

Evaluation of Students' Mental Health and Relation to Resilience and Coping Styles

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Background: Adolescence is a crucial stage of life during which a person faces primary cognitive and structural changes.

Objectives: In this study, we seek to investigate the relationship between resilience and coping styles with mental health in first grade high school students from Ardabil, Iran.

Materials and Methods: We used a multistage random sampling method to select 100 first grade high school students from Ardabil. The participants were asked to complete the Conner-Davidson Resilience Scale, the Coping style questionnaire and the 28 item General Health questionnaire. Pearson correlation and multiple regressions were performed for data analysis.

Results: There was a significant statistical relationship between resilience and coping styles with mental health ($p < 0.01$). In addition, the findings demonstrated that resilience and problem-oriented coping might significantly predict the mental health of adolescents. These findings might prove that resilience could be one of the best predictors of mental health in this study's target group of students.

Conclusions: Findings of this study imply the crucial role of resilience and coping styles in mental health of adolescents. In other words, relationship between mental health and coping styles is taken into consideration due to the mediating effect of coping on perception and reaction towards environmental stress pressures. Schools play a key role in shaping the future of adolescents. In Iran, the youth constitute a significantly huge percent of our society, therefore attempts to enhance mental health in adolescents is one of the most important duties of any educational organization, particularly schools.

Keywords: Resilience; Mental Health; Adolescent

1. Background

Adolescents face numerous changes and difficulties during this challenging stage of life. These broad cognitive and structural changes necessitate the use of efficient coping styles for adaptation. Maintaining positive mental health of adolescents in society is essential for good performance in occupational, social, and educational environments (1).

Mental health is related to internal characteristics or internal source of power. Despite adverse conditions and negative circumstances, such internal sources of power increase the ability of an individual to have adaptive growth, which helps them to maintain positive mental health (2). It has been proven that many adolescents suffer from emotional and mental issues; most likely the majority have been carrying these problems since their childhood (3). Mental health concern in adolescents is either an ongoing

psychological problem with its root in childhood or a newly developed illness. In general, however, these problems involve sensitivity in interpersonal relations, loneliness, depression, anxiety, aggression, and issues related to suicide (4). In a study with Korean teenagers, it was revealed that 74.3% had problems with interpersonal relationship sensitivity, 56.9% suffered from depression, and 48.8% had high scores on an aggression scale (5). In another study, Emami et al. (6) found that 23.7% of teenage boys and 34.1% of girls were suspected to suffer from neurosis. Belfer (7) observed that 20% of children and adolescents suffered from neurotic disorders. The inception of mental disorders in adults was during adolescence.

Resilience has been proven as one of the most important variables that may affect mental health. Resilience is one of the well-known structures in positive psychology

Implication for health policy/practice/research/medical education:

In this study, we seek to investigate the relationship between resilience and coping styles with mental health in first grade high school students from Ardabil, Iran.

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that has a special place in transformational psychology, family psychology, and the field of mental health. Garmezy and Masten have defined resilience as a process, ability, or consequence of successful compatibility with threatening circumstances. In other words, resilience is positive compatibility in response to adverse conditions (8). Researchers believe that resilience is a type of self-restoration which has positive emotional and cognitive outcomes (9, 10). Different studies have revealed that resilience may enhance an individual's mental health (11-16).

On the other hand, the coping style is another variable likely to affect students' mental health. How to cope with pressures and changes that occur in life is part of its vulnerability profile. By and large, coping style mentions the behavioral and cognitive attempts for prevention, management, and decrease of stress (17). There is a general consensus suggesting that efficient coping in adolescence will enable individuals to enjoy positive effects of mental health with less behavioral problems, less depression, and positive compatibility with adolescence in the future (18). Along the same line, Gharraee et al. (19) claim that the growing number of adolescents with depression, drug abuse, suicidal attempts and thoughts may be considered as an explicit sign of mental stress and inefficiency of coping strategies against stress. Gharraee (19) have found a positive correlation between emotion-oriented strategies and depression in teenagers. A body of studies depict the relationship between coping strategies and psychiatric disorders to mental health in adults and teenagers (20) and the relationship between active coping strategies (problem solving, logical analysis, information search) and mental health (21, 22). According to Halpern (23) there is a negative correlation between the overall attempt for coping and problem-oriented coping with behavioral problems in children. Ghazanfari (19) reported a significant positive relationship between effective coping styles, referral to others and mental health, and its constituent components.

