Resilience and Quality of Life among Students of Yasouj State University

[1]Amir Bastaminia, [2]Mohammad Reza Rezaei, [3]Mohammad Reza Rezaei, [4*]Yosef Tazesh

[1]*PhD Student in Geography and Urban Planning, Department of Geography, School of Humanities*
Yazd University, Yazd, Iran
[2]*Assistant Professor of Geography and Urban Planning Department, School of Humanities*
Yazd University, Yazd, Iran
[3]*Assistant Professor of Geography and Urban Planning, Islamic Azad University of Marvdasht*
Marvdasht, Iran
[4*]*PhD student in Geography and Urban Planning, Islamic Azad University of Yasouj, Yasouj, Iran*

ABSTRACT

Background: Study at the University, according to various stress can be associated with relative decline quality of life and depression, Resilience to act aggressively to restore themselves order to overcome traumatic situations. The aim of this present study determine the relationship between resiliency and quality of life in the State of Yasouj university students in 2015 was carried out.

Methods: This cross-sectional study on 338 students at the State University of Yasouj with random cluster sampling was conducted over a period of 8 months. Data collection tool in this study included Czech list of demographic data, the World Health Organization Quality of Life Questionnaire (WHOQOL-BREF) and Iranian species and resilience questionnaire Kunar, and Davidson (CD-RIS). Analysis of the results using the STATA 12 software by using descriptive and analytical statistics such as multivariate linear regression was conducted.

Results: The mean age of participants was 8.3 ± 24 years boys (6.4 ± 9.24), girls (8.2 ± 3.23). Among the four domains of quality of life, environmental health and physical health respectively lowest (3.22 ± 5.51) and highest (8.16 ± 2.69) to be allocated. The mean score of resilience total 17 ± 8.66 was estimated. Linear regression models showed that the resiliency of the significant role in determining the quality of life in general and its four dimensions ($p<0.001$).

Conclusion: In order to improve the quality of life of students, we need to provide greater knowledge and skills in the field of resilience, and this except by turning on of the students of these skills in his presence is not possible.

Keywords: resilience, quality of life, students

INTRODUCTION

Youth is a prominent stage of life and young students' mental health can positively affect social health and quality of life. Youth is regarded as the time between childhood and adulthood and young people experience emotional, behavioral, physical and socio-economic changes(1). Nowadays universities are trying to promote quality education and improve academic performance. So higher education researchers are investigating different variables associated with academic success and effective strategies to meet the educational needs of the students along with psychosocial matters(2). University life comes with various stress agents and depression which can decrease quality of life. As a society concerned about health and future generations, we need to investigate and eliminate precipitating and predisposing factors of stress which consequently leads to depression and reduced quality of life (3). According to WHO, QOL is social, mental and physical well-being. QOL is the Perceived health status of an individual based on one's cultural requirements, system of values, expectations and interests. Therefore, it can explain why people with a similar objective indicators, can have completely different mental states of QOL (4). University students are more vulnerable due to various factors such as being away from family, living in a dormitory, a more stressful social life, adapting to new people and cultures; all these issues can affect social health and QOL (5). Raphael states that some health parameters indicate personal, social and physical resources that an individual owns for achieving personal goals, satisfaction of his needs and adjustment to environment (6). One

of these concepts is resilience. Resilience is an active effort to recover, cope with the change, overcome a traumatic situation and resume life (7). Resilient people are able to make use of individual and social resources to manage adverse outcomes of stress (8). Recent studies have addressed five dimensions to resilience: 1.coherence with family, 2. coherence with social environment, 3. coherence with the physical environment, 4. coherence with a sense of inner wisdom, and 5. a supportive mindset that supports the individual's values. These dimensions enable individuals to develop appropriate coping skills in threatening and challenging situations. Resilient individuals are capable of internal control, empathy, positive self-concept, organization, and optimism. Personal qualities are indicative of the resilience process, and may lead to a healthy outcome for a traumatic situation. These qualities help traumatized individuals to effectively adapt and cope instead of showing vulnerability (9). Researchers are interested to know that how is it possible to maintain personal health and well-being in a challenging and dynamic environment. Longitudinal studies have indicated that psychological problems have considerable short- & long-term effects (10).

Although resilience is almost universal, it is very unlikely that all of us are resilient to the same extent, or environmental factors that lead to less or more resilience are the same for everyone. There are individual differences in inner strength, flexibility and adaptive management of life's hurdles (11). Considering the nature of student life, it is important to improve communication skills to maintain the QOL through different challenges, and there are no similar studies on students of Yasouj University. This study is designed to address the association between resilience and QOL among students of Yasouj State University in 2015.

METHODS

Study Population and Sampling

This is a cress-sectional analytical-descriptive study. The study population was all students of Yasouj state university in the 2013-2014 school year, which was about 6000. Sampling process took 9 months and the sample size was chosen based on cochran's formula. A sample size of 361 was calculated based on a type I error of 0.05 and p=q=0.5. 23 subjects did not answer the questions completely so 338 subjects' data were analyzed. Sampling method was multi-stage cluster sampling. At the first stage, 3 faculties were chosen out of 6 faculties at Yasouj university, namely: engineering, basic sciences and humanities. Next, 3 majors were chosen from each faculty at random. Finally, one class was selected and all the students were asked to complete the questionnaires.

