

Emotional Intelligence from Gender Perspective during Mid to Late Adolescence in an Indian Context

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Abstract

Background: Emotional Intelligence (EI) contributes to overall success in life. Our objectives are to explore EI among adolescents and its gender differences as per some parameters of social environments. **Material and Methods:** Present cross-sectional study was conducted in secondary schools in one of municipal corporations in western Maharashtra EI of adolescents studying in tenth standard in randomly selected secondary schools, was assessed by Schutte's Self-Reported Emotional Intelligence Test with collection of relevant sociodemographic information maintaining confidentiality. Data were analyzed by SPSS 20 software. **Results:** Total 1060 adolescents in 14-16 years of age participated in the study. Socio-economic status affected EI of adolescent girls more adversely than adolescent boys ($P = 0.003$, $P = 0.036$ respectively). Co-educational type of school favored lower EI than gender specific schools ($P < 0.001$). After gender wise stratification, EI did not differ significantly among boys ($P = 0.154$) with respect to type of schooling, but differed significantly ($P = 0.001$) among girls. **Conclusion:** Apart from continued efforts directed to for improvement in SES, mental health component of school health services needs to take a step forward for assessment and improvement of towards mental health parameters including EI of adolescents. EI training programs commenced in school activities based on gender, socio-economic status and other issues relevant to the situation shall prove beneficial in long run.

Keywords: Adolescents, emotional intelligence, socio-economic status, type of schooling

INTRODUCTION

Concept of Emotional Intelligence (EI) is embedded in every text of ancient Indian literature. But at modern era, it remained ignored in India and researched in western world.^[1] In 1990 when intelligence quotient (IQ) was unquestioned standard of excellence in life, Peter Salovey and John Mayer proposed concept of EI which subsequently researched to be a protective factor against mental health disorders (MHDs).^[2]

MHDs have increased worldwide, most alarmingly in low- and -middle-income countries (LMIC)^[3] victimizing more and more adolescents, provoking suicidalities among them.^[4]

India has the largest adolescent population in the world, which is its valuable asset.^[4] Early investments in their physical and mental well-being will be more beneficial than investing later. In India, adolescents make up to 19.6% of the population with highest rate of suicide in the world. Majority of such unfortunate events can be prevented by mere emotional and mental health (MH) support and training through secondary schools.^[5]

Secondary schools (SSs) can serve as cost-effective channels to reach, screen and manage emotional and mental health (MH) of large adolescent population. Gender differences can't be ignored while planning such programs. A combination of biological/hormonal attributes with socio-cultural and psychological attributes specially in LMICs, make adolescent boys and girls vulnerable to MHDs differently, requiring different program components based on gender differences.^[6]

There are no any studies reporting gender differences in EI among adolescents as per social environments and different dimensions of EI. Present study was carried out with the objective to study present scenario of EI, its different

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dimensions and gender differences among adolescents. We also aimed to assess gender wise effect of social environments specifically socio-economic status (SES) and type of schools on EI of adolescents.

SUBJECTS AND METHODS

It was a cross sectional study among adolescents in one of the municipal corporation in Western Maharashtra during second half of 2021 with ethical approval, all necessary permissions, parents' consent and assent of participating adolescents. Adolescents studying in 10th standard in randomly selected 24 out of 440 SSs in following Maharashtra State Board Syllabus (MSBS) were enrolled.

EI was assessed by Schutte Self Report Emotional Intelligence Test (SET) based on Peter Salovey and John Mayer's ability model of EI which has internal consistency reliability, $r = .87$ to .90 and test-retest reliability, $r = .78$. (r-Pearson's correlation Coeff.). It is to be responded on Likert scale from 1 (strongly disagree) to 5 (strongly agree). It has 33 items related to four aspects of EI: Appraisal of others' and own emotions, regulation of emotions, social skills, utilisation of emotions in solving problems which includes flexible planning, creative thinking, redirected attention and motivation and optimism.^[7] Its summative scores were interpreted as per the conventions laid by their inventors as EI score of <111 as low EI (LEI), 111-137 as normal EI (NEI), >137 as high EI (HEI).^[8] Socio-demographic information was collected maintaining the confidentiality.

As schools were closed due to COVID 19 Lockdowns, Google forms of SET and semi-structured socio-demographic questionnaire in local language were sent by class teachers through WhatsApp groups for online teaching- learning mode. Students not attending online teaching were excluded. Data were recovered in Microsoft excel sheet, imported in SPSS 20 (IBM) for further analysis.

