

# Associations of Intellectual Ability with Emotional Intelligence, Academic Achievement and Aggression of Adolescents

Mehwish Mursaleen\* and Seema Munaf

*Institute of Clinical Psychology, University of Karachi, 118, Block 20, Gulistan-e-Jauhar Karachi, 75290, Pakistan*

**Abstract:** *Purpose:* The current study examined the relationship of intellectual ability with emotional intelligence, academic achievement, and aggression of adolescents.

*Methods:* Correlational design was utilized to study the relationship between these variables. Adolescent students (N=500, 50% boys & 50% girls, with the mean age of 15.01 years & SD of 1.11) were approached from different private schools and colleges of Karachi. To measure their intellectual ability, emotional intelligence, and aggression, Draw-A-Person Intellectual Ability Test for children, adolescents, and adults (DAP: IQ), Wong and Law Emotional Intelligence Scale (WLEIS), and Aggression Questionnaire-Short Form (AQ-12) were administered. Their academic achievement was assessed through their percentage of most recent examination. Pearson product moment correlation coefficient was utilized to analyse the results.

*Results:* Intellectual ability was significantly positively related with emotional intelligence and its domains i.e. Self-Emotional Appraisal, Others' Emotional Appraisal, Use of Emotions, and Regulation of Emotions ( $p < .01$ ). Intellectual ability and emotional intelligence were also significantly positively related to academic achievement ( $r = .181, p < .01$  &  $r = .143, p < .01$  respectively). Further, intellectual ability and emotional intelligence were significantly negatively related with aggression ( $r = -.108, p < .01$  &  $r = -.102, p < .05$  respectively).

*Conclusion:* Intellectual ability and Emotional intelligence are related constructs which are not only positively related with each other but also with academic achievement while negatively related to the aggression of adolescents. Hence, these two domains of intelligence are equally important in academic achievement as well as in control/expression of aggression.

**Keywords:** Adolescent students, emotional appraisal, emotion regulation, verbal aggression, physical aggression, anger, hostility, Pakistan.

## INTRODUCTION

Emotional intelligence and intellectual ability play an important role in life of people. Those with high intellectual resources and emotional stability are considered to be successful and those who lack these abilities have a threat to their adjustment. Organizational researchers have stretched literature to study these factors among workers [1, 2] and now the educational researchers are expanding their areas of study on student population too [3, 4].

As the scientific literature is growing, new models of intelligence are emerging and the previous ones are being modified. In academic literature, the overall student is in consideration, not only the judgement and resourcefulness, but social and emotional aspects as well are the matter of concern [5]. A categorization of intelligence suggested by Cote and Christopher [1] is supposed to be cognitive and emotional intelligence. Cognitive intelligence, measured through IQ denotes individual's capacity to decide and realistically plan about what actions to be taken and the ability to cope

up with life situations [6]. Reynolds and Hickman [7] provided a tool to assess mental abilities while using human figure drawings that indicates individual's cognitive ability or intelligence, whereas, the concept of emotional intelligence is described through multiple approaches. One of the models introduced by Salovey and Mayer [8] considers emotional intelligence as an aspect of social intelligence which indicates person's ability to understand one's own and others' emotions, distinguish between emotions, and take this guidance to regulate one's thoughts and behaviours. Hence, emotional intelligence specifies person's responses in difficult circumstances, understanding other's opinions and emotional states, sustaining interaction with others and practical self-control [3]. Both intelligences come under the umbrella of general intelligence and hence both are assumed to be distinct but related constructs [1].

Lam and Kirby [9] found that the overall emotional intelligence contributed to individual's cognitive ability above the level attributable to general intelligence, and this association was positive. In contrast, a review of literature by Mavroveli [10] showed that many studies display no correlations between intellectual ability and emotional intelligence however, some of the studies illustrate weak but significant correlations.

