

Self-esteem Prediction in Heterosexual Orientation With Moderating Role of Coping Strategies Among Female High School Students

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Background: Self-esteem is one of the most important human needs protecting against anxiety and stressful events, and has become a concept of more special interest to psychologists in recent decades than before

Objectives: The current study aimed to investigate the relationship between self-esteem and heterosexual orientation with moderating role of coping strategies among female high school students in Isfahan.

Patients and Methods: The population consisted of all female high school students enrolled in Isfahan high schools in the academic year 2013-2014. A total of 117 students were randomly selected from six educational districts in Isfahan, Iran. The research tools included Coopersmith self-esteem inventory for adolescents and young adults, Billings and Moos inventory of coping strategies as well as Iranian adolescents risk statement. Pearson correlation, multiple regression analysis and AMOS software were used for data analysis.

Results: The results showed that the correlation between self-esteem and heterosexual orientation was -0.39, and correlation coefficients of self-esteem and problem-focused and emotion-focused coping strategies were 0.57 and -0.24, respectively. The effects of problem-focused and emotion-focused coping strategies on tendency to the opposite sex were -0.51 and 0.37 ($P < 0.01$), respectively.

Conclusions: According to the obtained results, increased self-esteem reduces the heterosexual orientation among the students. This reduction is more pronounced with respect to problem-oriented coping strategies than emotion-focused coping strategies. Regarding the effectiveness of problem-focused coping strategies on tendency to the opposite sex, the teachers and school authorities are recommended to reinforce problem-focused coping strategies and replace it with emotion-focused coping strategies.

Keywords: Self-esteem; Heterosexual Orientation; Coping Strategies

1. Background

Self-esteem is one of the most important human needs protecting against anxiety and stressful events, and has become a concept of more special interest to psychologists in recent decades than before. Self-esteem is an important aspect of personality that determines behavioral characteristics and prosperity of humans (1). Most experts consider self-esteem as the key to social and emotional adjustment (2). Coopersmith (3) defines self-esteem as a series of attitudes and beliefs expressed by people in their relations with the outside world. Self-esteem is the value that a person attributes to himself (4). Self-esteem reflects the individuals' approval and self-assessment of themselves, and is indicative of their extent of ability, value, and importance. It can be also a personal experience in meaningful conversation and behavior of the individual (5). Self-esteem is an important variable associated with many factors, which affects a person's overt behavior (6), and confers confidence and independence on the individual (7). Research suggests that having positive feelings about oneself is an important factor in growth of a healthy personality. Psychologists believe that a high

sense of self-worth brings about comfort and stability, social and behavioral adjustment, academic achievement, and prevents disorder and confusion. Such widespread acceptance of self-worth and its impact on healthy development of the individual has called for methods for its reinforcement as a focus of attention for psychologists in recent decades (8). On the other hand, low self-esteem inhibits perseverance, confidence and optimal academic performance (9), disturbing the individual performance within psychological, physical, social and familial realms (3). The studies of self-esteem have indicated that low self-esteem entails such complications as anxiety and depression (10), impaired physical and mental performance (11), affecting communication and creating behavioral problems (12), and adverse behaviors (10). Heterosexual orientation is among the issues which have attracted the attention of researchers regarding self-esteem related research. The results of the study by Alison (Quotes; Biabangard) indicated that people with low self-esteem express loneliness, depression, and frustration (13). Such complications undoubtedly increase individual's vulnerability,

which in turn has such consequences as alienation of the individual from playing the correct role in interpersonal and social relations (10). Warm intimate relationships with other human beings are the sources of reliability, safety, and welfare of any individual, which can be consequently effective in the growth of self-esteem and reduction of shyness and uselessness. Psychologists believe that a deep sense of uselessness or lack of self-esteem is the root of many psychiatric anomalies observed in the human population (14). In addition, those with low self-esteem experience several problems in their interpersonal relations, are not aware of their correct interpersonal communication skills, are aggressive towards other people in their relationships, show seclusion and withdrawal in their behavior, and are inclined to the opposite gender to seek calm and get rid of loneliness (15). Results of another study indicated that low self-esteem is a strong predictor of emotional and behavioral problems among the adolescents. In comparison with those with high self-esteem, low self-esteem individuals show the symptoms of anxiety, depression, loneliness and jealousy, and in general express a higher level of unhappiness (12, 16). These people are less courageous, have less intimate relationships with others and are more likely to leave school, and in different situations, they pose risky behaviors to themselves and others (17). On the other hand, low self-esteem is associated with unsafe premature sexual relationships, teenage pregnancy, aggression, criminal and delinquent behavior, alcohol and drug abuse as well as membership in deviant and anti-social groups (17). Since the majority of studies provide evidence indicating that low self-esteem is a risk factor for behavioral and emotional problems, some researchers suggest that boosting self-esteem is an appropriate and efficient means of combating a wide range of personal and social problems (18). Mahmoud and Betsur's study on the third-grade guidance school students showed that self-esteem positively affects adjustment of the pupils. Students with high self-esteem show better school adaptation (19). Maxwell's research on the effect of gender and race on depression, aggression and self-esteem and their interrelationship showed that depression, aggression and self-esteem are not significantly correlated with race and sex. However, a significant relationship was observed between depression and aggression with a low level of self-esteem (20). The results of Akbrnya research showed that there was a significantly positive relationship between self-esteem among high school students in Tehran and their academic adjustment (21). On the other hand, high self-esteem variable is likely to be correlated with positive and constructive coping strategies (22). The researchers found a positive correlation between self-esteem and active coping, and a negative correlation between self-esteem and passive coping styles (23). Studies have indicated that self-esteem is positively correlated with a high level of psychological well-being and problem-focused coping (24). Lu showed that there was a correlation between

