Gender and Locale Differences in Mental Health among Adolescents

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A B S T R A C T

The present study was conducted to assess the gender and locale differences in mental health among adolescents. The study was based on 240 adolescents (i.e. 120 rural and 120 urban) in the age range of 16-18 years. The sample was randomly drawn from four Government Senior Secondary Schools purposively selected from rural as well as urban areas of Ludhiana district. Mental Health Battery by Singh and Sengupta (2000) was used to assess the mental health of adolescents. The battery consists of 130 items related to mental health. Results revealed that significant gender differences were found in mental health of the respondents. Significant locale differences also existed between the adolescents.

Introduction

The notion of mental health is as old as human beings. Mental health plays a vital role in the life of every human being. This term mainly comprises of two words ‘Mental’ and ‘Health’. Health refers to a state of being free from any illness. Mental health include perceptions, behaviours and emotions that influence a person’s overall level of personal effectiveness, contentment, success, and calibre to function as a person (Choudhary 2006). According to Bhatia (1982) mental health is the capability to balance aspirations, ambitions and emotions in an individual’s daily living. It may also be comprehended as behavioural characteristics of an individual. A mentally healthy person exhibits a homogeneous organization of desirable characteristics like fundamental values, virtuous self-concept and technical perception of the world as a whole. Other definitions also involve intellectual, emotional and spiritual development, positive self-perception, feelings of self-worth and physical health, and intrapersonal harmony (Bhugra et al., 2013). Before the second half of 20th century, the mental health was described as absence of mental illness or mental disorder but now it specifies the psychological well-being of an individual apart from only the absence of any mental illness. Mental Health is increasingly seen as important as physical health and thus needs to be addressed as a vital constituent of
improving overall health and welfare of an individual (Purushothaman and Nagle, 2012).

Good mental health is said to be allied with good self-esteem that an individual hold of himself/herself. Higher self-esteem helps the individual to be more capable of dealing with life stressors (Sherina et al., 2008). According to World Health Organization (WHO, 2007), “Mental health is a state of absolute physical, mental and social welfare of an individual and not merely the absence of a disease. The Mental Health concept comprises of subjective well-being, perceived self-efficacy, sovereignty and self-actualization of an individual’s emotional and cognitive capability among others”. Mental Health includes person’s capability to make constructive self-evaluation to apprehend reality, to incorporate personality, self-sufficiency, group-oriented attitudes and environmental proficiency (Jagdish and Srivastava 1983). According to Gill and Kaur (2005) mental health is a combined product of five kinds of health- physical, emotional, moral, spiritual and social, considered as an important aspect of total health of person because it is both cause and effect of other types of health.

A mentally healthy individual is one who is free of psychiatric disease, has a general feeling of well-being, functions at or near his full biological capacity, is competent in dealing with his environment and has good strength. Mental health relies upon the existing conditions that relate to changes that takes place in environment. Along with dealing the adjustment difficulties at every phase of life, mental health also assists an individual to regulate his ways of thinking, feeling, behaving and attitudes in relation with his environment and the recent developments.

Adolescence is examined as the imperative transitional span of life, as adolescents confront a vigorous chaos because of the biological, cognitive and social changes taking place in this span. Moreover, adolescence is a stage of intense risks with high rates of misery, suicides, drug, alcohol addiction and antisocial conduct. Expectations of parents and teachers, home environment, academic stress, interpersonal problems, worries about the future, and peer pressure are some of the stressors faced by adolescents. It is also considered as a critical period for emerging and sustaining social and emotional habits crucial for mental well-being. It includes accepting healthy sleep patterns, doing regular exercise, emerging coping, problem-solving, and interpersonal skills; and learning to cope with emotions. Supportive environments in the family, at school, and in the wider community are also vital (WHO 2018). Adolescents could pass through this transitional span with contentment, positivity, success and assurance without distress and uncertainty, but it could only be possible in one context i.e. with healthy mental health (Choudhary 2006). From the past few decades adolescent’s mental and emotional health has become a great matter of concern for counsellors, psychologists, and health professionals. Similar to adults, children and adolescents can too have problems related to their mental health which can affect the way they think, act and feel. These problems can further cause academic failures, drug abuse, family conflicts and suicidal tendencies.

The more risk factors adolescents are subjected to, the greater the potential influence on their mental health. Aspects which can contribute to stress during adolescence include a longing for greater autonomy, pressure to conform with peers, exploration of sexual identity, and increased access to and use of technology. Violence (including insensitive parenting and bullying) and socio-economic problems are also recognized risks to mental health (WHO, 2018).
Positive parenting behaviour protects the adolescents from subsequent substance use and problem behaviour (Cleveland et al., 2005). Healthy parent-adolescent relationship are vital for adolescent’s mental well-being and increased communication gap deteriorates their mental health. Large families are less capable to cater the physical and emotional demands of adolescents. Conflicts among parents or negative atmosphere of the house threatens the sense of security and emotional stability of the adolescents. Kapphann (2006) also highlights the significance of mental health required for normal development of adolescents.

Hence, the awareness on mental health is very much needed for the adolescents. Lack of awareness/knowledge on such issues often end up in a serious damage on emotional, ethical or moral grounds. Therefore, besides tackling the mental illnesses there is an important need to be focused on higher priority of creating awareness on mental health problems among adolescents. Keeping this in mind present research paper, ‘gender and locale differences in mental health among adolescents’ have been planned.

