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Students' happiness and ranking of its dimensions in Mazandaran University of Science and Technology during the COVID-19 crisis

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Abstract:

BACKGROUND: Happiness and life satisfaction are positive indicators of mental health that should be considered by higher education and health officials. The aim of this study was to investigate the status of happiness and life satisfaction in students of Mazandaran University of Science and Technology during the outbreak of Coronavirus disease 2019 (COVID-19).

MATERIALS AND METHODS: This research is practical in terms of purpose and descriptive survey in terms of nature. The statistical population of this research was 2500 people. A total of 333 samples were selected by stratified random sampling. Data collection was performed using the standard Oxford Happiness Questionnaire and data analysis was performed by Friedman test, mean, and ranking.

RESULTS: All dimensions of happiness of students of Mazandaran University of Science and Technology at the time of the outbreak of COVID-19 were in a relatively favorable situation. The dimensions of happiness were positive mood (3.57), positive energy (3.56), satisfaction (3.02), self-esteem (2.80), and life satisfaction (2.04). There was a significant difference between the dimensions of happiness and the variables of family income status (students with better financial status had a higher average), field of study (civil engineering students had a higher average), and gender (women had a higher average). No significant difference was found among the variables of marriage, educational level, semester, or rank in terms of several family children, with the dimensions of happiness.

CONCLUSION: Examining the dimensions of students' happiness during the COVID-19 crisis will help the officials of the higher education system, in addition to planning to maintain the personal health and safety of students and curriculum appropriate to the time of crisis, and implement appropriate programs to maintain and promote the mental health and happiness of students.

Keywords:

COVID-19 crisis, happiness, ranking, students

Introduction

In many countries of the world, the COVID-19 pandemic has endangered the mental and physical health of individuals in communities and, due to its mysterious, uncontrollable, unpredictable nature and rapid spread, has provided the ground for the spread of psychological

problems.^[1] The COVID-19 epidemic has had an unprecedented impact on all aspects of life, including preceding psychological consequences such as distress and death.^[2] The restrictions imposed during the COVID-19 disease significantly increase psychological distress.^[3] Public health efforts to contain the rapid transmission of COVID-19 have led to infection control measures and changes in

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related policies and procedures, including early detection and restrictions, and widespread quarantine of suspected and confirmed cases.^[4] The concept of quarantine, which is popular during the outbreak of infectious diseases, is to protect people's health from infectious diseases, but it is widely regarded as an unpleasant experience that may cause various mental problems such as depression, anxiety, fear, loneliness, and Dissatisfaction.^[5] Anxiety as a threat to mental health has caused many problems for students, including the fear of developing COVID-19, in conditions of COVID-19 pandemic that have affected the mental and psychological characteristics of students.^[6] There is no doubt that the global catastrophe of COVID-19 has a negative effect on the mental and physical health of individuals and their social relationships, reducing the level of happiness of individuals. Argyls describes happiness as being in a state of delight and other positive emotions, being satisfied with one's life, and the absence of depression, anxiety, and other negative emotions.^[7] Psychologists have offered several definitions of happiness. According to some psychologists, happiness is the degree to which a person generally judges the overall quality of his or her entire life as a perfectly desirable life. Happiness is an emotional skill that more or less continuously maintains a person's satisfaction and contentment with the present.^[8] Numerous studies have been conducted on students' happiness and life satisfaction during the COVID-19 crisis. Research by Altıparmak *et al.* (2021)^[9] showed that midwifery students have moderate levels of phobias about COVID-19 and levels of psychological and social phobias relative to COVID-19 increase family belonging, but levels of psychosomatic and economic phobias decrease life satisfaction. Research by Gallegos *et al.* (2022)^[10] showed that greater intergenerational intimacy is associated with more positive changes associated with the COVID-19 epidemic in the quality of relationships with family and friends and with greater happiness and life satisfaction. Less stress associated with COVID-19 and more positive changes associated with promoting positive qualities generating an intergenerational relationship between young adults and their parents can protect against the health-related consequences of an epidemic. Research by Solekhah (2021)^[11] found that dramatic changes make it difficult for students to adapt to new activities at home for long periods of time, while studying independently through distance learning. Only one-third of the sample experienced happiness during online learning, while the majority experienced negative emotions such as boredom, sadness, and loneliness. Life satisfaction and youth social participation were significantly correlated with happiness. Female students also had lower happiness variables than male students. Cherkasova's research (2021) showed that youth happiness is a value orientation that determines their social behavior. The study found that most of the students

