Original Article

The Resilience Levels in Nursing and Health Sciences Students

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Abstract

Background: Resilience appears to be an importantly accentual concept in conjuction with improving and changing world conditions in the recent times.

Aim: The aim of this study was to determine the resilience levels of undergraduate students in field of health sciences in a university.

Methods: This study is defined as a cross-sectional type. The universe of the research consists of 890 undergraduate students who study in field of health sciences at University in 2015-2016 term. 659 (%74) students who have agreed to participate in the research has been studied as sample. Personal Information Form and Resilience Scale were used as data collection tools. The students of 54,6% females and their age average was 20.98 ± 1.86. The resilience score average of students was found to be 183.09 ± 29.34. It was determined that the factors such as departments, classes, perceived parent attitudes and substance usage were effective on resilience levels of the students ($p < 0.05$).

Conclusion: It can be concluded that the resilience levels of undergraduate students in field of health sciences are not satisfactory.

Keywords: Psychological well-being, resilience, health education, university, students

Introduction

The rate of psychological problems which affect individuals increases together with globalisation and changing world in recent years. Resilience appears to be an importantly accentual concept in conjuction with improving and changing world conditions in the recent times (Oz & Bahadir-Yilmaz 2009; Oz et al., 2012; Tumlu & Recepoglu, 2013). Although many definitions have been made about the concept of resilience it is generally defined as the ability of an individual to adapt to highly adverse conditions by successfully overcoming these situations (Bahadir-Yilmaz, 2015; Bastaminia et al. 2016; Chen, 2016; McGillivray & Pidgeon, 2015; Oz et al., 2012; Ozer & Deniz 2014; Sabouripour & Roslan, 2015; Tumlu & Recepoglu, 2013). An individual who encounter with these serious conditions experience difficulties emotionally, mentally and physically but she/he can

effectively cope with these struggles and achieve to be a healthy individual at the same time (Bahadir-Yilmaz & Oz, 2015; Jacelon, 1997).

Undergraduate students in the field of health sciences try to struggle with their personal problems as well as they try to help the patients through their training to solve patient's problems by force of their health science education. It is strictly important that health sciences students should develop healthy behaviours and be able to cope with the problems they encounter due to this fact. Nevertheless, previous studies show that these students can not deal with stress effectively and they exhibit a desperate and surrendering attitude (Yildirim & Ekinci, 2005). Pidgeon and Keye (2014) states that psychological wellness is connected with awareness and resilience in their study with university students. Bastaminia et al. (2016) determined that resilience in university students

is an important factor that affect the life quality. It is revealed in another study that students have high levels of psychological problems whereas they show low perceived social support and resilience (Pidgeon et al. 2014). It was found in a study related with nursing students that 68.3% of the students own fears about experiencing a negative situation during clinical application (Bayar et al. 2009). It can be seen that students encounter many problems over the course of their lifes and are not fully aware of the solutions of those problems. These students constitute a risk group for developing a mental disease due to the fact that they are not able to cope effectively with these struggles.

All of the healthcare professionals come across with a large number of stress factors including time pressure, work load, multi-roles and emotional problems in their work life. Continual work place stress may cause exhaustion together with negative effects on physical and mental condition of health care personnel (McCann et al., 2013). It is inevitable that health care personnel can make contributions to resilience of individuals in society by means of their ability for solving the challenges confronted effectively and having high levels of resilience. Therefore, it is important to strengthen the resilience of students in field of health sciences. The intend of this study was to determine the resilience levels of undergraduate students in field of health sciences and effective factors related with resilience levels. The main objective of this study was to determine the resilience levels of undergraduate students in field of health sciences in a university.

Research Questions

Research Question 1 (RQ1): What are the resilience levels of undergraduate students who study in field of health sciences?

Research Question 2 (RQ2): What are factors which affect the resilience levels of undergraduate students who study in field of health sciences?

Methods

This study was conducted as a cross-sectional type research. It was applied on the undergraduate students of Mustafa Kemal University in 2015-2016 term. The universe of the research consists of 890 undergraduate students of the 2015-2016 term who study at the

1., 2., 3. and 4. classes of Nursing Department, Physical Therapy and Rehabilitation (PTR) Department and Emergency Rescue and Disaster Management (ERDM) Department. 659 (74%) students who have agreed to participate in the research has been studied as sample.

Data Collection Tools

"Personal Information Form" and "Resilience Scale" which include the sociodemographic properties of the students were used in this study for the collection of data.