Given that the youth comprise the majority of the Iranian society, specifying their health status and mental signs can be the first step in protecting and fostering adolescent mental health. High school students have special stressful issues such as puberty and selecting their major, all of which can lead to conditions that increase the risk for issues with mental health.

2. Objectives

The present study intends to investigate the relationship between resilience and coping styles to mental health of students which can assist with identifying effective factors in their mental health and prevent the consequences of decreasing mental health, which leads to academic and functional failure.

3. Materials and Methods

This was a descriptive study based on correlation statis-

tics. In this study, resilience and coping styles were predictive variables while mental health was the criterion variable. The study population comprised all first grade high school students in Ardabil, Iran during the 2011-2012 academic year. First, by multistage random sampling, we divided the town into four areas from which one area was randomly chosen. Next, 100 students were selected by simple random sampling. Given the rule of thumb that the minimum number of participants should be 30 in a typical correlation study (24), we choose 100 students to enhance the external validity of this study. All students signed written informed consents for study participation. Finally, the Pearson correlation method and multiple regression approach were applied for data analysis. For data collection, we used the following questionnaires.

3.1. Conner-Davidson Resilience Scale (CD-RIS)

The Conner-Davidson (25) Resilience Scale (CD-RIS; 2003) was designed by reviewing research sources in the area of resilience from 1979 until 1991. It has 25 entries scored by a Likert scale from 0 to 5. This scale was normalized by Mohammadi Reliability of the scale for self-resilience assessment was determined as a Cronbach alpha coefficient of 0.89 in this research (26).

3.2. Coping Style Questionnaire

This questionnaire was compiled by Billings and Moos in 1981 to assess an individual's strategy for coping with stress. This questionnaire has 19 items and measures problem-oriented and emotion-oriented coping styles. "It is scored on the Likert scale between 0 and 3. The test-retest reliability of the questionnaire was reported by Pourshahbaz (1995) to be 73%. Dehghani (1993) calculated the reliability of this questionnaire and Cronbach alpha coefficient at greater than 90% (27)".

3.3. General Health Questionnaire (GHQ-28)

The General Health Questionnaire (GHQ), which has 28 questions, was initially compiled by Goldberg (1972). The 28-question version of this questionnaire is the most well-known. In the present study we have used the GHQ-28 which contains four markers-physical, anxiety, disorder in social function, and depression. It is scored by a Likert scale between 0 and 3. This scale has been standardized by Jacelon (2007). Reliability of the GHQ-28 ranged from 0.78 to 0.95. Rahimian et al. (2) found the sensitivity of the GHQ-28 to be 84% and its characteristics were 82%. They reported the Cronbach alpha coefficient as 88%.

4. Results

Table 1 summarizes the descriptive statistics of the variables-emotion-oriented coping style, problem-oriented coping style, resilience and mental health.

*P < 0.05, **P < 0.01, ***P < 0.001

The results of pearson correlation showed that there

Table 1. Mean \pm Standard Deviation (SD) of all Participants for the Given Variables

Variable	Emotion-Oriented Coping style	Problem-Oriented Coping style	Resilience	Mental Health
(Mean \pm SD)	(14.04 \pm 3.04)	(11.60 \pm 3.57)	(92.86 \pm 10.93)	(52.53 \pm 12.45)

Table 2. Coefficients of the Correlation Matrix for the Study Variables

Variable	Emotion-Oriented Coping Style	Problem-Oriented Coping Style	Resilience	Mental Health
Emotion-oriented coping style	1	-	-	-
Problem-oriented coping style	0.14	1	-	-
Resilience	0.14	0.36***	1	-
Mental health	0.077	0.43***	0.58***	1

Table 3. Summary of Multiple Regression Results for Predicting Mental Health Status by the Variables in This Study

Predictor variable	F-Test	Un-Standardized Coefficients	Standard Error Beta	t-Test
Constant	-	48.096	5.917	-
Emotion-oriented coping style	0.59	0.316	0.412	0.077
Problem-oriented coping style	10.74***	1.474	0.323	0.423
Resilience	20.74***	0.565	0.098	0.497

was no significant relationship between emotion-oriented coping style ($r = 0.077$) and mental health, but there was a significant relationship between problem-oriented coping style ($r = 0.43$) and resilience ($r = 0.58$) ($p < 0.001$).