The main objectives of this study include, to study the gender and locale differences in mental health of rural and urban adolescents. To determine gender and locale differences in suicidal ideation among rural and urban adolescents. And also to study the relationship between mental health and suicidal ideation among adolescents.

**Materials and Methods**

**Sample selection**

The present study was based upon a sample of 240 respondents aged between 16-18 years, studying in 10th, 11th and 12th grades drawn equally from rural and urban schools of Ludhiana district. The respondents were equally distributed according to their gender (120 boys and 120 girls). For selection of the sample, list of Government Senior Secondary Schools of Ludhiana district was procured from District Education Officer, Ludhiana. For rural sample: two Government Senior Secondary Schools were purposively selected from the one Block i.e. Block-I of Ludhiana district. For urban sample: two Zones i.e. Zone-A and Zone-B were purposively selected from the Ludhiana district. Out of these selected rural and urban schools the required number of respondents was randomly selected for the data collection.

**Tool used**

Each subject was administered the Mental Health Battery by Singh and Sen Gupta (2000) to assess their mental health. The battery consisted of 130 items related to different dimensions of mental health. The battery has 6 dimensions namely emotional stability, overall adjustment, autonomy, security-insecurity, self-concept and intelligence. The scale was translated to Punjabi so that adolescents could easily understand the statements. High scores indicated high possession of the particular dimension and low scores indicated less possession of the particular dimension.

**Results and Discussion**

**Gender-wise distribution across different dimensions of mental health among rural and urban respondents**

Table 1 describes the gender-wise distribution across different dimensions of mental health among rural and urban respondents. Among the sample of boys, the results revealed that in high level of security-insecurity rural boys (35%) were found to be significantly (Z = 2.064, p ≤ 0.01) ahead than urban boys (18.33%). In self-concept urban boys
(63.33%) were found to be significantly (Z = 2.557, p ≤ 0.05) ahead than rural boys (40%) in medium level whereas in high level of self-concept rural boys (45%) were significantly (z = 2.503, p ≤ 0.05) ahead than urban boys (23.33%). Non-significant results were found in rest of the traits. In case of emotional stability 33.33 per cent of rural boys and 28.33 per cent of urban boys had low, 48.33 per cent of rural boys and 51.67 per cent of urban boys had medium and 18.33 per cent of rural boys and 20 per cent of urban boys had high levels of emotional stability. In overall adjustment trait 31.67 per cent of rural boys and 43.33 per cent of urban boys had low, 60 per cent of rural boys and 53.33 per cent of urban boys had medium and 8.33 per cent of rural boys and 3.33 per cent of urban boys had high levels. In case of autonomy 35 per cent of rural boys and 43.33 per cent of urban boys had low, 58.33 per cent of rural boys and 55 per cent of urban boys had medium and 6.67 per cent of rural boys and 1.67 per cent of urban boys had high levels of autonomy. In case of intelligence 3.33 per cent of rural boys and 10 per cent of urban boys had low, 76.67 per cent of rural boys and 78.33 per cent of urban boys had medium and 28.33 per cent of rural boys and 11.67 per cent of urban boys had high levels of intelligence. In overall mental health rural boys (28.33%) were found to be significantly (Z = 2.281, p ≤ 0.05) ahead than urban boys (11.67%).

Gender-wise distribution across different dimensions of mental health among total respondents

Table 2 describes gender-wise distribution across different dimensions of mental health among total respondents. The results revealed that in low level of autonomy, percentage of girls (68.33%) were found to be significantly (Z = 4.53, p ≤ 0.01) higher than boys (39.17%). In medium level boys (56.67%) were significantly (Z = 3.90, p ≤ 0.01) higher than girls (31.67%) whereas in case of high level of autonomy, boys (4.17%) were found to be significantly (Z = 2.26, p ≤ 0.05) higher than girls (0.00%) which indicated that more number of boys had self-determination in their thinking. In case of security-insecurity, the girls (38.33%) were found to be significantly (Z = 3.43, p ≤ 0.01) higher than boys in low level indicating that more number of girls were found to be insecure, having low sense of safety, lack of confidence and certain kind of fears as compared to their male counterparts whereas in high levels boys (26.67 %) were significantly (Z = 2.95, p ≤ 0.01) higher than girls (11.67%) indicating high sense of safety, confidence and freedom from fear. In the trait of self-concept girls (33.33%) were found to be significantly (Z = 3.48, p ≤ 0.01) higher than boys in low levels...
whereas in high level, boys (34.17%) were significantly \((Z = 3.96, p \leq 0.01)\) higher than girls (12.50%) resulting more number of boys having high sense of self-concept. In intelligence, girls (21.67%) were significantly \((Z = 3.33, p \leq 0.01)\) higher than boys (6.67%) in low levels. In high levels of intelligence, boys (15.83%) were found to be significantly \((Z = 2.24, p \leq 0.05)\) higher than girls (6.67%) indicating more number of boys thinking rationally and behaving purposefully in the environment.

Rest of the traits were found to be non-significant. In emotional stability, 19.17 per cent of boys and 21.67 per cent of girls had high, 50 per cent of boys and 52.50 per cent of girls had medium and 30.83 per cent of boys and 25.83 per cent of girls had low levels. In overall adjustment, 5.83 per cent of boys and 3.33 per cent of girls had high, 56.67 per cent of boys and 59.17 per cent of girls had medium and 37.50 per cent of boys and 37.50 per cent of girls had low levels. In low level of overall mental health, girls (23.33%) were found to be significantly \((Z= 3.18, p \leq 0.01)\) ahead than boys (8.33%) whereas in high levels, boys (20%) were significantly \((Z = 2.59, p \leq 0.05)\) higher than girls (8.33%).

