The Relationship between Perceived Stress, Self Esteem, Way of Coping and Problem Solving Ability among School Going Adolescents

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ABSTRACT

Background: Adolescence, a vital stage of growth and development, marks the period of transition from childhood to adulthood. Healthy self-esteem is the experience of being competent to cope with the basic challenges of life, stress and being worthy of happiness. Aims & Objectives: To see the relationship between perceived stress, self-esteem, way of coping and problem solving ability among school going adolescents. Method: 200 school going adolescents (100 male & 100 female respondents) have been included randomly. Semi-Structured Socio Demographic datasheet, Perceived Stress Scale and Rosenberg Self Esteem Scale, Way of coping Questionnaire and Problem Solving Inventory was used. Data collected was analyzed using SPSS- 20. Result: Positive correlation was found between perceived stress and way of coping as well as with problem solving ability. There was also significant negative correlation found between perceived stress and self-esteem, self-esteem and problem solving ability, way of coping and problem solving ability.

Key words: Perceived stress, Self-esteem, Way of coping, Problem solving ability.

INTRODUCTION

Adolescence, a vital stage of growth and development, marks the period of transition from childhood to adulthood. It is one of the important stages in the life span of a human being when very rapid changes take place both physically as well as psychologically. Adolescence is also the stage when young people extend their relationships beyond parents and family and are intensely influenced by their peers and the outside world in general.
Adolescent moral development has been conceptualized in three phases (i.e., pre-conventional morality, conventional morality, and post-conventional morality) by (Kohlberg, 1978). (Gilligan, 1993) advanced understanding by exploring observed gender differences in how boys and girls approach moral dilemmas, demonstrating that generally, boys seek direct resolution and girls will avoid conflict to maintain a relationship (Rew, 2005). These differences are likely to be reflected in how boys and girls cope with stressors.

Adolescence and perceived stress, self-esteem, way of coping and problem solving ability

Adolescence can be specifically turbulent as well as a dynamic period of one’s growth and development. Healthy self-esteem is the experience of being competent to cope with the basic challenges of life, stress and being worthy of happiness. Stress is the major source of many problems among adolescents and it may lead to low self-esteem, poor way of coping and poor problem solving ability. Many psychological problems such as depression and suicide occur as a result of low self-esteem, poor way of coping and poor problem solving ability.

It is now quite widely accepted that adolescence is a time of involving multi-dimensional changes: biological, psychological (including cognitive) and social. Biologically, adolescents are experiencing pubertal changes, changes in brain structure and sexual interest, as a start. Psychologically, adolescents’ cognitive capacities are maturing. And finally, adolescents are experiencing social changes through school and other transitions and roles they are assumed to play in family, community and school (National Research Council [NRC], 2002). These changes occur simultaneously and at different paces for each adolescent within each gender, with structural and environmental factors often impacting adolescents’ development.

Wilburn and Smith (2005) found in his study “Stress, Self Esteem and Suicidal Ideation in Late Adolescents”. Sample. The Life Experience Survey, the Rosenberg Self-Esteem Scale and the Suicidal Ideation Questionnaire were used for the study. The results revealed that both stress and self-esteem were significantly related to suicidal ideation and low self esteem and stressful life events significantly predict suicidal ideation.

Gayle et al. (2005) found among 37 highly stressed children with stress affected and highly stressed with stress coped children. The study showed that stress coped children to be more adjusted and competent. They had higher self esteem more positive coping strategies and problem solving skills than stress affected children.

Frydenberg and Lewis (1991) suggests that girls report using more social support strategies and less productive means of coping.
MATERIAL & METHODS

Aim
To see the relationship among school going adolescent in terms of perceived stress, self-esteem, way of coping and problem solving ability.

Universe of the study
Class 9th and 10th students of St. Joseph’s Boys High School and Anita Girls High School, Kanke, Ranchi, constituted as universe of the study as aim of the present study was to see the relationship among school going adolescent in terms of perceived stress, self-esteem, way of coping and problem solving ability.

Hypothesis
There will be no significant correlation among perceived stress self-esteem, way of coping and problem solving ability among school going adolescents.

Sample
The sample comprised of 200 adolescents who met the inclusion and exclusion criteria using simple random sampling technique. Samples were further divided into 100 male adolescents and 100 female adolescents.

INCLUSION AND EXCLUSION CRITERIA

Inclusion criteria for both groups
- Studying in 9th and 10th standard.
- The age range 12-19 years.
- Both male and female.
- Willing to participate in the study.