\*Address correspondence to this author at the Institute of Clinical Psychology, University of Karachi, 118, Block 20, Gulistan-e-Jauhar Karachi, 75290, Pakistan; Tel: +92-333-3193739; E-mail: mehwishmursaleen@gmail.com

The emerging literature on intelligence mostly explores the correlates of both IQ and EQ. Researchers have found various performance related variables associated with both types of intelligences, for example a research by Gondal and Hussain [2] revealed that emotional intelligence along with intellectual quotient predicts performance in an organizational setting but IQ alone is not a predictor. Emotional intelligence seems to be more positively related with performance of the employees. Similarly a study by Nedari *et al.* [11] indicated insignificant relationship between intelligence and students' achievement whereas, most of the researchers found significant positive relationship of IQ with academic achievement. Students with low IQ level are more likely to fail in exams and they need special attention in order to flourish academically. Alternatively, individuals with high IQ are less likely to fail [2]. Several empirical researches conducted on students from primary school level to college levels reveal correlation between cognitive intelligence and students' academic achievement varying from insignificant to moderately positive range. For example, work of Parveen [12] reveals that intelligence is positively related with good performance of high school students. Ahmed *et al.* [13] found significant positive relationship between intelligence and academic achievement of students from public sector schools of Peshawar.

Similarly, EQ has been found to predict success because it reflects individual's ability to cope with daily stressful situations, get along well with others, effectively manage feelings, and deal with various areas of life. Consequently, EQ brings success in professional and academic areas of pupil's life [2]. Several researches found a positive relationship of emotional intelligence and academic achievement among school and college students. For instance, Parker *et al.* [14] found emotional intelligence to be strongly associated with academic success and it predicted GPA among 9-12 grade high school students. Malik and Shujja [15] assessed high and low achievers of class 4<sup>th</sup> to 8<sup>th</sup> from public and private schools in Pakistan. High achievers were found to have high level of emotional intelligence and low achievers were low on emotional intelligence. Dawood and Butt [16] found a positive correlation between emotional intelligence and academic achievement among college students of Lahore, Pakistan.

Intellectual ability and emotional intelligence have also been studied with reference to interpersonal or social behaviour of an individual, for instance, Mayer *et*

*al.* [17] found that adolescents high on cognitive and emotional intelligence were able to effectively handle their social interactions with peers, they were less likely to harm anyone and refrained themselves from aggressive activities. The cognitive factors such as information processing, vicarious learning, and rehearsal play an important role in social-emotional behaviour of a child. These abilities developed in early years of life may predict social behaviour of the child with maturity [18]. A study by Fergusson and Horwood [19] on delinquent behaviours among students indicated that children with low IQ were more likely involved in aggressive behaviours and later life delinquency. Tirri and Nokelainen [20] found that academically gifted students showed higher level of caring attitude and moral sensitivity than their non-gifted counterparts who were low on ethical sensitivity.

The emotional factors are also being widely studied with reference to behavioural outcomes particularly aggression of children. Arsenio *et al.* [21] found that those with emotional awareness were less likely to involve in aggressive interactions and were accepted by peers more than those with low emotional intelligence. Petrides [22] study showed that students with high emotional intelligence were seen by their teachers and peers as co-operative, pro-social, and non-aggressive than those with low emotional intelligence who were rated as more aggressive and anti-social. In middle school age children, challenges increase and also the risky behaviours are increased. In this age group a study by Trinidad and Johnson [23] assessed 205 teenagers in southern California. Students with high emotional intelligence were less likely to involve in alcohol, tobacco use or other risky behaviours including aggression. They were also having high intellectual ability which helped them to evaluate others and resist the undesirable pressure from their peers to indulge them into risky situations. Brackette *et al.* [24] found significant negative correlation of emotional intelligence with deviant or maladjusted behaviour of college students.

In current study the following hypotheses were formulated according to the above literature on associations of intellectual ability with emotional intelligence, academic achievement and aggression of adolescents.

- 1) There would be positive correlation between intellectual ability and emotional intelligence of adolescent students.

- 2) There would be positive correlation of intellectual ability and emotional intelligence with academic achievement of adolescent students.
- 3) There would be negative correlation of intellectual ability and emotional intelligence with aggression of adolescent students.

