

# Psychological Resources Contributing to Resilience and Participation in Physical Activities



## Psychology

**KEYWORDS :** Psychological Resources, Resilience, Physical Activities

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### ABSTRACT

*Through several studies researchers analyzed the influences of physical activities on psychological and physiological benefits like academic achievements, cognitive function, long-term health benefits, etc. In this study the influence of participation in physical activities on Psychological resources contributing resilience among adolescents has been studied. The study targeted 179 adolescents (84 males and 95 females) from 14 to 18 years. The Resiliency Scale for Children and Adolescents developed by Prince-Embury and Physical Activity Questionnaire developed by Sigfusdottir. I.D were administered to them. The data were analyzed with F-test. The results indicate significant difference among adolescents who are high on participation in physical activities and adolescents who are low on participation in physical activities with regard to their Psychological resources contributing to Resilience.*

Resilience is defined as a dynamic process that individuals exhibit positive behavioral adaptation when they encounter significant adversity or trauma. Psychological resilience refers to an individual's capacity to withstand stressors and not manifest psychology dysfunction, such as mental illness or persistent negative mood (Luthar et al., 2000). Transactional model of stress and coping defines that "Coping strategies are generally either be outwardly focused on the problem (problem-solving), inwardly focused on emotions (emotion-focused) or socially focused, such as emotional support from others". (Werner, 1982) distinguished three contexts for protective factors: (1) personal attributes, including outgoing, bright, and positive self-concepts; (2) the family, such as having close bonds with at least one family member or an emotionally stable parent; and (3) the community, like receiving support or counsel from peers. It is studied that various resources like self-esteem, self efficacy, optimism, potential attributes like factors contributes resiliency of an individual (Werner, 1982). Also (Prince- Embury, 2007) argued various psychological resources contribute to resilience, viz., Optimism, Self-Efficacy, Adaptability, Sense of Trust, Perceived access for support, Comfort with others, Tolerance of Difference, and Recovery.

A well designed exercise program enhances the immediate physical, psychometric and intellectual attainments of a child (Shephard, 1984). It is also studied that the level of perceived well-being appears to be superior among adolescence who exercise regularly (Berger,1984). Moreover a decrease in depressive thoughts and anxiety is generally described as consequence of an intense physical activity (Markoff, 1982; McCann and Holmes, 1984).

#### Objective:

The present study attempts to examine the difference among adolescents who are high on participation in physical activities and adolescents who are low on participation in physical activities with regard to their Psychological resources contributing to Resilience.

#### METHOD

##### Sample:

As the study targeted adolescence, the purposive sampling technique is used. A sample of 179 adolescents (84 males and 95 females) were randomly selected from different schools at Kerala and Jammu & Kashmir between the age group of 14-18 years.

##### Tools:

Resiliency Scale for Children and Adolescents by Prince-Embury was used to measure the Psychological resources contributing to Resilience of adolescents. It is a self-report scale consists of 64 items presented individually in three page record forms. The Resiliency Scale measures Sense of Mastery, Sense of Relatedness, and Sense of Emotional Reactivity. The Sense of Mastery (MAS) scale, composed of 20 items, the Sense of Relatedness (REL) scale, composed of 24 items, and the Emotional Reactivity

(REA) scale, composed of 20 items. Response options were frequency based, ordered on a 5-point Likert scale: 0 (never), 1 (Rarely), 2 (Sometimes), 3 (Often), 4 (Almost Always). Scoring have been done for three Tests differently (Sense of Mastery, Sense of Relatedness and Sense of Reactivity). The Cronbach Alpha for MAS Scale is 0.93, REL Scale is 0.94 and REA Scale is 0.92. The Scale in total yield individual scores for 10 psychological resources, viz., Optimism, Self-efficacy, Adaptability, Sense of trust, Comfort with others, Perceived access of Support, Tolerance to Difference, Sensitivity, Recovery, and Impairment.

Physical Activity Questionnaire by Sigfusdottir.I.D was used to measure the physical activity of adolescents. This is a 4 item 6 point Likert scale 1 (almost never activity), 2 (less than once a week), 3 (once a week), 4 (2-3 times a week), 5 (4-5 times a week), and 6 (almost every day). The scale is reported to have reliability with Cronbach's  $\alpha=0.73$ .

