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**Original Research Article**

# Who copes up well? – comparative assessment among urban, rural and tribal school children in Mysore district, Karnataka

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## ABSTRACT

**Background**: One of the features of modern life is ever increasing stress. Stress is an epidemic in the 21st century that commonly affects all of us on a daily basis. Adolescence can be a stressful time as this age group people are dealing with the challenges of puberty, changing expectations and coping with new feelings. Coping is the process of managing demands (external or internal) that are appraised as taxing or exceeding the resources of the person. Coping consists of efforts, both action-oriented and intrapsychic. The relationship between coping and a stressful event represents a dynamic process. With this background study was conducted to assess the coping ability of tribal, rural and urban school children of Mysuru District.

**Methods:** A community based cross-sectional study conducted in Tribal, rural and urban Mysuru.A Pre tested semi-structured proforma which included general profile and socio-demographic profile of student was used. Information about coping skills was collected through Tobin Coping Strategies Inventory 32 item scale. Statistical analysis: Descriptive statistics like mean and standard deviation were applied**.** Anova test for comparison of means between three groups. Independent t test was applied for comparison between two groups. The association was expressed statistically significant at p-value less than 0.05.

**Results**: In regards to problem solving, cognitive restructuring, expressing emotions, social contact, wishful thinking, social withdrawal, self-criticism there was a significant difference among 3 groups with p-value <0.05, with regards to problem focused engagement and emotion focused engagement there was a significant difference among 3 groups with p-value< 0.05 with tribal high school participants having higher scores and with regards to engagement there was a significant difference among 3 groups with p-value <0.05 with tribal high school participants having higher scores.

**Conclusions:** The present study was a community based cross sectional study conducted among tribal, rural and urban high school students of Mysuru district aged 14-16 years which revealed tribal school participants had better coping strategy next to urban. Males differed from females with respect to their coping strategies especially in rural and urban participants.

**Keywords:** Coping skills, Adolescence, Engagement, Disengagement

## INTRODUCTION

One of the features of modern life is ever increasing stress. Stress is an epidemic in the 21st century that commonly affects all of us on a daily basis. Stress is part life and it keeps happening. For high school children academic stress involves mental distress anticipated with academic hurdles or challenges or fear of failure and sometimes academic failure per se. The Indian school

education system which is textbook-oriented focusing more on routine memorization of lessons demanding long hours of systematic study every day, leaving little time for socialisation and recreation.[1] Around 1 in 6 persons in the world is an adolescent: that is 1.2 billion people aged 10 to 19 years making them a very big human resource which should not be neglected. Adolescence can be a stressful time as this age group people are dealing with the challenges of puberty, changing expectations and coping with new feelings[2]. Adolescence is a stage where experiencing the stress and responding to stress are in flux. Though all of us appreciate stress, but the nature of stressors change during adolescence, which are less appreciated. Adolescent individuals respond to stress in unique way. During the school years, stressors may show in any aspect of the child's environment: home, school, neighborhood, or friendship. The ability to adapt to stress and adversity is a central dogma of human development[3].

Coping is the process of managing demands (external or internal) that are appraised as taxing or exceeding the resources of the person. "Coping consists of efforts, both action-oriented and intrapsychic, to manage (i.e. master, tolerate, reduce, minimize) environmental and internal demands and conflicts among them". Responding to threat or harm or loss varies according to many people who face them and how they receive them is also coping. Coping is often defined as efforts to prevent or diminish threat, harm, and loss, or to reduce associated distress. The relationship between coping and a stressful event represents a dynamic process. It is the simple effort that an individual exerts in order to manage the world. Coping is a very broad concept. Problem-focused coping is directed at the stressor itself which is to take steps to remove or to evade it, or to diminish its impact if it cannot be evaded. Emotion-focused coping is aimed at minimizing distress triggered by stressors. Because there are many ways to reduce distress, emotion-focused coping includes a wide range of responses, ranging from self-soothing like relaxation and seeking emotional support, to expression of negative emotion like yelling or crying or attempts to even escape stressful situations like avoidance, denial and wishful thinking. Engagement coping aims at dealing with the stressor or the resulting distress emotions and Disengagement coping aimed at escaping from dealing with the stressor or the resulting distress emotions[4]. With the above background ,this study is conducted to know the coping ability of tribal, rural and urban school children of Mysuru District.

