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Research Paper

A study on association between self-esteem and stress impact experienced by adolescents in physical dimension

■ SOPHIA GIR, RAGINI MISHRA **AND** SHEWTA SHARMA

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See end of the paper for authors' affiliations

Correspondence to **:**
SOPHIA GIR
Department of Human Development and Family Studies, College of Home Science, Maharana Pratap University of Agriculture and Technology, UDAIPUR (RAJASTHAN) INDIA
Email: sophiagir2005@gmail.com

■ **ABSTRACT :** The present study was an attempt to explore the association between self-esteem and stress in adolescents residing within municipal limits of Udaipur city. The present sample consisted of 480 adolescents (240 boys and 240 girls), between the age range of 12 to 18 years having high or low self-esteem. A standardized self-esteem and stress inventory was used for the identification self-esteem and of adolescents. The findings of the present study revealed that high self-esteem was found to have low stress impact where as adolescents with low self-esteem experienced high stress in all major aspects of physical dimensions. As far as gender was concerned, adolescent girls experienced high stress as compared to boys in all aspects of physical dimensions. In context of age, late adolescent age years were crucial for boys to experience stress and its impact while on other hand early years were crucial for girls to experience impact of stress on physical dimensions. Mean, percentage and Chi-square were applied for the analysis of the data.

■ **KEY WORDS :** Adolescents, Self-esteem, Stress, Physical dimension

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Self-esteem can be defined as an individual's attitude about him or herself, involving self- evaluation along a positive negative dimension (Baron and Byrne, 1991). Most generally self-esteem refers to an individual's overall positive evaluation to the self. It is composed of two distinct dimensions, competence and worth. The competence dimension (efficacy based self-esteem) refers to the degree to which people see themselves as capable and efficacious.

Studies have suggested that there is a negative relationship between self-esteem and stress. It was also found that self-esteem appears to moderate the effects of stress on psychological functioning. Individuals with low self-esteem exhibit more distress from negative events than those with high self-esteem. High self-esteem may protect the individual from distress by allowing the individual to feel less vulnerable and be more able to bounce back from stressful situations. High self-esteem may also result in more active and effective coping and in enhanced motivation in response to stress (Abel, 1996). In an article by Kreger (1995), it was hypothesized, after reviewing some studies, that scores on self-esteem may act like attributional style in predicting the effects of stress and that perceived stress may be more related to self-esteem than to actual stressfulness of a situation. After conducting a study on this hypothesis, it was found to be supported by the datA study on association between self-esteem and stress impact experienced by adolescents in physical dimensiona, that stress inversely correlated with self-esteem.

The worth dimensions (worth based self-esteems) refer to the degree to which individuals feel they are the persons to be valued. In the words of Nathaniel (1992) self-esteem is the disposition to experience oneself as competent to cope with the basic challenges of life and as worthy of happiness. Similarly, Reasoner (2005), has defined self-esteem as the experience of being capable of meeting life challenges and being worthy of happiness.

Of all life-stages adolescence is arguably the one most marked by rapid and potentially tumultuous transition, including biological, social, and psychological changes as well as shifting self-concepts (Byrne *et al.*, 2007).

Investigating the association between stress, self-esteem and emotional outcomes as well as gender differences on these constructs are helpful for health promotion as well as preventive strategies during adolescence. Research has established that overall levels of stress tend to increase from pre-adolescence to adolescence (Rudolph, 2002). A growing body of research confirms that girls during adolescence experience higher levels of stress than boys, this is specifically related to interpersonal stressors, including negative events and problems related to, e.g., peers, romantic relationships and family (Hampel and Peterman, 2006; Hankin *et al.*, 2007). Girls are also found to exhibit more emotional problems in adolescence than boys, including symptoms of depression and anxiety.

The present research adds to the literature in several ways. As described in the introduction, stress, self-esteem outcomes are highly related constructs and likely to show changes during adolescence because of the many transitions that occur during this time. In light of developmental shifts and gender differences in the salience and impact of various social contexts, developing a more thorough understanding of the association between stress, and self-esteem may require distinguishing among different specific domains of stress (McMahon *et al.*, 2003). Orth *et al.* (2009) further emphasized that self-esteem might have a buffering effect only for specific subtypes of stressful events, addressing the need to test the potential moderating role of self-esteem on different domains of stress in more detail. Based on the empirical findings presented above, the aim of this study is threefold:

- To assess the association between self-esteem and stress impact experienced by adolescents in selected physical dimension.
- To assess the association between self-esteem and stress impact experienced by early and late adolescents (12-18 years) in selected physical dimension.
- To assess the association between self-esteem and stress impact experienced by adolescents boys and girls in selected physical dimension.

