

## Exploration of Resilience in Elementary Grade Children across Age, Gender, Family System and School System

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#### **Abstract**

*Resilience is fundamental to better coping and adequate functioning throughout the life span. Resilience is a learnt skill acquired as we grow which primarily helps us to cope with challenges and adversities. A group of 146 elementary grade children attending conventional and nonconventional school system was assessed using demographic form and Child and Youth Resilience Measure (CYRM). The age range of the sample was from 5 to 7 years and included both girls (n=75) and boys (n=71). The mean resilience score was observed to be 28.48 (SD= 8.16). Resilience was found to have a strong positive association with female gender and age progression ( $p<0.05$ ). Girls observed to have better levels of resilience than boys ( $p<0.05$ ). The youngest participants found to have lowest levels of resilience indicated through mean scores. Type of school system and family system also found to be related to different levels of resilience in participants. Personal characteristics, family system and school system were observed to be significant for the development of resilience and associated with differences in level of resilience of participants.*

**Keywords:** Children, Resilience, Family Style, School Types.

#### **Introduction**

Early childhood is marked as a developmentally significant phase of one's life to acquire new behaviors and strategies which pave foundation for later skill development. Early childhood plays a promising role in assisting children to achieve competence in skills used to reduce vulnerabilities towards many developmental, behavioral, emotional and social risks (Masten, 2015).

Resilience is a complex construct which starts evolving from early childhood and is defined as a dynamic process of maintaining positive adaptation and effective coping strategies in the face of adversity (Luthar & Cicchetti, 2000). In simple terms it comprises skill required to overcome severe difficulties. Literature

reveals that resilience does not develop similarly across all children. Different factors come into play in determining whether a child develops resilience or not.

Developmentally, resilience describes the uniquely human ability to not only adapt, but to overcome and thrive in the face of adversity. It has been conceptualized as a process that interacts with multiple factors – such as age, gender, family support, parenting styles, temperament and social systems – rather than a stable, trait-like phenomenon (Chmitorz et al, 2018; (Neupert et al., 2019). Resilience is the process that allows for challenging and traumatic experiences to be integrated and understood in the service of mental health. It is the reason why mental health is possible in the face of significant, debilitating circumstances (Chmitorz et al, 2018). Remarkably, the most common pattern following “potentially traumatic events” is one of resilience, adjustment, and mental health (Bonanno et al., 2011).

Sagone and De Caroli (2014) have revealed a positive correlation between age and resilience; while other researchers have shown no relationship between age and resilience, suggesting that the impact of life experiences is more significant than the demographic variable of age (Pulido-Martos et al., 2020).

Limited research suggests that adolescent girls tend to exhibit greater resilience and social adjustment (Sahar & Muzaffar, 2017), however, most researchers have found greater levels of resilience in boys and men (Pulido-Martos et al., 2020; Sagone & De Caroli, 2014), particularly in Pakistan (Lodhi & Gul, 2021; Masood et al, 2016; Naseem & Munaf, 2020). Though Naseem and Munaf (2020) have indicated that this difference disappears in late adulthood, research on burn victims in Pakistan has demonstrated that women experience greater psychological distress and less resilience (Masood, Masud, & Mazahir, 2016).

Research indicates a strong relationship between family system and resilience (Sahar & Muzaffar, 2017). Specifically, adolescents from joint family systems have demonstrated greater social adjustment and resilience as compared to nuclear family systems (Sahar & Muzaffar, 2017). This is likely due to the importance of social support in mediating the relationship between adversity and mental health. There is a dearth of research examining the relationship between school type (conventional or nonconventional) and resilience.

Additionally, outside the family, the presence of a caring adult would help in increasing a child’s resilience, as would the sense of belonging to an institution, such as school or religious organization (Lippmann & Schmitz, 2013). Through the progress of research on resilience, psychologists have identified that much that has to do with the advancement of resilience in individuals is related to factors outside them (Fleming & Ledogar, 2008). This prompted researchers to study factors such as the individual’s family, community, school, etc. First, researchers came to identify some ‘protective’ factors that contribute to the growth of resilience, then they identified three levels of these – the individual, the family, and the community (school, peers, etc.). Since then, research on resilience has been inclined towards studying the ways in which these factors influence how resilient a child grows to become. An article by Harvard University’s Centre on the Developing Child (2018) states that in the development of resilience, there is one very common factor which is required for good resilience in children and that is having a stable relationship with at least one supportive adult – this could be a parent, caregiver or other adult like a teacher perhaps. Such a relationship is necessary as it will become the basis of providing a source of protection for the child from developmental disruption.

