

# The Prediction of Mediating Role of Resilience Between Psychological Well-Being and Emotional Intelligence in Students

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**Background:** Positive psychology is considered a new approach in public health and is an inspired vision which focuses on the capacities and will of people who know the goal of expressing human talent. In other words, a person with mental health enjoys features such as purpose in life, a sense of mastery over the environment, social relationships and a sense of independence.

**Objectives:** The present study attempted to investigate the mediating role of resilience between emotional intelligence and psychological well-being of high school students.

**Patients and Methods:** The population of the study consisted of all male and female high school students in four regions of Shiraz in the academic year 2012-2013. Participants included 405 students, 12 females and 193 males, from Shiraz high schools selected by random multi-stage cluster sampling method. The emotional intelligence scale, resilience scale, and psychological well-being scale were used to measure the research variables. Cronbach coefficient was used to examine the reliability and internal consistency and factor analysis was employed to determine the validity of assessing the research variables. The results verified the reliability and validity of the instruments. The research conceptual model was analyzed and assessed using simultaneous sequential regression method and the steps proposed by Baron and Kenny (1986).

**Results:** Results showed that resilience is a predictor of healthy psychological state which can play a partial mediating role between emotional intelligence and psychological well-being.

**Conclusions:** Emotional intelligence in addition to its direct effects on psychological well-being, indirectly affects the psychological well-being by increasing the resilience.

**Keywords:** Resilience; Psychological; Emotional Intelligence

## 1. Background

Following the recognition of psychology as a science, different perspectives developed on the nature of human. One of them refers to humanistic psychology which believes in human freedom, variability and rationality. Positive psychology is considered as a new approach to public health inspired by focusing on the capacities and will of man that emerges from human talent (1). Based on this view, a person with mental health enjoys features such as purpose in life, a sense of mastery over the environment, developed social relationships and a sense of independence (2). Although well-being as a complex and multifaceted construct (3) lacks a single definition (4), it can be defined by two main approaches. The hedonism approach considers the welfare as hedonic pleasure. According to this approach, welfare means maximizing the pleasure and minimizing pain. On the other hand, virtue-based approach believes that the fulfillment of desires does not always lead to well-being (5).

Ryff believing in the virtue-based welfare regards welfare as the quest for perfection and realization of one's true potential (6). In line with the definition of well-

being, many researchers sought to know about features that increase the psychological well-being. It seems that emotional intelligence is an intrapersonal feature which affects the psychological well-being. Emotional intelligence which rooted in Gardner's multiple intelligences and Thorndike's social intelligence (7) represents the differences in recognition of emotions, motivation and controlling the emotions (8). In connection with this structure, there are two distinct general approaches (trait approach and ability approach) (9) which have no conflict with each other (10) and practically significant in addition to theoretical aspect (11).

The trait approach introduced by theorist Bar-on (12) believes that the level of emotional intelligence can be enhanced through training (13), including attempts that combine capability and personality views and build a dynamic concept. Accordingly, Bar-on (12) introduces a model of emotional competence representing five intrapersonal components so called a thorough understanding and self-acceptance, emotional self-awareness, determination, independence and self-actualization and

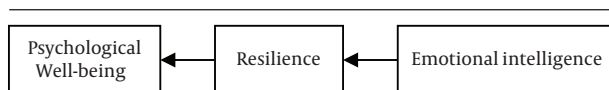
interpersonal entities including empathy, social responsibility and interpersonal relations, in addition to management and mental stress regulation that represents tolerating mental stress and impulse control, and compatibility including reality test, flexibility and problem solving, and the public mood comprising optimism and happiness.

Given these two approaches, the basis for the research on emotional intelligence is the trait model using the Petrides and Furnham inventory (8).