■ RESEARCH METHODS

The present study was an attempt to explore the association between self-esteem and stress in adolescents residing within municipal limits of Udaipur city. 480 adolescents (240 boys and 240 girls), between the age range of 12 to 18 years having high or low self-esteem, were randomly selected. A standardized self-esteem inventory was developed with 25 statements (13 positive and 12 negative) to assess self- esteem. A self constructed stress inventory with 30 statements (15 positive and 15 negative) on aspects of physical dimension e.g. diet, exercise, disorganized behaviour, fatigue, sleeplessness, aggression, was used for the identification stress among adolescents. Both inventory consisted three alternative options *i.e.* always, most of the times and rarely. Mean, percentage and Chi-square were applied for the analysis of the data.

■ RESEARCH FINDINGS AND DISCUSSION

Data generated from Table 1 revealed that the adolescents with high and low self-esteem differed significantly from each other in their stress impact experience in physical dimension. Table clearly shows that significantly higher percentage of adolescent's *i.e.* 84.16 per cent with high self-esteem experienced low level of stress in physical dimension as compared to adolescents with low self-esteem. The contrary scenario was observed for adolescents with low self-esteem that considerably higher percentage of adolescents (81.66%) with low self-esteem experienced high level of stress impact experienced in physical dimension.

Unni *et al*. (2010), projected in their study that the correlations between the stress domains and the adolescents' scores on state depression, anxiety, and self-esteem were moderate to strong, where all stress domains showed significant and positive correlations with depression and anxiety and significant and negative correlations with self-esteem. Self-esteem was inversely correlated with both state anxiety and depression. Age showed weak correlations with all the scales, indicating that the adolescents' scores on stress, self-esteem and emotional states did not differ remarkably with age.

Table 1 : Percentage distribution of adolescents belonging to the 12-18 years with high or low self-esteem for their level of stress impact experienced in physical dimension

Level of stress	Stress with high-self esteem	Stress with low-self esteem
High	7.08	81.67
Moderate	8.75	12.91
Low	84.16	5.41

Evidence suggests that adolescent exposure to multiple independent and cumulative stressors, especially those in an interpersonal context (Rudolph, 2002), is related to psychological symptomatology of clinical significance, including symptoms of depression Compas *et al.*, 2004; Shih *et al.*, Hammen and Brennan, 2006; Waaktaar *et al.*, 2004) and anxiety (Kim *et al.*, 2003). In this regard, girls appear to be more vulnerable to the negative psychological health effects of stress than boys (Hankin *et al*., 2007). Studies also provide evidence that stressful life experiences predict increases in psychological problems over time (Carter *et al.*, 2006; Hankin *et al.*, 2007 and Waaktaar *et al*., 2004).

As regard to stress impact experienced in major aspects of physical dimension, Table 2 clearly depicts that majority of adolescents (48.4 and 46.6%) with high self-esteem

experienced low level of stress impact with regards to the symptoms of sleep disorders and eating disorders, respectively. As far third category is concerned, higher percentage of adolescents (61.20%) experienced high stress impact in form of general stress syndrome such as restlessness, fatigue, headache etc. that reflect that self-esteem does not immune a person against the experience of stress in life, however, in wake of encountering the stressor headlong, individual with high self-esteem also becomes prone to general syndrome.

It clearly emerged in Table 2 that adolescents with high self-esteem were found to have approximately equal number of problems (54.30%, 51.20% and 57.70%) in all major aspects of physical dimension, respectively *i.e.* sleep disorders and eating disorders, general stress syndrome such as restlessness, fatigue, headache etc., the reason for such problem profile is that by and large negative emotion that come with low self-esteem waken the body immune system and increases stress level and its impact. The low self-esteem increases stress and leads to unhealthy behviour and these have been associated with sleep disorders and eating disorders and general stress syndrome.

An observation of Table 3 clearly presents the that gender accounts for differences in stress impact in physical dimension. It further reveals that girls (9.10%) with high self-esteem showed high level of stress impact in physical dimension as compared to boys (3.30%) with high self-esteem. Similar profile can be seen in case of boys and girls with low self-esteem that higher percentage of girls (86.67%) with low self-esteem experienced high level of stress in physical dimension followed by boys (76.30%) with low self-esteem.

The findings of Unni *et al*. (2010), present a more comprehensive picture of domain specific stress, self-esteem and emotional states in adolescents than the previous literature on the area. In line with the hypothesis, the results showed that girls scored significantly higher on all stress domains where the effect sizes were mainly weak to

Table 2: Percentage distribution of adolescents belonging to the 12-18 years with high or low self-esteem for their level of stress impact experienced in aspects of physical dimension

Aspects of physical dimension	Stress with high self-esteem and level of stress			Stress with low self-esteem and level of stress		
	High	Moderate	Low	High	Moderate	Low
Sleep disorders	23.00	26.60	48.40	54.30	32.20	13.50
Eating disorders	21.40	32.20	46.60	51.20	27.30	21.50
General stress syndrome	61.20	26.30	12.50	57.70	23.60	18.7

Table 3 : Percentage distribution of adolescent boys and girls with high and low Self Esteem for their level of stress impact experienced in Physical Dimension