Cultural values influence many dimensions of our development by determining the normative standards of behaviors, establishing developmental and skill expectations with reference to age and gender, influencing family practices and functions, establishing standards of prosocial behaviors etc. As all these

variables are closely associated with the level and quality of resilience, therefore the specific cultural values and standards are considered to play a decisive role in the development of resilience (Ungar,2013). Cultural practices are also likely to promote different resilient strategies in face of adversities. Present study was based on the following objectives in order to explore the above mentioned factors with reference to resilience in elementary school children.

## Objectives

- To explore the resilience of elementary school children
- To compare the resilience of children attending conventional and nonconventional school systems.
- To ascertain whether gender, age, school type and family system attribute to any change in level of resilience of children in elementary grades.
- To investigate the relationship of significant demographic factors and resilience.

## Literature Review

Erdogan and colleagues (2015) assessed the effects of gender and faculty on resilience of university students in 596 university students in Turkey. They found that female students had significantly lower resilience level compared to male students. They concluded that gender did not only contribute to the composite levels of resilience but also effected all dimensions of resilience. Furthermore, they observed that faculty differences were only significant for sub domain of "Being a leader".

Namy et al. (2017) studied resilience and violence carried out by different perpetrators in 3760 Ugandan adolescents while exploring whether sex plays the moderating role. Findings suggested negative relationship between resilience and violence. They identified a complex connection between resilience and violence but noted a different pattern across different perpetrator (e.g., peers, teacher and caregivers). They observed that the student's gender moderated the dynamics of resilience and violence. Additionally, it was reported that participants who faced violence from adults were more vulnerable to psychological problems and develop withdrawal from family. They finally stressed to consider gender differences while assessing resilience and designing programs to enhance it.

Sun and Stewrat (2012) conducted a population based, cross-sectional study to assess the effects of gender and age on resilience and protective factors of psychological health in 2492 primary school children in Australia. They reported significant gender difference in the levels of resilience and perception of proactive factors. They found female participants to have higher levels of empathy, communication, help-seeking and future aspirations and goals. Female participants were observed to have more positive connections with teachers, peers in school and outside school, parents and adults in the community and also noted to have better sense of autonomy. The researchers also observed significant changes in gender based patterns over time with a sharp decline in scores of girls after 7 years of age.

Sahar and Muzaffar (2017) studied the role of resilience, positive emotions and family system in social adjustment in 150 Pakistani adolescents. They found female participants to be more resilient compared to boys. They also noted females to be socially well adjusted and to have more positive emotions. A significant positive association between resilience and positive emotions was reported. Another interesting find was that participants living in joint family system observed to have better social adjustment and higher levels of resilience than participants from nuclear family system.

Review of literature showed a significant dearth of literature on resilience in Pakistan. The few available researches studied resilience as a factor related to trauma and adjustment ignoring the exploration of resilience as a salient functioning phenomena in Pakistani context and its related personal and contextual correlates. Therefore, the current study was designed to explore these somewhat ignored dimensions.

## Method

Present study is based on descriptive cross sectional research design. The participants for this study included 146 elementary school children between the ages 5 and 7 years chosen through systematic random sampling technique. The sample was divided into two main cohorts of those attending either conventional or non-conventional school systems. Sample included both girls ( $n=75$ ) and boys ( $n=71$ ) within the given age range. An exclusion criterion was established and followed while selecting sample, children either below age 5 or above 7 years were not used in this research. Additionally, the survey also excluded children with significant physical and/or developmental problems.

## Measures

Two questionnaires were used in the study to assess resilience and to gather significant personal information.

A detailed demographic form especially designed for this study to record personal information like age, gender, grade, school type, family system, family income and detailed information about parents was used.

Resilience was measured using the *Child and Youth Resilience Measure* (CYRM) developed by Ungar and Liebenberg (2011) to be used with children between ages 5 and 9 years. The shorter version was used which contained 12 items, using a 3-point Likert scale (Jefferies et al., 2018). This instrument was used in English for conventional school participants and its Urdu translation for participants from non-conventional schools.

