

A study of resilience and social problem solving in urban Indian adolescents

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ABSTRACT:

This paper investigates the relation between resilience and social problem solving among Indian adolescent boys and girls from a north Indian urban area. With the advent of information technology tools, multinational brands and privatisation of higher education in India, there has been a surge in the ambitions of the millennial Indian youth. This has also resulted in extreme competition, failure and non resilient outcomes for many. This study was conducted to find the level of correlation between resilience and social problem solving skills. The study revealed that adolescents high on resilience were significantly better on social problem solving skills, superior positive orientation towards problems in general and a rational approach towards solving them as well. Since resilience is a dynamic construct, problem solving training can be used to enhance resilience in adolescents facing mental health issues arising out of the typical urban Indian milieu.

Keywords: *adolescence, urban, resilience, social problem solving*

Adolescence has been referred to as a turbulent transition both for the young and their caregivers throughout generations and across the world. Yet, development of individuals is contextual to culture, demography and ecology of that place. The desires and values of the millennium Indian adolescent present a paradox for caregivers, educators and mental health professionals. These teens are a highly opinionated, liberated and motivated lot but their soaring ambitions are juxtaposed against the harsh realities of rigid cultural boundaries, scarce resources and at times stifling competition for college seats, jobs and even for acceptance by peers. Although the adolescent mental health status is an issue for the whole of Indian society; there is a definite psychosocial segregation between the rural and urban youth.

There is considerable difference between the upbringing, experiences, emotional competencies, and the psychological developmental trajectories of rural and urban Indian adolescents. According to UNICEF statistics of 2012, 20% of the Indian population lies in the age group of 10-19 years and almost half of it resides in the urban areas.

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The adversities faced, challenges undertaken and conflicts experienced are different for the rural and urban adolescent. It's not the earthquakes, tsunamis, droughts or floods that are the risk factors for the average Indian urban adolescent. Rather, disruptive family environment, extreme academic competitiveness, poor support systems, unrealistic expectations from romantic associations and excruciating levels of peer pressure are the daily hassles that erode the mental health of the urban Indian teenager. Though the outcomes are not all that grim for the majority of the youngsters, it is imprudent to disregard the increasing trends of teenage depression and suicides among Indian youth.

A significant chunk of Indian youth is contributing tremendously to the global pool of education, business and information technology. At the same time they have counterparts who cannot deal with competitiveness and the stress to perform. So what is it about some individuals which allows them to bounce back after setbacks and the absence of which results in negative outcomes for many? It's a cluster of individual and environmental factors called *Resilience*.

Resilience, the ability to bounce back after any failure, loss or trauma is one of the most important life skills that an individual needs to protect, sustain, and enrich ones existence in the world today. The term *resilience* has often been used to describe a stable personality trait or ability that protects individuals from the negative effects of risk and adversity (Hollister-Wagner, Foshee, & Jackson, 2001; Howard & Johnson, 2000; Walsh, 2002).

According to Smith & Carlson (1997), the adolescent population may be especially susceptible to stressful events, and perceive some events as more stressful than an adult might. Adolescents differ from adults in the way they behave, solve problems, and make decisions. There is a biological explanation for this difference. Scientists have identified a specific region of the brain called the *amygdala* which is responsible for instinctual reactions including fear and aggressive behavior. This region develops early. However, *the frontal cortex*, the area of the brain that controls reasoning and helps us think before we act, develops later. This part of the brain is still changing and maturing well into adulthood. Pictures of the brain in action show that adolescents' brains function differently than adults when decision-making and problem solving. Their actions are guided more by the amygdala and less by the frontal cortex. Based on the stage of their brain development, adolescents are more likely to: • act on impulse • misread or misinterpret social cues and emotions • get into accidents of all kinds • get involved in fights • engage in dangerous or risky behavior (American Academy of Child and Adolescent Psychiatry, 2012). Those who are less resilient may turn to unhealthy actions or negative beliefs about themselves to cope with the difficulties encountered in their lives (Smokowski, 1999). Vulnerable youth are at greater risk for failing out of school, choosing harmful associates, experiencing desolation and homelessness, experimenting with substance use, and unsafe sexual encounters. Not having adequate individual or environmental compensatory factors during such times leads such youth into hopelessness and suicidal or homicidal tendencies. On consequent analysis of most of the suicide and homicide cases involving young lives; it has been found that lack of emotional

