

## Extrinsic component of resilience among the entry level medical students

Kameshwari Avula<sup>1\*</sup>, Mehzabin Ahmed<sup>2</sup>, Elsheba Mathew<sup>3</sup>, Rizwana B Shaikh<sup>4</sup>, Joshua Ashok<sup>5</sup>, Jayakumary Muttappallymyalil<sup>6</sup>

<sup>1</sup>Department of General Education, <sup>2</sup>Department of Pathology, <sup>4</sup>Department of Community Medicine, College of Medicine, <sup>5</sup>Department of Forensic Medicine, <sup>6</sup>Research Division, Gulf Medical University, Ajman, UAE

<sup>3</sup>School of Behavioral Sciences, Mahatma Gandhi University, Kerala, India

\*Presenting author

### ABSTRACT

**Objective:** The present study assesses the extrinsic component of resilience and its association with age and gender among the entry level students of the integrated MBBS program.

**Materials and Methods:** The present study was conducted on the entry level students of the MBBS program in College of Medicine, GMU, using a self-administered questionnaire comprising two parts. The first part contained questions pertaining to socio-demographic details while the second part contained questions on the intrinsic and extrinsic components of resilience of the students. Data was analyzed using SPSS 19.

**Results:** Among the 58 students who participated, 24 (41.4%) were males and 34 (58.6%) females, and 70.7% were < 20 years and 29.3% ≥ 20years. Fourteen questions related to extrinsic factors were rated on a 5-point Likert scale. 91.7% male students and 88.2% of female students strongly agreed/agreed with the statement "My family accepts me the way I am". 97.1 % of female students and 91.7 % male students strongly agreed with the statement on receiving high levels of love and support from their family. All females and 95.8% male students strongly agreed/agreed, "My parent(s) or guardian(s) help me succeed in school." The majority of male students' (91.7%) and 73.5% female students strongly agreed about active participation in the class.

**Conclusion:** No difference was observed with regard to the different resilience factors and socio-demographic factors like age and gender.

**Key words:** resilience, extrinsic factors, medical students

### INTRODUCTION

Resilience is a capacity to bounce back from adversities and face the challenges in every aspect of life. Various components of resilience have a prominent role in academic performance in medical education. Resilience also helps students to face the challenges of the competitive world and become competent in their field<sup>1</sup>.

Resilience is explained as a combination of both intrinsic and extrinsic factors and is also termed protective factors that might influence resilience by their positive outcomes and promote good results<sup>2</sup>.

Extrinsic factors (an adaptation process/ some kind of a situation, where an individual's thinking and behavior are changed to suit the new environment) could be good interaction with parents

such as love, affection, care and attendance at school where learning is emphasized and students are encouraged to do their best<sup>3</sup>.

Extrinsic protective factors are those features of the environment that assist students to become resilient, valuable and worthwhile individuals. Students' social environments such as home, community, peers, and university help them develop resilience traits. Protective factors include stable family of origin, mild forms of trauma, personal coping strategies, positive social support, parental education and appraisal of stressors such that individuals feel they have learned something positive from the experience which creates a positive impact on their adjustment<sup>4,5</sup>.

The extrinsic factors are described as

at least one secure attachment relationship with access to wider supports of extended family and friends, and positive nursery, school and community experiences<sup>6</sup>.

Students are provided opportunities to their overall development both academic and extra-curricular in schools with the help of their caring and competent adults. Students' social environments (home, community, peers, university) also contribute to develop resilient traits<sup>4,5</sup>.

Peer group is an influencing factor in promoting resilience. They get the support, care and attachments needs of their age mates<sup>7,8</sup>. The advantages of peers are that students feel proud to reflect characteristics of a group that embraces their values and provides a sense of belonging. They also develop social skills which are essential for other relations with family, community and work<sup>9,10</sup>.