The results of studies suggest that emotional intelligence has a positive effect on psychological well-being (14-16). In other words, resilience is a factor with mediating role between emotional intelligence and psychological well-being. Study of resilience as one of the positive psychology structures is considered by many researchers (17-19). In this context, there are two levels of resilience including individual and communicational. The individual level refers to one's capability to overcome and cope with the problems, and the communicational level relates to the family structure and indicates how a family copes with disruptive and stressful experiences and how it prepares its members for a long-term adaptation. By definition, the resilience is the ability to overcome events with high stress load and maintain mental health and psychological vitality in the face of exposure to unpleasant events (20) and represent the capacity of a dynamic system to successfully adapt to life threatening disorders or developmental processes (21). In this connection the resilient individuals will have favorable growth despite their compatibility to existing threats (22).

In regard to the impact of resilience on psychological well-being, researches by Sagoun and Caroli (23), and Hartley (24) suggested that while the resilience is positively related to psychological well-being it is affected by emotional intelligence (9).

Research review about the factors affecting the psychological well-being indicates a simple relationship between one or more variables and mental well-being. Therefore, variables are needed to mediate between emotional intelligence and psychological well-being in students. Thus the present study attempted to investigate the important role of resilience as mediator between emotional intelligence and psychological well-being of students. As shown in Figure 1, and according to proposed conceptual model, the dimensions of emotional intelligence are considered as an exogenous, resilience as mediator and mental well-being as endogenous variables.



**Figure 1.** Conceptual Model of the Study

According to the conceptual model, the underlying hy-

potheses are made in regard to the students participating in the present study:

1. Emotional intelligence predicts the psychological well-being.
2. Emotional intelligence, predicts the resilience.
3. Resilience is the positive predictor of psychological well-being.
4. Resilience has a mediating role in the relationship between emotional intelligence and well-being.

## 2. Objectives

The present study attempted to investigate the important role of resilience in mediating between emotional intelligence and psychological well-being of students.

## 3. Materials and Methods

The present study is a descriptive correlative research conducted through pathway analysis method. In this study, emotional intelligence is the predictor variable and resiliencies mediating variable and psychological well-being is the variable criterion. The statistical population includes all high school students in Shiraz, the capital city of Fars province, southern Iran, enrolled in the year 2012-2013. Participants included 193 male and 212 female students selected through random multi-stage cluster sampling method introduced.

### 3.1. Research Instruments

#### 3.1.1. EI Questionnaire Short Form

This questionnaire was based on the hybrid model of Emotional Intelligence designed by Petrides and Farenthum (8). Primary form of this questionnaire had 114 questions and 15 scales. The questionnaire has a 30-item form that scored from 1 (strongly disagree) to 7 (strongly agree). The internal consistency of the questionnaire was reported as 0.86 by Petridez and Furnham (8), In the present study, Cronbach's alpha coefficient is used to determine the reliability where the coefficient obtained was 0.89. (To examine the validity, the correlation of each question with total scores was calculated. The results indicated that the all questions had a significant correlation with the total scores ( $P < 0.001$ ). The correlation coefficient was variable between 0.36 and 0.71

#### 3.1.2. Connor and Davidson Questionnaire of Resilience

This questionnaire consists of 25 items prepared by Connor and Davidson (25), where for each item, 5-option Likert scale (strongly true to strongly false) is considered and score from 1 (Completely false) to 5 (completely true). Validity is assessed by factor analysis, convergent and divergent validity and reliability of the scale and is confirmed by the retest and Cronbach's alpha using the test makers in different groups (normal and at risk) (25). In the present study, Cronbach's alpha

coefficient is used to determine the reliability where the coefficient obtained was 0.86 (to examine the validity, the correlation of each question with total scores was calculated. The results indicated that the all questions had a significant correlation with the total scores ( $P < 0.001$ ). The correlation coefficient was variable between 0.31 and 0.67.

### 3.1.3. Ryff Psychological Well-Being Questionnaire

This scale is made by Ryff and Keyes (26) using 18 items, which examines six aspects of psychological well-being so called self-acceptance, self-autonomy, ruling the environment, personal growth, positive relations with others and the purposive life. The scale is answered on the basis of a scored degree ranging from strongly disagree to strongly agree. The model indicated Cronbach's alpha for the total scale and each subscale between 0.40 and 0.52. In the present study, the Cronbach's alpha was used to determine the reliability coefficient which was equal to 0.75. The validity was calculated by the correlation between each question and total scores, and the results indicate that most of the questions have a significant correlation with the total scores ( $P < 0.001$ ). The correlation coefficient ranged between 0.33 and 0.61. In addition, questions 13 and 15 were excluded due to low correlation.