Personal Information Form: A 11-question form that was prepared by the researcher through literature review was used (Bahadir-Yilmaz, 2015; Bastaminia et al. 2016; Chen, 2016; Gurgan, 2006; Oz et al., 2012; Ozer & Deniz 2014). Personal information form consists of questions which intend to determine the details of students such as age, gender, class, department of school, socioeconomic level of their family, existence of a chronical disease, substance usage, educational levels of parents and attitudes of parents

Resilience Scale: The scale was developed by Gurgan (2006). The five point likert scale includes 50 articles oriented to measure resilience levels of individuals. The scale does not have a breakpoint; high scores indicate the integrity of resilience. Validity and confidence tests of the scale was performed by Gurgan and Cronbach alpha value was determined as 0.87 (Gurgan, 2006). Cronbach alpha value was determined as 0.94 in this study.

Data Collection

Data were collected from students (n=659) who attend the lessons and agree to participate in the survey in related departments of the university between 10-25 May, 2016. Information about the research was presented by the researcher, informed consents of the students were provided, data collection forms delivered to students and forms filled up in 20-25 minutes at classroom environment. The institution's official permission and written informed consents of students were received for the research application. Ethics committee approval was received from Mustafa Kemal University Medical Faculty Ethics Committee for ethical conformity of the research at the same time.

Statistical Analysis

The data obtained from survey was assessed using SPSS 22.0 programme on computer environment. The frequency table of demographic properties of participants was prepared. The one-way variance analyses (ANOVA), Kruskal Wallis, Connover and Bonferroni Test at independant groups and average were used in statistical data asssessment. $p < 0.05$ level was regarded as statistically significant.

Results

Most of the students (%54.6) who participate in this study were females, 65.6% of them were between 17-21 (20.98±1.86) years old, 42.2% were studying in Nursing Department and 31.1% were 1st grade students. The students who have an elementary family structure have a rate of 92.0% and families of 72.1% have equal amounts of incomes and expenses. It was detected that mothers of 52.5% and fathers of 43.2% are primary school graduates and most parents (42.6%) display a protective attitude towards students. The students who state that they do not have a disease with ongoing treatment were 81.1% and the ones who do not use any subtance were 75.9% (Table 1).

The average score of student for resilience was found to be 183.09±29.34 (min=95.00-max=246.00). A statistically significant difference was detected between resilience scores depending on the departments of students. The advanced analyses comparison (Bonferroni Test) revealed that this difference arises from the students who study in Department of Emergency Rescue and Disaster Management (p<0.05, Table 2). A statistically meaningful difference was determined between resilience score averages of students according to their classes. The advanced analyses comparison (Bonferroni Test) showed that this difference arises from 4th grade students (p<0.05, Table 2).

A statistically meaningful difference was determined between resilience score averages of participant students regarding substance usage. The advanced analyses comparison (Connover Test) determined that this difference arises from the individuals who do not use any substance (p<0.05, Table 2). There was a statistically meaningful difference between resilience score averages of participant students according to the attitudes of parents. The advanced analyses comparison (Connover Test) revealed that this difference arises from students whose parents present a democratic attitude (p<0.05, Table 2). A statistically meaningful difference could not be detected between the factors such as gender, age, family structure, perceived socioeconomic level, chronical disease existence, educational levels of parents, educational levels of fathers and resilience score averages (p>0.05).

Discussion

The resilience score average of students was found to be 183.09±29.34 (min=95.00-max=246.00) in the study. Coskun et al. (2014) detected the resilience score averages as 190.06±32.85 in their research about the relationship between problem solving ability and resilience levels of university students. It was stated that the resilience scores of 1st grade nursing and midwifery students were 191.66±29.38 in the study of Bahadir, Yilmaz (2015). It can be inferred from the results of the study that the resilience levels of students are not satisfactory when it is considered that the highest score for the scale is 250.00.

A statistically significant difference which was found to be arised from the students who study in Department of Emergency Rescue and Disaster Management was detected between resilience scores depending on the departments of students (p<0.05, Table 2). A research stated that there was a correlation between the resilience scores of university students and the departments of those students. The resilience levels of those who study in departments of art were found to be low while scores of those who study in medical faculty and dentistry were higher (Coskun et al. 2014). It was detected that the resilience levels of students show differences according to the departments they study students who study in medical faculty and health sciences faculty have higher resilience scores compared with other students in another study (Bahadir-Yilmaz & Oz, 2015). Students who study in health sciences work on diseased individuals throughout their period of study. They have the mission of guiding to patients for solving their problems. Especially the students who study in Department of Emergency Rescue and Disaster Management, when the proparties of their department considered, undergo trainings related with more critical and stressful situations like natural disasters. It can be inferred that learning the ways to cope with critical situations

have positive effects on the resilience levels of these students.

A statistically meaningful difference which was found to be arised from 4th grade students was determined between resilience score averages of students according to their classes (p<0.05, Table 2).