## METHODS

This was a community based cross-sectional study was conducted among high school children in tribal, rural and urban Mysuru from November 2014 to May 2016, i.e., one and a half years (eighteen months). A Pre tested semi-structured proforma which included general profile and socio-demographic profile of student was used. Information about coping skills was collected through tobin coping strategies Inventory 32 item scale which had primary subscales consisting of specific coping strategies people use in response to stressful events which include problem solving, cognitive restructuring, social support, express emotions, problem avoidance, wishful thinking and social withdrawal. The secondary subscales consist of problem focused engagement, emotion focused engagement, problem focused disengagement and emotion focused disengagement. The tertiary subscales consist of engagement and disengagement. Around 9 tribal high schools, 8 rural high schools and 13 urban high schools were selected by probability proportionate to size technique. Students who were willing to participate in the study belonging to age group of 14-16 years were included and students suffering from any kind of mental illness requiring or who were already on prescribed psychiatric medication and students who had taken any such screening tests before were excluded from the study. Data was collected by interview method Institutional Ethics Committee clearance was obtained before start of the study. The study methodology was discussed and permission was obtained from all Principals and Headmaster of respective high schools. Written informed ascent was obtained from each study participant. Data thus obtained were coded and entered into Microsoft excel Work sheet. This was analyzed using SPSS 22 version. Descriptive statistics like mean and standard deviation were applied**.** Anova test for comparison of means between three groups and F-statistics is applied. Independent t test was applied for comparison between two groups .The association was expressed statistically significant at p-value less than 0.05.

### *Estimation of sample size*

According to the Study conducted by Srinath et al, the reported prevalence of mental disorders in adolescents was 12% in urban and rural Bangalore.[6] The sample size was calculated with 5% error which came around 170 and was rounded around 185.

## RESULTS

Around 186 study participants were interviewed from tribal schools among which88 (47.3%) belonged to age group of 15 years,108 (58.1%) were girls ,97 (52.2%) belonged to 10$^{th}$ standard, related to fathers education 81 (43.5%) were illiterates, 117(62.9%) were semi-skilled workers , related to mothers occupation 68(36.6%) were homemakers,66(35.5%) belonged to nuclear family, majority 177(95.2%) belonged to class V socioeconomic status (modified B.G. Prasad classification).

Around 200 study participants were interviewed from rural schools among which 103 (51.5%) belonged to age group of 15 years, 103 (51.5%) were girls, 99 (49.5%) belonged to 9$^{th}$ standard in rural area, 66 (33%) fathers had received High school education, 119 (59.5%) were semi-skilled, related to mothers occupation 168 (84.5%) were homemakers, 119 (59.5%) belonged to nuclear

family and 171 (85.5%) belonged to class V socioeconomic status (modified B.G. Prasad classification).

Around 194 study participants were interviewed from urban schools among which 116 (59.8%) belonged to age group of 14 years, 104 (53.6%) were boys , 83 (42.8%) belonged to 8th standard, related to fathers education, 97 (38%) had completed high school education, related to fathers occupation 52 (26.8%) were skilled workers, related to mothers occupation, 171 (88.1%) were home-makers, 162 (83.5%) belonged to nuclear family,156 (80.4%) had family members up to 5, 87(44.8%) belonged to Class IV socioeconomic class (modified B.G. Prasad classification) (Table 1).