who are "optimistic" (70%) do not find themselves lost in COVID-19 conditions.^[12] Kiakjouri and Tizdast research (2021) showed that the variable of happiness has a positive and significant relationship with motivation for academic achievement.^[13] Research by Wan Mohd Yunus *et al.* (2021)^[14] showed that quarantine implementation during the COVID-19 epidemic has a significant effect on negative emotional symptoms, happiness, and work-life balance. In Delavar and Shokoochi Amirabadi (2016), there was no significant relationship between gender and different educational levels with happiness and life satisfaction, and only in the component of positive energy in happiness, this relationship was significant and the amount of positive energy was higher in girls than boys.^[15] The European Social Survey showed that the dimensions of happiness are influenced by gender differences between men and women.^[16] According to research by Haliwa *et al.* (2020),^[17] the risk of developing COVID-19 is associated with depression, anxiety, and stress. According to the findings of Durón-Ramos *et al.* (2022),^[18] positive personal characteristics such as happiness or well-being can motivate students to participate in higher education programs, which is influenced by the orientation to happiness. Moussa and Ali (2022)^[19] showed in their research that students' level of happiness is related to their academic success. Students are considered human capital and future builders of the country. Therefore, their happiness and mental health are very important. Considering the importance of happiness and life satisfaction as positive indicators of well-being and mental health of students, which, unfortunately, is based on the results of numerous research during the COVID-19 epidemic, was affected by many challenges, and since the student population is a young and future-making population, they should be paid attention to by the authorities and planners of higher education and the health system; Therefore, during the COVID-19 crisis, in addition to planning to maintain the physical health of students and curricula, which are undoubtedly affected by psychological factors and happiness for the higher education system and universities to have a proper plan to maintain and improve the mental health of students. Based on this, the present research aims to answer the question, what is the state of happiness and satisfaction with life in Mazandaran University of Science and Technology students?

Materials and Methods

Study design and setting

This descriptive survey applied research was conducted from April 21 to May 22, 2021, during the COVID-19 pandemic.

Study participants and sampling

The entry criteria were students who were not present

at the university due to the COVID-19 restrictions and were using non-attendance education. The statistical population includes all students of the Mazandaran University of Sciences and Technology who have a unit choice this semester, in the number of 2500 people, of which 333 people were selected as a sample based on Cochran's formula, by stratified random method.

Data collection tool and technique

The measurement tool used is the standard Oxford happiness questionnaire^[20] including five dimensions (positive mood, positive energy, satisfaction, self-esteem, life satisfaction) and 29 items including 4 statements, the first statement is scored 1, the second statement is scored 2, the third term gets a score of 3 and the fourth term gets a score of 4. The reliability of the questionnaire was obtained using Cronbach's alpha method of 0.8 and its validity was confirmed by experts. After obtaining consent, the questionnaire was sent to the students online and completed. To analyze the data from Friedman's average and ranking tests, desirability (from 1 to 2.33 less favorable, 2.33 to 3.66 relatively favorable, 3.66 to 5 favorable)^[21] using software SPSS21 software is used.

Ethical consideration

Participants voluntarily completed the questionnaire and were assured that their feedback would be kept strictly confidential and that the data collected would be used solely for the purposes of the research.

Results

Findings related to the cognitive demographic characteristics of the statistical sample are reported in Table 1. The results show all dimensions of happiness of students of the Mazandaran University of Science and Technology during the outbreak of COVID-19 are in a relatively favorable condition [Table 2]. The perspective of students of Mazandaran University of Science and Technology at the time of COVID-19 outbreak and the ranking of all dimensions of happiness are, respectively, positive mood (3.57), positive energy (3.56), satisfaction (2.02), self-esteem (2.80), and life satisfaction (2.04) [Table 3]. There is a significant difference between the income status of different families at the time of the outbreak of COVID-19 and the dimensions of positive mood, positive energy and self-esteem, so students with better financial status have a higher average in the dimensions of positive mood, positive energy, and self-respect, but there was no significant difference between the dimensions of satisfaction, life satisfaction, and family income. There is a significant difference between students in terms of fields at the time of the outbreak of COVID-19 and the dimensions of positive mood, positive energy,