**Gender-wise differences in mean scores of rural and urban respondents with regard to mental health**

Table 3 elucidates gender-wise differences in mean scores of rural and urban respondents with regard to mental health. Significant differences existed in autonomy, security-insecurity, self-concept, intelligence and overall mental health among girl respondents. The mean score of rural girls (2.58±1.09) were significantly \((t = 4.012, p \leq 0.01)\) higher than urban girls (3.38±1.09) in autonomy which interpreted that rural girls had more determination in their thinking as compared to urban girls. In security-insecurity trait the mean score of urban girls (5.70±1.65) were found to be significantly \((t = 3.948, p \leq 0.01)\) higher than rural girls (4.47±1.76). In self-concept also the mean score of urban girls (6.05±1.79) were significantly \((t = 3.633, p \leq 0.01)\) higher than rural girls (4.82±1.92) representing that urban girls tend to have self-constructed beliefs about themselves and evaluation about their achievements as compared to rural girls. In the trait of intelligence, urban girls (11.27±2.67) were found to be significantly \((t = 3.477, p \leq 0.01)\) higher than rural girls (9.50 ± 2.90) indicating that more number of urban girls had better general mental ability to think and behave rationally and purposefully in their surroundings than rural girls.

In overall mental health, urban girls (44.87±8.34) were found to be significantly \((t = 3.342, p \leq 0.01)\) ahead than rural girls (39.62±8.86) indicating urban girls had better mental health as compared to rural girls. Across rest of the traits, the mean scores of rural and urban girls were found to be non-significant. In case of boys, no significant differences were found in any of the dimensions of mental health among rural and urban respondents.

**Gender-wise differences in mean scores of respondents with regard to mental health**

Table 4 elucidates gender-wise differences in mean scores of respondents with regard to mental health. It is very much clear from the table that significant differences existed in autonomy, security-insecurity, self-concept, intelligence and overall mental health. The mean score of boys (3.88±1.47) were significantly \((t = 5.265, p \leq 0.01)\) higher than girls (2.98±1.16) in the trait of autonomy which interpreted that boys had more capability to rationally decide for themselves and to plan a course of action for their lives as compared to girls. In security-insecurity trait
again the mean score of boys (6.25±1.76) were found to be significantly (t = 5.077, p ≤ 0.01) higher than girls (5.08±1.81), which implied that boys tend to have more sense of safety, reliability, certainty, comfort, confidence as compared to girls. In self-concept also the mean score of boys (6.80±2.04) were significantly (t = 5.318, p ≤ 0.01) higher than girls (5.43±1.95) representing that boys tend to have self-constructed beliefs about themselves and evaluation about their achievements as compared to girls.

In the trait of intelligence, boys (12.25±2.99) were found to be significantly (t = 4.988, p ≤ 0.01) higher than girls (10.35±2.91) indicating that more number of boys had the ability to acquire and apply their knowledge and skills as compared to girls.

Across rest of the traits, the mean scores of boys and girls were found to be non-significant. Differences in overall mental health was found to be significant (t = 4.975, p ≤ 0.01), boys scored higher mean values (47.77±8.62) as compared to the girls (42.24±8.60) highlighting that their overall mental health is better than girls.

**Locale-wise distribution across different dimensions of mental health among respondents**

Table 5 describes locale-wise distribution across different dimensions of mental health among respondents. Among rural sample, the results revealed that in low level of autonomy rural girls (81.67%) were found significantly (Z = 5.18, p ≤ 0.01) ahead than rural boys (35%) and in medium level rural boys (58.33%) were found significantly (Z = 4.50, p ≤ 0.01) higher than rural girls (18.33%) whereas in high level rural boys (6.67%) were significantly (Z = 2.03, p ≤ 0.05) higher than rural girls (0%) indicating that more number of rural boys had more autonomy in them as compared to rural girls. In the trait of security-insecurity significant differences were found in low and high level. In low level rural girls (53.33%) were significantly (Z = 3.99, p ≤ 0.05) higher than rural boys (18.33%). In high level rural boys (35%) were significantly (Z = 3.82, p ≤ 0.01) ahead as compared to rural girls (6.67%). In case of self-concept scores of rural girls (46.67%) were significantly (Z = 3.75, p ≤ 0.01) higher than rural boys (15%) in low level whereas in high level of self-concept rural boys (45%) were found to be significantly (Z = 4.79, p ≤ 0.01) ahead than rural girls (6.67%) indicating that more number of rural boys had high level of self-concept in them as compared to girls. In case of intelligence rural girls (33.33%) were significantly (Z = 4.24, p ≤ 0.01) higher than rural boys (3.33%) in low level whereas in high level rural boys (20%) were significantly (Z = 2.48, p ≤ 0.05) ahead than girls (5%) lighting high intelligence in boys than girls. Non-significant results were found in rest of the traits. In case of emotional stability 33.33 per cent of rural boys and 25 per cent of rural girls had low, 48.33 per cent of rural boys and 55 per cent of rural girls had medium and 18.33 per cent of rural boys and 20 per cent of rural girls had high levels of emotional stability. In overall adjustment trait 31.67 per cent of rural boys and 40 per cent of rural girls had low, 60 per cent of rural boys and 55 per cent of rural girls had medium and 8.33 per cent of rural boys and 5 per cent of rural girls had high levels. In case of overall mental health the rural girls (33.33%) were found to be significantly (Z = 3.65, p ≤ 0.01) higher than rural boys (6.67%) whereas in high level of overall mental health, rural boys (28.33%) were found to be significantly (Z = 3.12, p ≤ 0.01) ahead than rural girls (6.67%) indicating rural boys having better mental health than rural girls.
**Table 1** Gender-wise differences across different dimensions and levels of mental health among adolescents (n=240)

