

Resilience in Adolescents: A Validation Study of a Resilience Scale for Adolescents

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The aim of the current research was to identify the experience and expression of resilience among adolescents. The phenomenon of resilience was explored and elicited from 36 adolescents (18 girls and 18 boys) through a semi structured interview that resulted in 94 items. After excluding the repetitions a list of 85 items was converted into a self report measure (Resilience Scale for Adolescents, RSA) and piloted on 48 adolescents for assessing its user friendliness. A sample of 690 with the age range of 12-18 (M 13.96, SD 1.25) adolescents selected through multistage sampling (54% boys, 46% girls) were given RSA, a demographic performed, and adapted version of Connor Davidson Resilience Scale (CD-RISC) for concurrent validity. The Principal Component Factor Analysis through Varimax rotation yielded six factors solution, namely Self Regulation, Self Confidence, Robustness, Seeking Support, Sociability and Vulnerability. The RSA was found to have sound psychometric properties and results were also discussed in terms of culture and intervention implications for school counselling services.

Key words: resilience, culture, gender, reliability & validity

Adolescence period is considered to be a very crucial and critical for the growth and development. During this period, an individual experience psychological, emotional and social changes (Perry, 2002). Adolescents undergo a process that includes physical maturity, gender role identification, give meaning to the self, define their identity and expanding social world (Sanrock, 2007). Changing demands put adolescents under tremendous pressure and stress (Tusaie, Puskar, & Sereika, 2007). Some adolescents easily get away from the stress of adolescence period yet other individuals experience difficulty in handling the stress. As a result, some adolescents may experience mental health issues in terms of emotional and behavioural problems (Brelau, Lane, Sampson, & Kessler, 2008). These problems are usually transitory in nature, but if not identified early and intervene timely may lead to serious negative consequences (Egger, Costello, & Angold, 2004; Galanaki, Polychronopoulou, & Babalis, 2008; Pellegrini, 2007).

The current focus of developmental psychopathology is to identify the risk and protective factors for developing mental health problems in children and adolescents (Cicchetti & Garmezy, 1993; Doll & Cummings, 2008; Eriksson, Cater, Andershed, & Andershed, 2010). In recent years, attention has been paid to identifying the role of personal, emotional and social resources as protective factors in the prevention of emotional and behavioral problems in adolescents (Hjemdal, Aune, Reinfejl, Stiles, & Friberg, 2007; von Soest, Mossige, Stefansen, & Hjemdal, 2009). Not all adolescents experience the stress of transition period develops into serious mental health problems are known to be resilient (Masten, 1990).

The concept of resilience has gained tremendous interest and popularity in social and clinical psychology (Greene & Conrad, 2002). Resilience has been defined in many different ways. Some defined resilience as a positive and protective characteristic of an individual against stress and adversity (Rutter, 1985); others defined as the capacity of an individual to deal effectively with the adversities and the ability to cope with the successes in one's life. Still others define resilience as the ability to adapt well to adversity, trauma, tragedy, threat, or even significant sources of stress (American Psychological Association, 2010). Resilience has also been defined as the ability of an individual to cope better against internal and external stresses (Hourani, et al, 2012). There is an ongoing debate on the nature of resilience, some describe resilience as a trait and others as state, innate and learned (Luthar, Cicchetti, & Becker, 2000; Zolkoski & Bullock, 2012), some emphasize the role of risk and protective factors and others considered it as a reaction of neurological changes (Jung & Chae, 2010; Southwick & Charney, 2012). Researchers have identified three main categories of protective factors related to resilience namely family resources (such as parental support), social factors (such as peer support, socially desirable characteristics) and lastly personal resources (including self-worth and self-esteem) of the individuals (e.g. Hjemdal, Vogel, Solem, Hagen, & Stiles, 2011).

