decision-making styles of sports managers based on the Scott and Bruce model. *J. of sports management*, **11**(2), 290-273.
20) Sayadi, Qasba, Muhaddith, Moqtadar. (2021). The effectiveness of mindfulness training on students' progress motivation and academic procrastination. *Scientific j. of education and evaluation*, **14**(54),135-113.
21) Shams al-Dini, Ahmadi, Abdul Javad, Mousavi, Seyyed Ali Mohammad. (2021). Normation of Elderly Life Satisfaction Index (ALSI). *Applied Psychology Quarterly*, **15**(3), 477-495. https://doi.org/10.52547/APSY.2021.221876.1047
22) Trammell, PhD, J. P., Joseph, PhD, N. T., & Harriger, PhD, J. A. (2021). Racial and ethnic minority disparities in COVID-19 related health, health beliefs and behaviors, and well-being among students. *J. of American College Health*,1-7.
23) Zandi, Houshang, Sadeghi, Shamsai, Farshid, Tapak, Lili. (2020). Relationship between self-efficacy and life satisfaction in nursing students. Nursing Education, **8**(6), 34-40.

Citation: Khalatbari F., and Farahani BC. (2024). Predicting life satisfaction with respect to academic procrastination and decision-making styles in female students. *Eur. J. Med. Health Sci.*, **6**(4), 100-108. https://doi.org/10.34104/ejmhs.024.01000108