



Resilience and Subjective Well-being among survivors of Dengue Fever

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Abstract

The purpose of the study was to explore the relationship between resilience and subjective well-being among the survivors of dengue fever. It was hypothesized that there would be significant positive relationship between resilience and subjective well-being among the dengue fever. It was correlation study in which cross-sectional research design was used. The sample size was one hundred (N=100) survivors which comprises of fifty male and fifty female dengue survivors. The sample was drawn by using purposive sampling strategy which is a technique of non-probability sampling because it is the nature of population which is survivors so this type of sampling is helpful for recruit sample in the study. Two scales Trait Resilience Checklist (Hiew, et al 2000) and Subjective Happiness Scale (Lyubomirsky, 1999) were used to measure resilience and subjective well-being respectively. SPSS-20 was used to run statistical analyses. The results showed that there is significant positive correlation between resilience and subjective well-being among survivors of dengue fever. Furthermore, a significant gender difference was found on subjective well-being that males are happier than females. The results are discussed in the light of already existing literature.

Keyword: Resilience, subjective well-being,

1. Introduction

The present study investigates resilience and subjective well-being in survivor of dengue fever. It provides important information about how personality trait resilience correlates with patients' subjective well-being. Unfortunately there is strong probability that dengue fever might erupt in the form of an epidemic every year so clinicians should keep an eye on mental health along with physical health of their patients. Fear of dengue fever has an adverse impact on subjective happiness of dengue fever survivors. People are also influenced by the way the information related to the epidemic are demonstrated on different platforms such as media campaign and printed literature. In Pakistani scenario people have become very anxious for about outbreak of epidemic like dengue fever. As Pakistan is an under-developing country and literacy rate is not encourage able so they are in believe whatever is showing and telecasting on media. So public in general and people who recovered from dengue in special are in fear to catch into fever again. Hence this effected on their daily functioning and subjective well-being. So the current research examines how personality trait resilience related to subjective well-being.

Masten (1974), a developmental psychopathologist, defined resilience is an individual successful adaption to an adverse situation. Rutter (1987) said that there are different terms that are often used synonyms with resilience such as positive coping, persistence, consistency, resistance from problematic scenario, better functioning as compared to others in uncomfortable situation, adaption and long-term success despite difficult situation. Resilience is viewed as something that is foster throughout once development. Resilience can be classified into two types: state resilience and trait resilience. State resilience defines that the situation in which the characteristics of resilience produced while trait resilience means the resilience is a personality trait like others traits are (Hiew, et al 2000).

According to Diener (1984) broadly speaking there are three major categories of defining of subjective well-being and happiness. First, subjective well-being has been defined by external criteria such as virtue and success. Second, subjective well-being associated with life satisfaction and satisfaction of once goal and desire. Third, a person is happy who is experiencing positive emotion mostly during this period of life or person who has predisposition to such emotions whether he is experiencing these emotions right now or not. Lyubomiosky (2001) stated that well-being is an indirect happiness and peace of mind. Psychological wellbeing theory states that wellbeing is made of six paradigms: affiliation, independence, individual growth, and self-acceptance, aim full life, and environmental mastery (Ryff & Singer, 1998).

Dengue is a transmittable ailment that is spread through mosquitoes. Dengue usually cause muscle fatigue and pain, therefore, it is called break bone fever. Dengue fever becomes prominent after monsoon



(Rehman, et, al 2007). In Pakistan, dengue has been around for the past 20 years. The first major outbreak in Pakistan was reported in 1994–1995. The first case of dengue fever was reported in 1994 in Karachi. In 2007, first case of dengue fever was reported in Lahore. Since then cases are increasing at a rapid pace (Shamim, 2010).