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$

According to Table 3, approximately 39% of the variance in students' mental health status could be explained by emotion-oriented coping style factors, problem-oriented coping style, and resilience. With β values taken into account, resilience ($\beta = 0.497$) and problem-oriented coping style ($\beta = 0.423$) were the most powerful variables that predicted the students' mental health.

5. Discussion

The current study investigated the relationship of resilience and coping styles with mental health status in high school students from Ardabil, Iran. Findings revealed a significant relationship between resilience and mental health, which supported findings of previous studies (11, 13, 15). The above results can be explained by the fact that persons with higher level of resilience protect their psychological health better under the same stressful conditions and adverse circumstances compared to those with lower resilience capacity. They also enjoy a higher level of psychological compatibility. Wolf (28) in the scope of resilience influence on mental health has emphasized that resilient individuals may enjoy some specific characteristics which enhance their mental health aspects such as social ability for problem solving, autonomy and sense of purpose, as well as belief in a clear future (10).

Other results of this study showed a significant relationship between problem-oriented coping style and mental health, which was also in line with the previous findings (21, 22). It could be argued that persons with problem-oriented coping style resort to more compatible strategies which in turn might enhance the perception of their abilities when faced with stressful stimuli. In this way, all probable obstacles they might face in life would easily lead to enhancement of their mental health status.

People who take advantage of problem-oriented coping style in stressful situations actually apply behaviors for rebuilding the problem from the perspective of cognitive or stressful circumstances. Gharraee et al. (19) argue that effective coping responses may well affect mental health by adjusting mental pressure in different individuals. In other words, the relationship between mental health and coping style is mediated by the effect of coping on perception or reaction to environmental pressures. Application of effective strategies under stressful conditions may lead to a huge increase in the number and intensity of problems, therefore resorting to effective strategies can result in positive achievements against these adverse factors (19).

However, according to this study, there was no significant relationship between emotion-oriented coping style and mental health. This finding was congruent with previous studies (19). According to Lazarus (as cited in Davidson, 2004)(29) it is worth noticing that none of the coping styles are considered compatible rather this compatibility is dependant on the circumstances under which these styles are applied.

Results of multiple regression showed that approximately 39% of variance related to students' mental health could be determined by the resilience variable and problem-oriented coping styles. This finding has revealed that resilience and problem-oriented coping style could be considered as predictive variables for mental health status. Resilience is an outcome of the original or higher levels of balance; therefore it might provide a successful compatibility in life (30). According to experts, different skills of resilience are possible to learn (31, 32), therefore, the level of mental and emotional health of people can be enhanced by teaching these skills. Individuals who take advantage of problem-oriented coping styles to experience bravery or risk taking more effectively enjoy their socially intimate relationships which in turn leads toward less passiveness, anxiousness, and depression (33). Overall, persons with problem-oriented coping styles may use more logical procedures, positive thinking, replacement, and stopping skills such that they enjoy higher levels of mental health or well-being in life. Gharraee (19) suggest that the problem-oriented coping style may act as a mental buffer in those who face mental pressures. Finally, the findings of this study revealed that resilience could be considered as the most powerful predictor of mental health. This finding might be explained by the fact that resilience possibly enhances an individual's capacity and ability for change regardless of threatening factors Inzlicht et al. (14) have debated that resilience leads to a significant reduction in anxiety and depression. According to these researchers, resilient people can overcome adverse effects and maintain their mental health. By and large, resilience may cause changes in the view point of an individual by changing their emotions. In the presence of optimism and by increasing the abilities of persons for change, it makes the disasters less effective or ineffective, therefore enhancing mental health. This study has suggested that intervention plans such as resilience education can enhance mental health and quality of life of adolescent students.

There were a number of potential limitations to the current study. The sample group was restricted to public high school boys in Ardabil. Thus, the study might have lacked the power needed to reliably detect relations between the study variables. Additionally, we did not consider the socioeconomic status variable in this study.

In general, findings of the current study have shown that applying more resilience and a logical problem-oriented coping style can assist the mental health of individuals to grow. Therefore, for upgrading the mental health of adolescents and protecting them from stress, we may suggest that any adolescent should be taught how to use logical and problem-oriented coping styles instead of ineffective, emotion-oriented strategies. Also, they must learn resilience which can help them to be more resistant to hardships. Since school plays a key role in shaping the future of the youth and given the fact that our society is mainly composed of this age group, making an attempt

to enhance their mental health is one of the most important duties of academic Institutions, namely schools.

Author's Contribution

All authors have participated equally in this study.

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There is no conflict of interest.

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