regulation and social problem solving skills led to the plunge into the nadir of depression for these adolescents. Not having a sense of control over one's life and not knowing how to deal intelligently with people and systems is often the cause of low self esteem and poor confidence levels in adolescents. The deficits of this age need the aid of good social problem skills and dependable support system for transforming into unsullied, creative, bouncy harbingers of change.

One of the key abilities associated with resilience is problem solving. Learning problem-solving skills is a significant contributor to an individuals' socio-emotional wellbeing. (Pearson & Hall, 2006). The term social problem solving refers to problem solving as it occurs in the natural environment or real world. It is defined as the self- directed cognitive –behavioural process by which a person attempts to identify or discover effective or adaptive solutions for specific problematic situations encountered in the course of everyday living. (D'Zurilla & Maydeu – Olivares, 1995; D'Zurilla & Nezu, 1982, 1999). The most widely used approach by D'Zurilla & Nezu describes problem solving in terms of two main ingredients. Firstly, 'Problem orientation' i.e. , whether you have a 'positive' or 'negative' attitude towards life's problems in general. (Robertson D.J, 2012). *Positive Problem Orientation (PPO)* is described as a constructive problem solving cognitive set that involves the general disposition to appraise a problem as a challenge for benefit rather than a threat, believe that problems are solvable, believe in ones' personal ability to solve problems successfully, to believe that successful problem solving takes time, effort, and persistence, and committing oneself to solving problems with dispatch rather than avoidance.

Negative Problem Orientation (NPO) is the dysfunctional or inhibitive cognitive emotional set that involves the general tendency to view a problem as a significant threat to well being, doubt one's personal ability to solve problems successfully and become frustrated and upset when confronted with problems in living.(D'Zurilla & Maydeu –Olivares, 1995; D'Zurilla & Nezu, 1982, 1999).

The second ingredient of social problem solving is the 'Problem-solving style', which can be classed as either unhelpful (termed 'impulsive/careless' or 'avoidant') or helpful (termed 'rational') (Robertson D.J, 2012). *Impulsivity Style – (IS)* is a dysfunctional problem solving pattern characterised by active attempts to apply problem solving strategies and techniques. However, these attempts are narrow, impulsive, careless, hurried, and incomplete. *Avoidance Style (AS)* is another dysfunctional problem solving dimension characterised by procrastination, passivity or inaction, and dependency. *Rational Problem Solving (RPS)* is a constructive problem- solving style that is defined as a rational, deliberate, systematic, and skilful application of effective or adaptive problem- solving principles and techniques. (D'Zurilla & Maydeu – Olivares, 1995; D'Zurilla & Nezu, 1982, 1999).

Resilient youth tend to have strong social skills and a facility with interpersonal communication (Hollister-Wagner et al., 2001; Howard & Johnson, 2000; Luthar, 1991; Smith & Carlson, 1997; Werner, 1995). Also evident are humour, empathy, flexibility, and an easygoing temperament,

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all of which are likely to enhance sociability (Bernard, 1993; Fraser & Richman, 1999; Levine, 2002; Richardson et al., 1990; Rutter, 1987).

Challenges and adversities are a part of normal life and in fact looking at life through rose tinted glasses is a mistake that today's youth cannot afford to make. Lower social and emotional competencies have impacted on the present generation with an increase in illicit drug and alcohol abuse, road rage, intentional delinquent behaviour (that is often repeated), mental illness, eating disorders, obesity, homelessness and premature deaths as a result of poor decision making. (Dent M., 2008). Suicide, homicides and depression statistics of Indian youth are clearly indicative of the hopelessness, poor social support and lack of adequate problem solving skills.