**Table 1: Distribution of study participants according to sociodemographic profile.**

| | | Tribal (n=186) (%) | Rural (n=200) (%) | Urban (n=194) (%) |
|---|---|---|---|---|
| **Age in years** | 14 | 83(44.6) | 60(30) | 116(59.8) |
| | 15 | 88(47.3) | 103(51.5) | 71(36.6) |
| | 16 | 15(8.1) | 37(18.5) | 7(3.6) |
| **Gender** | Male | 78(41.9) | 97(48.5) | 104(53.6) |
| | Female | 108(58.1) | 103(51.5) | 90(46.4) |
| **Class/ Standard** | 8 | 38(20.4) | 8(4) | 83(42.8) |
| | 9 | 51(27.4) | 99(49.5) | 77(39.7) |
| | 10 | 97(52.2) | 93(46.5) | 34(17.5) |
| **Fathers education** | Illiterate | 81(43.5) | 48(24) | 7(3.6) |
| | 1-7 (primary and middle) | 50(26.9) | 58(29) | 43(22.2) |
| | 8-10(high school) | 49(26.4) | 66(33) | 97(38) |
| | PUC | 3(1.6) | 13(6.5) | 38(19.6) |
| | Degree | 3(1.6) | 12(6) | 8(4.1) |
| | Post-graduation | -- | 3(1.5) | 1(0.5) |
| **Fathers occupation** | Unemployed /Retired | 10(5.4) | 0(0) | 2(1) |
| | Unskilled workers | 55(29.6) | 38(19.5) | 41(21.2) |
| | Semi-Skilled workers | 117(62.9) | 119(59.5) | 52(26.8) |
| | Skilled workers | 2(1.1) | 15(7.5) | 52(26.8) |
| | Semi-professional | 2(1.1) | 25(12.5) | 45(23.2) |
| | Professional | -- | 2(1.5) | 2(1) |
| **Mothers occupation** | Home maker | 68(36.6) | 168(84.5) | 171(88.1) |
| | Unskilled workers | 61(32.8) | 7(3.5) | 7(3.6) |
| | Semi-Skilled workers | 56(30.2) | 16(8) | -- |
| | Skilled workers | -- | 4(2) | 12(6.2) |
| | Semi-professional | 1(0.4) | 4(2) | 4(2.1) |
| **Type of family** | Nuclear | 66(35.5) | 119(59.5) | 162(83.5) |
| | Joint | 59(31.7) | 41(21.5) | 21(10.8) |
| | Three generation | 61(32.8) | 40(20.5) | 11(5.7) |
| **Socioeconomic status (modified B.G. Prasad classification)** | I | -- | -- | -- |
| | II | -- | -- | 23(11.9) |
| | III | -- | 5(2.5) | 49 (25.3) |
| | IV | 9(4.8) | 24(12.0) | 87 (44.8) |
| | V | 177(95.2) | 171(85.5) | |

**Table 2: Primary subscale.**

| Category | Tribal (Mean±SD) | Rural (Mean±SD) | Urban (Mean±SD) | F | p-value |
|---|---|---|---|---|---|
| **Problem solving** | 15.9 ±2.6 | 12.5±3.5 | 13.2±3.7 | 53.2 | 0.001 |
| **Cognitive restructuring** | 14.4±2.6 | 11.6±3.4 | 11.2±3.7 | 51.5 | 0.001 |
| **Express emotions** | 12.4±1.9 | 8.0±2.8 | 7.9±3.2 | 160.8 | 0.001 |
| **Social contact** | 13.2±2.2 | 10.1±3.6 | 10.4±3.7 | 53.8 | 0.001 |
| **Problem avoidance** | 8.1±2.6 | 8.0±2.6 | 7.9±3.2 | 0.4 | 0.6 |
| **Wishful thinking** | 9.9±3.3 | 8.6±2.7 | 8.6±3.2 | 10.1 | 0.001 |
| **Social withdrawal** | 7.8±2.8 | 6.5±2.7 | 7.4±3.5 | 8.7 | 0.001 |
| **Self-criticism** | 8.7±2.2 | 9.6±3.5 | 9.8±3.7 | 5.9 | 0.003 |

**Table 3: Secondary subscale.**

| Category | Tribal (Mean±SD) | Rural (Mean±SD) | Urban (Mean±SD) | F | p-value |
|---|---|---|---|---|---|
| **Problem focussed engagement** | 30.4±4.7 | 24.2±6.2 | 24.5±6.4 | 66.7 | 0.001 |
| **Emotion focussed engagement** | 21.4±3.7 | 18.1±5.5 | 18.4±5.5 | 24.9 | 0.001 |
| **Problem focussed disengagement** | 18.0±4.8 | 16.7±4.4 | 16.5±5.4 | 5.5 | 0.049 |
| **Emotion focussed disengagement** | 16.6±4.1 | 16.2±5.3 | 17.2±6.0 | 1.7 | 0.182 |

**Table 4: Tertiary subscale.**

| Category | Tribal (Mean±SD) | Rural (Mean±SD) | Urban (Mean±SD) | F | p-value |
|---|---|---|---|---|---|
| **Engagement** | 51.8±6.5 | 42.4±9.8 | 43.0±9.8 | 66.5 | 0.001 |
| **Disengagement** | 34.6±7.7 | 32.9±8.4 | 33.7±10.1 | 1.8 | 0.163 |