Results reported by different researchers that there is significant positive relation between resilience and subjective well-being among survivors of dengue fever which means that those survivors who have personality trait resilience are more happy than those who don't have (Alishba, 2001; Watson & Shakhum, 2001; Rahmani, 2012; Lee, 2009; Trang, 2011; Ismail & Rafique, 2014; & Khalid & Malik, 2012). Researchers showed that there is significant gender difference exist on resilience among survivors of dengue fever (Khalid & Malik, 2012; Qasim & Jamal, 2013; Jabeen, 2012; & Ismail & Rafique, 2014). There are many other retrenches that concluded that there is significant difference exist on subjective well-being between males survivors and female survivors (Lum, et al, 2008; Martelli, 2008; and Khalid & Malik, 2012).

1.1 Rational of the study

Human beings through history have been affected by epidemic disease. Those who suffer from epidemics also face many psychological implications and unfortunately Pakistan is at high risk of being hit by epidemics because of many obvious reasons such as unsafe drinking water, poor sanitary system, less awareness, low literacy rate, un-cleanliness and dearth of vaccination trends. So these conditions promote spread of infection diseases and different forms of epidemics outbreaks in different sections of country. These epidemics affect public biologically as well as psychologically not only in sufferers but also in survivors. Special attentions should be given to promote their psychological well-being. So the current study investigates the relationship between resilience and subjective well-being in the survivors of dengue fever patients. The findings of this study provides important information about subjective well-being of survivors that will help psychologists and policy makers and all those who want to develop rehabilitation programs for effected populations. The present study is an attempt to study how dengue fever affected individuals' subjective well-being.

1.1.1 Hypotheses

1. There would be a significant positive relationship between resilience and subjective well-being among survivors of dengue fever.
2. There would be significant gender difference on resilience and subjective well-being among survivors of dengue fever.

1.2 Methodology

1.2.1 Participants

Purposive sampling technique used in this study which is a technique of non-probability sampling to recruited sample because it is easy to locate potential sample for study. Sample size was hundred (N=100) in the current study which comprises on fifty (n=50) males and fifty (n=50) females which was collected from different universities and different clinics of Lahore.

1.2.2 Inclusion Criteria

- People who were diagnosed with dengue fever and recover from it.
- The age range will 19-45 years.

1.2.3 Exclusion Criteria

- People who are diagnosed with dengue fever but not yet recover from it.
- People who recovered from dengue fever but still suffering from other disease.
- People recovered from any other disease will not be included,

1.2.4 Research Design

It is a co-relational study in which cross-sectional research design used.

1.2.5 Tool for Data Collection

Followings are the instruments that were used in the present study.

1. Trait Resilience Checklist (TRC)
2. Subjective Happiness Scale (SHS)

Trait Resilience Checklist (TRC)

Hiew's et al (2000) Trait Resilience Checklist will be used to measure trait resilience. This checklist consists of eighteen items that will describe the respondents as they were generally in their past. The respondent will rate each statement on a 5-point scale (from strongly agree = 1 to strongly agree = 5). It has two subscales named as inter-trait resilience and intra-trait resilience scale. Inter-trait resilience items are 1, 3, 5, 6, 7, 9, 14 and 16 while intra-trait resilience items are 2, 4, 8, 10, 11, 12, 13, 15, 17, and 18. The total aggregate of both scales

determined the level of resilience in subjects. The Chronbach's Alpha of inter-trait resilience is $\alpha = .94$ for the present research. The Chronbach's Alpha of intra-trait resilience is $\alpha = .95$ for the present research.

Subjective Happiness Scale (SHS)

Subjective Happiness Scale (SHS) was developed by Sonja Lyubomirsky in 1999. This scale is also known as General Happiness Scale. This scale consists of four items and each item has seven options (1= not at all to 7= a great deal). In this scale item number 4 is reverse coded. Average score of the four items is an individual score. The maximum score is 7. The average happiness score is runs from about 4.5 to 5.5. The Chronbach's Alpha of subjective happiness scale is $\alpha = .89$ for the present research.