## 4. Results

The findings of the study are presented in two parts of descriptive and path analysis and include the impact of emotional intelligence on psychological well-being, the impact of emotional intelligence on resilience and the impact of emotional intelligence and resilience on psychological well-being. The descriptive findings including mean and standard deviation and correlation matrix of emotional intelligence, resilience and psychological well-being variables are shown in Table 1.

As shown in Table 2, a positive significant relationship was found between the emotional intelligence with resilience ( $r = 0.66$ ,  $P < 0.01$ ) and psychological well-being ( $r = 0.68$ ,  $P < 0.01$ ). In addition, a positive significant correlation was observed between the resiliency and psychological well-being ( $r = 0.67$ ,  $P < 0.01$ ).

Multiple regression analysis was used simultaneously to investigate the hypothesis of the research. The main purpose of this study was to investigate the mediating role of resiliency using the proposed stages by Baron and Kenny (27). Thus, in the first stage, psychological well-being regression was performed on emotional intelligence (Table 3). In the second phase, resilience regression was done in relation to EI (Table 4) and in the third stage psychological well-being regression was applied to the resilience by controlling emotional intelligence (Table 4).

**Table 1.** Mean and SD of variables

Variables	Average	Standard Deviation
1. Emotional Intelligence	64.11	13.12
2. Resiliency	90.23	13.88
3. Psychological Well Being	64.10	8.88

**Table 2.** Correlation Coefficient of Variables

Variables	Emotional Intelligence	Resilience	Psychological Well Being
1. Emotional Intelligence	1		
2. Resiliency	0.66 <sup>a</sup>	1	
3. Psychological Well Being	0.68 <sup>a</sup>	0.67 <sup>a</sup>	1

<sup>a</sup> All coefficients are significant at 0.01 level.

**Table 3.** Predicting the Psychological Well-Being Based on Emotional Intelligence (First Stage)<sup>a</sup>

Predictor Variable	Criterion Variable	F	R	R <sup>2</sup>	$\beta$	T	P <
Emotional Intelligence	Psychological well-being	364.2	0.68	0.47	0.68	19.7	0.01

<sup>a</sup>  $\beta$ , Coefficient of Regression; F, F-test; t, t-test; P, Significant Level; R, Coefficient of Correlation; R<sup>2</sup>, Coefficient of Determination.

**Table 4.** Resiliency Regression on EI (Second Stage)<sup>a</sup>

Predictor Variable	Criterion Variable	F	R	R <sup>2</sup>	$\beta$	T	P <
Emotional Intelligence	Resilience	318.07	0.66	0.43	0.66	17.84	0.01

<sup>a</sup>  $\beta$ , Coefficient of Regression; F, F-test; t, t-test; P, Significant Level; R, Coefficient of Correlation; R<sup>2</sup>, Coefficient of Determination.

**Table 5.** Regression of Psychological Well-Being Based on Resiliency by Controlling the Dimensions of Emotional Intelligence (third stage)

Predictor Variables	Criterion Variable	F	P <	R	R <sup>2</sup>	$\beta$	T	P <
	Psychological well-being	254.84	0.01	0.74	0.55			
<b>Emotional Intelligence</b>						0.43	9.76	0.01
<b>Resilience</b>						0.39	8.82	0.01

Given the results listed in Table 3, the predictor variable had a significant effect on psychological well-being of students ( $F = 364.2$ ,  $P < 0.01$ ) and accounted for 47% of the variance of psychological well-being, thus confirming the first hypothesis of the present study.

Given the results listed in Table 4, the predictor variable had a significant effect on the students' resiliency ( $F = 318.07$ ,  $P < 0.01$ ) and explained 43% of the resiliency variance, confirming the second hypothesis.