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Studies of resilience in adolescents have revealed that adolescents with high resilience are tending to show greater self-regulation, show more resistance to risk taking behaviors and drug abuse (Ali, Dwyer, Vanner, & Lopez, 2010; Percy, 2008; Veselska et al., 2009). Resilience has an inverse relationship with mental health problems (Moljord, Moksnes, Espnes, Hjemdal, & Eriksen, 2014; Peng et al., 2012). Those with higher resilience have low incidence of anxiety and depression (Carle & Chassin, 2004; Hjemdal, Vogel, Solem, Hagen, & Stiles, 2011; Quale & Schanke, 2010). Resilience has been found to protect from Post Traumatic Stress Disorder (Hoge, Austin, & Pollack, 2007), Improve the treatment response of various disorders (Fava & Tomba, 2009; Southwick, Vythilingam, & Charney, 2005), and reduced risk of suicidal ideation (Sharaf, Thompson, & Walsh, 2009). Moreover, studies on the relationship of gender and resilience revealed that boys tend to be more resilient than girls in terms of having higher confidence, using more adaptive and problem solving skills. Girls, on the other hand, tend to seek more social support when facing adversities (Hampel & Petermann, 2005; Stratta et al., 2013). Other studies have reported that boys show more intrapersonal resilience and girls more interpersonal (Hjemdal, Friborg, Stiles, Martinussen, & Rosenvinge, 2006; Hjemdal et al., 2011).

Since there is a lack of agreement on the operational definition of resilience, there are a number of tools available to measure resilience from different point of views (Ahern, Kiehl, Sole, & Byere, 2006; Smith-Osborne & Bolton, 2013; Windle, Bennett, & Noyes, 2011). One of the key critical aspects of measuring resilience in adolescents is that most of the studies have used measures originally developed and standardized on adult populations, including Connor–Davidson Resilience Scale (CD-RISC, Connor & Davidson, 2003), Wagnild and Young's Resilience Scale (RS, 1993) and the Resilience Scale for Adolescents (READ, Hjemdal, Friborg, Stiles, Martinussen, & Rosenvinge, 2006). All these measures have been widely used with adolescents in different context, yet the major criticism of these instruments is the lack of operational definitions, generalizability and cross cultural application (Davydov, Stewart, Ritchie, & Chaudieu, 2010). It is also important to note that previous studies have also demonstrated that resilience is a multidimensional characteristic that may vary from culture to culture, with age and stage, and within an individual subjected to different life circumstances (Connor & Davidson, 2003). Therefore, it was felt that in clinical work and research, it is important to develop an indigenous scale which specifically focuses on the exploration of the experience and expression of resilience in adolescents.

The concept of resilience has been attained very little attention in Pakistan. There is a dearth of systematic studies which focused on measuring resilience and its impact on different aspects of growth and development in adolescents. Perhaps the only study found related to resilience in Rescue 1122 workers (Naz, Saleem, & Mahmood, 2010). Nevertheless, no attempt was made to develop any measurement tool for resilience in adolescents. Since Pakistan is a collectivistic culture where religion is considered as a guiding principle, it would be interesting to explore resilience while using emic approach (Berry, 1969). This research pioneer in nature would help to understand the phenomenon of resilience in cultural context and also how adolescent express this construct.

Aims and objectives

Firstly, identify and explore the cultural specific expression of resilience in adolescents. Secondly, to develop a valid and reliable self report measure of resilience for adolescents.

Method

Phase I: Item generation

Participants and procedure

Since this research is exploratory in nature, therefore, the experience and expression of the concept of resilience was explored from adolescents. The concept of resilience was operationally defined as *“an ability of an individual to bounce back from stressful situations and function normally”*. This definition was given to 36 adolescents (18 boys and 18 girls) from class 8th, 9th and 10th. The participants were selected from 2 government schools of Lahore. Participants were asked to describe the characteristics and attributes of individuals according to this definition. The responses of the participants were recorded in verbatim and further open-ended questions were asked when clarification of an expression required.

Firstly, separate lists of both boys and girls responses were compiled after excluding repetition, but a great deal of overlap in the expression of both genders was observed, therefore a generic list of 86 items describing the various attributes of resilience was finalized. At the end of this phase, all retained items were converted into a self report measure to be rated on a 4-point rating (0-3) and given the name of Resilience Scale for Adolescents (RSA).

