ABSTRACT:

The aim of the present study was to explore the relationship between emotional intelligence and resiliency and to examine the gender differences in resiliency. Purposive and convenience sampling was employed for data collection, and the final sample size for the study was 109 (males = 56 and females = 53). The data was collected using Resiliency Scale for Children and Adolescents (RSCA) (Prince-Embry, 2006) and Schutte Emotional Intelligence Scale (SEIS) (Schutte et al., 1998). Independent samples t-test was used to compare the means of two groups on resiliency (males and females). Pearson Correlation was used to find the relationship between resiliency and emotional intelligence. The Cronbach alpha reliability was found to be 0.82 and 0.89 for resiliency scale (RSCA) and emotional intelligence scale (SEIS) respectively. Findings indicate that the scales were highly reliable for use on the selected population. There was no significant difference in the resilience of male and female adolescents (t = 0.31, p<.75). There was a moderate positive correlation (0.41) between emotional intelligence and resiliency for the combined sample of male and female adolescents. The limitations and implications of the study were discussed.

KEYWORDS: Resilience, emotional intelligence, adolescents, gender.

INTRODUCTION:

Resilience refers to a class of phenomena characterized by patterns of positive adaptation in the context of significant adversity or risk. Resilience must be inferred, because two major judgments are required to identify individuals as belonging in this class of phenomena. First, there is a judgment that individuals are “doing OK” or better than OK with respect to a set of expectations for behaviour. Second, there is a judgment that there have been extenuating circumstances that posed a threat to good outcomes. Therefore, the study of this class of phenomena requires defining the criteria or method for ascertaining good adaptation and the past or current presence of conditions that pose a threat to good adaptation (Masten & Reed, 2002). Regarding “good adaptation,” resilience researchers agree that external adaptation is necessary. But, whether internal adaptation is necessary is still a point of debate. Ryff and Singer (2003) define resilience as “maintenance, recovery, or improvement in mental or physical health following challenge. Research in clinical psychology has investigated short-term reactions to specific events, such as loss and trauma. Bonanno (2004) describes a resilient response to specific loss or trauma as "the ability of adults in otherwise normal circumstances who are exposed to an isolated and potentially disruptive event, such as a death of a close relative or a violent or life-threatening situation, to maintain relatively stable, healthy levels of psychological and physical functioning". Within
the clinical research literature, the concept of resilience has been described in contrast to the long-standing concept of recovery (Bonanno, 2004). As in childhood, resilient responses to challenge are quite common across the life span—a phenomenon Ann Masten (2001) calls “ordinary magic.” Consistent with Masten’s concept, researchers have emphasized the normal and everyday bases of resilience (Ryff and Singer, 2003).

DEVELOPMENT OF THE CONSTRUCT

Studies of children of schizophrenic mothers played a crucial role in the emergence of childhood resilience as a major theoretical and empirical topic (Garmezy, 1974; Garmezy & Streitman, 1974; Masten et al., 1990).

Dr. Emmy Werner, called the "mother of resiliency," is a person-focused resilience researcher. In her research (1955-1995), she examined the dispositions of at-risk children along with the physical and social resources of the youngsters who faced these disadvantages and found that both are important contributors to development of resilience. Following Werner's ground-breaking studies on children (Werner et al., 1971; Werner & Smith, 1977), research on resilience expanded to include multiple adverse conditions such as socio-economic disadvantage and associated risks (Garmezy, 1991), parental mental illness (Masten & Coatsworth, 1998), maltreatment (Cicchetti & Rogosch, 1997). Early efforts were primarily focused on personal qualities of “resilient children,” such as autonomy or high self-esteem (Masten & Garmezy, 1985).

In some early writings, those who did well despite multiple risks were labelled “invulnerable” (Anthony, 1974). As research evolved, it became clear that positive adaptation despite exposure to adversity involves a developmental progression, such that new vulnerabilities and/or strengths often emerge with changing life circumstances (Werner & Smith, 1982). Thus, the term “resilient,” describe the relative as opposed to fixed nature of the concept, came to encompass those once referred to as “invulnerable.”

