The Study of the Relationship among Emotional Intelligence, Peer Social Support, and Family Social Support and GPA among Iranian High School Students

Yeganeh Azizi

Department of General Psychology, Yeravan State University, Yeravan,
& Education and Training Office, Tehran, Iran
azizi.yeganeh@yahoo.com

Abstract

The objective of this study was to examine by gender whether emotional intelligence (EI), peer social support, and/or family social support partially mediated the influence of verbal IQ on Grade Point Average (GPA) for 100 (45 males, 55 females) students. For males, EI and peer social support predicted GPA and EI mediated the association between verbal IQ and GPA. For females, EI, peer social support, and family support predicted GPA but did not mediate the association between verbal IQ and GPA. This study further examined whether subscales of EI (intrapersonal, interpersonal, adaptability, and stress management abilities), peer social support and family social support (emotional, socializing, practical, financial, and advice) added to the prediction of GPA after verbal IQ, gender, and SES were controlled. Adaptability, stress management and practical family social support each added to the explanation of variability. None of the peer social support subscales predicted additional variance in GPA.

Key words: Emotional intelligence, peer social support, and family social support and GPA, high school

Introduction

Academic success, as measured by grade point average (GPA), has been found to be related to many domains of life success and well-being during adolescence and adulthood (e.g. Ridgell & Lounsbury, 2004; Thomas, Kuncel, & Crede, 2007). High GPA is associated with increased academic attainment, employment rates, and employment success (Steams & Glennie, 2006; Taylor, 2007). In contrast, low GPA is correlated with higher rates of substance abuse (Fothergill&Ensminger, 2005), suicide risk (Hacker, et al, 2006), development of psychological disorders (Shiner, Masten, & Roberts, 2003), and poor adult outcomes in general (Roisman, Masten, Coatsworth, &Tellegen, 2004). Due to the association between academic success and these positive and negative outcomes, it is important to acquire a broad understanding of predictors of academic success in adolescents in order to inform prevention programs designed to reduce academic failure. As described below, considerable previous research has shown that cognitive intelligence and socioeconomic status (SES) are positively correlated with academic success and that females tend to achieve higher GPAs than males. The degree to which emotional intelligence (EI) and peer and family social support explain additional variance in predicting GPA for adolescents has not been explored. This is the overall goal of the current study.

Cognitive Intelligence, SES, and Gender

As would be expected due to the origin ofIQ tests as a means to predict academic success, IQ remains one of the best predictors of GPA, accounting for 10 to 20 percent of GPA variability (Sternberg, 2006). This study investigated verbal IQ as a predictor of GPA, based on findings by

Mayes and Calhoun (2007) and Smedler and Torestad (1996) that verbal IQ is more predictive of academic success than nonverbal IQ.

The relationship between socioeconomic status (SES) and GPA is less clear, with evidence of both direct and indirect influences (Battle & Pastrana, 2007). Magnuson and Duncan (2006) found that 25% of the variability between African American and Caucasian adolescents' academic success in high school was explained by SES. However, when the relationship between SES and academic success was examined more closely, it was found that several indirect factors influence the impact of SES on GPA, such as the stability of family economics, available resources, and parents' involvement in their children's school experience.

Similarly, there is debate surrounding the nature of the influence of gender on GPA. Although Duckworth and Seligman (2006) argued that females' stronger academic success in all subjects is a result of greater self-discipline, superior academic success for females was not consistently found. For example, Pope, et al (2006) found that female students surpassed males in language arts while male students outperformed females in mathematics and science-related subjects. In general, gender variations in academic success are thought to result from differences in motivation, socialization, and developmental maturation (Bursik& Martin, 2006). Consistent with this interpretation, Bursik and Martin found that there was greater variability in the ego development of adolescent males than females, whereas females had developed more advanced interpersonal and coping skills. In addition, others have found that female students adapted better than male students to academic demands during the transitions to junior high school (Chung, Elias, & Schneider, 1998).