The development of core social skills is an important protective factor for good mental health in later life (Werner, 1989). But perhaps with both parents working, nuclear family systems, more time spent with gadgets and in the virtual world, there isn't much of real world problem solving being learnt. And as is the case with all the other skills, if social problem solving is not learnt and practised as a life skill it will not be ameliorative. As protective and risk factors for resilience are mostly culture specific, we need to ascertain the determinants of a resilient outcome for Indian adolescents as well. Studying the relationship between resilience and social problem solving among Indian adolescents is an endeavour in this direction.

Based on the review of literature, the key hypotheses are as follows:

1. Adolescents would have significant relationship between resilience and social problem solving.
2. Adolescents would have significant relationship between resilience and all the dimensions of Social problem solving.
3. Adolescents exhibiting different levels of resilience would also differ on social problem solving skills.
4. Adolescents differing on their levels of resilience would also differ on all the dimensions of social problem solving skills.

METHOD

Participants

The study was conducted on 211 adolescent boys and girls aged 13 – 16 yrs studying in two English medium schools of an urban city of north India. Systematic sampling was undertaken for the above.

Measures

Resilience

Resilience was measured using the Resilience Scale (RS) (Wagnild & Young, 1993). This 25-item inventory provides a total resilience score ranging from 25-175. It describes a psychological ability that allows a person to cope effectively with life stresses. Items are scored on a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). This scale has two major

factors, viz., acceptance of self and life, and individual competence (Wagnild & Young, 1993). This scale is appropriate for younger individuals as well as middle-aged and older adults. Cronbach's alpha coefficients have been found to range from 0.72 to 0.94 (Neill & Dias, 2001). Test-retest reliability has been reported to range between 0.67 to 0.84 by Killien and Jarrettiss (1993). This scale has shown considerable construct validity with constructs such as morale and life satisfaction (positively related), and depression and perceived stress (negatively related).

Social problem solving skill

The social problem solving skill was assessed using the Social Problem Solving Inventory – Revised: Short Form-SPSI-R: S (D’Zurilla, Nezu & Olivares, 2002). This 25-item inventory is a useful measure of better understanding how an individual typically resolves stressful problems and makes effective decisions. It assesses two constructive or adaptive problem-solving dimensions (positive problem orientation and rational problem solving) and three dysfunctional dimensions (negative problem orientation, impulsivity/ carelessness style, and avoidance style). The internal consistency alpha coefficient is .89 for the normative sample of young adults and the test-retest reliability is .84 for the above. Predictive validity of SPSI-R: S on correlation with several measures of psychological distress and well being are significant indicating that SPSI-R: S is a valid and stable measure of social problem solving abilities.

Procedure

The scales were administered to the participants in groups in the regular classroom situation. Both the scales were administered on separate days with a gap of 7 school days in between. Although the instructions provided on the scale booklets were self explanatory, the researcher explained the purpose of the study and instructions to the pupils in class. It took 30- 40 minutes to administer each measure. The answers of the subjects were recorded on the scale protocol. Scoring was done according to the instructions given in the manuals. After the scores were obtained, interested participants were explained the interpretations of their scores on the two measures.

Statistical analysis

In order to analyse the data, the sample was classified into two groups based on the median score of the sample on the Resilience Scale. As the median score was 123, two groups were formed. The Low resilience group with scores < 123 had 108 pupils. The high resilience group with scores >123 had 103 participants. All the statistical analysis was done with the statistical software SPSS.

Pearson product moment correlation was calculated between the Resilience scores and Social Problem Solving scores of the whole sample. Also, correlation was calculated between Resilience scores and scores on the five dimensions of Social Problem Solving – Positive Problem Orientation, Negative Problem Orientation, Rational Problem Solving, Impulsivity style and Avoidance style.