Table 1: Cognitive demographic characteristics of the statistical sample

Variable	n (%)
Gender	
Male	162 (48/09)
Female	171 (51/01)
Marital status	
Married	44 (13/24)
Single	289 (86/76)
Degree student	
Undergraduate students	301 (90/27)
Postgraduate students	26 (7/83)
PhD students	6 (1/90)
Student of the field	
Industrial engineering students	29 (8/65)
Electrical engineering students	56 (16/76)
Civil engineering students	24 (7/30)
Architectural engineering students	62 (18/65)
Computer engineering students	81 (24/05)
Mechanical engineering students	30 (9/19)
English language students	51 (15/40)
Mother education	
Under diploma	79 (7/23)
Diploma	151 (3/45)
Undergraduate	74 (2/22)
Postgraduate	26 (8/7)
PhD	3 (9/0)
Semester	
1-2 semester students	121 (36/22)
3-4 semester student	101 (30/27)
5-6 semester student	50 (15/13)
7-8 semester student	38 (11/35)
Semester 8 and up	23 (7/03)
Income	
3-4 million	68 (20/54)
5-6 million	63 (18/65)
7-8 million	75 (22/43)
9-10 million	50 (15/13)
Over 10 million	77 (23/02)
Father's education	
under diploma	75 (22/43)
Diploma	131 (39/46)
Undergraduate	78 (23/51)
Postgraduate	40 (12/16)
PhD	9 (2/43)
Child number several	
First	193 (58/10)
Second	93 (28/11)
Third	22 (6/76)
Fourth	23 (7/03)

and self-esteem; so students in the fields of civil engineering, architectural engineering, electrical engineering, English teaching, mechanical engineering, industrial engineering, and computer engineering in the dimensions of positive mood, positive energy, and self-esteem, respectively, have an average of more to

Table 2: Mean, standard deviation, and current status of happiness dimensions of students of Mazandaran University of Science and Technology at the time of COVID-19 outbreak

Dimensions	Mean and standard deviation	Condition
Positive mood	3/33±0/89	Relatively desirable
Positive Energy	3/36±0/740	Relatively desirable
Satisfaction	3/17±0/80	Relatively desirable
Self-respect	3/11±0/75	Relatively desirable
Life satisfaction	2/91±0/80	Relatively desirable

Table 3: Friedman test results to rank the dimensions of student happiness in times of COVID-19 crisis

Dimensions	Average Rank	Rank	n	Degrees of freedom	χ^2	Meaningful
Positive mood	3/57	1	370	4	25/515	0/000
Positive energy	3/56	2				
Satisfaction	3/02	3				
Your honor	2/80	4				
Life satisfaction	2/04	5				

less, but there was no significant difference between the dimensions of satisfaction and life satisfaction with students. There is a significant difference between the gender of students (male and female) during the COVID-19 outbreak and the dimensions of positive mood, positive energy, self-esteem, satisfaction, and life satisfaction, as the average dimension of happiness in women is higher than men and finally, between variables marriage, level of education, semester, and rank, and in terms of the number of children in the family, no significant difference was found with the dimensions of happiness [Table 4].

Discussion

All dimensions of happiness of students of Mazandaran University of Science and Technology during the outbreak of COVID-19 are in a relatively favorable state, which includes positive mood, positive energy, satisfaction, self-esteem, and life satisfaction, respectively. This relative usefulness is a strong point in students despite the COVID-19 epidemic, and since factors such as applying restrictions in the conditions of corona or quarantine, which is an important way to protect people's health against infectious diseases, but as an unpleasant experience that can cause various psychological effects, including Lead to depression, anxiety and fear.^[22]

In controlling the crisis, COVID-19 is emphasized, however, the relative happiness of students in such situations may be due to positive changes in intergenerational relationships and individuals because according to the results of research by Gallegos *et al.* (2022),^[10] in intergenerational relationships, more positive is associated with more positive consequences

for COVID-19 epidemic stress. Promoting positive intergenerational relationships among adults, young people, and their parents can protect their health and happiness from the consequences of the epidemic.