chronic stress, avoidance behavior, and negative self-esteem among undergraduate nursing students (25). Lazarus and Folkman believe that people who use problem-focused coping strategies are highly optimistic and have a high level of self-esteem (26). Relationship between self-esteem and tendency to the opposite sex has also been explored by other studies (27). However, they only showed the direct relationship between these variables, and not the hidden aspects and the potential latent variables of this association, a finding confirmed by the study of Biabangard (13, 14), and Argyle (15). Considering the fact that other latent and manifest variables are effective in every relationship, authors of the current research found it necessary to investigate the impact of coping strategies on the relationship between self-esteem and tendency to the opposite sex in teen girls. As noted in other researches, there is a negative relationship between self-esteem and tendency to the opposite sex (27).

2. Objectives

The current study attempted to explore the predictive role of self-esteem in heterosexual orientation by coping strategies among female high school students.

3. Patients and Methods

The current study was a field and descriptive study of correlational type. The population included female high school students enrolled in Isfahan in the academic year 2013-2014. A total of 125 students were selected by random cluster sampling method from 12 high schools in six educational districts of Isfahan. Authors excluded 8 students from the study, since they either did not complete or partially completed the questionnaires. Finally, 117 participants who completely and correctly answered the questions were included in the study. The sample size was sufficient according to the formula suggested by Tabachnick and Fidell (28). The results were statistically analyzed by Pearson correlation and multiple regression analysis using SPSS version 16, and AMOS software for drawing the appropriate structural equation.

3.1. Research Tool

Three questionnaires including Coopersmith self-esteem inventory for adolescents and young people, Iranian adolescents risk statement and Billings and Moos inventory of coping strategies were used in the current study (29).

3.1.1. Self-Esteem Inventory

This inventory, designed by Coopersmith, is used to assess the self-esteem of the subjects under study (3). This inventory is widely used in psychological studies in recent years. Form A of this inventory includes 58 items, and eight of them are related to polygraph. If the subject gets a score higher than four out of eight from the polygraph items, it indicates the low validity of the test, and means that the

subject pretends to be a better individual than he really is. Grading method of this scale is in zero and one form. A total of 50 items are divided into four scales, including self-esteem, social self-esteem, family self-esteem and study self-esteem. Subscale-related scores and total scores are obtained by this procedure. The scores gained by an individual vary from a minimum of zero to a maximum of fifty. Subjects earning more scores on this test have a higher level of self-esteem. The scores higher and lower than 25 indicate high and low levels of self-esteem, respectively. Numerous studies alluded to the high validity and reliability of the Coopersmith self-esteem inventory (30). In the study by Shokrkon and Nicy on the first to third grade high school students in Najaf Abad, the validity coefficients were calculated by correlating the test scores with the students' previous year academic score average (31). The coefficients obtained for male and female students were 0.69, and 0.71, respectively ($P > 0.01$). Upon retesting, the respective test reliability coefficients were 0.90 and 0.92 for male and female students, respectively. In the study by Pourfaraji, Coopersmith scale reliability coefficient was an acceptable value of 0.52, using Cronbach's alpha (32).