Independent samples t-test was undertaken to study the difference in means of Social Problem Solving scores between the low resilience and high resilience groups. Also, Independent samples t-test was applied to study the difference in means of Positive Problem Orientation,

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Negative Problem Orientation, Rational Problem Solving style, Impulsivity style and Avoidance style dimensions scores of the low resilience and high resilience groups.

RESULTS

Resilience and Social problem solving correlations

The constructs of resilience and social problem solving are significantly related in this sample of urban adolescents in India. These results validate the first hypothesis of this study. Table 1 shows the value of Pearson correlation coefficient between the total score on social problem solving and resilience as significant at the 0.01 level.

It is a positive correlation indicating that the presence of one variable might facilitate the presence of the other in an individual. (Table 1)

Table 1

Pearson Correlation coefficient 'r' between Resilience, Social problem solving and dimensions of social problem solving.

		RESILIENCE	SPS-TOTAL
Pearson Correlation	RESILIENCE	1.000	.322**
	SPS-TOTAL	.322**	1.000
Sig. (2-tailed)	RESILIENCE		.000
	SPS-TOTAL	.000	
N	RESILIENCE	211	211
	SPS-TOTAL	211	211

** Correlation is significant at the 0.01 level (2-tailed).

Resilience and dimensions of Social Problem solving

The correlation between the positive problem orientation-PPO dimension of social problem solving and resilience is positive and significant in this sample. Table 2 depicts the Pearson product moment correlation between the two. Since, it is a positive correlation the presence of traits like optimism, self-efficacy and engagement in problems rather than avoidance, may be a part of a resilient personality.

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Table 2

Pearson product moment correlation coefficient ‘r’ between Resilience and Positive problem orientation.

		RESILIENCE	PPO
Pearson correlation	RESILIENCE	1.000	.496**
	PPO	.496**	1.000
Sig. (2-tailed)	RESILIENCE		.000
	PPO	.000	
N	RESILIENCE	211	211
	PPO	211	211

** Correlation is significant at the 0.01 level (2-tailed).

Table 3 illustrates the correlation coefficient between resilience and negative problem orientation. The Pearson product moment correlation between the Resilience scores and the Negative problem orientation NPO dimension of social problem solving is not significant at any level indicating no correlation between the two variables at least in this sample.

Table 3

Pearson product moment correlation coefficient ‘r’ between Resilience and Negative problem orientation

		RESILIENCE	NPO
Pearson Correlation	RESILIENCE	1.000	.101
	NPO	.101	1.000
Sig. (2-tailed)	RESILIENCE		.144
	NPO	.144	
N	RESILIENCE	211	211
	NPO	211	211

The Pearson product moment correlation between the construct of Resilience and the Rational problem solving style (RS) dimension of Social problem solving is significant at the 0.01 level (Table 4). It is a positive correlation indicating that the there is probability of a rational person being more resilient at least in this sample.

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Table 4

Pearson product moment correlation coefficient ‘r’ between Resilience and Rational problem solving style.

		RESILIENCE	RS
Pearson Correlation	RESILIENCE	1.000	.392**
	RS	.392**	1.000
Sig. (2-tailed)	RESILIENCE		.000
	RS	.000	
N	RESILIENCE	211	211
	RS	211	211

** Correlation is significant at the 0.01 level (2-tailed).

The Pearson product moment correlation between Resilience and the Impulsivity style dimension of the Social problem solving is not significant at any level (Table 5) indicating no correlation between the two variables at least in this sample.

Table 5

Pearson product moment correlation coefficient ‘r’ between Resilience and Impulsivity style.

		RESILIENCE	IS
Pearson Correlation	RESILIENCE	1.000	-.042
	IS	-.042	1.000
Sig. (2-tailed)	RESILIENCE		.548
	IS	.548	
N	RESILIENCE	211	211
	IS	211	211

The Pearson product moment correlation between the Resilience scores and the Avoidance style dimension of Social problem solving is not significant at any level (Table 6), indicating no correlation between the two variables at least in this sample.