Exclusion criteria for both groups
- Not staying with biological parents.
- Absence/death of mother or father or both.
- Death of first degree relative in last one year.
- Student who goes for work after school.
- History Suggestive any significant life events.
- History suggestive of any psychiatric illness.
- History suggestive of any physical illness.
TOOLS USED FOR ASSESSMENT

- Socio Demographic Data Sheet.
- Perceived Stress Scale – 10 item version (Cohen and Williamson, 1988)
- Rosenberg Self Esteem (Rosenberg, 1965)
- Way of coping (Folkman and Lazarus, 1978)
- Problem Solving Inventory (Heppner and Petersen, 1982)

DESCRIPTION OF TOOLS

Socio Demographic Data Sheet

Self designed semi-structured socio demographic data sheet was used for collecting the necessary information regarding age, sex, education, domicile, ethnicity, religion, type of family of students.

Perceived Stress Scale – 10 item version (Cohen and Williamson, 1988)

This concept was measured with the four-item version of the Cohen’s perceived stress scale (PSS). PSS-4 is an economical and simple psychological instrument that measures the degree to which situations in one’s life over the past month are appraised as stressful. The questions are of a general nature and items are designed to detect how unpredictable, uncontrollable, and overloaded respondents find their lives, e.g. “How often have you felt that you were unable to control the important things in your life?” and, “How often have you felt confident about your ability to handle your personal problems?”. Students responded on a five-point scale (0= “never”, 1= “almost never”, 2= “sometimes”, 3= “fairly often”, 4= “very often”). Items were recorded so that higher scores indicated more perceived stress. Cronbach’s alpha coefficients were 0.74 (Germany), 0.75 (Poland), 0.67 (Bulgaria), 0.50 (UK) and 0.54 (Slovakia). The PSS score was obtained by summing up answers to individual questions.

Rosenberg Self-Esteem Scale (Rosenberg, 1965)

Rosenberg Self-Esteem Scale was developed by Rosenberg (1965) for measuring global self-esteem levels of adolescents. RSES is a Gutman-type scale with four response options ranging from strongly agree (1) to strongly disagree (4), and consists of 10 items, 5 positively scored and 5 negatively scored. RSES includes such statements as the following: “I do not have much to be proud of”, “I am proud of myself”, and “I take a positive attitude toward myself”. Reverse items are 3, 5, 8, 9, 10. The possible total score obtained from the scale ranges between 0-40. The higher score indicates the higher self-esteem.
Way of Coping Questionnaire (Folkman and Lazarus, 1978)

Way of coping questionnaire was developed by Folkman and Lazarus, 1978. The ways of coping questionnaire is designed to identify the thoughts and actions an individual’s has used to cope with a specific stressful encounter. It measures coping processes, not coping disposition or styles. To assess coping styles with the instrument, the investigator would need to assess an individual’s coping processes in a range of stressful encounters, then evaluate consistencies in those processes across encounters. Ways of coping is likert type 4 point scale. In scale 0 indicates “does not apply/not used”, 1 indicates “used somewhat”, 2 indicates “used quite a bit”, and 3 indicates “used a great deal”. Inter-correlation of all domains shown relatively significant. Factor loading of the scale range from 0.25 to 0.79.

Problem Solving Inventory (Heppner and Petersen, 1982)

PSI was developed by Heppner and Petersen (1982) to measure people’s perceptions of their personal problem solving behaviours and attitudes. The PSI is composed of thirty+two 6- point Likert-type items, ranging from strongly agree (1) to strongly disagree (6). Lower scores indicate assessment of oneself as a relatively effective problem solver, whereas higher scores indicate assessment of oneself as a relatively ineffective problem solver. The PSI is a self-rating questionnaire, and this information should not be considered synonymous with actual problem-solving skills. Reliability estimates revealed that the constructs were internally consistent (.72 to .90) and stable over time (.83 to .89 ) (Heppner & Petersen, 1982). In Problem Solving Inventory high score suggests poor problem solving ability.

STATISTICAL ANALYSIS

For the statistical analysis SPSS (Statistical Package for Social Sciences) 20.0 version was used. Frequencies, Chi Squared test, Pearson Correlation were used in the current study.

RESULTS

Table 1

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male (N = 100)</th>
<th>Female (N = 100)</th>
<th>Total (N = 200)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>14.66 ± 1.13</td>
<td>14.27 ± 0.78</td>
<td>14.46 ± 0.99</td>
</tr>
<tr>
<td>Family Size</td>
<td>7.01 ± 3.48</td>
<td>7.32 ± 3.13</td>
<td>7.16 ± 3.30</td>
</tr>
</tbody>
</table>

Table 1 gives descriptive information about the mean age and family size of male and female respondents. The mean age of the male respondent was 14.66 but the mean age of female respondents was 14.27 and in total the mean age of all respondents was 14.46. A result shows that in family size of male respondents, female respondents and total study respondents an average of 7 persons resides in family.