3.1.2. Iranian Adolescents Risk Statement (IARS)

This questionnaire was designed by Zadeh Mohammadi and Ahmadabadi (33) to assess the risky conducts in Iranian adolescents. The questionnaire included 38 questions on assessing risky behaviors such as driving (six questions), violence (five questions), smoking (five questions), drug abuse (eight questions), alcohol abuse (six questions), and heterosexual orientation (eight questions). Of all variables, only the heterosexual orientation was considered in the present study. The subjects expressed their opinions in a five choice Likert scale from strong disagreement (one point) to complete agreement (five points). The reliability of this scale was evaluated using internal coherence method by Cronbach's alpha, and its validity was assessed by exploratory factor analysis and principal component analysis. Cronbach's alpha value was reported 0.93 (33).

3.1.3. Coping Responses Inventory (CRI)

Coping responses of Billings and Moos evaluates the two methods of problem-focused and emotion-focused copings (29). It includes nineteen items, from which eleven items evaluate the problem-focused and eight items the emotion-focused copings, considering a four choice Likert scale for each statement. Reliability and validity of the questionnaire are reported as 0.78 and 0.74, respectively. According to Hosseini Ghadamgahi, the reliability of the questionnaire was 0.79 (34).

4. Results

In the current study, participants mean age was 16.78 ± 0.97 (STD) years. The number of students in the first, second and the third year of high school were 38, 36, and 33

respectively. Regarding marital status, 23 students were married and 94 were single. The field of study was science in 43, human sciences in 47, and mathematics in 27 students. The results showed a significantly negative correlation between self-esteem and heterosexual orientation. Correlation coefficients between self-esteem and problem-focused coping strategies and emotion-focused coping strategies were 0.57 and -0.24 respectively, and the correlation coefficients between heterosexual orientation and problem-focused coping strategies and emotion-focused coping strategies were -0.51 and 0.37, respectively. All these correlation coefficients were significant at 0.01 levels. Table 1 shows mean \pm standard deviation and correlation coefficients of heterosexual orientation, coping strategies and self-esteem level (Table 2). Among the predictive variables, the highest mean score belonged to individual's self-esteem and the lowest to family self-esteem. Heterosexual orientation was significantly correlated with the other predictive variables except for the social self-esteem ($P < 0.01$). In addition, heterosexual orientation was negatively and significantly correlated with the other predictive variables except for emotion-focused coping strategy. Problem-focused coping strategy was reported to have an insignificantly correlation with emotion-focused coping strategy and a significantly positive correlation with self-esteem except for social self-esteem. Finally, the emotion-focused coping strategy was not significantly correlated with any of the self-esteem dimensions, and it only had a negative significant correlation with self-esteem scale ($P < 0.05$) (Table 2). In Table 2, predictive coefficients of self-esteem, problem, and emotion-focused strategies for variable criteria are presented using stepwise regression method. As it can be observed, all the predictive variables appropriately predict the heterosexual orientation. Model I, which includes the self-esteem variable, only justifies 21% of the variance. Inclusion of problem-oriented strategy in model II explains 44% of the variance, and emotion-focused coping strategy presents 54% of the variance.

The proposed structural model outlined below is based on a recursive model. In this model, the direct path of self-esteem is shown in the center as the heterosexual orientation and two indirect paths in upward and downward positions. In Figure 1, this model is displayed with standard load level on each of its arms. As shown in Figure 1 self-esteem operates as an exogenous variable and the three variables of problem-oriented strategy, emotion-focused strategy, and heterosexual orientation function as endogenous variables. In addition, some errors have been assumed for the three endogenous variables, which are indicated by the letter. There was a significant ($P < 0.05$) regression weight of self-esteem against heterosexual orientation (-0.20). Also regression weight of problem-oriented coping strategy against heterosexual orientation (-0.28) and that of emotion-focused coping strategy against heterosexual orientation (0.47) were significant. These results were consistent with the stepwise regression results.

Table 1. Mean, Standard Deviation, and Correlation Coefficients of the Variables

Variable	Heterosexual Orientation	1	2	3	4	5	6	7
Mean ± SD	18.68 ± 6.57	15.94 ± 4.99	15.83 ± 3.37	16.86 ± 4.65	5.48 ± 2.05	5.78 ± 1.61	5.01 ± 1.80	33.15 ± 7.50
Problem-focused	-0.051 ^a	1.00						
Emotion-focused	0.37 ^a	-0.35 ^a	1.00					
Self-esteem	-0.28 ^a	0.44 ^a	-0.19	1.00				
Family self-esteem	-0.38 ^a	0.50 ^a	0.19	0.51 ^a	1.00			
Social self-esteem	0.14 ^a	0.13	-0.08	0.56 ^a	0.27 ^a	1.00		
Study self-esteem	-0.31 ^a	0.54 ^a	-0.20	0.17	0.23 ^b	-0.02	1.00	
Total	-0.39 ^a	0.57 ^a	-0.24 ^b	0.92 ^a	0.70 ^a	0.63 ^a	0.40 ^a	1.00

^a $p < 0.01$.
^b $p < 0.05$.

