

## **Psychological Well-being as a Predictor of Resilience Among University Students**

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The concept of psychological well-being and resilience shares common psychological features involved in positive human functioning. The theoretical dimensions of psychological well-being are deeply rooted in the philosophical approach to humanistic, existential, developmental, and clinical psychology. The present study was aimed to examine the predictable relationship of psychological well-being and resilience among undergraduate university students of Karachi. Secondly, it differentiates the functioning of male and female university students on the construct of psychological Well-being and resilience. The sample was comprised of 300 undergraduate students, purposively selected; with a mean age of 21.89 years belong to different universities of Karachi. The Scales of Psychological Well-being (Ryff, 1989) and The Connor-Davidson Resilience Scale (Connor & Davidson, 2003) were used as measures of this study. Findings indicated that psychological well-being was positive predictor of resilience. In the Scales of Psychological Well-being, the domain of autonomy and environmental mastery were the significant positive correlates of resilience. In addition, psychological well-being and resilience were found to be greater among female students as compared to male students. The findings of this study provide implications for positive education that enables students to robust their strengths and capabilities to increase their well-being and effective management of university life challenges.

*Keywords.* Psychological well-being, resilience, university students

In general terms, psychological well-being is associated with the experience of joy, health and prosperity. It consists of having high life satisfaction, purpose in life and good mental health (Davis, 2019). Burn (2016, p.1) has defined psychological well-being as “inter and

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intra-individual levels of positive functioning that can include one's relatedness with others and self-referent attitudes that include one's sense of mastery and personal growth".

Ryff and Singer (2008) presented six dimensions based psychological well-being model, namely; positive growth, purpose in life, self-acceptance, autonomy, positive relationships and environmental mastery. Each of these domains provides the actual essence to understand well, healthy, and fully functioning person. Ryff (1989) conceptualized these dimensions and summarizes the prior literature of positive psychological functioning. These theories include; Roger's (1961) concept of a fully functioning person, Maslow's (1970) concept of self-actualization, the concept of individuation by Jung (1933), and the concept of maturity by Allport (1961). Apart from these theories, Ryff's (1989) dimensions of psychological well-being also follow the developmental perspective of life span, which focuses on the idea of facing certain challenges and difficulties at different developmental stages of life. These developmental stages include psychosocial development by Erikson (1963), basic life tendencies by Buhler (1935), executive processes of personality by Neugarten (1968), and Jahoda's (1958) criteria of positive mental health. In the realm of positive psychology, the concept of psychological well-being has been analyzed with various other constructs such as life satisfaction (Park & Jeong, 2015), coping strategies (Fredrickson, 2001), personality traits (Sharp & Theiler, 2018), internal locus of control (Martoncik, 2019), resilience (Noble & McGrath, 2013), and so on.

Cultivating psychological well-being and resilience among university students is an important growing area of interest globally (Pidgeon & Keye, 2014). However, both are multi-dimensional terms (Dodge, Daly, Huyton, & Sanders, 2012). The origin of resilience is from the human adaptation system. In general terms, resilience is characterized as positive adaptation in a situation of adversity (Synder & Lopez, 2007). The definition of resilience is surrounded by many controversies and diversities. It is defined as a process (Panter-Brick & Leckman, 2013; Windle, 2011; Zautra, Hall, & Murray, 2010), outcome (Bonanno, 2004; Masten, 2018), and personality trait (Block & Block, 1980). Despite all of these differences, in general terms, most of the definitions of resilience describe it as overcoming risk factors and demonstrating positive emotions and behaviour in a situation of adversity (Noble & McGrath, 2013).

The broaden-and-build theory of positive emotions suggested that experiencing positive emotions facilitates building resilience. Experiencing positive emotions about self and others serves as a

resource to cope with a stressful situation (Fredrickson, 2001). Despite, their different channelization there are many research (Bonanno, 2004; Csikszentmihalyi, 1975; Dodge et al., 2012; Kumpfer, 2002) that consider resilience and psychological well-being as balancing between ones' bio-psychosocial resources and challenges.