Sample size was rounded to 1100 assuming expected prevalence of normal EI among students as 68%, maximum

allowable error of 4.3% at 95% confidence level and 10% failures to submit SET and sociodemographic information.^[8]

RESULTS

Total 1060 adolescents participated, 41.7% (442/1060) and 58.33% (618/1060) were boys and girls respectively, with mean age of 14.85 (+0.75) years. Majority were Hindus, residing in urban areas and from middle SES. 41.79% (443/1060) and 58.21% (617/1060) were studying in co-educational schools (CES) and gender specific schools (GSS) respectively.

Majority [62.6% (664/1060)] had EI in normal category, mean EI score also fell in normal range [123.14 (45-165, ± 16.42)] while 19.8% (210/1060) and 17.5% (186/1060) adolescents had low and high EI respectively. EI score and categories did not differ significantly ($P = 0.062$, $P = 0.390$) among boys and girls. But girls had significantly more scores for social skills and optimism than boys ($P = 0.036$ and $P = 0.009$ respectively) [Table 1].

EI of adolescents differed significantly as per different SES ($P < 0.001$) favoring low EI in low SES [Table 2]. All study participants from low SES were studying in corporation schools. Gender wise stratification [Figure 1] revealed higher significance level for the association of low SES and low EI among girls than boys ($P = 0.003$ Vs $P = 0.036$ respectively).

Also, adolescents studying in GSS had significantly ($P < 0.001$) higher mean EI scores and proportion of adolescents with low EI was significantly higher in CSS [Table 2]. Mean scores for all components of EI except appraisal of own emotions were significantly higher for adolescents from GSS than from CES.

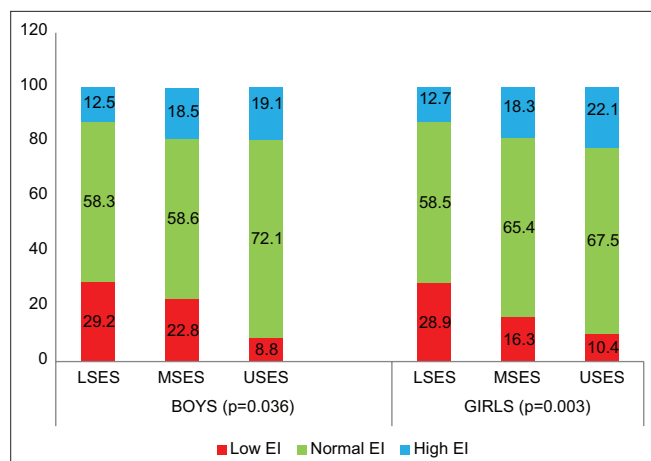
After gender wise stratification [Figure 2], type of school, whether GSS or CES, was not associated with low EI among boys, qualitatively or quantitatively ($P = 0.154$, $P = 0.78$). But, among girls the association was significant. Quiet higher proportion of girls from CES had low EI than girls from GSS ($P = 0.001$, 25.3% Vs 15.9%) [Figure 2]. Also, mean EI

Table 1: Gender-wise differences in EI scores and individual components

EI & its components	Gender of the student	n	Mean	SD	SEM	Significance (by equal variances assumed)
EI	Boy	442	122.03	18.372	0.874	0.062
	Girl	618	123.94	14.832	0.597	
Appraisal of others' emotions	Boy	442	23.59	4.063	0.193	0.102
	Girl	618	24.02	4.244	0.171	
Appraisal of own emotions	Boy	442	18.24	3.750	0.178	0.717
	Girl	618	18.32	3.326	0.134	
Regulation of emotions	Boy	442	18.98	3.559	0.169	0.176
	Girl	618	19.26	3.130	0.126	
Social skills	Boy	442	18.96	3.578	0.170	0.036
	Girl	618	19.38	2.807	0.113	
Utilization of emotions	Boy	442	26.71	5.017	0.239	0.260
	Girl	618	27.03	4.169	0.168	
Optimism	Boy	442	15.53	2.629	0.125	0.009
	Girl	618	15.93	2.221	0.089	

Table 2: EI and Social parameters (SES & Type of school)

