# **ORIGINAL ARTICLE**

# Investigating the association of quality of life and addiction in students of Urmia University of Medical Sciences.

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## ABSTRACT

**Introduction:** Addiction to tobacco products such as cigarettes, hookahs, etc. can be caused by psychosocial abnormalities that cause physical and psychological dependence of a person who is affected by various factors. This study was conducted in 2017 to investigate the association of addiction and quality of life in students of Urmia University of Medical Sciences.

**Materials and Methods**: This cross-sectional study was on 630 students of Urmia University of Medical Sciences in 2016-2017. Data were collected using demographic information questionnaire, identification of people at risk of Anise addiction and WHO quality of life questionnaire. Data were collected by SPSS18 and analyzed using linear regression, correlation test and descriptive statistics.

**Finding**: In this study, the average age of the participants was  $22\pm 13/3$  years and (44.4) 280 were male participants, Most of the students participated in the entrance study in 2016-2017 and (91.7%) 578 were single participants, most of the students participating in the study were The School of Medicine (48.3) was 304 and the lowest of the School of Health (11) was 69 The highest average in the sub-abuse tendency to addiction, depression, and helplessness 692 (23.87) was.

**Results**: The results showed that the highest quality of life for women and men had the highest drug abuse trend and the tendency to drug abuse and there was a significant relationship between quality of life.

Keywords: Abuse tendency to addiction, Quality of Life, Medical Students, Urmia, depression, helplessness.

# INTRODUCTION

Addiction is a social psychological disorder that results from the unauthorized use of certain substances, such as opium, cannabis, etc. which causes physical and mental dependency. Drug addiction has become a global problem and has a great financial burden on the healthcare sector. Difficulties due to addiction affect the whole life of the individual in the family and society and have drifted away huge social and spiritual resources that could have been spent elsewhere for progressive programs. This predicament is very serious, especially in a developing country such as Iran, which needs young and efficient workforce, Addiction is often a degenerating process, meaning that the individual starts it with light drugs with low side effects and falls to heavy narcotics with devastating outcomes, starting with the use of legal drugs such as cigarettes and eventually leading to the use of illegal drugs such as alcohol, inhalers and marijuana(1-3). The ultimate consequence disrupts wellness of the individual and the society, People's beliefs and attitudes about drugs and the negative and positive consequences of their use are called substance abuse tendencies. The tendency to use drugs in people's beliefs about drugs and its positive and negative consequences should be sought(4, 5). Drugs have caused social, economic, political, and health damage in the country, including physical and infectious diseases such as AIDS and hepatitis, and psychosocial diseases such as increased crime-related addiction, theft, murder, rape, and child abuse. An increase in the number of divorces and

difficulties in educating children of addicted parents can be mentioned(6).

Addiction to students occurs under the influence of various factors, one of which is the quality of life of students. In general, the quality of life does not have clear and identical words, although people instinctively understand its meaning. There are different theories about guality of life(7, 8). According to the World Health Organization definition of quality of life in people's perception of their position in life in terms of culture and value system where they live the quite individual quality of life and the understanding of different aspects of life, Quality of life has different dimensions such as physical health, mental health, economic conditions, various dimensions such as physiological and individual performance are very important. The importance of quality of life in health is such that the present century has been described as an improvement in the quality of life and health(9, 10). Due to changes in the style and living environment of students compared to adults, they face more psychological and social problems in their student life, Factors such as academic failure, job problems, social incompatibility, behavioral problems, personality, and marriage have been influential factors on their quality of life (11, 12).

Stress and psychological problems, such as anxiety and depression, are common among students, as students have consequences for their lifestyle, social relationships, and sleep at all times(13), The study conducted on students of Tarbiat Modarres University found that 15

percent suffer from stress. They also concluded that the levels of stress, anxiety, and depression, and quality of life in female students were inversely associated with stress, anxiety and depression were(14), there is a statistically significant relationship between major depression and crack addiction. Severe and irrational stress and anxiety for everyone cause many problems in a person's daily functioning. It is a psychological problem and has been seen in many addicts. Sometimes a person tends to use drugs and alcohol to control anxiety and. They show their stress(15).