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Table 6

Pearson product moment correlation coefficient 'r' between Resilience and Avoidance style

		RESILIENCE	AS
Pearson Correlation	RESILIENCE	1.000	-.055
	AS	-.055	1.000
Sig. (2-tailed)	RESILIENCE		.425
	AS	.425	
N	RESILIENCE	211	211
	AS	211	211

The Independent- samples t-test results for Social Problem Solving

There is significant difference in the mean scores of the low resilience and high resilience groups on social problem solving as depicted in Table 7.

Table 7

Comparison of means on social problem solving

Sr. No.	Variable	Group	Mean	SD	df	t-value
1	Social Problem Solving	Low resilience. (N = 108)	10.78	1.85	209	- 4.324*
		High resilience. (N = 103)	12.00	2.23		

* Significant at 0.01 level.

The mean scores of the Positive Problem Orientation dimension and the Rational Problem Solving dimension differ significantly across the low and high resilience groups. The t- values are significant at the 0.01 level. The mean scores of the Negative Problem Orientation, Impulsivity and Avoidance dimensions do not differ significantly across the low and high resilience groups. (Table 8).

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Table 8

Comparison of means of low and high resilience groups on dimensions of social problem solving

Variable	Group	Mean	SD	df	t-value
Positive problem orientation	Low resilience. (N = 108)	2.33	.65	209	-6.323*
	High resilience. (N = 103)	2.93	.73		
Negative problem orientation	Low resilience. (N = 108)	1.97	.80	209	-1.204
	High resilience. (N = 103)	2.11	.86		
Rational problem solving style	Low resilience. (N = 108)	2.16	.70	209	-5.184*
	High resilience. (N = 103)	2.66	.72		
Impulsivity style	Low resilience. (N = 108)	1.97	.69	209	.157
	High resilience. (N = 103)	1.95	.69		
Avoidance style	Low resilience. (N = 108)	2.31	.70	209	.179
	High resilience. (N = 103)	2.29	.89		

* Significant at 0.01 level

DISCUSSION

The results of the correlational analysis have proved that there is significant relationship between Resilience and Social Problem Solving skills in this sample of urban Indian adolescents. These findings are supported by earlier researches also on samples based outside India. Previous research on ascertaining traits of resilient individuals deduced that generally, resilient children have five attributes: (a) social competence, (b) problem-solving skills, (c) critical consciousness, (d) autonomy (Bernard, 1993, 1995), and (e) sense of purpose (Bernard, 1995). Social competence includes qualities such as empathy, caring, flexibility, communication skills, and a sense of humor (Bernard, 1993, 1995). Children who have social competence establish positive relationships with adults and peers helping them bond with their family, school and community.

Problem-solving skills incorporate the ability to think abstractly giving children the ability to generate alternate solutions for cognitive and social problems. Planning and resourcefulness in seeking help from others are two important problem-solving skills. Critical consciousness involves having an insightful awareness of structures of cruelty (e.g., be it from an alcoholic parent) and generating strategies in overcoming them. Autonomy is a person having a sense of his or her own identity, capability to act independently, and ability to exert some control over the environment. Finally, a sense of purpose, according to Bernard (1995), involves having goals, educational aspirations, and a belief in a bright future. (Zolkoski S.M, Bullock L.M.,2012).

The second hypothesis has been validated partially as resilience is correlated positively and significantly with only two dimensions of social problem solving ability i.e. Positive Problem Orientation and Rational Problem Solving. Further support for these findings can be found in the book *Build Your Resilience* by psychotherapist Donald Robertson. He writes that the concept of 'Negative problem orientation' describes a set of attitudes that appear to be correlated with severe anxiety and depression. It is likely that 'Positive problem orientation' by contrast may describe a construct similar to psychological flexibility and resilience. (Robertson D.J, 2012). No significant correlation is obtained with the dimensions of Negative Problem Orientation, Impulsivity Style and Avoidance Style. Although slight negative correlation was obtained between resilience and impulsivity and avoidance style, it was not statistically significant. Yet, we can deduce a direction of the relationship of these constructs from these results.