**Table 5: Coping strategy among study participants according to gender.**

| Category | Gender | Urban (Mean ± SD) | p-value | Tribal (Mean ± SD) | p-value | Rural (Mean ± SD) | p-value |
|---|---|---|---|---|---|---|---|
| **Problem solving** | Male | 12.33 ± 3.6 | 0.001 | 14.06 ± 3.9 | 0.33 | 12.96±3.5 | 0.15 |
| | Female | 14.40 ± 3.5 | | 14.65 ±4.2 | | 12.23±3.6 | |
| **Cognitive restructuring** | Male | 11.15 ± 3.3 | 0.57 | 12.33 ±3.7 | 0.33 | 11.78±3.1 | 0.78 |
| | Female | 11.46 ± 4.1 | | 13.06 ±4.1 | | 11.65±3.6 | |
| **Express emotions** | Male | 7.20 ± 2.7 | 0.001 | 8.95 ±2.9 | 0.1 | 7.35±2.6 | 0.001 |
| | Female | 8.81 ± 3.5 | | 8.23 ±2.9 | | 8.69±2.9 | |
| **Social contact** | Male | 9.86 ± 3.9 | 0.01 | 10.04 ±3.6 | 0.5 | 9.63±3.3 | 0.04 |
| | Female | 11.22 ± 3.2 | | 10.37 ±3.8 | | 10.63±3.6 | |
| **Problem avoidance** | Male | 8.01 ± 3.2 | 0.63 | 8.88 ±3.1 | 0.31 | 8.19±2.8 | 0.33 |
| | Female | 7.79 ± 3.2 | | 8.38 ±3.5 | | 7.83±2.5 | |
| **Wishful thinking** | Male | 8.63 ± 3.2 | 0.96 | 10.40 ±3.2 | 0.08 | 8.77±2.8 | 0.6 |
| | Female | 8.64 ± 3.2 | | 9.56 ±3.3 | | 8.57±2.8 | |
| **Social withdrawal** | Male | 7.14 ± 3.2 | 0.24 | 8.45 ±3.7 | 0.95 | 6.45±2.8 | 0.44 |
| | Female | 7.74 ± 3.9 | | 8.48 ±3.6 | | 6.75±2.6 | |
| **Self-criticism** | Male | 9.14 ± 3.3 | 0.008 | 10.46 ±3.8 | 0.29 | 8.91±3.2 | 0.001 |
| | Female | 10.56 ± 3.7 | | 9.90 ±3.4 | | 10.58±3.3 | |
| **Problem focused engagement** | Male | 23.48 ± 5.9 | 0.01 | 26.40 ±7.0 | 0.2 | 24.74±5.6 | 0.33 |
| | Female | 25.86 ± 6.8 | | 27.71 ±7.3 | | 23.88±6.8 | |
| **Emotion focused engagement** | Male | 17.06 ± 5.5 | 0.001 | 18.99 ±5.4 | 0.63 | 16.98±4.5 | 0.002 |
| | Female | 20.03 ± 5.1 | | 18.60 ±5.5 | | 19.32±5.6 | |
| **Problem focused disengagement** | Male | 16.63 ± 5.1 | 0.79 | 19.28 ±5.1 | 0.6 | 16.96±4.5 | 0.44 |
| | Female | 16.43 ± 5.7 | | 17.94 ±5.6 | | 16.40±4.3 | |
| **Emotion focused disengagement** | Male | 16.29 ± 5.7 | 0.06 | 18.91 ±6.0 | 0.5 | 15.36±5.1 | 0.09 |
| | Female | 18.30 ± 6.3 | | 18.38 ±5.8 | | 17.33±5.4 | |
| **Engagement** | Male | 40.54 ± 9.2 | 0.001 | 45.38 ±10.1 | 0.5 | 41.72±8.6 | 0.28 |
| | Female | 45.89 ± 9.8 | | 46.31 ±9.7 | | 43.20±10.6 | |
| **Disengagement** | Male | 32.92±9.7 | 0.21 | 38.19 ±10.0 | 0.2 | 32.32±8.4 | 0.26 |
| | Female | 34.73±10.5 | | 36.31 ±9.9 | | 33.73±8.3 | |

In regards to problem solving, cognitive restructuring, expressing emotions, social contact, wishful thinking, social withdrawal, self-criticism there was a significant difference among 3 groups with p-value <0.05. Tribal high school participants had higher scores compared to rural and urban schools and this association was statistically significant (p-value<0.05) (Table 2).