Social Parameter	Low EI n (%)	Normal EI n (%)	High EI n (%)	Total	P
SES					
Low	62 (29.0)	125 (58.4)	27 (12.6)	214 (100)	<0.0001
Middle	134 (19.1)	438 (62.5)	129 (18.4)	701 (100)	
Upper	14 (9.7)	101 (69.7)	30 (20.7)	145 (100)	
Total	210 (19.8)	664 (62.6)	186 (17.5)	1060 (100)	
Type Of the school					
CES	112 (25.3)	266 (60.0)	65 (14.7)	443 (100)	<0.001
GSS	98 (15.9)	398 (64.5)	121 (19.6)	617 (100)	
Total	210 (19.8)	664 (62.6)	186 (17.5)	1060 (100)	

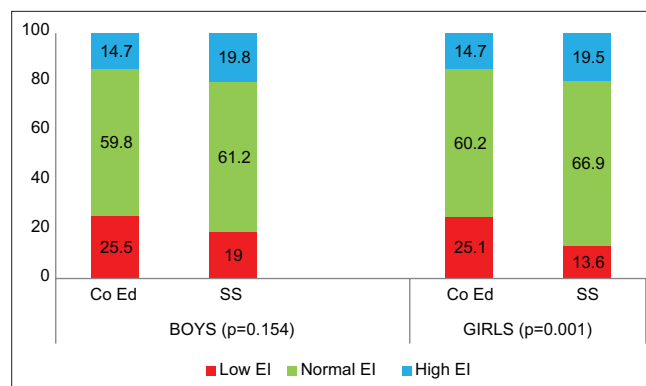
**Figure 1:** Percentage of ABs and AGs as per EI and SES

scores differed significantly with respect to type of schooling among girls (CES: 121.58 ± 15.684 , GSS: 125.64 ± 13.961 , $P = 0.001$).

DISCUSSION

As other studies reported, we too found impact of SES on EI among adolescents. Overall, low SES had more significant association with low EI among girls than boys (0.036 vs 0.003, Figure 1) Both, girls and boys, from low SES had significantly lower scores for appraisal of others' and own emotions and regulation of emotions. It points the need of different interventions to improve of EI adolescents as per SES they belong to.^[9,10]

School environments also affect psychological and emotional make up of adolescents.^[11] Literature shows controversy about gender specific influence on EI as per type of school.^[11-13] Forgasz and Taylor reported that students in GSS had more positive personality than students in CES.^[14] We observed similar finding, in terms of EI, but only for girls in GSS [Figure 2]. Co-educational schooling was also significantly associated with low EI only among girls but not among boys ($P = 0.001$ vs $P = 0.154$, Figure 2). Malik (2013) also found girls to be more adversely affected by CES than boys in terms of emotional stability and liveliness while some studies report no such difference.^[15] It may be attributed to less

**Figure 2:** Percentage of ABs and AGs as per EI and Type of schooling

gender-stereotyping in GSS which enables students there to be freer to express themselves than in the CES.

Generalizability of the results is restricted to the adolescents studying in tenth standard in SSs who are following MSBE pattern in the study area. We could not approach adolescents without access to prevailing teaching-learning mode of online education. It requires different study designs. Reporting bias is eliminated as current findings are solely based on self-reported questionnaires which still has its own limitations. As it was a cross sectional study design, we were unable to analyze the effect of the COVID 19 Pandemic on adolescents' EI assessed in the study.

Large sample size in the study gives fairly good statistical power to its results. Novelty of the study is it brings about gender differences in EI and its different components among adolescents qualitatively as well as quantitatively and which is as its own.

CONCLUSION

We conclude that there is necessity of screening of adolescents for emotional and mental well-being through secondary schools. Interventions to improve EI need to be gender specific based on different EI dimensions. Adolescents from low SES and adolescent girls from CES need more attention in this regard.

Apart from continued efforts to attain broad goal of improving SES, MH component of school health services needs to be

strengthened. Schools serve as first point of contact where MHDs and their modifiable factors like low EI can be identified and intervened. Efforts are needed not to lose any such opportunity.

In view of growing needs of emotional and mental health support of adolescents, Ss need to be adequately equipped with experts in delivering training of mental and emotional well-being through school activities based on gender, SES and other issues relevant to the situation.^[11] Education departments, health care organizations and other stakeholders may collaborate for assessment and improvement of overall MH including EI of adolescents in Ss with referral to specialist services if necessary.

Perceived facilitators and barriers to access emotional and mental health support need to be researched for appropriate action. Operational research to find out suitable and feasible strategies will be high-yielding for example region- and gender specific EI training programs (EITP).

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Conflicts of interest

There are no conflicts of interest.

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