The tendency to addiction and its relationship to quality of life among students is an important issue, because it reduces their academic success and prevents them from reaching a special and worthy position, so to prevent students from dropping out and increase their academic and fertility. It is essential to better understand the context of science, identify students' interest in drugs, and relate them to quality of life among students. The very high ratio of drug addiction in the country shows the importance of conducting numerous studies on the subject; this study aimed to investigate the association of addiction and quality of life in students of Urmia University of Medical Sciences.

## **METHODS**

This descriptive cross-sectional study was performed on 630 students at Urmia University of Medical Sciences in 2017 by stratified random sampling method. The inclusion criteria were: 1- except students of School of Pharmacy, dentistry, graduate students and residents but not and 2- at least six months have passed from the students studied and exclusion criteria 1- Unwillingness to engage students and incomplete questionnaire. Then the students entered the study in the desired lists separately for men and women, which numbered 630 people.

Data were collected by demographic questionnaire, a questionnaire Anisi and colleagues and WHO quality of life questionnaire was used to survey questionnaire with 75 questions abusing and is four dimensions, The first dimension of depression and helplessness has 29 questions, the second dimension of positive attitude towards materials has 18 questions, the third dimension of anxiety and fear has 17 questions and the fourth dimension of high excitement has 11 questions. Based on a study by Anisi et al. Cronbach's alpha total was 0.97 and the Guttmann coefficient was 0.97, which has four sections for identifying people at risk for addiction, That those parts of the desired overall score of between 0 and 55 are at no risk scores between 56 and 80 endangered mild, between 81 to 111 endangered average and higher than 112 and more in grave danger with The scoring method is in the form of a four-choice Likert that I disagree with not at all (0), I disagree / with your opinion (1), to some extent I agree / often (2) and I agree / always (3)(16).

Also the second questionnaire The Quality of Life Questionnaire also has 26 questions, the first 2 questions evaluating only the general area of quality of life and the 4 areas of physical health, mental health, social relations, and environmental health with 24 questions (3, 6, 7 and 8

questions, respectively). Is evaluated(17), The validity and reliability of the questionnaire have already been measured and confirmed by Nedjat et al. To homogenize all the domains, after performing the necessary calculations, a score of 4-20 for each domain will be obtained separately, in which the score of 4 marks the worst and 20 marks the best condition of the desired domain. This score was convertible to a score of 0-100, we have used this method of scoring is also higher scores indicate better quality of life.

The data were then collected by SPSS18 and analyzed to determine the relationship between the variables using linear regression, correlation test and descriptive statistics. The data was also checked to find whether it follows normal distribution. That all data were normally distributed. The anonymity of the respondents were also assured in all tests, the error level of less than 0.05 was assumed to be significant.

#### RESULTS

In this study, the average age of the participants was 22 ( $\pm$  3.13) years old and 280 (44.4%) and 350 (55.6%) of the students were male and female, respectively. School-wise, the highest number of participants were from college of medicine (n = 304, 48.3%) and the lowest were public health students (n = 69, 11%). Also, the highest number of participants were students of associate's and bachelor's degree (n = 327, 51.9%) (Table 1). Additionally, the majority of study participants were belonged to the 2015 – 16 academic year (n = 306, 48.6%) and most of the participants were born in 1992 – 3 (n = 226, 35.9%). Plus, 578 participants were single (91.7%) (Table 1).