Universities can promote resilience by providing caring, attentive and stable environments by concentrating on the welfare of the first year students and have lecturers and senior students as positive role models. They create opportunities for students to develop their internal assets or strengths<sup>7</sup>. A Model University can foster resilience, which integrates different areas and different environments and involves people from the broader community (parents, business owners and managers, professionals, politicians and educationists, religious leaders) in university activities. Social contexts require constant involvement in various interpersonal relationships and continual interaction between groups of these relationships<sup>11</sup>.

Lecturers and mentors have a strong impact on students' resilience. Meaningful participation, high expectations, and caring relationships develop performance and successful learning<sup>12</sup>.

Motivated lecturers focus on student's strengths by fixing them in a hopeful frame of mind to learn and work on problems. Having positive interaction with faculty members, support groups, learning and preparation for study skills, and career development also lead to academic persistence and success<sup>9</sup>.

Well-developed communities (with knowledge, expertise and services) play an important role in promoting resilience among the youth<sup>12</sup>. Opportunities for communal interaction enable students' participation in strengthening social health and other community services<sup>7</sup>.

These extrinsic resilience factors have been found to play essential roles in the formation of youths' developmental strengths. In a review of the literature and research on resiliency, youth that have caring families, positive peer relationships, supportive schools and compassionate communities, tend to cope with adversity more effectively than youth that do not experience these extrinsic factors. Youth will tend to draw on the extrinsic strengths they encounter in their day to day lives to overcome hardship and participate in positive and healthy lifestyles choices. Therefore the present study assessed the extrinsic component of resilience and its association with age and gender among the entry level students of the integrated MBBS program to be able to consider them in the mentoring program in the medical course.

## **MATERIALS AND METHODS**

A cross sectional survey was conducted among the entry level students of the MBBS program at College of Medicine, Gulf Medical University in Ajman. After a thorough review of literature, questionnaires and discussions with experts in the field of psychology and behavioral sciences and with approval from the University Ethics Committee, a self-administered questionnaire which had two parts was developed by the research team. The first part included questions pertaining to socio demographic details: age and gender of the students, their previous educational background, the structure of their families, the education of their parents and the number of friends they have; the second part contained questions on the intrinsic and extrinsic components of resilience among the students. The researchers sent the draft questionnaire to experts in the field of psychology, community medicine and

research, for face and content validation. The suggestions were incorporated before finalizing the same. The final 14 questions on the extrinsic component comprised items on family, school, peer and social support. During the regular class hours, after explaining the purpose of the study, the questionnaire was distributed to all the students who consented to participate. The data collected was analyzed using SPSS 19 for frequency, mean, SD and median, with regard to extrinsic component of resilience and its association with some of the socio-demographic characteristics.

## RESULTS

Fifty eight students enrolled in the first year MBBS program participated in the study: 24(41.4%) males and 34 (58.6%) females; 70.7% were < 20years of age and 29.3%  $\geq$ 20 years. The mean score for the extrinsic component of resilience was 48.9 with a SD of 5 and a range of 35 to 60.

The median score by both age and gender was 49.0 for the study group. The variation in the median scores in the extrinsic component of resilience with

religion ranged from 46.5 to 49.0, and nationality from 48.5 to 51. The subgroups of students following Christianity and Hinduism had lower median scores. The median scores did not show any significant variation with age or gender.

The data obtained was entered into Microsoft Excel and transferred to SPSS 19. Mann Whitney U test was applied to ascertain the significance of the scores, and  $p < 0.05$  was taken as significant.

Table 1. Profile of the study subjects by Age and Gender

Age (Years)	Gender				Total
	Male		Female		
	No	%	No	%	
< 20	27	65.9	14	34.1	41
$\geq$ 20	7	41.2	10	58.8	17
Total	24	58.6	34	41.4	58

The range in the scores on extrinsic component of resilience is 1 to 57 (Table2). With regard to strongly agree higher scores observed was 57 and the lower was 45. The statement regarding "my parents or guardians help me succeed in school" scored the highest.