**Table 2**

Comparison of Socio-Demographic Characteristics of male and female school going adolescents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level</th>
<th>Male (N = 100)</th>
<th>Female (N = 100)</th>
<th>$\chi^2$</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Type</td>
<td>Nuclear</td>
<td>50 (50.0%)</td>
<td>39 (39.0%)</td>
<td>2.450</td>
<td>1</td>
<td>.118</td>
</tr>
<tr>
<td></td>
<td>Joint</td>
<td>50 (50.0%)</td>
<td>61 (61.0%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domicile</td>
<td>Rural</td>
<td>74 (74.0%)</td>
<td>72 (72.0%)</td>
<td>.101</td>
<td>1</td>
<td>.750</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>26 (26.0%)</td>
<td>28 (28.0%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Tribal</td>
<td>32 (32.0%)</td>
<td>44 (44.0%)</td>
<td>3.056</td>
<td>1</td>
<td>.080</td>
</tr>
<tr>
<td></td>
<td>Non- Tribal</td>
<td>68 (68.0%)</td>
<td>56 (56.0%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td>Hindu</td>
<td>31 (31.0%)</td>
<td>28 (28.0%)</td>
<td>6.032</td>
<td>3</td>
<td>.110</td>
</tr>
<tr>
<td></td>
<td>Muslim</td>
<td>26 (26.0%)</td>
<td>21 (21.0%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Christian</td>
<td>23 (23.0%)</td>
<td>16 (16.0%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>20 (20.0%)</td>
<td>35 (35.0%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result shows that majority of (50%) respondents in male group belongs to nuclear and joint family type but in female group majority of (61%) respondents belongs to joint family type and rest (39%) belongs to nuclear family type. Study finding shows that majority of male (74%) and female (72%) respondents belong to rural background and rest (26%) male respondents and (28%) female respondents belongs to urban background. Present study finding reveals that male respondents most of (68%) belongs to non-tribal ethnicity and (32%) belongs to tribal ethnicity but in female respondents majority of (56%) hails from non-tribal ethnicity and rest (44%) belongs to tribal ethnicity. Table shows that in male respondents majority of (31%) belongs to Hindu religion, (26%) belongs to Muslim religion, (23%) belongs to Christian religion and (20%) belongs to other religion, but on the other hand in female study respondents most (35%) respondents belongs to others religion, (28%) respondents belongs to Hindu religion, (21%) respondents belongs to Muslim religion and (16%) respondents belongs to Christian religion. Result shows no statistically significant difference was found between...
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both the study groups.

**Table 3**

Inter-correlation matrix showing correlation among various domains of Perceived stress, Self-esteem, Way of Coping and Problem Solving Ability along with socio-demographic variables among school going adolescents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Age</th>
<th>Family Members</th>
<th>Perceived Stress</th>
<th>Self Esteem</th>
<th>Way of Coping</th>
<th>Problem Solving Ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1</td>
<td>-.092</td>
<td>-.005</td>
<td>.103</td>
<td>.023</td>
<td>.023</td>
</tr>
<tr>
<td>Family Members</td>
<td>1</td>
<td>-.066</td>
<td>.063</td>
<td>.078</td>
<td>-.027</td>
<td></td>
</tr>
<tr>
<td>Perceived Stress</td>
<td>1</td>
<td>-.223**</td>
<td>.184**</td>
<td>.287**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Esteem</td>
<td>1</td>
<td>.008</td>
<td>-.223**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Way of Coping</td>
<td>1</td>
<td>-.185**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Solving Ability</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Correlation was significant at the 0.01 level.

In the present study positive high correlation was found between perceived stress and way of coping at 0.01 level which suggests that whenever stress increased among respondents their ways of coping also increased, similarly in perceived stress and problem solving ability also positive high correlation was found at 0.01 level which shows that when stress increased among respondents their problem solving ability decreased.

However, the perceived stress showed significant negative correlation with self-esteem at 0.01 level. Finding suggests that whenever the perceived stress increased among respondents their self-esteem got decreased. Similarly self esteem and problem solving ability as well as way of coping and problem solving ability showed significant negative correlation at 0.01 level it suggest that when self-esteem and way of coping increased among respondents their problem solving ability also increased.