RELATIONSHIP OF RESILIENCE WITH EMOTIONAL INTELLIGENCE

Emotional intelligence is also one of the major psychological factors which contribute to resilience as explained below. John Mayer and Peter Salovey (1990) suggested that processing information about emotions entailed abilities different from those required to process information about verbal, mathematical or visuo-spatial problems contained in traditional intelligence tests. Gardner (1983) argued that there were many other intelligences besides that measured by traditional IQ tests and these included the ability to understand and regulate one’s own emotions (intrapersonal intelligence) and the ability to understand and manage relationships (interpersonal intelligence). The argument put forward in Goleman’s book was that success at work and in achieving valued life goals was largely due, not to IQ, but to emotional intelligence—the capacity to recognise and manage one’s own emotions and those of others in significant interpersonal relationships. The concept of Emotional Intelligence (EI) refers to the ability to accurately perceive, access and generate emotions, assist thought processes, and reflectively regulate emotions so as to promote emotional and intellectual growth (Mayer, Salovey, & Caruso, 2004). EI addresses self-regulatory processes of emotions and motivation that enable people to make adjustments to achieve individual, group, and organizational goals (Froman, 2010).

According to Armstrong, Galligan, and Critchley (2011), EI may well be directly connected to resilience, such that emotionally intelligent behaviour in stressful circumstances is adaptive. Salovey, Bedell, Detweiler and Mayer (1999) theorize that persons with higher EI cope better with the emotional demands of stressful encounters because they are able to “accurately perceive and appraise their emotions, know how and when to express their feelings, and can effectively regulate their mood states”. EI is thus postulated to buffer the effects of aversive events through emotional self-awareness, expression and management. Moreover, we agree with Armstrong et al. (2011) that EI is antecedent to resilience (Matthews, Zeidner, & Roberts, 2002) rather than encompassing resilience (Bar-On, 1997), such that EI functions through its composite dimensions to facilitate resilience. As cited by Tugade and
Fredrickson (2004), a convergence across several research methodologies indicates that resilient individuals have optimistic, and energetic approaches to life, are curious and open to new experiences, and are characterized by high positive emotionality (Block & Kremen, 1996). Additional evidence suggests that high-resilient people proactively cultivate their positive emotionality by strategically eliciting positive emotions through the use of humour (Werner & Smith, 1992), relaxation techniques (Wolin & Wolin, 1993), and optimistic thinking (Kumpfer, 1999).

**RESILIENCE IN ADOLESCENCE**

Adolescence is a risky period (Hill, 1993). Opportunities for developing a wide variety of psychological problems abound this period of life. It has been found that resilient students are able to translate difficult environments into a source of motivation by maintaining high expectations and aspirations, being goal-oriented, having good problem-solving skills, and being socially competent (Wang, Haertel, & Wahlberg, 1994). Resilience can manifest as reaction to a particular event or be a broader response to the high-risk environments individuals encounter. For many African American students, especially those educated in urban or inner-city schools, academic success is contingent on their ability to demonstrate resilience in the face of racism, poverty, and environments with few resources (Swanson & Spencer, 1991). Findings of research by Griffin & Allen (2006) indicate students at both schools-well-resourced, suburban high school and low-resourced urban school, encounter barriers (i.e., racial climate and a lack of resources) that inhibit their college preparation. Despite these obstacles, participants demonstrated resiliency, which kept them focused on their educational goals and desire to attend college. Adolescents are more likely to show good adjustment if they have an easy temperament and a high level of intellectual ability. A high level of self-esteem, and optimistic attributional style, a general belief in control over one's life and a specific belief that factors related to specific stresses may be controlled (high self-efficacy) are all associated with good adjustment. These traits (high IQ and easy temperament) and positive belief-systems probably render youngsters less vulnerable to becoming overly physiologically aroused and aggressive or demoralised and depressed when faced with life stresses. Adolescents are less adversely affected by life stresses if they have good planning skills, a sense of humour and the capacity to empathise with others. All of these coping skills can help youngsters detach from deviant or incapacitated attachment figures (such as criminal or incapacitated parents) and deviant peers and seek out more resourceful and prosocial attachment figures and peers. Selecting or creating a positive social network (through marriage, positive school experiences, good friendships, or talented performance in sports or arts) can halt negative chain reactions or start positive chain reactions that facilitate personal development. Better adjustment to life stress occurs when adolescents come from higher socio-economic groups, have good social support networks comprising family members and peers and attend schools that provide a supportive yet challenging educational environment. The absence of childhood separations, losses, bereavements, parental mental health problems, criminality and marital discord also characterise the families of children who are resilient in the face of stress (Carr, 2004).