## METHODS

The present research utilized correlational study design. The sample comprised of 500 students from 8<sup>th</sup> to 12<sup>th</sup> grade including 250 girls and 250 boys selected through purposive sampling from different private sector English medium schools and colleges of Karachi, Pakistan. Their age range was between 14 to 18 years and entire sample belonged to middle economic class. Their participation was voluntary and they were assured that they reserved the right to withdraw at any time during the course of the study without any kind of penalty. A respondent profile form including demographic information as well as the percentage obtained in most recent examination was filled by the participants. Standardized instruments to measure intellectual ability, emotional intelligence, and aggression were then administered. Their academic percentage was also checked through official records of educational institutions. After scoring, Pearson product moment correlation coefficients were utilized to analyse the relationship between the study variables with the help of Statistical Package for Social Sciences (SPSS).

## MEASURES USED

1. The Draw-A-Person Intellectual Ability Test for Children, Adolescents, and Adults (DAP; IQ, Reynolds & Hickman, 2004) [7] was used to measure intellectual ability of the adolescents. It is a measure of individual's cognitive ability assessed from a human figure drawing. The test can be administered individually as well as in a group setting. Participants are asked to draw a full figure from a frontal view. Each of the features of drawing (e.g., eyes, clothing, arms etc.) is individually scored on 0 to 4 point scale. A total score is obtained by adding scores on 23 items. Raw scores are converted into IQ. DAP is found to be a reliable and valid instrument across a wide range of populations, with retest reliability of .84, the internal consistency coefficients of .82, concurrent validity estimates ranging from .85-.86 with scoring systems of Koppitz and Goodenough-Harris. Its inter-scorer

reliability is .91-.95 and external validity correlations range from .3-.6 with other scoring systems and established measures of intellectual functioning and achievement. In current study, the Cronbach's alpha for DAP was found to be .581.

2. Wong and Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002) [25] measures adolescents' emotional intelligence. It consists of 16 items and taps individuals' knowledge about their own emotional abilities, specifically the beliefs concerning self-emotional appraisal, others' emotional appraisal, regulation of emotion, and use of emotion. The responses are given on seven point Likert-type scale ranging from one (strongly disagree) to seven (strongly agree). A total score of emotional intelligence is obtained by adding the individual scores on all the four domains. Initial psychometric analyses (i.e., reliability; factorial, discriminant, convergent, and predictive validity) of the WLEIS suggest that this scale is reliable and valid self-report index of emotional intelligence. In these studies coefficients alphas for the four dimensions of WLEIS were: SEA= .82, OEA= .80, ROE= .79, and UOE= .78. The WLEIS is found to be a valid predictor of academic achievement and other performance variables [26, 27]. In current study, reliability estimate through Cronbach's alpha was found to be .826 for WLEIS.
3. Aggression Questionnaire-Short Form (AQ-SF; Bryant & Smith, 2001) [28] which is a refined version of original Buss-Perry Aggression Questionnaire (Buss & Perry, 1992) [29]. This short form consists of 12 items rated at 6-point Likert-type scale ranging from "extremely uncharacteristic of me" to "extremely characteristic of me". It has four subscales including Physical Aggression (PA), Verbal Aggression (VA), Anger (ANG), and Hostility (HO). AQ-SF is psychometrically sound measure of aggression. Its internal reliability estimates range from .70 to .83. The Cronbach's Alpha and adjusted Alpha coefficients of .88 to .92 have been reported for the four subscales [28]. In present study, the Cronbach's alpha for AQ-SF was found to be .727.

## RESULTS

It is clear from the Table 1 that significant positive relationship was found between the scores of

**Table 1: Correlation among the Variables of Intellectual Ability, Emotional Intelligence, Academic Achievement and Aggression of Adolescent Students (N=500)**

Variables	EI	SEA	OEA	UOE	ROE	IA
IA	.253**	.247**	.117**	.232**	.179**	
Ac. Ach.	.143**	.094*	.103*	.147**	.072	.181**
Agg.	-.102*	-.049	.051	-.074	-.211**	-.108**
PA	-.140**	-.084*	-.030	-.125**	-.169**	-.136**
VA	-.080*	.011	.017	-.057	-.178**	-.093*
Ang.	-.033	.001	.082*	.047	-.185**	.005
Hos.	-.018	-.029	.093*	-.054	-.074*	-.091*