Variables Subgroup Number Percentage Gender Man 280 44.4 Woman 350 55.6 Faculty medical 304 48.3 Nursing and 115 18.2 Midwifery Hygiene 69 11 Paramedical 142 22.5 Grade Associate 327 52 and Bachelor **Basic Sciences** 145 23 103 16.3 Extern

Table 1. Demographic data of students according to gender, educational level, faculty

The highest average in the sub-abuse tendency to addiction, depression, and helplessness (23.87) was 692, the highest average quality of life and social health branch (68.62) 630 was Also, women had the highest quality of life with an average of 75.07 (16.79). (P = 0.001) (Table 2), also the extern students had the highest quality of life and no relationship between quality of life and students' education was found. (P = 0.001)

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8.7

Variables	Subgroup	Number	Mean	Standard deviation	maximum	minimum
The tendency to	Depression and helplessness	629	23.87	16.50	0	84
Substance Abuse	Positive attitude to materials	629	8.65	9.44	0	45
	Anxiety and fear	630	15.50	9.01	0	42
	High excitement	630	12.49	5.83	0	29
	Total substance abuse	630	60.41	35.41	0	182
Quality of Life	The overall scope of quality of life	630	73.01	18.52	0	100
	Physical health	630	50.81	13.48	14.29	92.86
	mental health	630	60.11	12.77	8.33	91.67
	Environmental health	630	59.70	15.99	12.50	100
	Social health	630	68.62	19.24	0	100

Table 2: Descriptive indicators for the sub-branches of addiction and quality of life

The results of correlation coefficient analysis found that there is a significant positive relationship between

addiction, quality of life, gender, marital and age (P = 0.001). (Table 3)

Table 3. The correlation coefficient of addiction to quality of life and its sub-branches

Variables	Abuse tendency to addiction			
	R	P		
The overall scope of quality of life	0.473	0.001<		
Physical health	0.363	0.001<		
mental health	0.490	0.001<		
Environmental health	0.473	0.001<		
Social health	0.458	0.001<		
gender	0.235	0.001<		
Marital status	0.127	0.001<		
age	0.129	0.001<		

The results of regression analysis showed that the observed F level (F = 180.68) was significant and approximately 22% of the variance of addiction orientation was caused by the various quality of life ( $R^2 = 0.222$ ). It is positive (Table 4), the results of independent t-test showed that there was a significant relationship between two groups of male and female students in terms of addiction (t = -6.702) and quality of life (t = -6.535) (p = 0.001). (Table 5)

The results of descriptive indicators showed that the tendency to addiction to four categories of abuse, Lack of risk (49.5) was 312, moderate risk (22.7) was 143, moderate risk (19.4) was 122, and (8.4) was 53 and were higher than the extreme danger. (Table 6) as well as the highest addiction potential abuse were male with an average69.71 (39.50) was.

Table 4.	Results of	regression and	lysis to	predict trends in	drug abuse l	by the quality of life
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Predictive variable	R	R <sup>2</sup>	standard error	Non-standard coefficients (B)	Standard coefficients (B)	Р	t	F
Quality of Life	0.473	0.222	143.52	3.758	-0.473	0.001<	26.01	180.68

Table 5: Test results t to compare students (boys and girls) in the variables of addiction and quality of life

Variables	Subgroup	Mean±SD	t	P_Value
Abuse tendency to addiction	Girl	52.97 ±29.79	-6.702	<0.001
	Boy	69.71±39.50	-0.702	<0.001
Quality of Life	Girl	75.07 ±16.79	0.505	0.001
	Boy	70.44±20.23	-6.535	<0.001

Table 6: Results of the frequency and types of addiction-oriented classes

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Research variables	Number	Percentage			
Lack of risk	312	49.5			
Mild risk	143	22.7			
Moderate risk	122	19.4			
Severe danger	53	8.4			
Total sum	630	100			

#### DISCUSSION

Given the importance of addiction problems and the growing tendency of young people, especially students, this study was conducted to investigate the association of drug abuse and quality of life in students. The results of the

study showed that approximately 22% of addiction is caused by a variety of quality of life, Also, in the subcategories of substance abuse orientation, depression and helplessness, anxiety and fear, high excitement, and positive attitude towards drugs were the lowest to the

highest, respectively, which were consistent with the studies(18-22), Certainly, addiction is influenced by various factors that, due to the significant relationship between addiction and the quality of life of universities, are required to take appropriate measures and teachings to increase the quality of life of students.