**DISCUSSION**

Two hundred adolescents (100 male school going adolescents and 100 female school going adolescents) were focus of the present study and the aim was to see the relationship among school going adolescent in terms of perceived stress, self-esteem, way of coping and problem solving ability. The samples were collected from class 9th and 10th students of St. Joseph’s Boys High School and Anita Girls High School, Kanke, Ranchi. The samples of both groups were matched with the variables like age, family size, family type, domicile, ethnicity, religion.
The analysis revealed positive high correlation was found between perceived stress and way of coping at 0.01 level which suggests that whenever stress increased among respondents their ways of coping also increased, similarly in perceived stress and problem solving ability also positive high correlation was found at 0.01 level which shows that when stress increased among respondents their problem solving ability decreased. Present study are in agreement with the study conducted by Jennifer (2011) found that adolescents face the challenges of stress nearly every day and often report that school, pressure to have good grades, money, relationships, parents, being a teen parent, jobs, sex, STD’s/AIDS, violence and fighting. Some teens choose unhealthy ways of coping to deal with stress and may smoke or use drugs, self-harm, become depressed, or give up on life altogether.

Another similar finding study conducted by Frydenburg et al. (2004) explored interventions for coping with pressures and stressors to help teach adolescents how to respond to stress later in life. Results indicated two specific ways to better adapt to stress by either reducing the demands of adolescents or increasing the number of coping resources. Students who learn to identify stressors and cope effectively report having less stress. Family members and educators may wish to work together to help teens with their 15 levels of stress and consider balance in academics, personal and social activities and community involvement that reduce environmental factors contributing to stress. Similarly in perceived stress and problem solving ability also positive high correlation was found at 0.01 level, which shows that when stress increased among respondents their problem solving ability decreased.

However, the perceived stress showed significant negative correlation with self-esteem at 0.01 level. Finding suggests that whenever the perceived stress increased among respondents their self-esteem got decreased. Similarly self esteem and problem solving ability as well as way of coping and problem solving ability showed significant negative correlation at 0.01 level it suggest that when self-esteem and way of coping increased among respondents their problem solving ability also increased. Present study are in agreement with the study conducted by Johnson et al. (1982) his research findings indicate the debilitating effect of stressful transitions and crises may have an equally deleterious impact in adolescent life, well-being and self esteem at the last decade. As a common claim in this stress, it was indicated that social support and self esteem becomes particularly critical when the individual feels threatened or overwhelmed.

Similarly in self esteem and problem solving ability statistically significant negative correlation was found at 0.01 level similarly in way of coping and problem solving ability showed significant negative correlation at 0.01 level. So according to study finding it means that when self-esteem and way of coping increased among respondents
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their problem solving ability also increased. Present study is in agreement with the study conducted by Europa (2002) on the problems and coping strategies of marginalized street children and adolescents. The study revealed that these children and adolescents were having poor coping strategies and low self esteem with feelings of insecurity.

Another study conducted by Gayle et al. (2005) among 37 highly stressed children with stress affected and highly stressed with stress coped children. The study showed that stress coped children to be more adjusted and competent. They had higher self esteem more positive coping strategies and problem solving skills than stress affected children.

LIMITATIONS

Being a time bound study only a small sample could be taken and hence the generalization of the result remains doubtful. If parents of the students would have also been included as respondents along with teacher, it would have been a more accurate study to identify behavioral problems in children. Students of class XIth and XIIth should have been included to obtain good and robust results.

CONCLUSION

Present study was conducted to see the relationship among school going adolescent in terms of perceived stress, self-esteem, way of coping and problem solving ability. The study findings highlights significant positive and negative correlation also found between perceived stress, self-esteem, way of coping and problem solving ability among school going adolescents.

With the help of present study findings adolescents can recognize what is causing them stress and learn how to manage their stress in a healthy and productive manner. Students need to know about the positive ways to cope with the stressors in their lives, and being able to manage the stress, increase self-esteem and improve problem solving ability, it may not only benefit the students, but may also help to enhance their academic performance too. Thus the findings of the present study will help adolescents as how to respond with stress, increase self-esteem and coping strategy as well as how to make better problem solving ability in their future life.

FUTURE DIRECTION AND IMPLICATIONS

Based on present study findings it is very clear that there are significant correlations found among school going adolescents in terms of stress, self-esteem, way of coping and problem solving ability. With these findings it would be interesting to see the other contributing psycho-social factors such as parenting style, academic achievement, emotional intelligence, etc. and its impact on perceived stress, self-esteem, way of
coping and problem solving ability. Based on the present study finding psycho-social intervention program can be developed to enhance the self-esteem, way of coping and problem solving ability of the school going adolescents and its efficacy and feasibility can be assessed. Based on the present study finding intervention package can be developed for school going adolescents based on gender. Based on the present study more schools and classes would be covered for future studies. Present study findings suggest that there is elusive need to impart life skill techniques to the school going adolescents soon after they enter in high academics. These skills will help them to handle various life stressors and this will also facilitate them to perform well in their academics. Present study findings would help in implementing the school mental health program to tackle the problem related to stress, self-esteem, way of coping and problem solving ability among school going adolescents.

REFERENCES


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