The third hypothesis has also been validated as there is significant difference in the social problem solving abilities of the high resilience group and the low resilience group in this sample. The resilient adolescent has the capacity to deal with the obstacles which confront him successfully and at the same time he is able to focus on achieving his goals. A finding that has emerged from several studies is that resilient young people appear to be characterized by higher intelligence or problem solving skills than their non-resilient peers. (Fergusson & Lynskey, 1996; Herrenkohl et al., 1994; Kandel et al., 1988; Masten et al., 1988; Seifer, Sameroff, Baldwin, & Baldwin, 1992). Also, resilient children are notably different from non-resilient children in terms of having greater problem-solving, coping with stress, self-regulatory skill, and

self-esteem, as well as in receiving more active parental monitoring (Berman, 2007; Gilligan, 1999).

The fourth hypothesis has been proved partially as there is significant difference in the means of only the dimensions of Positive problem orientation and Rational problem solving. This corresponds to the results of the correlation analysis also and these findings can guide us in mapping and fostering resilience of Indian adolescents as well. Resilience embraces the ability of an individual to deal more effectively with stress and pressure (Steyn, 2006). Problem-solving skills, a higher IQ, abstract thinking, reflectivity, flexibility, and the ability to try alternatives indicate adaptability to stress. (Meichenbaum, 2009). Resilience training for adolescents all over the world involves teaching problem solving skills to them. Problem solving abilities have been linked to resilient children compared to their non-resilient peers (Heppner, P. P., & Hillerbrand, E. T. 1991, Nezu, A. M., Nezu, C. M., & Perri, M. G. 1989, Fergusson D, Lynskey M, 1996. Masten AS, Hubbard JJ, Gest SD, Tellegen A. 1988, Garmezy N, Ramirez M, Seifer R, Sameroff AJ, Baldwin CP, Baldwin A. 1992) and have been identified as promoting resilient outcomes in a range of risk situations including poverty and abuse (Egeland B. 1997), homelessness (Buckner JC, Mezzacappa E, Beardslee WR, 2003), cancer survivors and parents with a mental illness (Beardslee WR. 1989), and depression (Dumont M, Provost MA., 1999).

If one is problem free today, it does not mean it will always be this way. A positive outlook towards even the uncertainties and sudden adversities in life has to be taught as a skill to the young Indians. Both optimism and rationality are required to adapt best to the changed environment as with a negative emotional set it is not possible to accurately analyse the problem, attribute justified causation and plan a realistic action for the solution.

It's time that the fine old saying of 'Hoping for the best, but preparing for the worst' be applied consciously to the various life skills modules of the curriculum of all Indian schools. Of course, the interventions should be culture specific to the Indian scenario. As Nan Bahr writes that seeing resilience as a "competence" is a useful perspective because that means it is something that can be actively developed, taught, practised, demonstrated and deployed. (Bahr, N & Pendergast, D. 2007). Resilience is now known as a dynamic construct and all efforts should be made by the school, parents and community to foster this in the Indian youth. It's been more than four decades since the strength-based interventions have proven to be extremely productive for adolescent issues and it's time that even Indian adolescents get the benefit of these interventions rather than being treated as liabilities to all. Rather than lamenting the unfortunate developmental trajectories of these urban teen, it would be prudent to develop strength-based interventions based on problem solving training to foster resilience, which can be easily implemented at the school level.

CONCLUSION

In conclusion, this study has validated the presence of social problem solving abilities in resilient adolescents of urban India. Perhaps fostering resilience and social problem solving abilities would ensure a mentally fit and hardy generation ahead.

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