Phase II: Adaptation of Connor Davidson Resilience Scale

Procedure

An adapted version of Connor Davidson Resilience Scale (CD-RISC, Connor & Davidson, 2003) was used to establish the concurrent validity of RSA. The scale (CD-RISC) was available in three versions, 25 item scale, 10 item scale and 2 item scale. For current research, Connor Davidson Resilience Scale (CD-RISC) with 25 items was adapted into Urdu-the national language. A standard procedure of translation and adaptation was used in the study. For this purpose, firstly three

linguistic experts were asked to translate CD-RISC into Urdu. During translation it was attempted to keep the language simple, so it could be easily understood by the adolescents of class 8th -10th. After that four experienced clinical psychologists were asked to evaluate the translation while keeping in mind the linguistic equivalence, cultural appropriateness and original connotation of the items. After getting feedback from all the experts, required corrections and modifications were made in the scale for further pilot and main studies.

Phase III: Pilot study

Participants and procedure

The objective of the third phase was to determine the user friendliness, understanding and comprehension of the items and instructions of the RSA and translated version CD-RISC. A sample of 48 adolescents (24 boys and 24 girls) was randomly selected for this phase. All the participants were tested in group setting. At the end this phase, most of participants reported difficulty in understanding of only one item from RSA and that item was excluded from the final scale and 85 items were retained for further psychometric phase. Moreover, participants reported no difficulty in understanding of CD-RISC.

Phase IV: Main study

Participants

For the psychometric phase, participants were divided into two main strata across gender, i.e. of boys and girls and were further sub divided on the basis of grades or classes (8th -10th). Then lastly, systematic random sampling technique was used where every 3rd adolescent was selected as participant of the main study. 690 adolescents (54% boys and 46% girls) were selected through stratified random sampling from nine different Government school of Lahore (5 girls and 4 boys), participants were selected from three classes 8th (35%), 9th (32%) and 10th (33%). The age range of the participants was 12-17 years with the Mean age (*SD*) 13.96 (1.25) years.

Measures

The final research protocol comprised a demographic performa, indigenously developed Resilience Scale for Adolescents and translated version of Connor Davidson Resilience Scale (Connor & Davidson, 2003) for concurrent validity.

Resilience Scale for Adolescents

A self reported scale (RSA) comprising 85 items was used to measure resilience in adolescents with 4 point rating scale (0-3). Response options included (a) not at all, (b) rarely, (c) often and (d) always. Participants were given written instruction that *"rate each item to the extent in which it applies and describe them"*.

Procedure

12 Government schools of Lahore (6 boys and 6 girls) were randomly selected for data collection from which 9 schools (4 boys and 5 girls) gave the permission for collecting data for the current research. The school authorities were assured about the confidentiality and anonymity of the collected information. After obtaining permission from the school authorities, participants from 8th, 9th and 10th were approached with the help of the teachers. All those participants who agreed to participate were briefly introduced about the aims and objectives of the research and assured about the privacy and confidentiality of the information obtained from them. Participants were also given the right to withdraw from the research at any time. The testing was carried out in a group setting and the average size of each group was 17-20. All the participants were given the final protocol and verbal instructions were also given to them. Almost average time of 15-20 minutes was taken by each participant to complete the protocol. After getting back protocol was re-checked so that any missing information would be completed by the participant. At the end of testing, each group of participants was debriefed. Two research protocols were discarded due to missing or incomplete information. For establishing test-retest reliability of RSA, 100 adolescents (50 girls and 50 boys) of 8th and 9th class were approached and retested after one week interval.

Results

Factor Analysis with varimax rotation was used to explore the dimensions of resilience in adolescents on 85 items. Scree plot and eigenvalues greater than 1 criteria were used to determine the number of factors. 8, 7, 6 and 5 factor solutions were tried, but 6 factors solution was found to be the best fit with the least number of dubious items and a clear factorial structure. In the final scale 77 items were retained and 8 items were excluded, whose factor loading was less than .30. The Kaiser-Meyer-Olkin (KMO) value was found to be .89 and the Bartlett test was 3.89 ($p < .001$)