| Dimensions of Mental Health | Boys |          |          |          |          |          |          |          |
|-----------------------------|------|----------|----------|----------|----------|----------|----------|----------|
|                             | Rural (n₁=60) | Urban (n₂=60) | Z-value | Rural (n₃=60) | Urban (n₄=60) | Z-value |
|                             | f     | %        | f        | %        | f        | %        | f        | %        |
| **Emotional Stability**     |       |          |          |          |          |          |          |          |
| Low                         | 20    | 33.33    | 17       | 28.33    | 0.593    | 12       | 20.00    | 14       | 23.33    | 0.443 |
| Medium                      | 29    | 48.33    | 31       | 51.67    | 0.365    | 33       | 55.00    | 30       | 50.00    | 0.548 |
| High                        | 11    | 18.33    | 12       | 20.00    | 0.232    | 15       | 25.00    | 16       | 26.67    | 0.209 |
| **Overall Adjustment**      |       |          |          |          |          |          |          |          |
| Low                         | 19    | 31.67    | 26       | 43.33    | 1.319    | 3        | 5.00     | 1        | 1.67     | 1.017 |
| Medium                      | 36    | 60.00    | 32       | 53.33    | 0.737    | 33       | 55.00    | 38       | 63.33    | 0.929 |
| High                        | 5     | 8.33     | 2        | 3.33     | 1.169    | 24       | 40.00    | 21       | 35.00    | 0.566 |
| **Autonomy**                |       |          |          |          |          |          |          |          |
| Low                         | 21    | 35.00    | 26       | 43.33    | 0.935    | 0        | 0.00     | 0        | 0.00     | 0.000 |
| Medium                      | 35    | 58.33    | 33       | 55.00    | 0.368    | 11       | 18.33    | 27       | 45.00    | 3.140** |
| High                        | 4     | 6.67     | 1        | 1.67     | 1.370    | 49       | 81.67    | 33       | 55.00    | 3.140** |
| **Security-Insecurity**     |       |          |          |          |          |          |          |          |
| Low                         | 11    | 18.33    | 11       | 18.33    | 0.000    | 4        | 6.67     | 10       | 16.67    | 1.706 |
| Medium                      | 28    | 46.67    | 38       | 63.33    | 1.835    | 24       | 40.00    | 36       | 60.00    | 2.191* |
| High                        | 21    | 35.00    | 11       | 18.33    | 2.064*   | 32       | 53.33    | 14       | 23.33    | 3.380** |
| **Self-Concept**           |       |          |          |          |          |          |          |          |
| Low                         | 9     | 15.00    | 8        | 13.33    | 0.262    | 4        | 6.67     | 11       | 18.33    | 1.932 |
| Medium                      | 24    | 40.00    | 38       | 63.33    | 2.557*   | 28       | 46.67    | 37       | 61.67    | 1.649 |
| High                        | 27    | 45.00    | 14       | 23.33    | 2.503*   | 28       | 46.67    | 12       | 20.00    | 3.098** |
| **Intelligence**            |       |          |          |          |          |          |          |          |
| Low                         | 2     | 3.33     | 6        | 10.00    | 1.465    | 3        | 5.00     | 5        | 8.33     | 0.732 |
| Medium                      | 46    | 76.67    | 47       | 78.33    | 0.219    | 37       | 61.67    | 49       | 81.67    | 2.431* |
| High                        | 12    | 20.00    | 7        | 11.67    | 1.250    | 20       | 33.33    | 6        | 10.00    | 3.102** |
| **Overall Mental Health**   |       |          |          |          |          |          |          |          |
| Low                         | 4     | 6.67     | 6        | 10.00    | 0.660    | 4        | 6.67     | 6        | 10.00    | 0.661 |
| Medium                      | 39    | 65.00    | 47       | 78.33    | 1.621    | 36       | 60.00    | 46       | 76.67    | 1.962 |
| High                        | 17    | 28.33    | 7        | 11.67    | 2.281*   | 20       | 33.33    | 8        | 13.33    | 2.590* |

**Significant at the 0.01 level (2-tailed).**

* Significant at the 0.05 level (2-tailed)
Table.2 Gender-wise distribution of respondents across various dimensions and levels of mental health among adolescents