## Procedure

After getting the approval of ethical and research review board, permission was sorted from different schools following conventional and nonconventional systems. Conventional schools were defined as schools offering formal education and non-conventional schools were those offering informal education commonly referred to as "madrassa". A detailed letter explaining the objectives of the research was attached and sent along with permission request to collect data to different schools. Care was taken to select both types of schools in the same neighborhood or as close to each other as possible in order to avoid significant socioeconomic differences. After getting permission from school administration list of all students were arranged to rule out the exclusion criteria and then students were selected using systematic random sampling procedure. In case the student didn't fulfil inclusion criteria or their parents declining the participation request, next student was selected.

A detailed permission letter was sent to all parents requesting their consent for their child's participation in the project and requesting their availability to fill the demographic form. Parents were contacted first to fill the demographic form for the participant and then then CYRM was filled by the teachers of each student. A letter of thanks was sent to all teachers and parents for their time and cooperation in data collection.

After data collection was completed, all forms were entered into IBM SPSS version 23, so that statistical analyses could be conducted. Descriptive analysis was conducted to organize and summarize the data. After this, inferential statistics were used as well to analyze the data in detail.

## Results

The first section of results provides information regarding demographic information of the participants, whereas second section presents results of inferential analyses including correlation and independent sample t test.

Table 1: Descriptive Statistics of Demographic Variables of Participants (N= 146)

Variables	Frequency	Percentage
Age		
5 years	44	30 %
6 years	50	34 %
7 years	52	36 %
Gender		
Boys	71	49 %
Girls	75	51 %
Family system		
Nuclear	77	53 %
Joint	69	47 %
School type		
Conventional	73	50 %
Nonconventional	73	50 %

The sample was divided into 3 main age groups with relatively equal representation from all three groups with mean age of 5.99 years ( $SD= 0.80$ ). Girls had slightly more representation than boys and most of participants were living in nuclear family system. The school types had equal representation in the sample. The participating children were students of grade 1 and 2. The marital status of the parents of the study participants showed that out of 146 participants, 112 (77 %) were coming from homes where the parents were in intact marriage, while the rest included those whose parents were currently divorced (10 %), separated (8 %) or widowed (5 %). The mean family income was noted to be 31 thousand ( $SD= 15.15$ ).

Table 2: Descriptive for Total Resilience Score of Participants (N=146)

	N	Minimum	Maximum	Mean	SD
Total CYRM score	146	13.00	36.00	28.48	8.16

The resilience scores ranged from 13 and 36, with a mean score of 28.48 and standard deviation of 8.16. The correlation of resilience was also assessed with different demographic factors and it was noted that resilience was positively associated with age ( $r, 0.29, p < 0.01$ ), female gender ( $r = .31, p < 0.01$ ), increased family income ( $r = .37, p < 0.01$ ) and joint family system ( $r = .40, p < 0.01$ ).



Table 3: ANOVA on Resilience Scores of Participants Across Age Groups (N=146)

	Sum of Squares	df	Mean Square	F	P
Between groups	765.81	2	382.91	3.46	0.03
Within groups	15831.51	143	110.71		
Total	16597.32	145			

When the resilience was assessed across three age groups, it indicated significant differences ( $p < 0.05$ ). Participants who were 5 years old observed to have lowest score ( $M=20.01$ ,  $SD=13.14$ ) compared to those who were 6 years ( $M=23.34$ ,  $SD=8.19$ ) or 7 years old ( $M=25.67$ ,  $SD=10.02$ ) showing an increase in resilience level through age progression.

Table 4: Mean Score differences in Resilience Score of Participants of Two School Systems (N=146)

	CS		NCS		t	P	95% CI	
	Mean	SD	Mean	SD			LL	UL
Res score	23.83	9.63	29.69	11.24	3.38	0.000	2.45	9.28

Note. CS= conventional schools; NCS= non-conventional schools.  
CI= Class interval, LL= lower limit; UL= upper limit.

Students attending conventional and non-conventional schools revealed to have significant differences ( $p < 0.01$ ) in their resilience with students of nonconventional schools higher resilience

Table 5: Mean Resilience Scores of Participants Across Gender (N=146)

	Girls (n=75)		Boys (n=71)		t	P	95% CI	
	Mean	SD	Mean	SD			LL	UL
Res score	26.14	5.12	23.07	9.10	2.53	0.01	0.67	5.47

Note. CI= Class interval, LL= lower limit; UL= upper limit.

The resilience score of boys and girls were compared and boys showed to have significantly lower resilience scores compared to girls.