The highest levels of addiction were initially in the basic sciences, undergraduate, interns, and extern (23-26), this is probably due to the greater leisure time of these students and the risk ability and experience of these students in this course of study, which requires more attention to this course, which shows the impact of the course on the tendency to addiction.

Students Nursing and Midwifery depression, anxiety and tends to be more material that needs urgent attention from other schools more attention to the University Faculty exposed to more depression, anxiety and tendency to substance, And the highest level of excitement was given to paramedical students, which indicates the higher risk of students in this college to have emotional fun.

The results show that the quality of life for the highest scores, respectively, public health, mental health, environmental health, physical health and overall quality of life as well as average students  $73.01 \pm 18.52$ , which indicates a good quality, The average score of quality of life was  $73.01 \pm 18.52$  indicating a good quality of life. Of life for students, Which is not consistent with the results of the study of Zia pour et al(23), Soltani et al.(27), Amiri et al(28). This was due to the quality of life of the students, the establishment of counseling centers, as well as the establishment of recreational and sports centers, in other universities, the amount of attention to this issue has been low. And on the other hand, it can be due to cultural conditions and dependence on the family, which is different in different universities.

Extern students had the highest quality of life. Also, it was found that there was a statistically significant relation between the quality of life and educational level, which was inconsistent with the study of Amiri et al(28), This was probably due to the positive view toward medicin as a discipline, as well as the greater support the medical students receive from their families, on the other hand, the health school, in general, had the highest quality. Schoolwise, the highest quality of life was observed at public health school This is probably due to the small number of students participating in the study, the average age of the participants was  $22 \pm 13/3$  years old, which is consistent with another study(29). This indicates that most students are studying and participating in youth studies.

In this study, most of the participants were single and there was no relationship between marital status and substance abuse tendency, but domestic research shows that single people are more exposed to substance abuse than married people(29, 30). However, some studies show that the rate of substance abuse in married people is higher than single(31).

The results of the study show that the tendency to addiction was different between male and female students; and male students were more likely to abuse drugs, which was consistent with the results of studies of their kind(31-35), Explaining that entering a new educational environment and having different social and educational expectations from female and male students in the university environment, causes them to experience different issues in the educational environment and therefore There was a difference in the quality of life between the two groups.

The strengths of this study are the lack of such a study at the university level, especially on the issue and the sample size Balabvd and the limitations of this study uncooperative students and non-attribution of this study to other groups, such as students, the students, because each situation differently Which is recommended, In the future, along with the quality of life of students, factors such as household economic status, number of children, place of residence, as well as the correlation of this factor with variables such as spiritual health, emotional intelligence, religious orientation, health literacy and factors affecting the quality of life.

## CONCLUSION

In this study, most of the students participating in the ladies singles and the Medical School were also the negative attitude to drug use and quality of life of a significant positive relationship existed almost 22% Abuse tendency to addiction by a variety of subfields of quality of life caused.

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**Ethical Confirmation**: The present study is part of a research project with code 2211 and a code of ethics IR.UMSU.REC.1396.71 of the Ethics Committee approved by Urmia University of Medical Sciences, which has been approved by the Vice-Chancellor for Research of Urmia University of Medical Sciences.