**GENDER DIFFERENCES IN RESILIENCE**

Gender is a prominent feature that influences how individuals manage stressful life events. Research reveals that males and females achieve resiliency differently. There are numerous paths to resilience, and males and females go about it with different mechanisms (Bonanno, 2008). Women in general experience more social support and less expressed anger which is predictive of less depressive symptoms and therefore a protective factor (Galambos, Barker, & Krahn, 2006). Young females experience higher levels of depressive symptoms compared to males in adolescence, these symptoms decline more rapidly for females during emerging adulthood. Girls cope with daily stressors by seeking social support and utilising social resources while boys use physical recreation such as sports to cope with adversity (Frydenberg & Lewis, 1993). Resilience is more likely to result when relationships are positive and self-esteem is high. Evidence suggests that females are more social during stressful events (Hampel & Petermann, 2005) but the relationship between close relationships with parents and...
increase in self-esteem are still apparent for males as well (Bonanno, 2008). In a study by Sun and Stewart (2007), female students were consistently found to have higher scores than boys for individual characteristics in communication, empathy, help-seeking and goals and aspirations. They are also more likely to report positive connections with parents, teachers, and adults in the community, peer relations and autonomy experiences, than boys. Numerous studies have shown that females tend to face more difficulties within the workplace. In a study by Isaacs (2014), results indicated that female deans had a higher level of resilience as compared to male deans. Presumably the accumulation of these challenges has enhanced resilience for women. In another research by Boardman et al., (2008) heritability of resilience was found to be higher among men compared to women. Also, it was shown that self-acceptance is one of the most important aspects of psychological functioning that accounts for the heritability of resilience among both men and women. However, compared to women, men appear to derive additional benefits from environmental mastery that may enable otherwise sex-neutral resilient tendencies to manifest.

The Present Study

The present study aimed at studying the relationship between emotional intelligence and resilience and studying the gender differences in resilience. The study would help in understanding how Emotional Intelligence is related to resilience, how adolescents perform on resilience and whether male or female adolescents differ on resilience.

Method

Sample

The total sample of the study comprised of 109 participants (males = 56 and females = 53). All the participants were adolescents and were in the age range of 13-17 years. Purposive and convenience sampling was used. The inclusion criteria for the participants were the comfort with English language with a reading level of 3rd grade. All the participants were from Delhi- NCR. Each researcher collected data from 4 participants, 2 males and 2 females.

Measures

Resiliency Scales for Children and Adolescence (RSCA). The Resiliency scales for Children and Adolescents (Prince- Embury, 2006) were designed to systematically identify and quantify core personal qualities of resiliency in children and adolescents (ages 9-18) that are easily communicated to them and their care-givers for the purpose of education, screening, prevention and counselling. The scales are based on the assumption that resiliency reflects the degree to which an individual’s personal resources match or exceed their reactivity to internal or external stress. The Resiliency Scales are three brief self-report scales designed to identify areas of perceived strength and/or vulnerability. The scales have been written at a third-grade reading level.

The Sense of Mastery scale is a 20-item self-report questionnaire with response options ordered on a 5-point Likert scale. A sense of mastery in children and youth provides the opportunity for them to interact with and enjoy cause and effect relationships in the environment.

The Sense of Relatedness scale is a 24-item self-report questionnaire with response options ordered on a 5-point Likert scale. Cornell and Wellborn (1991) defined relatedness as feeling securely connected to individuals in a social context.

The Emotional Reactivity scale is a 20-item self-report questionnaire with response options ordered on a 5-point Likert scale. Emotional reactivity may be viewed as pre-existing vulnerability, arousal or threshold of tolerance to stimulation prior to the occurrence of adverse events or circumstances. Unlike the other two scales, lower scores on Emotional Reactivity scale are indicative of resiliency and high scores are indicative of vulnerability. The option of reverse scoring this scale was considered so that all of the major constructs would be scored in the same direction.

The Cronbach’s alpha coefficients were computed by the authors of the scale for each of the three resiliency scales within each age band as a measure of internal consistency. The alpha coefficients
for the three Resiliency scales ranged from .89 (Mastery) to .91 (Relatedness and Emotional Reactivity).
The reliability coefficients for the three Resiliency scales for the age group of 15-18 years ranged from .94 (Emotional Reactivity) to .95 (Mastery and Relatedness) for the total sample. Corrected test-retest correlation coefficients for the three Resiliency scales for the age range of 9-14 years were moderate to high, indicating some degree of stability over time (.84 for Sense of Relatedness, .88 for Emotional Reactivity, and .79 for Sense of Mastery). The corrected test-retest coefficient for the adolescent sample (15-18 years) were high; .86 for Sense of Mastery, .86 for Sense of Relatedness and .88 for Emotional Reactivity.