| Dimensions of Mental Health | Boys (n₁=120) | Girls (n₂=120) | Z-value | Overall (n=240) |
|----------------------------|---------------|----------------|---------|----------------|
|                            | f | %  | f | %  | f | %  |
| **Emotional Stability**    |   |     |   |     |   |     |
| Low                        | 37 | 30.83 | 31 | 25.83 | 0.859 | 68 | 28.33 |
| Medium                     | 60 | 50.00 | 63 | 52.50 | 0.387 | 123 | 51.25 |
| High                       | 23 | 19.17 | 26 | 21.67 | 0.480 | 49 | 20.42 |
| **Overall Adjustment**     |   |     |   |     |   |     |
| Low                        | 45 | 37.50 | 45 | 37.50 | 0.000 | 90 | 37.50 |
| Medium                     | 68 | 56.67 | 71 | 59.17 | 0.392 | 139 | 57.92 |
| High                       | 7  | 5.83  | 4  | 3.33  | 0.926 | 11  | 4.58  |
| **Autonomy**               |   |     |   |     |   |     |
| Low                        | 47 | 39.17 | 82 | 68.33 | 4.531** | 129 | 53.75 |
| Medium                     | 68 | 56.67 | 38 | 31.67 | 3.900** | 106 | 44.17 |
| High                       | 5  | 4.17  | 0  | 0.00  | 2.260* | 5  | 2.08  |
| **Security-Insecurity**    |   |     |   |     |   |     |
| Low                        | 22 | 18.33 | 46 | 38.33 | 3.438** | 68  | 28.33 |
| Medium                     | 66 | 55.00 | 60 | 50.00 | 0.776 | 126 | 52.50 |
| High                       | 32 | 26.67 | 14 | 11.67 | 2.952** | 46  | 19.17 |
| **Self-Concept**           |   |     |   |     |   |     |
| Low                        | 17 | 14.17 | 40 | 33.33 | 3.489** | 57  | 23.75 |
| Medium                     | 62 | 51.67 | 65 | 54.17 | 0.388 | 127 | 52.92 |
| High                       | 41 | 34.17 | 15 | 12.50 | 3.968** | 56  | 23.33 |
| **Intelligence**           |   |     |   |     |   |     |
| Low                        | 8  | 6.67  | 26 | 21.67 | 3.332** | 34  | 14.17 |
| Medium                     | 93 | 77.50 | 86 | 71.67 | 1.038 | 179 | 74.58 |
| High                       | 19 | 15.83 | 8  | 6.67  | 2.247* | 27  | 11.25 |
| **Overall Mental Health**  |   |     |   |     |   |     |
| Low                        | 10 | 8.33  | 28 | 23.33 | 3.183** | 38  | 15.83 |
| Medium                     | 86 | 71.67 | 82 | 68.33 | 0.563 | 168 | 70.00 |
| High                       | 24 | 20.00 | 10 | 8.33  | 2.592* | 34  | 14.17 |

**Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed).

Table.3 Gender-wise differences in mean scores (± S.D) of rural and urban respondents in mental health (n=240)

| Dimensions of Mental Health | Boys Rural (n₁=60) | Boys Urban (n₂=60) | t-value | Girls Rural (n₁=60) | Girls Urban (n₂=60) | t-value |
|----------------------------|-------------------|--------------------|---------|---------------------|---------------------|---------|
|                            | Mean ± S.D        | Mean ± S.D        |         | Mean ± S.D          | Mean ± S.D          |         |
| **Emotional Stability**    | 5.45±1.96         | 5.70±1.91         | 0.708   | 5.72±2.10           | 5.80±2.06           | 0.211   |
| **Overall Adjustment**     | 13.22±3.75        | 12.82±3.70        | 0.588   | 12.53±3.62          | 12.72±3.13          | 0.307   |
| **Autonomy**               | 4.13±1.68         | 3.63±1.18         | 1.886   | 2.58±1.09           | 3.38±1.09           | 4.012** |
| **Security-Insecurity**    | 6.53±1.80         | 5.97±1.69         | 1.759   | 4.47±1.76           | 5.70±1.65           | 3.948** |
| **Self-Concept**           | 7.15±2.09         | 6.45±1.94         | 1.900   | 4.82±1.92           | 6.05±1.79           | 3.633** |
| **Intelligence**           | 12.80±3.10        | 11.70±2.81        | 2.039*  | 9.50±2.90           | 11.27±2.67          | 3.477** |
| **Overall Mental Health**  | 49.27±8.89        | 46.27±8.34        | 1.906   | 39.62±8.86          | 44.87±8.34          | 3.342** |

**Significant at the 0.01 level (2-tailed).
* Significant at the 0.05 level (2-tailed)
Table 4: Gender-wise differences in mean scores (± S.D) of respondents across mental health

| Dimensions of Mental Health | Boys (n1=120) | Girls (n2=120) | t-value | Total (n=240) |
|----------------------------|---------------|---------------|---------|---------------|
|                            | Mean ± S.D    | Mean ± S.D    |         | Mean ± S.D    |
| Emotional Stability        | 5.57±1.93     | 5.76±2.07     | 0.735   | 9.33±2.00     |
| Overall Adjustment.        | 13.02±3.71    | 12.62±3.37    | 0.874   | 27.18±3.55    |
| Autonomy                   | 3.88±1.47     | 2.98±1.16     | 5.265** | 11.57±1.39    |
| Security-Insecurity        | 6.25±1.76     | 5.08±1.81     | 5.077** | 9.33±1.87     |
| Self-Concept               | 6.80±2.04     | 5.43±1.95     | 5.318** | 8.88±2.10     |
| Intelligence               | 12.25±2.99    | 10.35±2.91    | 4.988** | 18.70±3.09    |
| Overall Mental Health      | 47.77±8.62    | 42.24±8.60    | 4.975** | 84.99±8.61    |