Table 2. Extrinsic component of resilience

Items	Strongly Agree/Agree		Unsure		Strongly Disagree/Disagree	
	No	%	No	%	No	%
	My family accepts me the way I am	52	89.7	3	5.2	3
I receive high levels of love and support from my family	55	94.8	1	1.7	2	3.4
My parent(s) or guardians (s) help me succeed in school	57	98.3	-	-	1	1.7
I work hard at school	52	89.7	3	5.2	3	5.2
I take part actively in class	47	81.0	10	17.2	1	1.7
I use my teacher's comments and criticisms to improve my performance in studies	48	82.8	8	13.8	2	3.4
My teacher's encourage me towards my studies	46	79.3	8	13.8	3	5.2
I help other students at school	53	91.4	4	6.9	1	1.7
I get along well with other students	52	89.7	6	10.3	-	-
My friends know they can trust me	53	91.4	5	8.6	-	-
If people know what I really am, they will surely love me	48	82.8	8	13.8	2	3.4
I feel sorry when I have hurt others	55	94.8	2	3.4	--	--
There is always someone to help me	45	77.6	10	17.2	3	5.2
I have good role models (people I look up to and would like to follow)	45	77.6	10	17.2	3	5.2

Table 3. Variation in the extrinsic component of resilience in relation to gender

Items	Strongly Agree/Agree No (%)		Unsure No (%)		Strongly Disagree/ Disagree No (%)	
	Male	Female	Male	Female	Male	Female
My family accepts me the way I am	30 (88.2)	22 (91.7)	3 (8.8)	--	1 (2.9)	2 (8.3)
I receive high levels of love and support from my family	33 (97.1)	22 (91.7)	--	1 (4.2)	1 (2.9)	1 (4.2)
My parent(s) or guardians (s) help me succeed in school.	34(100.0)	23 (95.8)	--	--	--	1 (4.2)
I work hard at school	31 (91.2)	21 (87.5)	1 (2.9)	2 (8.3)	2 (5.9)	1(4.2)
I take part actively in class	25 (73.5)	22 (91.7)	9 (26.5)	1 (4.2)	--	1(4.2)
I use my teacher's comments and criticisms to improve my performance in studies	31(91.2)	17(70.8)	3( 8.8)	5(20.8)	--	2(8.3)
My teacher's encourage me towards my studies	25(73.5)	21(87.5)	6(17.6)	2(8.3)	2(5.9)	1(4.2)
I help other students at school	32(94.1)	21(87.5)	1(2.9)	3(12.5)	1(2.9)	--
I get along well with other students	30(88.2)	22(91.7)	4(11.8)	2(8.3)	--	--
My friends know they can trust me	31(91.2)	22(91.7)	3(8.8)	2(8.3)	--	--
If people know what I really am, they will surely love me.	30(88.2)	18(5.0)	3(8.8)	5(20.8)	1(2.9)	1(4.2)
I feel sorry when I have hurt others	32(94.1)	23(95.8)	1(2.9)	1(4.2)	--	--
There is always someone to help me	28(82.4)	17(70.8)	5(14.7)	5(20.8)	1(2.9)	2(8.3)
I have good role models (people I look up to and would like to follow)	30(88.2)	21(87.5)	2(5.9)	1(4.2)	2(5.9)	2(8.3)