Schutte Emotional Intelligence Scale. The Assessing Emotions Scale, in some literature called the Emotional Intelligence Scale, the Self-Report Emotional Intelligence Test, or the Schutte Emotional Intelligence Scale, is based on Salovey and Mayer’s (1990) original model of EI which proposed that EI consists of appraisal of emotion in the self and others, expression of emotion, regulation of emotion in the self and others, and utilization of emotion in solving problems. The Assessing Emotions Scale attempts to assess characteristic, or trait, emotional intelligence. Salovey and Mayer (1990) described emotional intelligence as a mix of abilities and traits. The Assessing Emotions Scale is a 33-item self-report inventory focusing on typical emotional intelligence. Respondents rate themselves on the items using a five-point scale. The scale uses four sub-scales: perception of emotions, managing emotions in the self, social skills or managing others’ emotions, and utilizing emotions. The items comprising the subscales based on these factors (Ciarrochi et al., 2001) are as follows: Perception of Emotion (items 5, 9, 15, 18, 19, 22, 25, 29, 32, 33), Managing Own Emotions (items 2, 3, 10, 12, 14, 21, 23, 28, 31), Managing Others’ Emotions (items 1, 4, 11, 13, 16, 24, 26, 30), and Utilization of Emotion (items 6, 7, 8, 17, 20, 27).

Schutte et al. (1998) found the internal consistency of the Assessing Emotions Scale, as measured by Cronbach’s alpha, to be .90. However, the mean alpha across samples from various studies has been found to be is .87. They reported a two-week test-retest reliability of .78 for total scale scores. Brackett and Mayer (2003) found that scores on the Assessing Emotions Scale were correlated with scores on the EQ-i, another self-report measure of emotional intelligence that is based on a broader definition of emotional intelligence and with the MSCEIT (a performance test of emotional intelligence).

Administration
For the data collection, the participants were approached individually at their residence and it was ensured that the data collection took place in a setting where there was less noise and minimum chances of disturbance and more comfort. Brief information about the nature of the study was given to each participant. The consent of the participants was taken before the data collection. As the participants were adolescents, their parents were also informed about the study. The participants were ensured that their responses will be kept confidential and will be used for academic purpose only. Instructions were given to the participants along with the questionnaires and a pen.

Scoring
The raw scores of each of the Resiliency Scales for all participant were obtained. The total raw score for each participant in the sample on resilience was obtained by adding the raw scores obtained on Sense of Mastery, Sense of Relatedness and Emotional Reactivity Scale. The raw score for Emotional Intelligence scale for each participant was calculated in the same way as for the individual participant described above. The data obtained was then entered in Excel Sheet for further Analysis.
Results

**Table 1: Table showing relationship between Resilience and Emotional Intelligence**

<table>
<thead>
<tr>
<th></th>
<th>Resilience</th>
<th>Emotional Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience</td>
<td>0.41</td>
<td></td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>0.41</td>
<td></td>
</tr>
</tbody>
</table>

The correlation coefficient between Resilience and Emotional Intelligence in adolescents was found to be 0.41 (n= 109). These results indicate a moderate relationship between Resilience and Emotional Intelligence among adolescents. Results suggest that Resilience is positively correlated with and Emotional Intelligence in adolescents, such that the higher the resilience, higher the emotional intelligence.

**Table 2: Table showing the results of t-test for comparing resilience in males and females.**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean (M)</th>
<th>Standard Deviation (SD)</th>
<th>t (df=107)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>56</td>
<td>145.25</td>
<td>20.25</td>
<td>0.31</td>
</tr>
<tr>
<td>Females</td>
<td>53</td>
<td>144.09</td>
<td>18.52</td>
<td></td>
</tr>
</tbody>
</table>

P= 0.75

For the comparison of resilience between male and female adolescents, the t test was not found to be statistically significant, \( t(107) = 0.31, \ p<.75 \). The results indicate that there is no significant difference in resilience of male and female adolescents.

**Table 3: Table showing the values of Cronbach Alpha for Resilience and Emotional Intelligence Scales.**

<table>
<thead>
<tr>
<th></th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience</td>
<td>0.82</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>0.89</td>
</tr>
</tbody>
</table>

The Cronbach alpha coefficient was computed for the resiliency scales and emotional intelligence scale as a measure of internal consistency. The alpha coefficients were found to be 0.82 and 0.89 for resiliency scales and emotional intelligence scale respectively. Results suggest both the scales have good internal consistency.