Table 2. Stepwise Regression to Predict Heterosexual Orientation Regarding Self-esteem and Coping Strategies^a

Scale B Non-Standard	β Non-Standard	SEB	β	R ²	ΔR ²
Self-esteem	0.27	0.12	0.22 ^b	0.21	-
Problem-focused	-0.36	0.14	-0.27 ^b	0.44	0.43
Emotion-focused	0.88	0.17	0.45 ^b	0.54	0.52

^a Abbreviations: β Non-Standard, unstandardized coefficients beta; SEB, standardized error beta; β, standardized coefficients beta; R², R square; ΔR², adjusted R square.
^b $p < 0.01$.

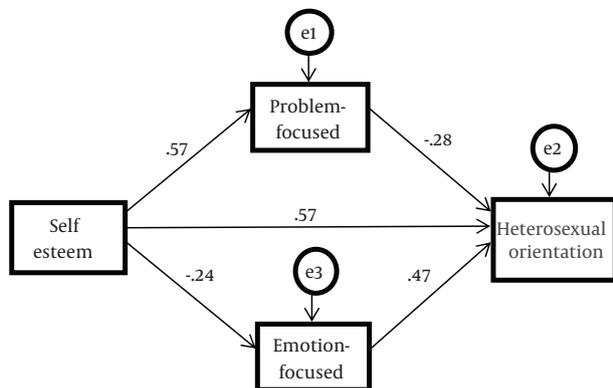


Figure 1. Depicting Proposed Structural Model

Fit indicators were assessed to determine the adequacy of the proposed model. The fitness index included GFI = 0.96, AGFI = 0.93, TLI = 0.92, IFI = 0.94, CFI = 0.93 and RMSEA = 0.05. All these indicators were at a good and desirable level. This model was significant with chi-square value equal to 6.99 ($P < 0.01$). Bootstrap test (with 1000 bootstrap re-sampling) was used to confirm the indirect paths of self-esteem to problem-focused coping strategy for heterosexual orientation and self-esteem. The results

showed that the confidence interval for self-esteem path, problem-oriented coping strategy, and heterosexual orientation as well as self-esteem, emotion-focused strategy and heterosexual orientation had a bootstrap value of 0.23 from 0.01 to 0.29, which suggested the lack of zero in this distance. This result confirmed the indirect paths. Confidence level for the interval was 0.05.

5. Discussion

People who apply emotion-focused coping strategies and consider emotions as an information source always search for new experiences, including relationship with the opposite sex. They desire to liberate themselves from the bonds of community, and turn into inappropriate communications because of their deficient self-reliance (35). Thus, according to the current research results and the impact of self-esteem and coping strategies on heterosexual orientation, it is necessary to take measures in this regard. One of these measures is to educate the families on how to properly bring up their offspring. This training can be conducted through mass media such as videos, educational family programs and workshops in schools, universities and counseling centers. It should be noted that the impact of rearing on self-esteem of female adolescents and the effects of a high level of self-

esteem on their adjustment should be emphasized. On the other hand, there should be opportunities to educate adolescents on effective coping strategies. Also there is a need to reinforce the use of problem-focused strategies in teen girls and explain to them the differences between problem-focused and emotion-focused coping strategies. Girls hide their tendency to the opposite sex which arises from social norms, and also the lack of collaboration between some teachers and managers in conducting this kind of research, which were among the limitations of the current study. Finally, it should be noted that the population of this research included only female students, and the results does not apply to boy students. Therefore, it is recommended to conduct a similar study involving male students. In addition, it is suggested to conduct a study on college students to explore the generalization to other age groups. According to the current study results, there was a negative correlation between self-esteem and heterosexual orientation. People who have low self-esteem are aloof and insular, and are short of good communication skills (35). These individuals are inclined to the opposite gender to avoid loneliness due to lack of correct communication skills. Young women with free unlimited relationship with the opposite sex have more problems than their counterparts in individual, social and familial aspects, have a weak self-image and under evaluate themselves relative to their normal counterparts (36). On the other hand, according to the results of the present study, there is positive and negative correlation between self-esteem with problem-focused and emotion-focused coping strategies, respectively. People who use problem-focused coping strategies are optimist and have a high level of self-esteem. Self-esteem is positively related to a high level of mental well-being and problem-focused coping strategy, and high self-esteem is also associated with application of successful styles (26). On the other hand, according to the current study results, there is negative and positive correlation between heterosexual orientation with problem-focused and emotion-focused coping strategies, respectively.

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