Gender	Stress with high self-esteem and level of stress			Stress with low self-esteem and level of stress		
	High	Moderate	Low	High	Moderate	Low
Boys (240)	3.30	6.70	90.00	76.30	15.80	7.50
Girls (240)	9.10	13.30	77.50	86.70	10.00	3.30

Table 4: Percentage distribution of adolescent boys and girls with high and low self-esteem for their level of stress impact experienced in aspects of physical dimension

Aspects of physical dimension	Boys			Girls		
	Stress with high self-esteem and level of stress			Stress with low self-esteem and level of stress		
	High	Moderate	Low	High	Moderate	Low
Sleep disorders	17.20	28.20	54.60	69.30	12.10	18.60
Eating disorders	21.70	30.10	48.20	76.60	14.20	9.20
General stress syndrome	65.30	21.70	13.00	72.10	16.30	1.60

Table 5 : Percentage distribution of early adolescent and late adolescent with high and low self-esteem for their level of stress impact experienced in physical dimension

Age (12-18 years)	Gender	Stress with high self-esteem and level of stress			Stress with low self-esteem and level of stress		
		High	Moderate	Low	High	Moderate	Low
Early (12-15 yrs.)	Boys	3.33	8.33	88.30	70.00	20.00	10.00
	Girls	10.00	8.33	81.67	91.00	33.30	5.00
Late (16-18 yrs.)	Boys	3.33	25.00	71.67	76.60	11.67	11.60
	Girls	5.00	21.00	73.30	80.00	15.00	5.60

moderate. The results found support from other studies (Hankin *et al*., 2007; Rudolph, 2002). Girls scored higher on state depression and anxiety and boys scored higher on self-esteem, where the effect sizes were small to moderate.

During adolescence there is an increase in self-consciousness, and self-esteem is a large part of adolescents' self-understanding. The relationship between gender and self-esteem has been well-researched and studies have typically revealed that boys have a higher self-esteem than girls during adolescence (Baldwin and Hoffmann, 2002; Frost and McKelvie, 2004). The finding that adolescent girls reported higher scores on state depression and anxiety than boys is also in line with previous research (Compas *et al*., 2004; Kim, 2003; Ranta *et al*., 2007), showing that girls may be especially vulnerable during the adolescent period and indicate a need to identify potential problems and to provide support especially to girls.

As regard to stress impact experienced in major aspects of physical dimension Table 4 clearly depicts that majority of boys (65.30%) reported to have high stress impact with regards to the general stress syndrome when compared with other major aspects of physical dimension *i.e*. sleep disorders (54.60%) and eating disorders (48.20%), as they showed low stress impact in both aforesaid categories. Major stressful experiences pose potential risk to the adequate functioning of adolescents but boys have better health promotion behviour to cope with stress than girls.

As far girls were concerned they were found to have problems in all major aspects of physical dimension. Table 4 clearly projects that large percentage of girls (76.60%) reported high impact of stress in form of eating disorders, while 72.10% experienced general stress syndrome such as restlessness, fatigue, headache etc. and sleep disorders.

An observation of Table 5 clearly presents that majority of boys with low or high self-esteem (76.60% and 3.33%) belonging to 16-18 years experienced high impact of stress as compared to boys belonging to 12-15 years of age. Late adolescence is period of time for making vocational choices and thinking about future and boys at this stage are more conscious about their future as compared to boys of ealy adolescence. It further reveals that majority of girls with low or high self-esteem (91.00% and 10.00%%) belonging to 12-15 years experienced high impact of stress as compared to girls belonging to 16-18 years of age. The reason of differences may be that age of 12-15 years is period of adolescence and many girls may be at beginning of puberty, which on an average occurs to years earlier than boys. During this phase many physiological and emotional changes begin to occur that may generate stress and they experience symptoms like headache and sleeping disorders.

There is a growing body of evidence that individuals with low self-esteem more often report a stress, and that there is a link between dimensions of self-esteem and stress. Gender difference seems to increase in middle to late adolescence (Compas *et al.*, 2004; Kim, 2003; Ranta *et al*., 2007). Conversely, boys seem to score higher on self-esteem during adolescence (Baldwin and Hoffmann, 2002; Frost and McKelvie, 2004).

Conclusion:

It can be concluded from present study and reviews that stress is response which tends to alter the psychological internal environment of the organism. In the modern life style, stress has become a fashionable common syndrome. Individual as human being can not be immune to stress, they have to experience it but high self-esteem provides better mechanism or strategy to fight with negative experiences like stress. On the whole self-esteem plays a pivotal role in providing protection against stress and it is powerful resources for combating the effects of stress.

Authors' affiliations:
RAGINI MISHRA AND SHEWTA SHARMA, Department of Human Development and Family, Studies, College of Home Science, Maharana Pratap University of Agriculture and Technology, UDAIPUR (RAJASTHAN) INDIA
Email: raginimishra.2008@gmail.com

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