Various empirical evidences (Gartland, et al., 2019; Herbert, Leung, Pittman, Floto, & Afari, 2018; Matud, López-Curbelo, & Fortes, 2019; Naz, Saeed, & Muhammad, 2017) have associated psychological well-being and resilience with multiple socio-contextual components such as gender, age, socio-economic status, ethnic group, and environmental stressors. Assessment of psychological well-being and resilience with reference to gender yield diversified findings across the world (Dasti et al., 2018; Dowthwaite, 2018; Manandhar, Hawkes, Buse, Nosratid, & Magar, 2018). Sun and Stewart (2012) and Sahar and Muzaffar (2017) found greater level of resilience among females. They found females at better level of expressing positive emotions and maintaining positive interpersonal relationship in their surroundings as compared to males. On contrary, researches (Masood, Masud, & Mazahir, 2016; Naz et al., 2017) conducted in the context of Pakistan finds males at increased likelihood of resilience and inner strength.

With reference to psychological well-being, Ryff (1989) asserts that there is significant corresponding between gender and psychological well-being. On the construct of The Scales of Psychological Well-being, Ryff (1989) find females elevated on the domain of positive relations with others and personal growth. Shuakat, Ayub, and Tarar (2021) found males on the advantage of greater mental well-being and social identity. On the other hand, the indigenous research evidences (Akram, 2019; Özü et al., 2017) on the same measure by Ryff (1989) do not find any significant difference in the psychological well-being of males and females.

Mental health is a vital component of health and according to World Health Organization (2021), mental health is a state of well-being that enables a person to realize one's potentials, able to effectively manage daily life stressors, work productively and can actively participate in his or her society. The mental health of university students is an alarming public health matter worldwide. There are researches (Sharp & Theiler, 2018; Stallman, 2010) that have compared university students with the general population of the same age and found university students at increased risk of mental problems. The prevalence and severity of psychological distress are much higher among university students (Sharp & Theiler, 2018). Such

as, Australia found 83.9% distress among university students as compared to the general population that is 29% (Stallman, 2010).

Similarly, in context of Pakistan, Khan and Chaudary (2014) identified that 79% of university students are suffering from high levels of stress. Low academic achievement (Aideed, Abeera, & Bajwa, 2019; Naseem, Naz, & Zehra, 2019), study and family life balancing (Aideed et al., 2019), financial constraints (Khan & Chaudary, 2014), being female (Hakami, 2018), and the age of 18 to 34 years are associated risk factors of psychological problems among university students (Sharp & Theiler, 2018). Moreover, apart from university life stressors, Pakistani students also face many other types of stressors, like global warming or climate change, conveyance hurdles, political crisis and gender discrimination (Siddiqi, 2012). Therefore, researchers (Hakami, 2018; Pidgeon & Keye, 2014; Pranjić, 2018; Sharp & Theiler, 2018) have placed emphasis on the need to assess and develop programs for the students' well-being and resilience for effective management of challenges and demands of university life.

Education is one of the key features for any country's progress and development. Thus, advancement and development is educational sector or in universities serves as the step for the progress of nation (Siddiqi, 2012). In recent years, positive education of students is a widespread topic of research and most of the researches are conducted on school going population and university sector or higher education system is an underscore area of research in this field. At student level, they are not provided with the resources in which they can identify and explore their talents and real potentials (Pranjić, 2018). When a child enters into the period of adulthood, they face certain psychological conflicts such as existential crisis, identity conflicts, autonomy needs and so on. At the same time, they also get demands from family to complete education, taking responsibilities and maintaining adequate interpersonal relations with family members (Noble & McGrath, 2014). Similarly, Javed (2020) also confirms this phenomenon of adulthood crisis in Pakistani university students. According to a recent systematic review (Hernández-Torrano et al., 2020), targeting various geographical contexts, assessment of Well-being and mental health of university students is a widely conveyed implication for future researchers before planning any program for positive education of university students. Overall, in the light of above provided literature and evidences, it appears that the nexus between psychological well-being and resilience is one of the important topics in the trajectory of positive human development particularly in the context of academic life.

Therefore, the focus of the present study is two-folded. At primary level, this study examines the predictive relationship between psychological well-being (predictor) and resilience (outcome) among university students of Karachi. Secondly, it also differentiates the functioning of male and female university students on the construct of positive functioning that is psychological well-being and resilience. It was hypothesized that psychological well-being (or the specific domain of psychological well-being) would predict resilience among university students. In addition, there would be a significant gender difference on the constructs of psychological well-being and resilience.