#### Criterion Group Formation:

**Table 1. Shows the Mean and SD of the criterion groups on Participation in Physical Activities (P.A.)(Median score = 15)**

| Criterion Group                           | N   | Mean  | SD   | Min. Score | Max. Score |
|---|-----|-------|------|------------|------------|
| Adolescents Low on Participation in P.A.  | 90  | 11.03 | 3.23 | 4          | 15         |
| Adolescents High on Participation in P.A. | 89  | 19.37 | 2.73 | 16         | 24         |
| Total Group                               | 179 | 15.18 | 5.14 | 4          | 24         |

Table 1 show the mean score of the low group on participation in physical activities is 11.03 and the SD of the scores is 3.23. The mean score of the high group on participation in physical activities is 19.37, and the SD of the scores is 2.73.

#### RESULTS AND DISCUSSION

The main objective of the present study was to analyze the difference among adolescents who are high on participation in physical activities and adolescents who are low on participation in physical activities with regard to their Psychological resources contributing to Resilience. Obtained results are presented in tables below.

**Table 2. Shows the Mean and SD of the criterion groups on Participation in physical activities based on Psychological resources:**

| Variables     | Criterion Groups                                |         |  |         |                      |         |
|---------------|---|---------|--|---------|----------------------|---------|
|               | Adolescents Low on Participation in P.A.(N= 90) |         | Adolescents High on Participation in P.A.(N= 89) |         | Total Group (N= 179) |         |
|               | Mean  | SD      | Mean   | SD      | Mean                 | SD      |
| Optimism      | 10.2222   | 2.10285 | 11.2584  | 2.25393 | 10.7374              | 2.23438 |
| Self-Efficacy | 9.3667  | 2.51043 | 10.8090  | 2.14728 | 10.0838              | 2.44000 |

|                             |         |         |         |         |         |         |
|-----------------------------|---------|---------|---------|---------|---------|---------|
| Adaptability                | 9.1667  | 2.18396 | 10.0112 | 2.04214 | 9.5866  | 2.15079 |
| Sense of Trust              | 8.8778  | 1.98776 | 10.1798 | 1.99181 | 9.5251  | 2.08881 |
| Comfort with Others         | 9.3000  | 2.40995 | 9.8764  | 2.12571 | 9.5866  | 2.28504 |
| Perceived access of Support | 8.1000  | 2.65233 | 9.7079  | 2.67226 | 8.8994  | 2.77447 |
| Tolerance of Difference     | 8.7667  | 2.68600 | 10.3933 | 2.15120 | 9.5754  | 2.56131 |
| Sensitivity                 | 12.4222 | 2.57026 | 12.8539 | 2.77796 | 12.6369 | 2.67678 |
| Recovery                    | 8.2778  | 3.35545 | 9.5506  | 3.98010 | 8.9106  | 3.72403 |
| Impairment                  | 11.5667 | 2.24884 | 11.1685 | 3.40199 | 11.3687 | 2.87928 |