Table 6: Mean Resilience Scores of Participants Across Family Systems (N=146)

	Nuclear(77)		Joint (69)		t	P	95% CI	
	Mean	SD	Mean	SD			LL	UL
Res score	24.66	13.94	27.25	18.31	2.39	0.01	0.87	9.21

Participants living in nuclear family system observed to have lower mean scores on resilience than those living in nuclear family system.

## Discussion

Resilience appears to be a significant component of optimal functioning, wellbeing (Eley et. al, 2013) and better adjustment in the face of various types of adversities which attracted attention of researchers. Resilience is considered to be sensitive to many personal and contextual factors (Kim et al.,2013) that are likely to vary across cultures, therefore, current study attempted to explore this phenomena and its associated personal and contextual factors in Pakistani context.

Age was conceptualized as an important factor associated with resilience. Increase in resilience score was observed with age progression in current sample which is in line with findings of previous studies reporting similar pattern of relationship between these two study variables (Sagone & De Caroli, 2014; Yoleri, 2020). This might be because of the developmental skill attainment and mastering the complexity of coping which comes with age. As children grow, they acquire several sets of skills that help them adapt better and improve coping against various vulnerabilities which result in better resilience.

School is usually seen as a significant social agent affecting different developmental domains and skill acquisition in children. Literature had shown that the school environment and several related components were closely linked to development of resilience in children. Interestingly, participants from non-conventional school systems in present study showed higher resilience compared to those attending conventional schools. This might be due to changes in school environment, there are relatively fewer children enrolled in non-conventional schools compared to conventional schools and students are likely to have more attention of teachers and relatively closer interaction with peers and teachers. This assumption can be supported by literature that described that sense of belonging extracted from relationship with school, peers and teachers play a significant role in improving academic performance, emotional, physical wellbeing of children and provides protection against other vulnerabilities and thus making children more resilient (Gilligan, 2000; Lippmann & Schmitz, 2013). The non-conventional schools might have provided better sense of belongingness and relationship experience with peers and teachers for they had less students and thus making students more resilient. Another observation was that the students in non-conventional schools were more independent and involved in many nonacademic activities inculcating sense of achievement and getting exposed to small problem situations and adopting coping to deal with those. These factors must have played a significant role in having better resilience scores.

Present study identified girls as having significantly better resilience supported by many previous researches (Sahar & Muzaffar, 2017) particularly conducted on children between 4 to 7 years of age (Sun, Stewart, 2012). In literature girls are reported to have higher resilience than boys (Sun & Stewart, 2012) as they more frequently use social support and social networks to deal with daily stressors, and these are two significant resources behind resilience. (Hampel & Petermann, 2005).

Participants living in joint families showed to have higher resilience which is in line with another study conducted in Pakistan also reporting the same trend (Sahar & Muzaffar, 2017). Joint family systems are usually linked with better social adjustment and socialization processes which are important for cultivating resilience. Joint family systems expose the child with a rich social experience where they learn to connect with many members and have a better experience of practicing social problem-solving skills. Literature described that positive and supportive family environment is likely to enhance resilience particularly when there is no history of maltreatment attached (Dubowitz et al. 2016). The participants living in joint family might have received more support from their family environment resulting in better resilience. Joint family system in Pakistan have been reported to be more nurturing and facilitative for developmental needs of children (Nazim, 2020) and lower rates of child neglect have been reported in joint family systems in Asian countries (Shakeel & Johar, 2014), which might be another factor leading to better resilience. Though the study was adequate, it has some limitations like the restricted sample size, a relatively larger sample would have added more value to strength of inferences drawn. Another limitation was that due to time restriction the study design was restricted to quantitative method. It would have been more interesting to use a mixed method approach and incorporate qualitative analyses as well. The qualitative procedures would have been more effective to look into the specific characteristics of conventional and nonconventional school types associated with different pattern of resilience.

## Conclusion

Age, gender, family and school environment and relative culture practiced at these two places are significant for the development of resilience and likely to create substantial variations in level of resilience of elementary grade children.

## Implications

Resilience is a significant aspect of our functioning required to deal effectively with many problems. Therefore, significance of understanding the role of various factors that contribute to the development of resilience cannot be undermined. In this context, the findings of the current study stand practically significant. The findings would help psychologists, counselors and educationists to better understand the dynamics of relationship between resilience and different demographic factors. This understanding would be useful to design effective management programs to facilitate development of resilience right in the early stages.

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