**Conflict of interest**: There is no conflict of interest.

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#### REFERENCES

- McMillen T, Chow H, Das S, Dunbar SA, Babady N. Evaluation of the Aries Bordetella assay for detection and identification of Bordetella pertussis in nasopharyngeal swab specimens. J Clin Microbiol. 2019;57(5).18-24.
- 2. Sharma M. Theoretical foundations of health education and health promotion: Jones & Bartlett Publishers; 2016.
- Noroozi M, Ahounbar E, eddin Karimi S, Ahmadi S, Najafi M, Bazrafshan A, et al. HIV risk perception and risky behavior among people who inject drugs in Kermanshah, Western Iran. Int J Behav Med. 2017;24(4):613-8.
- Moradi G, Darvishi S, Asaadi L, Zavareh FA, Gouya M-M, Tashakorian M, et al. Patterns of drug use and related factors among prisoners in Iran: results from the national survey in 2015. The journal of primary prevention. 2020;41(1):29-38.
- Khalooei A, Mashayekhi-Dowlatabad M, Rajabalipour MR, Iranpour A. Pattern of substance use and related factors in male prisoners. Addiction & health. 2016;8(4):227.
- Lee Y, Kim J. Developmental patterns of substance use by gender and their relation to individual, parental, and peer factors. Criminal justice and behavior. 2017;44(11):1413-43.

- Martínez-Loredo V, Fernández-Artamendi S, Weidberg S, Pericot I, López-Núñez C, Fernández-Hermida JR, et al. Parenting styles and alcohol use among adolescents: A longitudinal study. European Journal of Investigation in Health, Psychology and Education. 2016;6(1):27-36.
- Chen P, Jacobson KC. Developmental trajectories of substance use from early adolescence to young adulthood: Gender and racial/ethnic differences. Journal of adolescent health. 2012;50(2):154-63.
- Kasten S, van Osch L, Candel M, de Vries H. The influence of pre-motivational factors on behavior via motivational factors: a test of the I-Change model. BMC psychology. 2019;7(1):1-12.
- Dabaghi P, Valipour H. Effectiveness of a multidimensional prevention program on reducing substance trends among young people. Addicta: The Turkish Journal on Addictions. 2016;3:77-85.
- 11. Jeihooni AK, Rakhshani T. The effect of educational intervention based on health belief model and social support on promoting skin cancer preventive behaviors in a sample of Iranian farmers. J Cancer Educ. 2019;34(2):392-401.
- Cao S, Liu N, Han W, Zi Y, Peng F, Li L, et al. Simplified Chinese version of the Forgotten Joint Score (FJS) for patients who underwent joint arthroplasty: cross-cultural adaptation and validation. J Orthop Surg Res. 2017;12(1):1-7.
- Douglas-De-Oliveira DW, Lages FS, Paiva SM, Cromley JG, Robinson PG, Cota LOM. Cross-cultural adaptation of the Brazilian version of the Dentine Hypersensitivity Experience Questionnaire (DHEQ-15). Brazilian oral research. 2018;32.
- Zandiyeh Z, Zare E, Mehrabi T, Shiri M. The effect of needoriented educational intervention on the general health of the elderly. Iran J Nurs Midwifery Res. 2017;22(1):51.
- 15. Kurnianingsih N, Ratnawati R, Yudhantara DS, Prawiro RBS, Permatasari M, Rachma H, et al. Association Between Time Spent for Internet Gaming, Grade Point Average and Internet Gaming Disorder Risk Among Medical Students. Research Journal of Life Science. 2018;5(3):140-8.
- Selic P, Cerne A, Klemenc-Ketis Z, Petek D, Svab I. Attitudes toward professionalism in medical students and its associations with personal characteristics and values: a national multicentre study from Slovenia raising the question of the need to rethink professionalism. Advances in medical education and practice. 2019;10:437.
- Silva Nunes P, Augusto Marinho T, da Silva Campanati FL, Pryscilla Silva N, Fortunato Pedroso C, Magalhães Nóbrega M, et al. QUALITY OF LIFE OF NURSING TECHNICAL COURSE STUDENTS. Journal of Nursing UFPE/Revista de Enfermagem UFPE. 2019;13.
- Sharifirad G, Arsangjang S, Rahiminia E, Rahiminia H. Assessment of Stress, Anxiety and Depression in Female Students Living in Dormitories of QomUniversity of Medical Sciences. Razavi International Journal of Medicine. 2017;5(4).18-23.
- Jones AA, Gerke T, Striley CW, Osborne V, Whitehead N, Cottler LB. A longitudinal analysis of the substance abuse, violence, and HIV/AIDS (SAVA) syndemic among women in the criminal justice system. J Psychoactive Drugs. 2019;51(1):58-67.
- Dabaghi P, HOSSEINISHOKOUH S-J, Shahrabadi R. Studying the Effectiveness of Prevention Training Program