Note: <sup>IA</sup>Intellectual Ability Total Score, <sup>EI</sup>Emotional Intelligence Total Score, <sup>SEA</sup>Self-Emotional Appraisal, <sup>OEA</sup>Others' Emotional Appraisal, <sup>UOE</sup>Use Of Emotions, <sup>ROE</sup>Regulation Of Emotions, <sup>Ac.Ach.</sup>Academic Achievement, <sup>Agg.</sup>Aggression, <sup>PA</sup>Physical Aggression, <sup>VA</sup>Verbal Aggression, <sup>Ang.</sup>Anger, <sup>Hos.</sup>Hostility.  
\* $p < .05$ , \*\* $p < .01$  (1-tailed).

intellectual ability and emotional intelligence of adolescents ( $r = .253^{**}$ ,  $p < .01$ ). All of the domains of emotional intelligence i.e. self-emotional appraisal ( $r = .247^{**}$ ,  $p < .01$ ), others' emotional appraisal ( $r = .117^{**}$ ,  $p < .01$ ), use of emotions ( $r = .232^{**}$ ,  $p < .01$ ) and regulation of emotions ( $r = .179^{**}$ ,  $p < .01$ ) were found to have significant positive relationship with the intellectual ability.

Further, significant positive relationship was found between the scores of intellectual ability and academic achievement ( $r = .181^{**}$ ,  $p < .01$ ). Scores of academic achievement were also found to be significant and positively related with the scores of emotional intelligence ( $r = .143^{**}$ ,  $p < .01$ ) and the domains of emotional intelligence i.e. self-emotional appraisal ( $r = .094^{*}$ ,  $p < .05$ ), others' emotional appraisal ( $r = .103^{*}$ ,  $p < .05$ ), and use of emotions ( $r = .147^{**}$ ,  $p < .01$ ) whereas, insignificant positive relationship was found with the domain of regulation of emotions ( $r = .072$ ,  $p > .05$ ).

Moreover, significant negative correlation was found between the scores of intellectual ability and aggression ( $r = -.108^{**}$ ,  $p < .01$ ). The domains of aggression having significant negative correlation with intellectual ability were: physical aggression ( $r = -.136^{**}$ ,  $p < .01$ ), verbal aggression ( $r = -.093^{*}$ ,  $p < .05$ ), and hostility ( $r = -.091^{*}$ ,  $p < .05$ ) whereas, insignificant positive relationship was found with the domain of anger ( $r = .005$ ,  $p > .05$ ).

Likewise, there was a significant negative relationship between the scores of emotional intelligence and aggression ( $r = -.102^{*}$ ,  $p < .05$ ). The

domains of aggression with significant negative relationship with emotional intelligence were: physical aggression ( $r = -.140^{**}$ ,  $p < .01$ ) and verbal aggression ( $r = -.080^{*}$ ,  $p < .05$ ). However, insignificant negative relationship of emotional intelligence was found with the domains of anger ( $r = -.033$ ,  $p > .05$ ) and hostility ( $r = -.018$ ,  $p > .05$ ). The only domain of emotional intelligence which was found to have significant negative correlation with aggression was regulation of emotion ( $r = -.211^{**}$ ,  $p < .01$ ). Other domains i.e. self-emotional appraisal ( $r = -.049$ ,  $p > .05$ ) and use of emotions ( $r = -.074$ ,  $p > .05$ ) were found to have insignificant negative relationship with aggression. Others' emotional appraisal was found to have insignificant positive relationship with aggression ( $r = .051$ ,  $p > .05$ ).