**Significant at the 0.01 level (2-tailed).

Table 5: Locale-wise differences across various dimensions and levels of mental health among adolescents (n=240)

| Dimensions of Mental Health | Rural | | | Urban | | |
|-----------------------------|-------|---|---|-------|---|---|
|                             | Boys  | | | Boys  | | |
|                             | (n1=60) | Z- | | (n3=60) | Z- | |
|                             | Mean ± S.D | f | % | Mean ± S.D | f | % |
| Emotional Stability Low     | 20 33.33 | 17 | 28.33 | 0.004 | 16 | 26.67 |
| Medium                      | 29 48.33 | 31 | 51.67 | 0.731 | 30 | 50.00 |
| High                        | 11 18.33 | 12 | 20.00 | 0.232 | 14 | 23.33 |
| Overall Adjustment Low      | 19 31.67 | 26 | 43.33 | 0.952 | 31 | 50.00 |
| Medium                      | 36 60.00 | 32 | 53.33 | 0.554 | 38 | 63.33 |
| High                        | 5 8.33 | 2 | 3.33 | 0.732 | 1 | 1.67 |
| Autonomy Low                | 21 35.00 | 26 | 43.33 | 5.185** | 33 | 55.00 |
| Medium                      | 35 58.33 | 33 | 55.00 | 4.506** | 38 | 63.33 |
| High                        | 4 6.67 | 3 | 3.33 | 2.034* | 1 | 1.67 |
| Security-Insecurity Low     | 11 18.33 | 11 | 18.33 | 3.998** | 14 | 23.33 |
| Medium                      | 28 46.67 | 38 | 63.33 | 0.737 | 36 | 60.00 |
| High                        | 21 35.00 | 11 | 18.33 | 3.821** | 10 | 16.67 |
| Self-Concept Low            | 9 15.00 | 8 | 13.33 | 3.756** | 12 | 20.00 |
| Medium                      | 24 40.00 | 38 | 63.33 | 0.737 | 37 | 61.67 |
| High                        | 27 45.00 | 14 | 23.33 | 4.797** | 11 | 18.33 |
| Intelligence Low            | 2 3.33 | 6 | 10.00 | 4.247** | 47 | 78.33 |
| Medium                      | 46 76.67 | 49 | 81.67 | 1.779 | 46 | 76.67 |
| High                        | 12 20.00 | 7 | 11.67 | 2.484* | 5 | 8.33 |
| Overall Mental Health Low   | 4 6.67 | 6 | 10.00 | 3.651** | 8 | 13.33 |
| Medium                      | 39 65.00 | 47 | 78.33 | 0.566 | 46 | 76.67 |
| High                        | 17 28.33 | 7 | 11.67 | 3.123** | 6 | 10.00 |

**Significant at the 0.01 level (2-tailed).
*Significant at the 0.05 level (1-tailed).
**Table 6** Locale-wise distribution of respondents across various dimensions and levels of mental health

| Dimensions of Mental Health | Rural (n1=120) | Urban (n2=120) | Z-value | Overall (n=240) |
|----------------------------|---------------|---------------|---------|----------------|
|                            | f  %          | f  %          |         | f  %           |
| **Emotional Stability**    |               |               |         |                |
| Low                        | 35 29.17      | 33 27.50      | 0.286   | 68 28.33       |
| Medium                     | 62 51.67      | 61 50.83      | 0.129   | 123 51.25      |
| High                       | 23 19.17      | 26 21.67      | 0.480   | 49 20.42       |
| **Overall Adjustment**     |               |               |         |                |
| Low                        | 43 35.83      | 47 39.17      | 0.533   | 90 37.50       |
| Medium                     | 69 57.50      | 70 58.33      | 0.131   | 139 57.92      |
| High                       | 8 6.67        | 3 2.50        | 1.543   | 11 4.58        |
| **Autonomy**               |               |               |         |                |
| Low                        | 70 58.33      | 59 49.17      | 1.424   | 129 53.75      |
| Medium                     | 46 38.33      | 60 50.00      | 1.820   | 106 44.17      |
| High                       | 4 3.33        | 1 0.83        | 1.356   | 5 2.08         |
| **Security-Insecurity**    |               |               |         |                |
| Low                        | 43 35.83      | 25 20.83      | 2.578*  | 68 28.33       |
| Medium                     | 52 43.33      | 74 61.67      | 2.844** | 126 52.50      |
| High                       | 25 20.83      | 21 17.50      | 0.656   | 46 19.17       |
| **Self-Concept**           |               |               |         |                |
| Low                        | 37 30.83      | 20 16.67      | 2.579*  | 57 23.75       |
| Medium                     | 52 43.33      | 75 62.50      | 2.974** | 127 52.92      |
| High                       | 31 25.83      | 25 20.83      | 0.916   | 56 23.33       |
| **Intelligence**           |               |               |         |                |
| Low                        | 22 18.33      | 12 10.00      | 1.851   | 34 14.17       |
| Medium                     | 83 69.17      | 96 80.00      | 1.927   | 179 74.58      |
| High                       | 15 12.50      | 12 10.00      | 0.613   | 27 11.25       |
| **Overall Mental Health**  |               |               |         |                |
| Low                        | 24 20.00      | 14 11.67      | 1.768   | 38 15.83       |
| Medium                     | 75 62.50      | 93 77.50      | 2.535*  | 168 70.00      |
| High                       | 21 17.50      | 13 10.83      | 1.481   | 34 14.17       |

* Significant at the 0.05 level (2-tailed).
** Significant at the 0.01 level (2-tailed).