## Method

### Sample

It was a cross-sectional analytical study and the sample of this study was comprised of 300 undergraduate university students, among which 90 (30%) were male and 210 (70%) were females. The age range of participant was 18 to 30 years old with a mean age of  $21.89 \pm 2.28$ . Participants were approached by using purposively sampling technique, that is, only undergraduate university students were targeted.

Table 1

*Demographic Characteristics of Participants (300)*

Characteristics	<i>f</i>	%
<b>Gender</b>		
Male	90	30.00
Female	210	70.00
<b>Education</b>		
13 years of education	62	20.70
14 years of education	53	17.70
15 years of education	106	35.30
16 years of education	79	26.30
<b>Employment status</b>		
Working full-time	35	11.70
Working part-time	66	22.00
Not-working	199	66.30
<b>Family system</b>		
Nuclear	251	83.70
Joint	49	16.30

Data was collected from two well-known universities of Karachi (University of Karachi and Jinnah University for Women). Data was

collected from various departments of both universities by following ethical considerations. Data was collected from only those participants who consented to participate in the study, enrolled in any particular undergraduate university program and have spent at least three months in university.

## Measures

**Scales of Psychological Well-being.** The Scales of Psychological Well-being (Ryff, 1989) are based on 6 domains: 1) self-acceptance; 2) purpose in life; 3) environmental mastery; 4) personal growth; 5) positive relations with others, and 6) autonomy. Each domain contains 9 items and the total numbers of items were 54. The presentation format of the questionnaire is self-rating and presented by mixing the items of all domains successively. In this questionnaire participant is asked to respond on six-point rating scale in which 1 = *strongly disagree* and 6 = *strongly agree*. In every domain there are some items to be scored negatively; however, there is no cut-off score to determine the level of psychological well-being. On current sample of the study the Cronbach alpha value for the overall Ryff's Scales of Psychological Well-being ( $k = 54$ ) was found to be .82. The alpha value of Ryff's Scales of Psychological Well-being indicates its suitability in the context of Pakistan.

**The Connor-Davidson Resilience Scale.** The Connor-Davidson Resilience Scale (Connor & Davidson, 2003) is a self-rating 25 items scale. In this scale respondent is required to mark their feelings five-point rating scale (0 to 4) which is characterized as 0 = *not true at all* to 4 = *true nearly all the time*. There is no subscale and reverse scoring items and cut-off score in this scale; therefore, the continuum of high and low resilience is based on the high and low scores on this scale. In the present study the Cronbach  $\alpha$  value of this scale was .87 that suggest its appropriateness in the context of Pakistan.

## Procedure

The process of data collection was started by taking the permission of the concerned higher authority of different departments and the Dean of concerned faculty. After the approval of permission, participants were approached individually by the researcher. At the initial level participants were introduced with the informed consent form in which they were briefed about the research purpose and their volunteer participation. Participants were provided with the assurance of data confidentiality and the right to refuse or withdraw from the research at

any step. After the verbal and written consent of participants, they were introduced with the demographic form and research measures. After the process of data, collection scoring was done by following the standard measures of particular scales.

## Results

To examine the predictable relationship of psychological well-being with resilience linear regression was applied (Table 2). Results pointed out that psychological well-being is a significant predictor of resilience ( $R^2 = .18$ ,  $t = 8.10$ ,  $p < .05$ ) and the total explained variance in resilience is 18.1%.

Table 2

*Summary of Linear Regression for Predictable Relation of Psychological Well-Being with Resilience (N = 300)*

Predictors	<i>B</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>
Constant	6.12	7.14		0.52	.60
Psychological well-being	.27	.033	.42	8.10	.00

$R^2 = .18$ , Adjusted  $R^2 = .17$ ,  $p < .00$ .

The six dimensions of psychological well-being were also analyzed to examine the predictability of resilience (Table 3) and it appeared that autonomy ( $B = .49$ ,  $p < .00$ ) and environmental mastery ( $B = .46$ ,  $p < .05$ ) are significantly correlated to resilience and the total explained variance in the model is 20.3%.

Table 3

*Summary of Multiple Regression for Predictable Relation of Scales of Psychological Well-Being with Resilience (N = 300)*

Predictors	<i>B</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>
Constant	3.74	7.20		0.52	.64
Positive relations with others	.17	.14	.07	1.23	.28
Autonomy	.49	.17	.17	2.78	.00
Environmental Mastery	.46	.19	.15	2.36	.01
Personal Growth	.32	.17	.11	1.88	.06
Purpose in Life	-.10	.15	-.04	-0.65	.51
Self-Acceptance	.33	.17	.12	1.90	.05

Notes.  $R^2 = .20$ , Adjusted  $R^2 = .18$ ,  $p < .05$ .