## DISCUSSION

In accordance with our first hypothesis, analysis indicated that intellectual ability was significantly and positively related with emotional intelligence. We also found significant positive relationship for all the domains of emotional intelligence. Our results affirm the existing literature such as the findings of Cote and Christopher [1] that emotional intelligence and cognitive intelligence are positively associated because they both are parts of the general intelligence. According to this conceptualization, cognitive intelligence is the part of general intelligence, points towards informative and practical aspects of mental processes such as reasoning and memory, while, emotional intelligence is the area of general intelligence represents informative and practical aspects of emotional processes such as

understanding, expression, and use of emotions. Hence, intellectual ability and emotional intelligence are separate but inter-related constructs. This is applicable and explained by our familial practices. It is discussed that students who learn from their elders about explanations of what they feel as well as their parents share emotional experiences while disciplining their children, they develop greater emotional skills. Those underprivileged students who don't get emotionally flourished familial backgrounds might be lacking in emotional intelligence despite having higher intellectual abilities [1]. But, since both of the intelligences are related therefore those having higher cognitive abilities would also develop some related emotional skills which would help them to thrive in life [2].

In accordance with our second hypothesis, the current study found significant positive relationship of intellectual ability and emotional intelligence with academic achievement. These correlations are in line with research findings as mentioned earlier for example Parveen [12], Ahmed *et al.* [13], and Fergusson [19] that indicate significant relationship of IQ with academic achievement. Similarly the findings of Farooq [3], Lam [9], Parker *et al.* [14], Malik [15], and Dawood [16] suggested significant relationship of emotional intelligence with academic achievement. The findings indicate that the higher proportions of both the intelligences facilitate person to live efficiently in environment and the opposite is true for the lower level [9]. Students who are more intelligent can enhance their abilities and learn academic skills faster [2]. Their problem solving skills help them to effectively handle academic difficulties [30] and they have better adjustment in school [15]. The work of Preeti reveals that if emotional intelligence is developed in students then it facilitates them to gather the relevant information from academic and social atmospheres. They also refrain from deviant behaviours such as illicit absenteeism and being expelled from school. They achieve their long-term academic goals more easily [31]. They have psychological well-being, inter and intra-personal relationship skills, resilience, stress management and creativity [3]. They form good relationships with teachers and classmates. The motivational processes, cognitive skills, and classroom relationships act as mediating factors in connecting emotional intelligence with academic achievement [32]. Likewise, effective interaction with others improves self-identity [5] as well as their self-knowledge and self-confidence encourages them to struggle hard which

facilitate their academic attainment [30] whereas, those lacking in emotional intelligence have unregulated sentiments which influence their cognitive processes. They are unable to focus on learning materials or remember essential information. They possess fragile personalities, weak relationships [32], and poor communication skills [31] due to which they often experience failure in school, at home, and with friends.

Reference to the third hypothesis, it is obvious from our results that there is a significant negative correlation of intellectual ability and emotional intelligence with aggression. Studies corresponding to these findings suggest that students with low IQ show increased aggressive or delinquent behaviours [18, 32]. Similarly, those with high emotional intelligence are less likely to indulge in aggressive acts [30, 34]. The inverse relationship of IQ with aggression is explained in terms of cognitive processes [18] and social-emotional learning from the aspects of moral, scholastic and parental training [33]. Those with low IQ misinterpret social cues and perceive a danger for their self-integrity which affects their ability to control emotions and behaviour [34]. Similarly, the inverse relationship of emotional intelligence with aggression is explained in terms of health and behaviours. Higher emotional intelligence reduces risky behaviours like self-harm, drug abuse and aggressive interactions and it enhances pro-social behaviours such as positive peer relationships and leadership [22, 30]. It helps in managing complexities and pressures [23] and facilitates handling of problematic interpersonal situations because emotionally intelligent individuals have awareness of their own emotions and understanding for others' emotions [17]. They efficiently decide for not showing aggressive behaviour on minor things until the genuine issue arises causing an individual to react [34].

In line with current study findings, it is suggested that both IQ and EQ should be given equal importance in our educational institutes as they play vital role in the academic achievement and in control/expression of aggression in students.