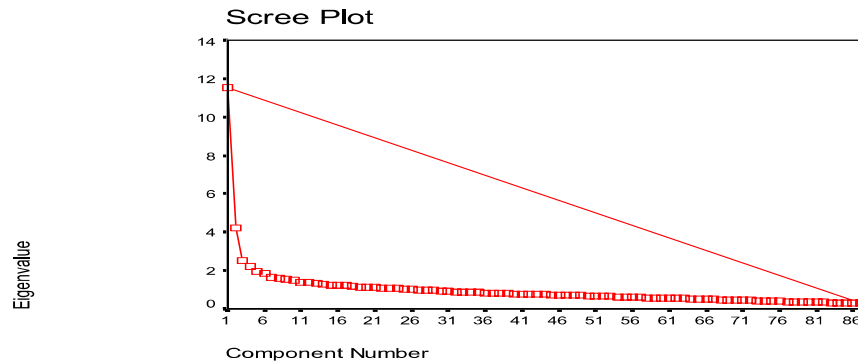


Figure 1

Scree Plot Showing Extraction of Factors of Resilience Scale for Adolescents (RSA) on 690 Participants

Table 1

Factor Structure and Eigen Values of 77Items of Resilience Scale for Adolescents (RSA) with Varimax Rotation

S. No	Item No	F1	F2	F3	F4	F5	F6
1.	4	-.36	.07	.13	.19	.17	-.02
2.	7	.55	.03	.24	.05	-.09	-.27
3.	9	.54	.26	.12	.01	-.04	.18
4.	10	.31	-.05	.19	.16	.12	.21
5.	13	.56	.16	.12	.02	.21	.02
6.	25	.54	.23	.25	.01	.02	..21
7.	31	-.39	.11	.21	.19	.09	.18
8.	36	.36	.26	.12	.01	.03	.21
9.	48	.53	.29	.18	.19	.02	.01
10.	52	.36	.21	.29	.13	.19	.20
11.	54	.49	-.11	.15	.05	.01	.02
12.	60	-.41	.17	.23	.17	.02	.01
13.	61	-.58	.05	.10	.11	.01	.19
14.	67	.62	.29	.04	.10	.19	.21
15.	68	.52	.04	.10	.03	.21	.01
16.	70	.62	.14	.02	.01	.01	.19
17.	71	.45	.23	.10	.04	.19	.04
18.	72	.32	.06	.15	.17	.04	.24
19.	79	.33	.19	.01	.28	.22	.24
20.	11	.19	.33	.23	.11	.26	.19
21.	12	.21	.31	.02	.18	.24	.03
22.	16	.11	.48	.10	.02	.03	.03
23.	19	.13	.55	.01	.10	.03	.19
24.	27	.19	.38	.14	.05	.19	.06
25.	35	.13	.45	.04	.19	.06	.02
26.	44	.21	.47	.03	.16	.02	.03
27.	46	.07	.56	.05	.24	.03	.07
28.	47	.05	.35	.12	.02	.07	.16
29.	50	.17	.36	.15	.01	.16	.03
30.	57	.19	.45	.12	.01	.03	.03
31.	82	.08	.59	.21	.19	.03	.06
32.	1	.21	.29	.33	.13	.11	.19
33.	2	.21	.24	.39	.05	.06	.05
34.	3	-.06	.17	.32	.17	.05	.07
35.	8	.14	.12	.33	.11	.07	.06
36.	18	.23	.15	.31	.10	.06	.05
37.	24	.16	.28	.38	.22	.29	.11
38.	29	.20	.11	.41	.19	.25	.09
39.	39	-.09	.11	.47	.03	.05	.04