Emotional Intelligence

Interest in EI as an influence on academic success has emerged over the past decade amidst a passionate debate in scientific journals and popular press about the nature ofEI (Woitaszewski & Aalsma, 2004). The current study used Bar-On and Parker's practitioner oriented model of EI. Bar-On and Parker's model is adapted from Bar-On's (1997) adult based model for use with children and adolescents between 7 and 18 years of age. Consistent with the adult model, the youth model proposes that EI comprises four primary abilities: intrapersonal (e.g., self-regard, emotional self-awareness, independence, and self-actualization), interpersonal (e.g., empathy, social responsibility, and interpersonal relationships), adaptability (e.g., reality testing, flexibility, and problem solving), and stress management (e.g., impulse control as well as stress management).

The Bar-On and Parker model of EI used in the present study is empirically supported by research with adults (Bar-On, 1997) and youth (Bar-On & Parker, 2000). Parker, et al (2001), and Parker, Summerfeldt et al. (2004) found no significant differences between university students who were on the Dean's Honour List (first-year GPA of 80% or better) and students who were placed on academic probation (first-year GPA of 59% or lower) with respect to high-school GPA, age, or course load at the start of term. However, students who had high end of first-year GPAs scored significantly higher than students with low first-year GPAs on total EI and on the separate dimensions of intra personal, adaptability, and stress management abilities. Further, EI at the beginning of the academic year was an excellent predictor of both academically successful (correctly identified 82% of high GPA students) and academically unsuccessful (correctly identified 91 % of low GP A students) students. Parker et al. (2001) concluded that intrapersonal, adaptability, and stress management abilities are important in the transition from high school to university.

Hogan (2002) replicated and expanded the work of Parker et al. (2001) by examining EI as a predictor of academic retention. Students who persisted at the university for their entire first year had higher interpersonal, intrapersonal, adaptability, and stress management scores than those who withdrew within their first year. Classification of the students into the persisters and non-persisters

groups was completed using the discriminant function scores, with an overall correct classification rate of 69%.

Extending the research on EI and academic success to high school students, Parker, Creque et al. (2004) found that academically successful students had more advanced adaptability and stress management skills. However, the pattern for high school students differed from university students with regard to interpersonal and intrapersonal abilities; students in the more successful high school academic groups had higher interpersonal skills but did not differ from their less successful counterparts on intrapersonal skills. This different pattern of findings may reflect a developmental shift (Parker, Creque et al., 2004). During adolescence, peer relationships are of paramount importance with a focus on opposite-gender friendships, sharing of common activities, self-disclosure, and expectations of loyalty and trust. As people make the transition to adulthood, however, the focus generally changes to preparation for future work and family realities. Although social relationships in early adulthood are still important, they become more connected to work and less to peer environments. A second possible explanation for the difference found in intrapersonal skills between the university and high school samples may be enhanced emotional understanding in the university samples.

Social Support

According to Rosenfeld, Richman, and Bowen (2000), social support is another variable that has garnered the interest of researchers seeking to understand variables that influence academic success . This study was based on Vaux' s (1988) social support model. Vaux argued that each person has a large social network made up of several smaller social networks (e.g., family and peers) to turn to for support in dealing with minor and major demands and goals. Vaux differentiated among five different types of available supportive behavior that may be provided separately by family and peers: emotional practical, financial, advice/guidance, and socializing (examples of these supportive behaviors are presented below in the Method section).

The use of Vaux's (1988) model in this study is supported by empirical evidence of the influence of both family support (e.g., Fleming, Cook, & Stone, 2002) and peer support (e.g., Kenny et al, 2002) on academic success. From the perspective of available family support, Jeynes (2007) suggested that this is key to improvement of academic success. Extending this argument, Wong (2003) found that sustained parental emotional support is a significant protective factor for adolescents who are at risk of school failure. The importance of family support to children is clear. However, as students move into adolescence they spend less time with families and more with peers (Buhrmester & Carbery, 1992, as cited by Arnett, 2007).

Although parents provide more guidance about academic matters, peers influence academic success in other ways. Werner and Smith (1992) found that stable peer friendships were important sources of on-going emotional support for high school seniors. Further, there is evidence that adolescents gravitate towards peers with similar academic values (Kenny et al., 2002). Therefore, it is important to consider the relative influence of both family and peer social support on academic success.

Objective of the study

The first objective ofthe study was to examine whether EI, peer social support, or family social support mediated the predictive influence of verbal IQ on GPA among high school students in Kermanshah, Iran.