of Drug Abuse on Reducing Risk Factors in Soldiers and Staffs. Romanian Journal for Multidimensional Education/Revista Romaneasca pentru Educatie Multidimensionala. 2018;10.

- Anisi J, Bahadori MH, Jahanbakhsh M. Developing and Validation of Identifying People in Risk of Addiction Questionnaire (IPRA). International journal of high risk behaviors & addiction. 2013;1(4):183.
- Group W. Development of the World Health Organization WHOQOL-BREF quality of life assessment. Psychol Med. 1998;28(3):551-8.
- Ziapour A, Kianipour N. Health-related Quality of Life among University Students: The Role of Demographic Variables. Journal of Clinical & Diagnostic Research. 2018;12(3).
- 24. Russell SN. Experiences of Parents of Self-Harming Adolescent Children. 2017.
- 25. Lu F-Y, Wen S, Deng G, Tang Y-L. Self-concept mediate the relationship between childhood maltreatment and abstinence motivation as well as self-efficacy among drug addicts. Addict Behav. 2017;68:52-8.
- Shrestha R, Copenhaver M. The influence of neurocognitive impairment on HIV risk behaviors and intervention outcomes among high-risk substance users: a systematic review. Frontiers in Public Health. 2016;4:16.
- Soltani R, Kafee S, Salehi I, Karashki H, Rezaee S. Survey the quality of life in Guilan university students. Journal of Guilan University of Medical Sciences. 2010;19(75):25-35.
- Amiri M, Raei M, Chaman R, Khamseh A, Rezaee N, MANOUCHEHRI MJ, et al. A study of the Life Quality of Students at a University of Medical Sciences in the Northeast of Iran. 2014.
- Salehi B, Mishra AP, Nigam M, Sener B, Kilic M, Sharifi-Rad M, et al. Resveratrol: A double-edged sword in health benefits. Biomedicines. 2018;6(3):91.
- Heydarabadi AB, Ramezankhani A, Barekati H, Vejdani M, Shariatinejad K, Panahi R, et al. Prevalence of substance abuse among dormitory students of Shahid Beheshti University of Medical Sciences, Tehran, Iran. International journal of high risk behaviors & addiction. 2015;4(2).
- Kushwaha RP, Rauniar GP, Koirala B, Mandal NK. Prevalence of substance use among undergraduate students in a medical college of Nepal. JNMA J Nepal Med Assoc. 2019;57(219):315.
- Talih F, Daher M, Daou D, Ajaltouni J. Examining burnout, depression, and attitudes regarding drug use among Lebanese medical students during the 4 years of medical school. Acad Psychiatry. 2018;42(2):288-96.
- Ahmadabadi S. Sports Activity and Smoking, Alcohol and Drug Abuse among Students. Annals of Applied Sport Science. 2018;6(1):47-56.
- 34. Othman N, Kasem AO, Salih FA. Waterpipe smoking among university students in Sulaimaniyah, Iraqi Kurdistan: prevalence, attitudes, and associated factors. Tanaffos. 2017;16(3):225.
- Assaf G, Noureddine S, Kouyoumdjian SP, El Khoury J. Medical students' knowledge, attitudes and behaviours related to substance use in Lebanon: a cross-sectional survey. Eastern Mediterranean Health Journal. 2017;23(11).