**Table 7** Locale-wise differences in mean scores (±S.D) of rural and urban respondents in mental health

| Dimensions of Mental Health | Boys (n1=60) | Girls (n2=60) | t-value | Urban Boys (n1=60) | Girls (n1=60) | t-value |
|----------------------------|--------------|---------------|---------|-------------------|---------------|---------|
|                            | Mean ± S.D   | Mean ± S.D    |         | Mean ± S.D        | Mean ± S.D    |         |
| **Emotional Stability**    | 5.45±1.96    | 5.72±2.10     | 0.728   | 5.70±1.91         | 5.80±2.06     | 0.276   |
| **Overall Adjustment**     | 13.22±3.75   | 12.53±3.62    | 1.025   | 12.82±3.70        | 12.72±3.13    | 0.160   |
| **Autonomy**               | 4.13±1.68    | 2.58±1.09     | 5.995** | 3.63±1.18         | 3.38±1.09     | 1.205   |
| **Security-Insecurity**    | 6.53±1.80    | 4.47±1.76     | 6.338** | 5.97±1.69         | 5.70±1.65     | 0.885   |
| **Self-Concept**           | 7.15±2.09    | 4.82±1.92     | 6.359** | 6.45±1.94         | 6.05±1.79     | 1.174   |
| **Intelligence**           | 12.8±3.10    | 9.50±2.90     | 6.022** | 11.70±2.81        | 11.27±2.67    | 0.859   |
| **Overall Mental Health**  | 49.27±8.89   | 39.62±8.86    | 5.956** | 46.27±8.34        | 44.87±8.34    | 0.919   |

* Significant at the 0.05 level (2-tailed).
** Significant at the 0.01 level (2-tailed).
Table 8: Locale-wise differences in mean scores (± S.D) of respondents across mental health

| Dimensions of Mental Health | Rural (n₁=120)      | Urban (n₂=120)      | t value       | Total (n=240)       |
|-----------------------------|---------------------|---------------------|---------------|---------------------|
|                             | Mean ± S.D          | Mean ± S.D          |               | Mean ± S.D          |
| Emotional Stability         | 5.58±2.03           | 5.75±1.98           | 0.657         | 9.33±2.00           |
| Overall Adjustment          | 12.87±3.69          | 12.77±3.41          | 0.218         | 27.18±3.55          |
| Autonomy                    | 3.36±1.61           | 3.51±1.14           | 0.833         | 11.57±1.39          |
| Security-Insecurity         | 5.5±2.05            | 5.83±1.67           | 1.367         | 9.33±1.87           |
| Self-Concept                | 5.98±2.32           | 6.25±1.87           | 0.993         | 8.88±2.10           |
| Intelligence                | 11.15±3.42          | 11.46±2.74          | 0.775         | 18.70±3.09          |
| Overall Mental Health       | 44.45±8.875         | 45.57±8.34          | 1.007         | 84.9925±8.6075      |

In case of urban boys and girls, no significant differences were found in any of the traits of mental health. In emotional stability, 28.33 per cent of urban boys and 26.67 per cent of urban girls had low, 51.67 per cent of boys and 50 per cent of girls had medium and 20 per cent of boys and 23.33 per cent of had high levels. In overall adjustment, 43.33 per cent of boys and 35 per cent of girls had low, 53.33 per cent of boys and 63.33 per cent of girls had medium and 3.33 per cent of boys and 1.67 per cent of girls had high levels. In case of autonomy, 43.33 per cent of boys and 55 per cent of girls had low, 55 per cent of boys and 45 per cent of girls had medium and 1.67 per cent of boys and zero per cent of girls had high levels. In case of security-insecurity, 18.33 per cent of boys and 23.33 per cent of girls had low, 63.33 per cent of boys and 60 per cent of girls had medium and 18.33 per cent of boys and 16.67 per cent of girls had high levels. In self-concept, 13.33 per cent of boys and 20 per cent of girls had low, 63.33 per cent of boys and 61.67 per cent of girls had medium and 23.33 per cent of boys and 18.33 per cent of girls had high levels. In intelligence, 10 per cent of boys and 10 per cent of girls had low, 78.33 per cent of boys and 81.67 per cent of girls had medium and 11.67 per cent of boys and 8.33 per cent of girls had high levels. In overall mental health, 10 per cent of boys and 13.33 per cent of girls had low, 78.33 per cent of boys and 76.67 per cent of girls had medium and 11.67 per cent of boys and 10 per cent of girls had high levels respectively.

locale-wise distribution across different dimensions of mental health among respondents