With regards to problem focused engagement and emotion focused engagement there was a significant difference among 3 groups with p-value <0.05 with tribal

high school participants having higher scores. In regards to emotion focused disengagement higher mean value was seen among urban study participants (p-value>0.05) (Table 3).

With regards to engagement there was a significant difference among 3 groups with p-value <0.05 with tribal high school participants having higher scores. With regards to disengagement, there was no significant difference among 3 groups (Table 4).

In urban study participants with regards to problem solving, expressing emotions, social contact, self-criticism there was higher mean value of girl participants and this was also statistically significant with p-value <0.05. In regards to problem focused engagement and emotion focused engagement, there was higher mean value of girl participants and this was a statistically significant with p-value <0.05. In regards to engagement, girls had higher mean value compared to boys and this association was statistically significant with p-value <0.05. In tribal participants, there was no any significant difference among participants with regards to coping skills. Among the rural study participants in regards to expressing emotions, social contact and self-criticism there was higher mean value of girl participants and this was also statistically significant with p-value of <0.05. In regards to emotion focused engagement there was higher mean value of girl participants and this was a statistically significant with p-value <0.05 (Table 5).

## DISCUSSION

In the present study Tobin 32 item Coping Strategy Inventory was used to assess coping skills among the tribal, rural and urban high school participants. This revealed that tribal school participants had better coping strategy with higher mean (51.8±6.5) value next to urban (43±9.8) and finally rural (42.4±9.8) with comparatively lesser mean value which was in regards with engagement which was also statistically significant (0.001), which included problem focused engagement and emotion focused engagement (Table 4). Problem focused engagement includes both problem solving and cognitive restructuring subscales which is striving towards changing situation and emotion focused engagement includes both social contact and express emotions reflecting open communication of feelings with family and friends.

The scores on Disengagement were compared among tribal (34.6 ±7.7), rural (32.9 ± 8.4) and urban school (33.7±10.1) which had no significant difference which included problem focused disengagement and emotion focused disengagement (Table 4). Problem focused disengagement includes problem avoidance and wishful thinking and emotion focused disengagement includes social withdrawal and self-criticism. However in problem focused disengagement, the mean values were higher in tribal (18±4.8), rural (16.7±4.4) and then urban (16.5±5.4) showing tribal school participants having higher score with regards to problem focused disengagement which was also statistically significant (0.049) (Table 3).

According to Zhang et al in a study conducted in urban and rural Shandong Province of China among adolescents, rural were more likely to cope by venting (express emotions) and fantasizing (wishful thinking) than urban groups which is similar to the present study.[7] According to study done by Elgaret et al on one hundred adolescents from an urban junior high school and 146 adolescents from four rural all-grade schools of Canada and Newfoundland province of Canada respectively, rural participants showed better problem focused coping, emotion focused coping and avoidance focused coping however in our study there was no significant difference in urban and rural study participants with regards to problem focused coping, emotion focused coping and avoidance focused coping.[8] According to the study done by Srivastavaet al. among the rural and urban school participants in Uttar Pradesh India results showed that urban adolescents use more coping strategies than rural adolescents which used Srivastava Coping Strategies scale and the reason cited behind this is that urban adolescents have many options to solve the problem or cope with stress, but rural adolescents have little amount of option to cope with stress.[9] Cultural backgrounds and cultural influences affects adolescent perception of and reaction to stress full life events.[10]

In urban and rural study participants with regards to expressing emotions, social contact, self-criticism there was higher mean value of girl participants and this was also statistically significant with p-value <0.05.In regards to emotion focused engagement in rural and urban participants, there was higher mean value of girl participants and this was a statistically significant with p-value <0.05. According to Copeland and Hess females report on social support and emotional behaviour more than males do. Females tend to manage life problems by increasing involvement in interpersonal relationships with friends, siblings, parents and adults.[10] According to Eschenbeck H, Kohlmann C-W and Lohaus A, girls scored higher in seeking social support and problem solving[11]which was similar to our study. Among the tribal participants, there was no difference with regards to coping skills among boys and girls in the present study (Table 5).

## CONCLUSION

The present study was a community based cross sectional study conducted among tribal, rural and urban high school students of Mysuru district aged 14-16 years which revealed tribal school participants had better coping strategy next to urban. Males differed from females with respect to their coping strategies especially in rural and urban participants tapping the need of educating coping skills in this age group which could

important step towards stress management which is the need of the hour.

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