1.2.6 Procedure

Initially, the constructs, population, sampling technique, sample size and tools to measure constructs are finalized with supervisor. Secondly, due permission is sought from authors of the scales to use and translate their scales in this study via email. Thirdly, the selected measures were translated in Urdu. MAPI guidelines were used for translation. Committee method was used for translation. Five drafts were prepared of translation the mean age of the experts were twenty six years and mean education were master. Then these drafts presented in front of committee and consensus was brought and then final translated version was ready. Then, researcher tested the translated versions on a sample of fifteen participants. Researcher personally approach to selected sample and explained the purposive and nature of the study and requested to them to participate in the study and requested them that please write any recommendation regarding any difficulty to them in understanding of translated versions.

Then after pilot study the researcher approached the selected sample and explained them the nature, purpose and duration of the study and also explained them their rights to participate in the study. Their informed consents were taken and ensured them that their information will keep in secret and their information will only be used for research purposive. Then, those people who are motivated were included in sample and all others discarded from sample. Then, three scales, Trait Resilience Checklist, Kessler Psychological Distress Scale and Subjective Happiness Scale along with demographic sheet filled from them at their convince time and place. Demographic information sheet was prepared on the basis of previous literature. The process of data collection took almost three weeks. It was requested to all participants that they filled the questionnaires on the spot and return the researcher. Researcher was present to answer any query to the sample. After the collection of data the participants thanked and acknowledged by researcher for their priceless contributions in the study.

1.2.7 Statistical Analysis

Data was analyzed on SPSS-20. Initially the reliability analysis was used to determine reliability of the scales for present sample. Then, descriptive statistics obtained. Hypothesis of the present study were investigated by using Person Product Moment Correlation and Independent Sample t-test.

1.2.8 Ethical Consideration

The written permission obtained from authors to use and to translate their scale in the present research. The consent of participants also be taken by the researcher and attached in Appendices.

1.3 Results

The current research was aimed to investigate relationship among resilience and subjective well-being in dengue survivors. Two scales and one demographic information sheet were used for the collection of data. Different tests were used for analysis of data. Reliability was determined for all scales that were used in this study for present sample. Descriptive statistics were used for the calculation of demographic variables. Results were shown in the following tables.

Table 1

Psychometric analysis of scales (N=100)

Scales Name	Alpha	Item No	M(SD)
Resilience Checklist			
Inter-resilience	.94	08	23.51(7.14)
Intra-resilience	.95	10	29.11(9.19)
Subjective Happiness Scale (SHS)	.89	04	15.65(3.12)

Note. α = reliability coefficient, M= Mean, SD= Standard Deviation

Table 1 showed the reliability coefficients of Resilience Checklist and Subjective Happiness Scale. The reliability values of assessment measures were significant enough to carry on further analysis in accordance with the present research hypotheses.

Table 2

Descriptive Statistics of Demographic Variables (N=100)

Variables	M(SD)	n(%)
Age	31.74(6.45)	
Gender		
Men		50(50)
Women		50(50)
Family Structure		
Joint Family Structure		28(28)
Nuclear Family Structure		72(72)
Attack of dengue		
One time		57(57)
More than one time		43(43)
Treatment from		
Government Hospital		76(76)
Private hospital/ Clinic		24(24)

The results given in the table 2 indicates that there were 50 men and 50 women participants of present research. The age range of the participants was from (19-45) ($M=31.74$, $SD=6.45$) years. Further 28% participants were living in joint family structure, while 72% of participants were living in nuclear family structure. Similarly from the sample 57% participants experienced dengue fever one time and 43% suffered from dengue fever more than once. The above table further showed that the majority of sample got treatment from government hospitals as the frequency was 76% while 24% got treatment from private hospitals or private clinics.

It was hypothesized that resilience is likely to be significantly positive correlated with subjective well-being and negative correlated with psychological distress. Pearson Product Moment Correlation was used to test these relationships that are given below in table 3

Table 3

Summary of Inter-correlations, Means, and Standard Deviations for Resilience and Subjective Well-being.

Variables	1	2	<i>M</i>	<i>SD</i>
1. Resilience	-	0.80**	52.62	16.11
2. Subjective well-being	-		15.85	3.12

Note; ** $p < .001$, M = Mean, SD = Standard Deviation

Results of Pearson product moment correlation analysis revealed that resilience significantly positively correlated with the subjective well-being at $p < .001$.