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## REFERENCES

- [1] Cote S, Christopher TH. Emotional intelligence, cognitive intelligence, and job performance. *Adm Sci Q* 2006; 51: 1-28.
- [2] Gondal UH, Hussain T. A comparative study of intelligence quotient and emotional intelligence: effect on employees' performance. *Asian J Bus Manag* 2012; 5: 153-62.
- [3] Farooq A. Effect of emotional intelligence on academic performance [Unpublished Dissertation]. Pakistan: Institute of Clinical Psychology, University of Karachi 2003.
- [4] Dawood S, Butt MZ. IQ, emotional intelligence and its impact on academic achievement. In: Kausar R, editor. *Psychological Abstracts 1999-2011*. Center for Clinical Psychology, University of Punjab, Lahore 2009; p. 62.
- [5] Abisamra NS. Emotional intelligence and academic achievement: the relationship between emotional intelligence and academic achievement in eleventh graders. *Nada's ESL Island* [Internet]. Montgomery, Auburn University: Nada Salem Abisamra; 2000 [updated 2010 May 30; cited 2013 Dec 10]. Available from: <http://tinyurl.com/hgeuptq>
- [6] Wechsler D. The measurement and appraisal of adult intelligence. 4th ed. Williams and Wilkins, Baltimore 1958. <http://dx.doi.org/10.1037/11167-000>
- [7] Reynolds CR, Hickman JA. Draw-a-person intellectual ability test for children, adolescents, and adults examiners manual. Austin, TX: Pro-Ed 2004.
- [8] Salovey P, Mayer JD. Emotional intelligence. *Imagin Cogn Pers* 1990; 9: 185-211. <http://dx.doi.org/10.2190/DUGG-P24E-52WK-6CDG>
- [9] Lam LT, Kirby SL. Is emotional intelligence an advantage? An exploration of the impact of emotional and general intelligence on individual performance. *J Soc Psychol* 2002; 142: 133-43. <http://dx.doi.org/10.1080/00224540209603891>
- [10] Mavroveli S, Petrides KV, Sangareau Y, Furnham A. Exploring the relationships between trait emotional intelligence and objective socio-emotional outcomes in childhood. *Br J Educ Psychol* 2009; 79: 259-72. <http://dx.doi.org/10.1348/000709908X368848>
- [11] Naderi H, Abdullah R, Aizan HT, Sharir J. Intelligence and academic achievement: an investigation of gender differences. *Life Sci J* 2010; 7: 83-7.
- [12] Parveen D, Zaib un Nisa Khan. Relationship between intelligence and academic achievement of secondary level students. *Glob Res Anal* 2014; 3: 35-6. <http://dx.doi.org/10.15373/22778160/MAR2014/13>
- [13] Ahmad J, Anwar M, Anwar A, Bareech K. A co-relational study of intelligence and academic achievement of students from government schools of Peshawar district. *PUTAJ-Humanit Soc Sci* 2014; 21: 107-15.
- [14] Parker JDA, Creque Sr. RE, Barnhart DL, *et al.* Academic achievement in high school: does emotional intelligence matter? *Pers Individ Dif* 2004; 37: 1321-30. <http://dx.doi.org/10.1016/j.paid.2004.01.002>
- [15] Malik F, Shujja S. Emotional intelligence and academic achievement: implications for children's performance in schools. *J Indian Acad Applied Psychol* 2013; 39: 51-9.
- [16] Dawood S, Butt MZ. IQ, emotional intelligence and its impact on academic achievement. In: Kausar R, editor. *Psychological Abstracts 1999-2011*. Lahore: Center for Clinical Psychology, University of Punjab 2009. p. 62.
- [17] Mayer JD, Perkins D, Caruso DR, Salovey P. Emotional intelligence and giftedness. *Roeper Rev* 2001; 23: 131-7. <http://dx.doi.org/10.1080/02783190109554084>
- [18] Huesmann LR, Eron LD. Cognitive processes and the persistence of aggressive behaviour. *Aggressive Behav* 1984; 10: 243-51. [http://dx.doi.org/10.1002/1098-2337\(1984\)10:3<243::AID-AB2480100308>3.0.CO;2-6](http://dx.doi.org/10.1002/1098-2337(1984)10:3<243::AID-AB2480100308>3.0.CO;2-6)