Table 1 Sociodemographic Characteristics of Students

Personal information	n (659)	%
Department		
ERDM	125	19,0
PTR	256	38,8
Nursing	278	42,2
Gender		
Female	360	54,6
Male	299	45,4
Age (20.98±1.86, min=17 max= 31)		
17-21	432	65,6
22 and older	277	34,4
Class		
1	185	28,1
2	174	26,4
3	148	22,5
4	152	23,1
Family Structure		
Elementary	606	92,0
Extended	53	8,0
Economical Level		
Expenses More Than Income	110	16,7
Equal Income and Expenses	475	72,1
Income More Than Expenses	74	11,2
Educational Level of Mother		
Illiterate	106	16,1
Primary School	346	52,5
Secondary School	64	9,7
High School	113	17,1
College	30	4,6
Educational Level of Father		
Illiterate	22	3,3
Primary School Graduate	285	43,2
Secondary School Graduate	94	14,3
High School Graduate	145	22,0
College Graduate	118	17,1
Disease Existence with Ongoing Treatment		
Yes	120	18,2
No	539	81,8
Substance Use		
Smoking	86	13,1
Alcohol	57	8,6
Other Substance	16	2,4
None	500	75,9
Attitude of Parents		
Authoritative	40	6,1

Democratical		276	41,9
Protective		281	42,6
Unconcerned		10	1,5
Unbalanced-hesitant		52	7,9

Table 2. Resilience Scale Average Scores According to the Demographical Features of Students

Demographical Features	n	Scale $\overline{X}\pm$ SD	F/X^2	p
Department				
ERDM	125	189.94±28.90	*4.241	**0.015**
PTR	256	181.54±28.96		
Nursing	278	181.44±29.55		
Class				
1	185	184.85±29.48	*2.657	**0.048**
2	174	177.84±29.88		
3	148	184.06±28.40		
4	152	186.01±28.96		
Substance Use				
Smoking	86	176.98±29.74	**7.482	**0.038**
Alcohol	57	181.85±28.82		
Other Substance	16	172.87±32.95		
None	500	184.61±29.09		
Attitude of Parents				
Authoritative	40	174.47±26.42	**31.990	**0.001**
Democratical	276	189.16±28.74		
Protective	281	181.68±28.10		
Unconcerned	10	176.50±34.03		
Unbalanced-hesitant	52	166.42±32.28		

*One-Way Anova, **Kruskal Wallis

It can be seen that, as the case in this study, the final year students show higher levels of resilience when related studies analysed (Coskun et al., 2014; Gungormus et al., 2015; Oz et al., 2012). It can be concluded according to the previous studies that resilience levels of students scale up throughout education years when it is considered that resilience is a concept which can be developed during the term of education.

It was found that the participant students who do not use any substance have higher and statistically meaningful resilience score averages compared with substance-using students (p<0.05, Table 2). Johnson et al. (2011) found out that there was a negative correletion between alcohol usage and resilience in the research where they investigated the relationship between alcohol usage and resilience. Siquera et al. (2000) determined that smoking individuals experience higher levels of stress in comparison with non-

smokers. It was stated in another research that one of the reasons for starting to smoke for students is the fact that they regard the smoking act as a stress-management method (Kelleci et al., 2012). We can state that insufficient resilience can constitute a risk factor for negative behaviours in individuals like alcohol and substance use.

There was a statistically meaningful difference which was found to be arised from students whose parents with a democratic attitude between resilience score averages of participant students according to the attitudes of parents (p<0.05, Table 2). Gungormus et al. (2015) determined that there was a strong positive correlation between the psychological wellness levels of students and their perceived social support from family and it was stated in their study that the resilience increases with family support. Previous studies stated that being

concerned with their children, a constructive parent attitude, positive discipline practices and guidance during problem solving are the factors that affect the resilience levels of children and adolescents positively in the forthcoming years (Mayseless et al., 2003; Mutimer et al., 2007).

Conclusion

In conclusion, the highest score for the resilience scale is 250.00 in the results of the study. The resilience score average was found to be 183.09±29.34 for the students who included into the scope of this study. The resilience levels of students are influenced from sociodemographical features, educational departments, classes, substance usage and parent attitudes. It is estimated that a reassessment of the curriculums of faculties and colleges in field of health in consideration with sociodemographic properties which affect the resilience levels and reiteration of the studies related with this issue with higher number of participants, arrengement of instructional programmes in the light of these studies and organisation of experimental studies for the assessment of the effectiveness of these programmes with a broad participation would be beneficial in parallel with these results.

Limitations

This study is limited with the statements of Nursing Department, Physical Therapy and Rehabilitation Department and Emergency Rescue and Disaster Management Department of Mustafa Kemal University in 2015-2016 term undergraduate students who only included in the content of this research.

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