40.	42	.14	.28	.55	.01	.04	.07
41.	51	-.10	.15	.44	.04	.07	.03
42.	56	.13	.08	.42	.17	.03	.08
43.	74	.26	.16	.42	.28	.08	.09
44.	83	-.09	.04	.47	.07	.21	.12
45.	5	.19	.21	.29	.39	.09	.15
46.	20	.15	.11	.13	.36	.02	.06
47.	23	.05	.03	.14	.50	.21	.05
48.	37	-.13	.05	.15	.43	.02	.07
49.	59	.06	.04	.05	.32	.03	.06
50.	65	.19	.06	.07	.33	.02	.05
51.	69	-.26	.10	.11	-.36	.01	.14
52.	73	-.29	.15	.16	.34	.02	.07
53.	75	.11	.21	.19	.39	.16	.22
54.	21	.24	.12	.21	.09	.31	.13
55.	30	.18	.18	.08	.07	.35	.18
56.	40	-.09	.15	.11	.23	.38	.09
57.	63	.19	.11	.23	.18	.33	.19
58.	66	.05	.08	.07	.16	.58	.12
59.	78	.26	.11	.17	.03	.31	.06
60.	84	-.14	.02	.23	.20	.51	.21
61.	85	.27	.03	.17	.04	.31	.11
62.	6	.21	.11	.22	.25	.29	.33
63.	15	-.08	.09	.19	.17	.01	.36
64.	22	-.12	.24	.16	.07	.05	.31
65.	26	.14	.06	.11	.28	.14	.44
66.	28	-.02	.24	.01	.26	.03	.47
67.	32	-.23	.15	.10	.05	.11	.42
68.	33	-.21	.11	.13	.02	.02	.35
69.	43	.04	.28	.14	.08	.13	.39
70.	49	.12	.15	.15	.09	.22	.35
71.	53	.23	.08	.05	.04	.12	.40
72.	55	.07	.16	.21	.02	.01	.35
73.	58	.17	.22	.18	.11	.21	.41
74.	62	-.23	.19	.11	.16	.04	.34
75.	76	.27	.21	.16	.07	.06	.37
76.	81	.21	.10	.17	.27	.11	.33
Eigen Values		7.85	4.37	3.27	3.25	2.80	2.76
% of Variance		9.02	5.02	3.76	3.74	3.22	3.17
Cumulative %		9.02	14.04	17.81	21.55	24.77	27.94

Note. Factor loading >.30 have been boldfaced and all the items that were having –ive loading there scoring was reversed. F1=Self Regulation; F2= Self Confidence; F3= Robustness; F4= Seeking Support; F5=Sociability; F6= Vulnerability.

Factor description

A descriptive label was assigned to each factor on the basis of commonality of theme emerged in a particular factor through factor analysis.

F1 Self-Regulation

In the first factor 19 items were loaded. Self regulation refers to the managing and controlling one's temperament, being thoughtful and showing persistence in the desired direction. The sample items included “controlling one's emotions”, “using spare time effectively”, “doing every work with patience”, “focus on each work”, “finalizing things on time” and “showing diligence” and so on.

F2 Self-Confidence

The second factor comprised 12 items. Self confidence defined as feeling of trust and faith in one's abilities. The examples of items are “being aware of own qualities”, “being active”, “being able to communicate ones feeling to others”, “being able to do difficult tasks easily”, “facing dangers without hesitation” and “having belief in own abilities”.

F3 Robustness

The third factor comprised 13 items. Robustness denote to the ability to handle and cope effectively with stressful and challenging situations. The sample items include “being able to learn from one’s own mistakes”, “being able to find new solutions for any problem”, “not withdraw easily in any difficult situation”, “acceptance of mistakes”. “Initiative taking” and so on.

F4 Seeking Social Support

The fourth factor consisted of 9 items denotes to the ability to seek support and assistance from others in difficult situations. The sample items include “having trust on friends”, “have trust on parents”, “able to take advice from others in difficulty”, “interact with others positively” and so on.

F5 Sociability

The fifth factor comprised 8 item denotes to the ability to relate and positively interact with people and showing patience in unfamiliar situations and in dealing with others. Sample items include “having patience to face others criticism”, “sociable”, “expressive”, and so on.

F6 Vulnerability

This factor comprised 15 item denotes to that were related to withdrawing from difficult situations and poor problem solving skills. This factor denotes to the absence of resilience in adolescents. The sample items include “avoiding difficult tasks”, “blame others for one's mistakes”, “being easily fearful of others”, “to think that others were thinking negatively about me”, “being easily worried and made more mistakes” and “easily persuaded by others”.