Positive mood and positive energy in higher ranks among the factors affecting students' happiness is an important finding to increase happiness and prevent mental disorders and depression, as well as performing timely interventions in case of mental health problems. According to the findings of Yıldırım *et al.* (2021),^[2] creating positive and positive thinking is an important aspect of developing powerful and effective preventions and interventions aimed at reducing psychological distress and improving happiness.

In particular, according to the findings of Durón-Ramos *et al.* (2022),^[18] positive personal characteristics such as happiness or well-being can motivate students to improve their performance on campus. In this study, it was found that there is a significant difference between the gender of male and female students at the time of the outbreak of COVID-19 and the dimensions of positive mood, positive energy, self-esteem, satisfaction, and life satisfaction, hence the average dimension of happiness in female students is higher than male. This finding is consistent with the findings of Petrovič *et al.* (2021)^[16] that happiness and quality of life in women were higher than in men. Also, this study showed that students with better financial status are at a higher level of happiness in the dimensions of positive mood, positive energy, and self-esteem. This finding is consistent with the results of the research of Ankomah *et al.* (2022)^[23] that the financial and emotional support of the family has a positive effect on the happiness of students.

Since all dimensions of students' happiness at Mazandaran University of Science and Technology are in a relatively favorable state, and on the other hand, the results of various research indicate the positive effect of happiness on the quality of life, academic success, and social participation of students, using the findings of this research in the program The educational and extracurricular programs of the university will improve the quality of higher education and student academic life and ultimately improve the well-being and mental health of students.

Limitation and recommendation

The existence of many variables that affect the happiness of students and are beyond the control of the researchers, as well as problems related to completing the questionnaire due to the absence of students during the crisis of the COVID-19 crisis, are among the limitations of this research.

Table 4: Study of the difference between happiness and gender factors, degree, field of study, . on students at the time of the outbreak of COVID-19

Test	Life satisfaction	Satisfaction	Your honor	Positive mood	Positive energy
Kruskal-Wallis test					
Family income					
Chi-square	10/079	6/256	11/028	19/727	12/482
df	6	6	6	6	6
sig	0/395	0/395	0/008	0/003	0/05
Ranking in the children of the family					
Chi-square	1/161	1/161	3/781	1/403	0/159
df	3	3	3	3	3
sig	0/864	0/762	0/286	0/705	0/984
Field of Study					
Chi-square	10/079	6/256	11/028	19/727	12/482
df	6	6	6	6	6
sig	0/121	0/395	0/008	0/003	0/05
Semester					
Chi-square	4/610	6/256	0/363	0/975	1/249
df	4	4	4	4	4
sig	0/330	0/985	0/996	0/914	0/870
Degree					
Chi-square	0/571	1/034	0/226	1/425	0/0312
df	2	2	2	2	2
sig	0/752	0/596	0/893	0/490	0/855
Test of Yoman Whitney					
Gender					
Mann-Whitney <i>U</i>	13627/500	14320/500	14546/000	14384/500	12880/500
<i>Z</i>	-3/383	-2/716	-2/497	-2/664	-4/155
Sig	0/001	0/007	0/013	0/008	0/000
Marital status					
Mann-Whitney <i>U</i>	6788/500	7301/500	7414/500	6538/500	7499/500
<i>Z</i>	-1/544	-0/810	-0/648	-1/915	-0/530
Sig	0/123	0/418	0/517	0/055	0/596

Conclusion

The happiness of the students of the University of Science and Technology, which was measured in this study, was in a relatively favorable condition, and among its dimensions, positive mood and positive energy were in a better condition. However, since the COVID-19 epidemic has had many adverse effects on health and other socioeconomic variables, since a completely effective solution and treatment are not available, since there's a possibility that if preventive measures, prompt, and condition-based interventions are not taken, it may also affect the positive aspects of happiness and cause a wave of depression and mental disorders, it is necessary to use the results of this study to create strategies to increase happiness. In this regard, paying attention to the gender of students in university planning at the time of COVID-19 and implementing and strengthening programs related to increasing positive thinking and creating a sense of satisfaction in students along with curricula, especially online education, which requires more student participation, should be considered. Also, promoting intergenerational relationships in

student families, fostering mindfulness, and supportive relationships by reducing the risk of COVID-19 provides protection against depression, stress, and anxiety, and increases happiness.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflict of interest

There are no conflicts of interest.

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