To identify the gender difference with respect to the constructs of psychological well-being and resilience Independent sample *t*-test was

applied. Results show that (Table 4) female participants scored significantly higher on the scale of resilience as compared to male participants. Similarly, on the construct of psychological well-being females were on the advantage of scoring significantly high as compared to males. Sub-domain analysis of the Scales of Psychological Well-being indicated female participants scored significantly high on all domains except autonomy as nonsignificant gender difference was observed on this domain of psychological well-being.

Table 4

*Gender Differences on Psychological Well-Being and Resilience (N=300)*

Variables	Male	Female	<i>t</i> (298)	Cohen's	
	( <i>n</i> = 90)	( <i>n</i> = 210)		<i>p</i>	<i>d</i>
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )			
Resilience	59.46(15.44)	65.57(14.45)	-3.28	.00	.41
Psychological Well-Being	203.36(24.29)	216.08(22.12)	-4.43	.00	.58
Positive Relations With Others	34.44(5.74)	36.42(6.56)	-2.47	.01	.38
Autonomy	33.71(5.02)	34.76(5.21)	-1.61	.10	.11
Environmental Mastery	34.36(4.98)	35.78(4.96)	-2.26	.02	.35
Personal Growth	32.37(5.78)	35.09(5.28)	-3.96	.00	.47
Purpose in Life	32.97(6.06)	36.14(5.82)	-4.26	.00	.55
Self-Acceptance	35.51(5.36)	37.90(5.58)	-3.43	.00	.45

## Discussion

The present study was aimed to examine the predictable relationship of psychological well-being with resilience among university students of Karachi. Findings of this research support the formulated hypotheses and highlight the point that resilience is significant predictor of psychological well-being among university students of Karachi. The subdomain analyses of The Scales of Psychological Well-being indicated that the domains of autonomy and environmental mastery are significant correlates of resilience. Moreover, this research finds significant gender difference in the psychological Well-being and resilience of university students.

In general, this outcome validated the idea that students who were able to realize themselves along with their true potentials, openness to experience, and adequate relationships with others can adapt well in their environment during the adverse situation. The findings of the present research are consistent with the local and international research evidences (Bano & Pervaiz, 2020; Dasti et al., 2018; Färber



& Rosendahl, 2018; Poole, Dobson, & Pusch, 2017; Sohail & Ahmed, 2021) that support the correlation between psychological Well-being and resilience and association of increased resilience with decreased frequency of psychological disorders. According to a recent research (Sohail & Ahmed, 2021) optimal level of resiliency is significant predictor of psychological well-being among young population.

Findings of present research support the literature of broaden-and-build model of positive emotions by Fredrickson (1998). According to this model fostering positive emotions is directly related to coping successfully with negative events or adversity (Fredrickson, 2001). This theory suggests that development of resilience is well contributed by the components of well-being. Fredrickson (1998) urged that positive emotions are the main asset of trait resilience, because positive emotions bring modification in one's thinking, coping and socialization pattern.

Moreover, the findings of present research also contribute to providing an important understanding of the predictable relationship between psychological well-being and resilience from the perspective of Erikson's psychosocial developmental stages (1950). In which the stage of identity vs. confusion that is concerned with changing and challenging internal and external environment. Erikson's identity theory (1963) points out that individuals having a strong sense of identity are more likely to develop psychological health as compared to those who are confused and lack a sense of identity (Balgiu, 2017; Diasa & Cadimeb, 2017). The sub-domain analysis of The Scales of Psychological Well-being revealed that among the six dimensions of psychological well-being it is autonomy and environmental mastery that makes a person to adapt well in the situation of adversity. Same findings were also revealed in another local study conducted in Punjab University (Dasti et al., 2018). According to Ryff (1989) environmental mastery is a sense of competence or mastery over the environment in which a person makeup the environment according to one's mental capabilities. Psychological constructs of self-efficacy and sense of control are also functionally equivalent terms of environmental mastery (Ryff & Singer, 2008). Autonomy is described as the ability to resist environmental pressure with a sense of independence and self-determination. It is related to regulating one's behaviour by following personal standards (Ryff, 1989).