Table 2

Inter Factor Correlations, Means and Standard Deviations and Internal Consistency for Scores on Six Factors of Resilience Scale for Adolescents

Factors	F1	F2	F3	F4	F5	F6
F1 Self Regulation	---	.52***	.31**	.45***	.23**	-.53***
F2 Self Confidence	---	---	.41***	.47***	.43***	-.43***
F3 Robustness	---	---	---	.38***	.33***	-.37***
F4 Seeking Support	---	---	---	---	-.35***	-.28**
F5 Sociability	---	---	---	---	---	-.22**
F6 Vulnerability	---	---	---	---	---	---
<i>M</i>	44.28	26.03	24.38	21.07	14.78	17.26
<i>SD</i>	8.45	5.57	5.92	2.17	3.65	5.66

df= 689 ** $p < .01$; *** $p < .001$

The above table indicates that a highly significant positive correlation was found among Self-Regulation, Self-Confidence, Robustness, Seeking Support and Sociability. A significant negative relationship was found between all five positive factors of RSA and Vulnerability factor.

Reliability and Validity**Test-Retest Reliability.**

The test-retest reliability of RSA was assessed on 100 adolescents with one week interval. It showed that the test retest reliability of RSA was $r = .70$ ($p < .01$) indicating high test retest reliability.

Split Half Reliability.

The split half reliability of RSA was calculated by using odd and even method. Two halves were made (Form A and B), internal consistency of Form A was .79 and Form B was .83 respectively. The correlation between the two halves was found to be $r = .81$ indicating high split half reliability of RSA.

Concurrent Validity.

The concurrent validity of RSA was assessed by correlating the scores of RSA with already established Connor Davidson Resilience Scale for Children (CD-RISC, Connor & Davidson, 2003). It shows that validity of RSA $r = .48$ ($p < .01$) indicating a moderate level of concurrent validity

Table 3*Means, Standard Deviations and t-value of Boys (n=370) and Girls (n=320) on Six Subscales of RSA*

Subscales	Gender	M	SD	t	p<
F1 Self Regulation	Boys	44.84	8.61	4.73	.001***
	Girls	39.93	8.13		
F2 Self Confidence	Boys	26.73	5.23	3.14	.001***
	Girls	23.61	5.87		
F3 Robustness	Boys	24.27	6.04	1.64	.11(ns)
	Girls	23.99	5.76		
F4 Seeking Support	Boys	20.87	2.98	4.79	.001***
	Girls	24.12	2.43		
F5 Sociability	Boys	15.08	3.49	2.75	.02*
	Girls	13.43	3.78		
F6 Vulnerability	Boys	16.64	5.61	3.24	.001***
	Girls	19.93	6.01		

df= 689 *p<0.05, ***p<.001

The above table indicate that a significant gender difference was found on Self-Regulation, Self-Confidence, Seeking Support, Sociability and Vulnerability factors. Boys were found to be more self-regulated, higher on self-confidence and sociable, girls tend to seek more social support and vulnerable. No gender difference was found on Robustness.

Discussion

The emergence of positive psychology and introduction of strength-based model has been a very significant turning point in the study of developmental psychopathology (Tusaie & Dyer, 2004). The excessive attention to identifying mental health problems shifted to discovering those factors which lead to promote mental health and protect the individual against developing psychological dysfunctions (Eriksson et al., 2010). Resilience has been one of those attributes that was said to enable us to defend ourselves against adversities by minimizing the negative impact of unpleasant life events and helps recover quickly (Hjemdal et al., 2007; Hourani, et al 2012). Such an attribute is even more helpful in the early development for it may place us on the path of health and happiness early in life (von Soest et al., 2009).

The current study is one of the first attempts in Pakistan to develop a valid and reliable scale to measure resilience in children and adolescents. Starting with an emic approach phenomenology of resilience was explored and converted into Likert type self report measure (Resilience Scale for Adolescents, RSA). The factor structure revealed six components of resilience in Pakistani cultural context among which five shows a positive aspect of resilience namely Self-Regulation, Self Confidence, Robustness, Sociability, Seeking support and one negative factor Vulnerability. Consistent with the literature (Hjemdal et al., 2011), resilience found to have interpersonal resources such as Sociability and Seeking Support and intrapersonal resources such as Self-Regulation, Self-Confidence and Robustness. Interestingly, contrary to literature, absence of resilience was also found which was given the name of Vulnerability.