**Table 3. Shows the Summary of homogeneity of variance of criterion groups on Psychological resources.**

|                             | Sources of Variance | Sum of Squares | df  | Mean Square | F      | Sig. |
|-----------------------------|---------------------|----------------|-----|-------------|--------|------|
| Optimism                    | Between Groups      | 48.047         | 1   | 48.047      | 10.117 | .002 |
|                             | Within Groups       | 840.612        | 177 | 4.749       |        |      |
|                             | Total               | 888.659        | 178 |             |        |      |
| Self-Efficacy               | Between Groups      | 93.090         | 1   | 93.090      | 17.045 | .000 |
|                             | Within Groups       | 966.653        | 177 | 966.653     |        |      |
|                             | Total               | 1059.743       | 178 |             |        |      |
| Adaptability                | Between Groups      | 31.919         | 1   | 31.919      | 7.138  | .008 |
|                             | Within Groups       | 791.489        | 177 | 4.472       |        |      |
|                             | Total               | 823.408        | 178 |             |        |      |
| Sense of Trust              | Between Groups      | 75.858         | 1   | 75.858      | 19.160 | .000 |
|                             | Within Groups       | 700.779        | 177 | 3.959       |        |      |
|                             | Total               | 776.637        | 178 |             |        |      |
| Comfort with Others         | Between Groups      | 14.867         | 1   | 14.867      | 2.877  | .092 |
|                             | Within Groups       | 914.540        | 177 | 5.167       |        |      |
|                             | Total               | 929.408        | 178 |             |        |      |
| Perceived access of Support | Between Groups      | 115.685        | 1   | 115.685     | 16.322 | .000 |
|                             | Within Groups       | 1254.504       | 177 | 7.088       |        |      |
|                             | Total               | 1370.190       | 178 |             |        |      |
| Tolerance of Difference     | Between Groups      | 118.396        | 1   | 118.396     | 19.971 | .000 |
|                             | Within Groups       | 1049.336       | 177 | 5.928       |        |      |
|                             | Total               | 1167.732       | 178 |             |        |      |
| Sensitivity                 | Between Groups      | 8.340          | 1   | 8.340       | 1.165  | .282 |
|                             | Within Groups       | 1267.057       | 177 | 7.159       |        |      |
|                             | Total               | 1275.397       | 178 |             |        |      |
| Recovery                    | Between Groups      | 72.492         | 1   | 72.492      | 5.355  | .022 |
|                             | Within Groups       | 2396.078       | 177 | 13.537      |        |      |
|                             | Total               | 2468.570       | 178 |             |        |      |
| Impairment                  | Between Groups      | 7.093          | 1   | 7.093       | .855   | .356 |
|                             | Within Groups       | 1468.572       | 177 | 8.297       |        |      |
|                             | Total               | 1475.665       | 178 |             |        |      |

Table 2 shows the mean score and SD of the groups on participation in physical activities on Psychological resources contributing to Resilience. The data collected were analyzed with analysis of variance (ANOVA, F-test). Table 3 shows F-ratio relating to homogeneity of variance of the criterion groups on various Psychological resources. Optimism (F=10.11, p<0.01), Self-Efficacy (F=17.04, p<0.01), Adaptability (F=7.14, p<0.01), Sense of Trust (F=19.16, p<0.01), Perceived access of Support (F=16.32, p<0.00), Tolerance (F=19.97, p<0.01), Recovery (F=5.36, p<0.05) are significant, which implies that there is significant difference among adolescents who are high on participation in physical activities and adolescents who are low on participation in physical activities with regard to their Psychological resources like Optimism, Self-Efficacy, Adaptability, Sense of Trust, Perceived access of Support, Tolerance and Recovery.

Table 3 also reveals Psychological resources viz: Comfort with Others (F=2.88, p>0.05), Sensitivity (F=1.16, p>0.01) Impairment (F=0.86, p>0.05) are not significant, which implies that there is no significant difference among adolescents who are high on participation in physical activities and adolescents who are low on participation in physical activities with regard to their Psychological resources like Comfort with Others, Sensitivity and Impairment.

In this study significant difference noticed among adolescents who are high on participation in physical activities and adolescents who are low on participation in physical activities with regard to their Psychological resources like Optimism, Self-Efficacy, Adaptability, Sense of Trust, Perceived access of Support, Tolerance and Recovery and no significant difference noticed in respect of some Psychological resources like Comfort with Others, Sensitivity and Impairment which agree with most previous findings. Theoretical writings indicates that physical activity and self-efficacy are correlated (Renner et al., 2007). Active individuals are remarkably more optimistic and less pessimistic than inactive individuals (Maria, 1995). The existing research also indicates that self-efficacy, have been associated with physical activity participation (Motl, 2006). Young people with positive attitudes and high self-efficacy are more likely to form intentions to participate in physical activity (Martin, 2001).

The participant of a sport eventually goes through various strategies to achieve the goal which in turn helps the individual's adaptability. In the case of Trust on others the finding of this study is consistent with a recent study (Addy et al 2004) that found a correlation between perception of neighborhood trust and participation in physical activity. Social support had a fairly strong association with participation in any physical activity (Sallis JF, 1999). The three resources Comfort with Others, Sensitivity, Impairment shows no significant difference between the groups. This implies that the magnitude of these resources contributing resilience is less or unrelated to participation in physical activities.

**CONCLUSIONS**

The following inferences are drawn from the present study findings, i.e., homogeneity of variance is being prevailed between adolescents who are high on participation in physical activities and adolescents who are low on participation in physical activities with regard to their Psychological resources contributing to Resilience. Among adolescents Participation in physical activities contributes Psychological resources contributing to Resilience.

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