- [19] Fergusson DM, Horwood LJ. Early disruptive behaviour, IQ, and later school achievement and delinquent behaviour. *J Abnorm Child Psycho* 1995; 23: 183-99. <http://dx.doi.org/10.1007/BF01447088>
- [20] Tirri K, Nokelainen P. Comparison of academically average and gifted students' self-rated ethical sensitivity. *Educ Res Eval* 2007; 13: 587-601. <http://dx.doi.org/10.1080/13803610701786053>
- [21] Arsenio WF, Cooperman S, Lover A. Affective predictors of pre-schoolers' aggression and peer acceptance: Direct and indirect effects. *Dev Psychol* 2000; 36: 438-48. <http://dx.doi.org/10.1037/0012-1649.36.4.438>
- [22] Petrides KV, Sangareau Y, Furnham A, Frederickson N. Trait emotional intelligence and children's peer relations at school. *Soc Dev* 2006; 15: 537-47. <http://dx.doi.org/10.1111/j.1467-9507.2006.00355.x>
- [23] Trinidad DR, Johnson CA. The association between emotional intelligence and early adolescent tobacco and alcohol use. *Pers Individ Dif* 2002; 32: 95-105. [http://dx.doi.org/10.1016/S0191-8869\(01\)00008-3](http://dx.doi.org/10.1016/S0191-8869(01)00008-3)
- [24] Brackett MA, Mayer JD, Warner RM. Emotional Intelligence and its relation to everyday behaviour. *Pers Individ Dif* 2004; 36: 1387-402. [http://dx.doi.org/10.1016/S0191-8869\(03\)00236-8](http://dx.doi.org/10.1016/S0191-8869(03)00236-8)
- [25] Wong CS, Law KS. The effects of leader and follower emotional intelligence on performance and attitude: an exploratory study. *Leadersh Q* 2002; 13: 243-74. [http://dx.doi.org/10.1016/S1048-9843\(02\)00099-1](http://dx.doi.org/10.1016/S1048-9843(02)00099-1)
- [26] Schaie KW. Emotional intelligence: Psychometric status and developmental characteristic – Comment on Roberts, Zeidner, and Matthews. *Emotion* 2001; 1: 243-8. <http://dx.doi.org/10.1037/1528-3542.1.3.243>
- [27] Libbrecht N, Lievens F, Schollaert E. Measurement equivalence of the Wong and Law Emotional Intelligence Scale across self and other ratings. *Educ Psychol Meas* 2010; 70: 1007-020. <http://dx.doi.org/10.1177/0013164410378090>
- [28] Bryant FB, Smith BD. Refining the architecture of aggression: A measurement model for the Buss-Perry Aggression Questionnaire. *J Res Pers* 2001; 35: 138-67. <http://dx.doi.org/10.1006/jrpe.2000.2302>
- [29] Buss AH, Perry M. The Aggression Questionnaire. *J Pers Soc Psychol* 1992; 63: 452-9. <http://dx.doi.org/10.1037/0022-3514.63.3.452>
- [30] Cherniss C, Extein M, Goleman D, Weissberg RP. Emotional intelligence: What does the research really indicate? *Educ Psychol* 1996; 41: 239-45. [http://dx.doi.org/10.1207/s15326985ep4104\\_4](http://dx.doi.org/10.1207/s15326985ep4104_4)
- [31] Preeti B. Role of emotional intelligence for academic achievement for students. *Res J Educ Sci* 2013; 1: 8-12.
- [32] Valiente C, Swanson J, Eisenberg N. Linking students' emotions and academic achievement: when and why emotions matter. *Child Dev Perspect* 2012; 6: 129-35. <http://dx.doi.org/10.1111/j.1750-8606.2011.00192.x>

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- [33] Maguin E, Loeber R. Academic performance and delinquency: a review of research. *Crim Justice* 1996; 20: 145-264.  
<http://dx.doi.org/10.1086/449243>
- [34] Khan M J, Hassan M, Khan RA. Aggression as related to emotional stability among physically challenged adolescents. *Indian J Health Well-being* 2012; 3: 765-7.
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