Table 6 describes locale-wise distribution across different dimensions of mental health among respondents. The results revealed that in low level of security-insecurity, rural respondents (35.83%) were found to be significantly (Z = 2.57, p ≤ 0.05) higher than urban respondents (20.83%) whereas in medium level of security-insecurity, urban respondents (61.67%) were found to be significantly (Z = 2.84, p ≤ 0.01) higher than rural respondents. In the trait of self-concept, rural respondents (30.83%) were significantly (Z = 2.57, p ≤ 0.05) higher than urban respondents (16.67%) in low level whereas in medium level urban respondents (62.50%) were significantly (Z = 2.97, p ≤ 0.01) higher than rural respondents (43.33%) indicating that urban respondents have high level of self-concept as compared to rural respondents. These findings are in line with the findings of Wankhade (2016) who concluded that urban
respondents have high level of self-concept as compared to rural respondents. None of the other traits were found to be significant. In emotional stability, 19.17 per cent of rural respondents and 21.67 per cent of urban respondents had high, 51.67 per cent of rural respondents and 50.83 per cent of urban respondents had medium and 29.17 per cent of rural respondents and 27.50 per cent of urban respondents had low levels. In overall adjustment, 6.67 per cent of rural respondents and 2.50 per cent of urban respondents had high, 57.50 per cent of rural respondents and 58.33 per cent of urban respondents had medium and 35.83 per cent of rural respondents and 39.17 per cent of urban respondents had low levels. In case of autonomy, 3.33 per cent of rural respondents and 0.83 per cent of urban respondents had high, 38.33 per cent of rural respondents and 50 per cent of urban respondents had medium and 58.33 per cent of rural respondents and 49.17 per cent of urban respondents had low levels. In the trait of intelligence, 12.50 per cent of rural respondents and 10 per cent of urban respondents had high, 69.17 per cent of rural respondents and 80 per cent of urban respondents had medium and 18.33 per cent of rural respondents and 10 per cent of urban respondents had low levels. In case of overall mental health, the urban respondents (77.50) were found to be significantly (t = 5.956, p ≤ 0.01) higher than rural boys scored higher mean values (49.27±8.89) as compared to the rural girls (39.62±8.86) highlighting that their overall mental health is better than girls.

Locale-wise differences in mean scores of respondents with regard to mental health

Table 7 elucidates Locale-wise differences in mean scores of respondents with regard to mental health. Significant differences existed in autonomy, security-insecurity, self-concept, intelligence and overall mental health among rural respondents. The mean score of rural boys (4.13±1.68) were significantly (t = 5.995, p ≤ 0.01) higher than rural girls (2.58±1.09) in autonomy which interpreted that rural boys had more determination in their thinking as compared to rural girls. In security-insecurity trait again the mean score of rural boys (6.53±1.80) were found to be significantly (t = 6.338, p ≤ 0.01) higher than girls (4.47±1.76). It implied that boys tend to have more sense of freedom from fear, low level of anxiety or stress as compared to girls. In self-concept also the mean score of rural boys (7.15±2.09) were significantly (t = 6.359, p ≤ 0.01) higher than rural girls (4.82±1.92) representing that boys tend to have self-constructed beliefs about themselves and evaluation about their achievements as compared to rural girls. In the trait of intelligence, rural boys (12.8±3.10) were found to be significantly (t = 6.022, p ≤ 0.01) higher than rural girls (9.50 ± 2.90) indicating that more number of rural boys had better general mental ability to think and behave rationally and purposefully in their surroundings than rural girls. Across rest of the traits, the mean scores of rural boys and girls were found to be non-significant.

In case of urban adolescents no significant differences were found in any of the traits. In emotional stability, urban boys had mean score of (5.70±1.91) whereas urban girls had mean score of (5.80±2.06). In overall adjustment, boys had mean score of (12.82±3.70) whereas urban girls had mean score of (12.72±3.13). In the trait of autonomy girls had mean score of (3.38±1.09) and boys had mean score of (3.63±1.18). In the mean score of security-insecurity girls had (5.70±1.65) and urban boys had (5.97±1.69). In the trait of self-concept and intelligence
girls had mean score of (6.05±1.79) whereas boys had (6.45±1.94) and in intelligence girls’ mean score were (11.27±2.67) and boys had mean score of (11.70±2.81). In case of overall mental health girls had mean score of (44.87±8.34) whereas boys had mean score of (46.27±8.34).

Locale-wise differences in mean scores of respondents with regard to mental health

Table 8 describes locale-wise differences in mean scores of respondents with regard to mental health. In case of rural and urban adolescents no significant differences were found in any of the traits. In emotional stability, rural adolescents had mean score of (5.58±2.03) whereas urban adolescents had mean score of (5.75±1.98).

In overall adjustment, urban adolescents had mean score of (12.77±3.41) whereas rural adolescents had mean score of (12.87±3.69). In the trait of autonomy rural adolescents had mean score of (3.36±1.61) and urban adolescents had mean score of (3.51±1.14). In the mean score of security-insecurity rural adolescents had (5.5±2.05) and urban adolescents had (5.83±1.67).

In the trait of self-concept and intelligence rural adolescents had mean score of (5.98±2.32) whereas urban adolescents had (6.25±1.87) and in intelligence rural adolescents’ mean score were (11.15±3.42) and urban adolescents had mean score of (11.46±2.74). In case of overall mental health rural adolescents had mean score of (44.45±8.87) whereas urban adolescents had mean score of (45.57±8.34).

Results revealed that in mental health gender differences were found to be significant among the adolescents which depicted that more number of boys had high level of overall mental health as compared to their female counterparts. Kaur (2015) and Sankar et al., (2017) also stated that male adolescents had better mental health as compared to their female counterparts. This can be explained by the fact that girls were more emotionally sensitive and they report more depression and anxiety as compared to boys who were reported to experience strong social support that results in their better mental health than girls. A study conducted by Kaur and Kumar (2008) stated that the mental stress level of girls were higher than the mental stress level of boys indicating boys having better mental health as compared to girls. These findings are in line with the findings of Kumari et al., (2012) who also concluded that boys had greater emotional stability, adjustment ability and better mental health as compared to girls. Significant locale differences also existed among the respondents. It was found that that more number of urban adolescents were significantly ahead than rural adolescents in medium level of overall mental health. Kaur (2015) also concluded that urban adolescents had better mental health as compared to the rural adolescents and this can be due to poor family environment, lack of awareness about importance of mental health and mental illnesses and poor parent-adolescent relationship.

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