The first factor that emerged in RSA was Self Regulation, which considered to be very essential for schooling, positive academic outcome, self-respect and self evaluation. This transitional phase of growth and development, new foundations are laid for future (adulthood), enabling to meet new challenges and demands. This phase becomes very critical for identity formation and higher ability to regulate one's self help an individual to develop a positive view about self. A sense of self regulation gives an opportunity to deal with a changing and challenging demands of the growing age (Duckworth, Grant, Loew, Oettingen, & Gollwitzer, 2011). The resilient adolescents who have control over emotions and show self-regulation would develop a strong social support group that would guide and help them to bounce back from any adversity in an effective manner (Raffaelli & Crockett, 2003).

The second component of resilience is Self Confidence that is related to having faith and belief in one's own abilities. These competencies would give confidence and faith in one's own abilities to deal with different and difficult situations (Uba, Yaacob, Talib, Mofrad, & Abdullah, 2013). It could even make transition enjoyable rather than stressful task. Whenever transitions occur in the period of adolescents a confident person could take it as a challenge and cope with these difficulties effectively. Self Confidence affect on academic performance, behavioural functioning, and interpersonal relationships and so on (Baumeister, Campbell, Krueger & Vohs, 2003; Joshi & Srivastava, 2009). Robustness as a third factor is an attribute that is supported by Self Regulation and Self Confidence that gives a person a sense of persistence, perseverance and extra energy to overcome difficulties during this age and stage of adolescence. So that one could face new challenges and overcome new obstacles as an exercise to strengthen one's own resolve.

Seeking Support as a fourth factor of resilience; shows a degree of healthy dependence on other people before giving into a problem, the ability to study the problem from all angles and not shying from seeking help, advice and support from other people (Earls & Carlson, 2001). Seeking Support in difficult situations can be construed as a positive mark of self image (Arslan, 2009; Ikiz & Cakar, 2010). The fifth factor of RSA is Sociability; marked by all those attributes that are associated with extroversion and positive social intelligence (Habib, Saleem, & Mahmood, 2013). Sociability is the ability to develop mutually facilitating relationship with other people and to be able to understand and understood and also reduces the chances of developing mental health problems in adolescents (Nilsen, Karevold, Roysamb, Gustavson, & Mathiesen, 2013).

The last factor denotes the lack of resilience. Vulnerability; shows opposite of self regulation, it seems that the picture of resilience would be incomplete without the awareness of vulnerabilities. This factor shows the opposite of the self regulation opposite of self regulation, self confidence and robustness. The direct result of vulnerability is the person does not have the competence and confidence to deal effectively and accepting defeat prematurely, worrying about other people views and opinions, being too sensitive to criticism and focusing on "should and must" proves to be a constant drain on the confidence and abilities. Such anxieties are more likely to compound than mistakes. Consequently, an individual with vulnerabilities is at greater risk of developing mental health problems and unable to deal with adversities now and in later years (Trzesniewski et al., 2006).

The findings of the current research further suggest that boys were found to be more self-regulated, higher on self-confidence (Gentile, Grabe, Dolan-Pascoe, Wells, & Twenge, 2009), and sociable, girls tend to seek more social support (Gentile et al., 2009; Hampel & Petermann, 2005). This is perhaps because girls seek more intimacy, approval and acceptance from people around (Radmacher & Azmitia, 2006) and vulnerable. When it comes to Pakistani cultural context, boys and girls are treated differently, therefore both genders tend to deal with issues and challenges differently. Boys are given more opportunities, autonomy, and independence, consequently able to learn new skills to deal with the problem (Saleem, & Mahmood, 2011), girls, on the other hand, is given protection with less opportunity to handle issues and challenges independently, passivity and dependence are encouraged in girls that may result into poor coping mechanism and make them more vulnerable to life's adversities.

Conclusion and future suggestions

This current research is a first attempt in the understanding and measurement of resilience in adolescents. This research highlighted the personal and social components of resilience. The findings would help school counselors, teachers and parents foster resilience in adolescents so that early and timely prevention can be made. In our culture, same study will be conducted with rural sample and also find out that either any difference in expression of resilience among urban and rural adolescents exists or not. In order to make the findings more valid and reliable similar researches should be conducted in other different age groups and educational levels. Studies should be made to compare the expression of resilience among adolescents of private and government schools.

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