It was hypothesized that there is likely to be gender difference on resilience and subjective well-being in dengue survivors. Independent Sample T-Tests were used to test these differences and they are given below in table 4.

Table 4

Independent Sample T-Test between Male and Female on resilience and subjective well-being (df=98).

M	SD	T	P
Resilience			
Males (50)	55.18	17.7	
		1.6	.113
Females (50)	50.06	14.01	
Subjective well-being			
Males (50)	16.8	3.5	
		3.8	.000
Females (50)	14.5	2.1	

Note. M = mean; SD = standard deviation; T= t test value; P= Significant value

Table 4. indicates that there was significant gender difference in subjective well-being ($t(98)=3.8, p>.000$) and also showed that men are more score on subjective well-being as compared to women. Moreover, the table showed that there is no significant gender differences exist on resilience.

1.4 Discussion

The first hypothesis of the study was that there would be significant positive relation between resilience and subjective well-being among survivors of dengue fever. To check this relationship Pearson Product Moment Correlation analysis was used. The result of present study showed there is significant positive relation between resilience and subjective well-being in survivors of dengue fever. So the result supports the study hypothesis. This result is consistent with those of Rahmani (2012), Lees (2009), Trang (2011), McGarry, et al (2013), Khalid and Malik (2012). There is no single study that produced the opposite results that there is negative relation between resilience and subjective well-being. The reason may be is that both variables, resilience and subjective well-being, are positive in nature. So these constructs produced positive results in almost every condition.

The second hypothesis of this study was there would be significant gender difference on resilience and subjective well-being among survivors of dengue fever. To assess these relationships Independent Sample t-tests were run. The result of each analysis is discussed here. The result of present study showed that there is not significant gender difference on resilience among survivors of dengue fever. This means that the scores of males and females are same on resilience. So the hypothesis of the present study was rejected. There are many researches that produced the same results that there is no significant gender difference exist on resilience. Some of the researches are Rahmani (2012), Lees (2009), and Trang (2011). While on the other hand Jabeen (2012) produced the opposite results that there is significant gender difference on resilience. She further reported that the level of females is less on resilience as compared to males. The reason may be is that males are to face the difficulties of life and the hardships of the lives. While on the other hand the women play passive role in their lives. In the same line Khalid and Malik (2012) reported that resilience is more in males as compared to female. So this result is also different and contradicts to the present study. The reason may be is that the populations of both studies are different. Khaild and his colleague research on the population of survivors of earthquakes while the present study was on the population of survivors of dengue fever.

The next main findings of the study was the there is significant gender difference exist on subjective well-being among the survivors of dengue fever. The third part of fifth hypothesis was that there would be significant gender differences exist on subjective well-being. So this part of hypothesis is accepted. There are a number of studies that claimed the similar results as well as there are many other studies that results are opposite in relation with the current study. Both sides of the picture are discussed here. Initially those studies are discussed that produced the same results that there is significant gender difference on subjective well-being. Lum, et al (2008), Martelli (2008), Suarez, et al (2004), and Khalid and Malik (2012). While on the other hand Anwar (2012) holds that the level of subjective well-being is same in both genders. Different reasons

are discussed here why there is significant difference exist on subjective well-being between males and females. One possible explanation is that there is much difference in environmental factors in Pakistan and other developed countries. Secondly, the level of awareness is different in both cultures. Thirdly, the literacy rate also effect the general well-being of individual as it was told that education is a social instrument that guide the future and destiny of individuals. Fourthly, the equality of gender is a significant factor. In developed cultures the women are consider equal to men. While on the other hand in under developing countries the women emancipation is still a dream. Fifthly, in under-developing the women are considering a passive creature to take part in daily affairs. While in developed countries the women are considering an equal partner in daily life.

1.4.1 Recommendation of Future Researches

1. In future studies the data should be collected from all possible cities of Pakistan where the problem of dengue is up to the mark.
2. Try to recruit the sample from all possible socio-economic status.
3. Try to avoid asking very personal questioners.
4. Try to use indigenous tools for data collection.

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