According to Table 5, all predictor variables had significant effects on psychological well-being of students ( $P < 0.01$ ,  $F = 254.84$ ), whereby confirming the third hypothesis of this study. Also, the results of the regression analysis suggests that emotional intelligence ( $P < 0.01$ ,  $\beta = 0.43$ ) is yet indicative of significant positive predictor of psychological well-being. In addition, resilience is also the positive significant predictor of psychological well-being ( $P < 0.01$ ,  $\beta = 0.39$ ), noting that all the predictor variables presented 55% of variance of psychological well-being.

The fourth hypothesis was tested in regard to the mediating role of resilience between emotional intelligence and psychological well-being. The comparison of regression coefficients of emotional intelligence in the first and third stages showed that the resilience plays a mediating role between emotional intelligence and psychological well-being. The results showed that the emotional intelligence regression coefficient is decreased from the first stage to the third stage (0.43 to 0.68). Thus, resilience displayed a mediating variable role between emotional intelligence and psychological well-being of students, which confirmed the fourth hypothesis of the study.

## 5. Discussion

The impact of emotional intelligence on psychological well-being and resiliency, as well as the effect of resiliency on psychological well-being and finally the mediating role of resiliency between emotional intelligence and psychological well-being are the aspects to be discussed as follows:

A) The results of this study suggest that emotional intelligence can predict a great increase in psychological well-being variance, a finding consistent with that of other studies (14, 15). One possible explanation for this relationship is that EI shows the differences in recognition of emotions, motivation and controlling the emotions (8). This reflects a good social relationship with others and as expected it can lead to a better mental well-being.

In other words, people with high emotional intelligence have features such as optimism, a tendency to expect hopeful future (28), a mental attitude that could have a positive effect on health and psychological well-being. In hostile events, optimistic act interfere with the primary goals of life more successfully than pessimistic ones (29). In addition, optimism causes the people not to lose their mental balance in the face of changing conditions of life, whereby they better cope with and feel favorably towards the environment, the feeling of confidence that results in promoting psychological well-being.

B) On the other hand, results showed that emotional intelligence is the significant positive predictor of resilience. This finding is consistent with the studies of Jokar, B (9).

A possible explanation of this finding is that people with high emotional intelligence have an optimistic perspective on and a clear vision of the trends of future events, and evaluate the stressful situations and circumstances with positive view. Accordingly, they believe that they are able to overcome the obstacles and difficulties and resolve individual problems. So, it seems that optimism can play a crucial role in coping with threatening and stressful situations. Another possible explanation is that optimists have flexible mental orientation. When faced with mental trauma, they can find a compromising alternative and adjust themselves to the situation (30). On the other hand, individuals with optimistic thinking do not succumb to difficult circumstances and continue to pass the obstacles, despite the problems.

C) Also, the results of this study showed that resilience is the significant positive predictor of psychological well-being. This finding is in line with the findings of researches by Hartley (24). This relationship is explained by the fact that more resilient individuals suffer less from mental turmoil and emotional problems (17). Similarly, the research suggests that resilient people do not show a self-defeating behavior and are emotionally calm, and capable of coping with adverse conditions (18). Accordingly, it is expected that these properties help people maintain their balance and relax in the face of changing conditions of life, and look to the distant horizons of well-being and perfection and pursue their noble objectives.

D) Finally, in regard to the mediating role of resilience between emotional intelligence and psychological well-being, the results showed that the regression coefficient of EI is significantly reduced from the first to the third stage. This reduction in EI regression coefficient is indica-



tive of the mediating role of resilience between emotional intelligence and psychological well-being. That is, EI in addition to its direct effects on psychological well-being, indirectly affects the psychological well-being by increasing the resilience.

This study confirms the role of emotional intelligence in predicting the psychological well-being and the mediating role of resilience between emotional intelligence and psychological well-being of high school students. Therefore, it is recommended that the education system include the aforementioned concepts in curricula, alongside training programs. Also future studies should consider other aspects such as spiritual intelligence, family communication patterns and parental attitude as exogenous variables, as well as coping, optimism and self-control as endogenous variables. One of the limitations of the present study was that the sample population was selected from among high school students and could not be extrapolated to various social groups.

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