**DISCUSSION**

The aim of the study was to explore the relationship between emotional intelligence and resilience and to examine the gender differences in resilience. The Resiliency Scales for Children and Adolescents and Schutte Emotional Intelligence Scale were administered to a sample of 109 participants (males = 56 and females = 53). The age range was 13-17 years. Each researcher collected data from four participants. The individual assessment was done for one participant and the results were presented in the scoring section of Method. The data was analysed in Microsoft Excel and results were presented in tables. The results obtained have been discussed below.
It was assumed that there will be a significant positive relationship between Emotional Intelligence and Resilience. Pearson correlation between resilience and emotional intelligence was calculated. Results indicated a positive and moderate relationship between Resilience and Emotional Intelligence in adolescents \((r=0.41)\). Thus, it can be concluded that higher the resilience, higher is the emotional intelligence in adolescents and vice versa. In a study conducted by Magnano, Craparo and Paolillo (2016), the results suggested a significant relationship among resilience and emotional intelligence as they were found to be positively correlated with \(r = 0.42\). In a study by Schneider, Lyons and Khazon (2013), it was found that EI facilitates stress resiliency. The findings of another study by Garg & Rastogi, (2009) suggested that students being emotionally intelligent can lead them to be resilient to stress, which determine their success at personal and professional front. The researchers also found that emotional intelligence and stress resiliency when linked together develops like muscular strength and once this strength is developed intellectually; it leads to holistic development of humans. The results of these studies support our finding. Psychologically resilient people are effectively described as emotionally intelligent (Salovey et al., 1999) and appear to use positive emotions for their advantage (Tugade & Fredrickson, 2002) to produce beneficial outcomes in the coping process (Folkman & Moskowitz, 2000; Fredrickson, 2000) Therefore, it is possible that certain individuals have a greater tendency to draw on positive emotions in times of stress (Feldman Barrett & Gross, 2001; Salovey, Hsee, & Mayer, 1993). According to these considerations, it is possible to conclude that the ability to accurately perceive, access and regulate emotions helps to develop some self-regulatory processes (of emotions and motivation) that enable people to deal better with difficult life situations, and to make adjustments to achieve goals.

It was assumed that there will be significant gender differences in resilience of adolescents. Independent sample t-test was conducted to compare the resilience in male and female adolescents and the results indicated that there were no significant gender differences in resilience. Other researches show mixed findings with respect to gender differences in resilience. Bezek (2010), in his study, found no gender differences in resilience in college students. These results support our findings. However, Bonanno (2008), found that there are numerous and often surprising paths to resilience, and males and females go about it with different mechanisms. Numerous studies have shown that females tend to face more difficulties within the workplace (Isaacs, 2014) and the accumulation of these challenges has enhanced resilience for women.

The results indicate that resilience might develop in different ways in both the genders (Bonanno, 2008), but the end product is same. In this research, gender differences were studied only in adolescents whereas resilience might get enhanced in females when they encounter more difficulties as they enter into adulthood.

As a measure of internal consistency, Cronbach alpha was calculated for Resiliency Scales and Emotional Intelligence Scale. The results indicated a good internal consistency for both the scales, with alpha values being 0.82 and 0.89 for Resiliency Scales and EI Scale respectively. The Cronbach’s alpha coefficients computed by the authors of the Resiliency scales for each of the three scales showed moderate to high alpha coefficients. Schutte et al. (1998) found the internal consistency of the Schutte Emotional Intelligence Scale, as measured by Cronbach’s alpha, to be .90. However, the mean alpha across samples from various studies has been found to be is .87.

The results indicate that the since the internal consistency of both the scales was found to be good, and the Cronbach alpha were comparable to the one’s calculated by the authors of the two scales, the scales were reliable measure of Resilience and Emotional Intelligence for our sample.

**LIMITATIONS AND IMPLICATIONS**

The study increased our understanding of resilience in adolescence, gender differences in resilience and the relationship between Resilience and EI. The sample size was small making it difficult to generalise the findings to the population. Purposive and convenient sampling was used instead of random sampling for sample selection and hence the sample might not be representative of the population. The study was conducted on a homogenous population because the sample comprised of
only English-speaking participants living in an urban set-up. The study covered a small geographical area as the study was conducted in Delhi-NCR. Further research in this area can be conducted with a larger sample size and random sampling to ensure that the results can be generalised and can be representative of the population. The questionnaires should be available in other languages as well so that the results can represent a heterogenous population. The geographical area that the study covers should be large so that the results can be generalised to a larger population.

REFERENCES