Instruments and Data Collection

We Used 3 Questionnaires to Collect the Data:

1. *Demographic Information:* It included several personal variables: age, gender, marital status (single, married, divorced or widowed), degree (Associate's, bachelor's, master's degree or PhD), years of study, current accommodation (dormitory or non-dormitory), employment status (self-employed, employed, un-employed), average income (monthly), average family income (monthly), area of residence (residential infrastructure), the current number of family members, housing status (owner, rental, other), number of rooms available, length of stay in current house, first language (Persian, Luri, Other), health insurance (yes, no), type of health insurance (health care, social security, armed forces, petroleum and gas company, health), current chronic disease (yes, no).

2. *Connor-Davidson Resilience Scale: (CD-RISC-* It is a 25-item questionnaire designed to measure resilience level. The answers are five-point Likert (completely wrong, almost wrong, no idea, almost right, completely right) and scored zero to four. Total resilience score is the sum of all 25 questions, ranging from zero to 125. A higher score indicates higher resilience level and vice versa. A pilot study of the psychometric properties has confirmed both reliability and validity of the scale (12). Keihani et al. developed the Persian version in 2013. Cronbach's alpha and Spearman-brown split-half reliability coefficient for Iranian version are 0.669 and 0.665, respectively (13).

3. *Iranian version of the WHO Quality of Life-BREF (WHOQOL-BREF):* The brief QOL questionnaire of WHO is a shorter version of the original 100-question instrument (WHOQOL-100). There are 26 questions where the first and second questions evaluate the overall QOL and overall health status. The next 24 questions measure the following four domains of QOL: physical health (7 questions), psychological health (6 questions), social relationships (3 questions), and environment (8 questions). Each question is scored between 1 to five, so the total values of the domains are between 4 to 20; which is subsequently normalized to a standard value between 0 and 100. A higher score indicates a higher level of QOL (14). *WHOQOL* has an international

reputation and is translated and validated into over 40 languages worldwide. Nedjat et al. have reported the intra-cluster correlation coefficient and Cronbach's alpha of above 70% in all domains for the Persian version (15).

Prior to data collection, the aim and scope of the study was explained to the participants and each signed a written consent form. Statistical analysis was performed using SPSS version 20. Descriptive statistics such as frequency, mean and standard deviation (mean±SD) were employed. The assumptions were tested based on Pearson's correlation coefficient and linear regression with a 95% confidence level and significance level of 0.05.

RESULTS

Mean age of the participants was 24±3.8 (boys: 24.9±4.6; girls: 23.3±2.8). Most participants were girls (55.3%), single (89.1), living with their family (not at a dorm) (83.7%), unemployed (87.6%), owner of their houses (87.6) and covered by health insurance (80.8%). 89.9% were undergraduate students. The average income for the employed students was 13085710 IRRs (SD=10996310). Average area of students' houses was 228.4 m^2 (SD=123.7). Family sizes ranged from 2 to 9 with an average of 5.6 people. On average participants have lived in their current house for 14.5 years (SD=12.3). Regarding language, 5.6% talked in Persian, 92.9% talked in Luri, and 1.5 talked in other languages (Table-1).

Participants perceived their QOL in environment (51.5±22.3) and physical health (69.2±16.8) domains as the lowest and highest, respectively. Average resilience score of the sample was 66.8 (SD=17). Table-3 demonstrates a significant and positive correlation between resilience and general QOL and all its domains (P<0.001). In other words, results indicate that a higher level of resilience is associated with a higher level of QOL and vice versa. A linear regression analysis was performed to estimate general QOL and its 4 domains based on resilience score using linear regression. Findings confirmed that resilience can significantly verify QOL and its four domains (P<0.001) (Table-4).

Table1. *Descriptive statistics for demographic variables (n=338)*

Variable	Frequency	
	N	Percent
Sex		
Male	151	44.7
Female	187	55.3
Marital status		
Married	31	9.2
Single	301	89.1
Divorced	1	0.3
Widow	5	1.5
Education level		
Associate Degree	22	6.5
Bachelor's degree	304	89.9
Masters	12	3.6
The current accommodation situation		
Residential	55	16.3
Non-residential	283	83.7
Employed	42	12.4
Non-employed	296	87.6
Residential property status		
Owner	296	87.6
Tenant	28	8.3
Other	14	1.4
urrent chronic illness		
Yes	65	19.2
No	273	80.8
Health insurance coverage		
Yes	273	80.8
No	65	19.2

Table2. *Descriptive statistics for resilience, QOL and its domains (n=338)*

Variable	N	Mean	SD	Lowest	Highest
Resilience	321	66.8	17	11	100
Physical health	336	69.2	16.8	10.7	100
mental health	334	67.8	17.9	12.5	100
Social relationships	331	68.6	22.1	0	100
Environmental health	334	51.5	22.3	0	100
Quality of life	336	72.6	23	0	100