Age could be another moderating factor for the development of resilience and psychological well-being because, a research finds the highest psychological well-being in the age group of 20-35 years as compared to middle and old age group. They scored significantly high on the domains of autonomy, positive relations with others, personal

growth, purpose in life and self-acceptance (Pervaiz & Malik, 2021). Sagone and Caroli (2014) also found environmental mastery as a predictor of resilience among late adolescents and among middle age adolescents; the predictability of resilience was associated with personal growth, self-acceptance and environmental mastery. So it might be assumed that age is an intermediating factor between psychological well-being and resilience. It is observed that old age people perceive themselves as challenged because of physical and psychological limitations. They do not feel them to be threatened by life stressor rather they cope with adversities with life time experiences and social support (Wiles et al., 2019).

Findings of the present research support the second hypothesis and identify significant gender difference in the psychological well-being and resilience of university students. Findings of the present research corroborate the findings of Matud, López-Curbelo, and Fortes (2019), Pervaiz and Malik (2021) and the original research of Ryffs' (1989) that signify gender differences in the phenomena of psychological well-being. To assess health and well-being, gender is considered as one of an important social determinant. Empirical evidences indicate that psychological well-being and resilience are culturally influenced variables. Because both gender vary in their attributes, cognition and behavior as per their cultural demands and values (Manandhar, Hawkes, Buse, Nosratid, & Magar, 2018) .

This research finds female on the advantage of scoring high on the constructs of psychological well-being and resilience that contradict with many other researches (Masood et al., 2016; Naz et al., 2017; Shaukat et al., 2021). However, the recent data of World Health Organization (2021) further broaden the present research findings and report enlarged life span of females as compared to males and females tend to live 6 to 8 years greater than males and their overall life expectancy is more than 80 years.

Indigenous research also report females as emotionally intelligent as compared to males (Bibi, Saqlain, & Mussawar, 2016). Empirical evidences (Abbruzzese, Magnani, Robert, & Mancuso, 2019; Dowthwaite, 2018) from neuro-biological perspective provide explanation for emotional understanding and expressing positive emotions (e.g. empathy, prosocial behavior, maintaining positive interpersonal relationships) among females. Research (Dowthwaite, 2018) suggests that young females are quick and better in recognizing one's emotions than middle age females and males. Females use mirror neurons that are responsible for understanding intense emotions among people. Moreover, it is also observed that the incidence of life threatening disease (such as heart disease and cancer) is comparatively

less among females. They also do not get involved in risk taking behaviors like aggressive outburst, smoking and substance abuse (Hays, 2018). Decreased level of resilience and psychological well-being among males could also be due to high incidence of depression among male university students. According to the World Health Organization (2021), recent update about suicide most of the suicide cases across the globe are reported in the middle and low income countries. The prevalence rate for committing suicide before the age of 50 years is 58% and the ratio of committing suicide is 2.3 time greater among males in comparison to females. With respect to university population in Pakistan, the suicide rate among youngsters is 22% and the major identified factor include poverty, academic stressors and relational problems (Shakeel, 2019).

### **Limitations and Suggestions**

This research is walled with some limitations that are important to consider while evaluating the results of the present research. This research aimed to evaluate resilience as an outcome variable in response to psychological well-being dimensions proposed by Ryff (1989). However, some other variables are also the correlates of resilience such as, social support, personality dispositions, and early childhood experiences, and so on. It is the possibility that they might influence the predictability of resilience and are not addressed in the present research. Secondly, in this research, the data collection tool is a self-report questionnaire that might contaminate result with response bias. Moreover, most of the participants in this study were females that also put a limitation on the generalizability of the results.

### **Implications**

The findings of this research provide an important implication for educational institutions to take a stance for positive education by designing and developing specialized program for students that can cultivate psychological well-being and self-efficacy among students. It will help the students to manage their daily life academic stressors/challenges and manage them effectively. In addition, this research also provides an understanding of Erikson theory of self-identity and broaden-and-build a theory of positive emotions.

## Conclusion

The present study was intended to examine the predictability of psychological well-being with resilience among university students of Karachi. Findings revealed that psychological well-being is the significant predictor of resilience, and the domains of psychological well-being particularly autonomy and environmental master are the significant correlates of resilience predictability. On the constructs of positive psychology that is psychological well-being, female students were found to be better on both domains.

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