Table 4. Variation in the extrinsic component of resilience in relation to Age

Items	Strongly agree/ Agree		Unsure		Strongly disagree/ disagree	
	Age No. (%)					
	<20	>=20	<20	>=20	<20	>=20
My family accepts me the way I am	36(87.8)	16(94.1)	3(7.3)	--	2(4.9)	1(5.9)
I receive high levels of love and support from my family	39(95.1)	16(94.1)	1(2.4)	--	1(2.4)	1(5.9)
My parent(s) or guardians (s) help me succeed in school.	40(97.6)	17(100.0)	1(2.4)	--	41(100.0)	17(100.0)
I work hard at school	37(90.2)	15(88.2)	2(4.9)	1(5.9)	2(4.9)	1(5.9)
I take part actively in class	34(82.9)	13(76.5)	7(17.1)	3(17.6)	- -	1(5.9)
I use my teacher's comments and criticisms to improve my performance in studies	35(85.4)	13(76.5)	5(12.2)	3(17.6)	1(2.4)	1(5.9)
My teacher's encourage me towards my studies	34(82.9)	12(70.6)	4(9.8)	4(23.5)	2(4.9)	1(5.9)
I help other students at school	39(95.1)	14(82.4)	2(4.9)	2(11.8)	- -	1(5.9)
I get along well with other students	35(85.4)	17(100.0)	6(14.6)	--	--	--
My friends know they can trust me	36(87.8)	17(100.0)	5(12.2)	--	--	--
If people know what I really am, they will surely love me.	33(80.5)	15(88.2)	7(17.1)	1(5.9)	1(2.4)	1(5.9)
I feel sorry when I have hurt others	38(92.7)	17(100.0)	2(4.9)	--	--	--
There is always someone to help me	33(80.5)	12(70.6)	7(17.1)	3(17.6)	1(2.4)	2(11.8)
I have good role models (people I look up to and would like to follow)	36(87.8)	15(88.2)	2(4.9)	1(5.9)	3(7.3)	1(5.9)

Table 3 shows that males (95.8%) strongly agreed for both the statements; "I feel sorry when I have hurt others" and "My parent(s) or guardians (s) help me succeed in school" whereas all females strongly agreed for the latter statement. For statements like "I receive high levels of love and support from my family", females strongly agreed and their responses are higher (97.1%) than those of males (91.7%). Overall, gender variation shows 4.2 % and 5.4% between the male and female responses.

Table 4 reveals responses of the students based on age. All the students who are  $\geq 20$  years of age strongly agreed for many of the statements like; "My parent(s) or guardians (s) help me succeed in school" "I get along well with other students" "my friends know they

can trust me" "I feel sorry when I have hurt others", whereas the same age group (94.1%) strongly agreed for the statements "My family accepts me the way I am" and "I receive high levels of love and support from my family". Students above 20 years of age strongly agreed (97.6%) for "my parent(s) or guardians (s) help me succeed in school".

## DISCUSSION

Students enrolling in the MBBS program at College of Medicine in Gulf Medical University, UAE, come from multiethnic backgrounds with varied social experiences and cultural exposure. They join after Grade 12 of schooling, mostly aged between 17-19 years. They are certainly influenced by various internal and external factors. The present

study made an attempt to look into the individual's extrinsic factors that might be helpful for students coping with the stress of the academic programme. The level of extrinsic component of resilience is found to be high (57), as the median score is above 48.

A total of 57 (98 %) students strongly agreed that their parents or guardians helped them to succeed in school. However all the females strongly agreed with the statement on family support. All the students who are below 20 years of age strongly agreed about the family support in their success in school, followed by their responses regarding their peer relationships. Social support which has a significant impact on individual functioning also plays an important role in the development of resilience and good academic outcomes<sup>12</sup>.

Though not significant, minimally higher values were noted in the median scores of students with regard to family or guardian support in studies. Research studies reveal that supportive relations provided by family and friends and also from societies and groups that the individual may be attached to, help in building the confidence and problem-solving capabilities of an individual thus increasing the resilience<sup>13</sup>.

A panel study conducted showed that children of educated parents were 70% more likely to be resilient than others as there was the active involvement by the parent in the education of the child<sup>14</sup>. Socially competent children who show a high regard for their relationships with family and friends are more resilient. The sample size of this study was small as the study group was medical students. Therefore the results cannot be generalized to other student populations.

## CONCLUSION

The extrinsic component of resilience was found to be more or less uniform for the study group and the level was high. A study has to further look into its effect on coping with the stresses in the new academic program. Adequate emotional expression, supportive family relations, good peer

interactions, and sociability were found to be main indicators of resilience. Further study is needed to explore the possible effects of these factors.

## RECOMMENDATIONS

The information obtained from this study may be utilized to further study the effect on the entry level students and their health and academic performance.

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