Table3. *Correlation matrix for resilience, QOL and its domains (n=338)*

Variable	Resilience	Physical health	mental health	social relations	Environmental health	Quality of life
Resilience	1.0					
Physical health	0.4 (p<0 .001)	1.0				
mental health	0.4 (p<0 .001)	0.6 (p<0 .001)	1.0			
social relations	0.3 (p<0 .001)	0.4 (p<0 .001)	0.5 (p<0 .001)	1.0		
Environmental health	0.5 (p<0 .001)	0.1 (p<0 .001)	0.2 (p<0 .001)	0.1 (p<0 .001)	1.0	
Quality of life	0.2 (p<0 .001)	0.4 (p<0 .001)	0.4 (p<0 .001)	0.2 (p<0 .001)	0.4 (p<0 .001)	1.0

Table4. *Effect of resilience on physical health, mental health, social relationships and environment domains of QOL using linear regression with enter method (N=388)*

Physical health domain						
Model	**Non-standardized coefficients**		**Beta**	**t**	**P-value**	**R2**
	B	**S.E**				0.1
Constant	43.1	3.4		12.5	0	
Resilience	0.3	0	0.4	7.8	0	
Mental health domain						
Model	**Non-standardized n coefficients**		**Beta**	**t**	**P-value**	**R2**
	B	S.E				0.2
Constant	36.1	3.7		9.7	0	
Resilience	0	0	0.4	8.8	0	
Social relationship domain						
Model	**Non-standardized coefficients**		**Beta**	**t**	**P-value**	**R2**
	B	S.E				0.1
Constant	41	4.7		8.6	0	
Resilience	0.4	0	0.3	6	0	
Environmental health domain						
Model	**Non-standardized coefficients**		**Beta**	**t**	**P-value**	**R2**
	B	**S.E**				0
Constant	48.1	5.06		9.5	0	
Resilience	0.04	0.7	0.3	0.6	0.5	
Total Quality of life						
Model	**Non-standardized coefficients**		**Beta**	**t**	**P-value**	**R2**
	B	**S.E**				0.08
Constant	46.3	5.0		9.1	0	
Resilience	0.3	0.0	0.2	5.3	0	

DISCUSSION AND CONCLUSION

QOL is a multi-dimensional concept, which covers all aspects of life such as health. It certainly is something more than just physical health but the feeling of health, satisfaction and self-esteem. Resilience is the ability to cope successfully with a traumatic life event. This skill will bring more satisfaction through stress management and improved mental health (16). That been said, this study evaluated the association between resilience and QOL of students.

According to the findings of the current study, mean resilience score among students is 66.8±17. In a study of Razi University students by Momeni and Shahbazi-rad in 2012, mean resilience score based on CD-RISC was 82.31±15.93 (16). In a study of high-school students of Saghez city in 2015, resilience score was 70.62±12.34 and 71.04±12.78 for girls and boys, respectively (17). It seems that some variables of resilience are dependent on not only skill, but also personality. That been said,

despite slightly lower resilience score of the current study, it is not possible to interpret the reasons as we have no information on individual personality traits of the participants.

Among the four domains of quality of life environment has the lowest and physical health the highest score. In 2013, Bijvand et al. addressed QOL among Medical students of Shahed University. They reported that social relationships have the lowest and physical health has the highest score (18). According to two studies, one in Ahvaz Azad University and one in northeastern Medical universities, students perceived their environment as the lowest and physical health as the highest domain of their QOL (19 & 20). Physical health management is more in one's own control compared to the environment, so it seems plausible to have a higher score of physical health.

Findings suggests a significant direct correlation of resilience with total QOL and all its domains, the more resilient an individual is the higher is the QOL score and vice versa. In a study of resilience and QOL among female teachers in Amol, a similar correlation was observed. Results indicated that spiritual quotient (SQ) and resilience could jointly explain 32% of variation in teachers' QOL and that resilience could predict teachers' QOL (21). In addition, a study of health system workers in Sarab City in 2010, have both reported a similar correlation pattern (22). In another study, which addressed determinants of QOL and resilience among female students of Buin Zahra Azad University in 2011, QOL was associated with resilience and differentiation. In addition, step-wise regression analysis showed that QOL was highly correlated with fusion with others (23). Moreover, studies of university students in Brazil and India have reported a positive correlation of resilience and QOL (24 & 25). Resilience improves adoptability regardless of threats. Additionally, resilient individuals can interpret negative emotions as positive, which improves mental health. As QOL includes life satisfaction, resilience can lead to optimism and then life satisfaction by affecting feeling and emotions. In some cases, it can even reduce stress, provide satisfaction and happiness, and improve QOL (16).

According to the results of this paper and the discussion above, resilience considerably affects students' QOL. It is worth noting that there are two aspects resilience, extrinsic and intrinsic. Here we recommend focusing on extrinsic traits and teaching skills. This can help students with a clearer perception of their ability to improve QOL and cope with hazards.

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