The Research hypothesis

It was hypothesized that EI, peer social support, and family social support would partially mediate adolescents' ability to use their verbal abilities to attain GPA because adolescents with low le-

vels of EI, peer social support, and family social support typically obtain lower grades than peers with comparable cognitive abilities but more developed EI abilities and higher levels of peer and family social support.

Methodology

Participants

The participants in the study were 100high school students (45 male, 55 female) attending in four high schools in Kermanshah, Iran. The mean age of the students from both schools was 16.5 years. All students volunteered to participate in the study.

Instruments

Demographic Questionnaire: This questionnaire consisted of 7 questions about the demographic characteristics of the participants including their gender, birth date, first language, country of birth, ethnic background, parents' occupations, and school attending.

Bar-On Emotional Quotient Inventory: The EQ-i:YV (Bar-On & Parker, 2000) was developed based on the Bar-On Emotional Quotient Inventory (EQ-1; Bar-On, 1997), to assess the E1 of children and adolescents aged 7 to 18. Consistent with the EQ-1, the EQ-i: YV measures four dimensions: intrapersonal relationships (i.e., the ability to be in touch with one's own feelings and understand emotional experiences), interpersonal relationships (i.e., the ability to understand and interact well with others and to be sensitive to non-verbal communication), adaptability (i.e., the ability to be realistic and to be effective in understanding difficult situations and problem solving), and stress management skills (i.e., the ability to work under pressure and withstand stress without losing control). A total EI score is obtained by adding the scores on each dimension. General mood, inconsistency, and positive impression scales are included to assess response validity.

The EQ-i: YV is a self-report measure consisting of 60 statements in which respondents are asked to rate on five-point Likert scales (ranging from 1 for "very seldom or not true of me," to 5 for "very often true or true of me"), the response that best describes the way they feel, think, or act in most situations. Example items include: "I feel sure of myself' (intrapersonal); "I know when people are upset, even when they say nothing" (interpersonal); "I can come up with good answers to hard questions" (adaptability); and "It is hard to control my anger" (stress management). A high score on any of the four scales indicates a higher level of EI for that dimension.

Social Support Behaviors Scale (SSB): The SSB was developed by Riedel and Stewart (1987) to assess five modes of perceived available supportive behavior from family members and peers: emotional (e.g., empathy, understanding, and comfort), practical (e.g., providing a ride, assisting with a move, and loaning equipment), financial (e.g. loaning of money or purchasing of something), advice/guidance (e.g., assisting in problem solving and recommending resources), and socializing supportive behaviors (e.g., inviting to do social activity or telephoning to see how doing). Based on their past experience, respondents are asked to indicate how likely a) members of your family and b) friends, are to help in each of 45 identified situations. On a 5-point Likert scale, students circle the number that reflects their perception of available support (1 indicates that no one would do this, 2 indicates that someone might do this, 3 indicates that some family members/ friends would probably do this, 4 indicates that some family members/ friends would certainly do this, and 5 indicates that most family members/friends would certainly do this). For the current study, the SSB Cronbach's alpha reliability coefficients were strong, ranging from .82 to .84 for males and .81 to .87 for females.

Procedure

Prior to classroom implementation of the study, approval was obtained from the principal and school personnel (teachers, guidance counsellors, and/or resource teachers). School personnel provided parents with a letter outlining information about the project, and parental consent involved signing a Parent Consent form.

At the beginning of the first session, the researchers introduced themselves to the students, described the study, and explained any potential risks. Students were asked to provide their consent by filling out a Student Consent form. The questionnaire packages were handed out to all students who volunteered to participate. Teachers provided alternative classroom activities for those who did not volunteer. Researchers provided instructions on how to complete the Demographic Questionnaire, EQ-i:YV (Bar-On & Parker, 2000), and SSB, which students completed during the first session. After all questionnaires were answered by the participants, the data were analyzed by considering the research objectives.

Data Analysis

Path analyses using Lisrel 8.80 (Joreskog&Sorbom, 2006) was employed to examine the hypothesized relationships (by gender) between verbal IQ, EI, peer social support, and family social support, with GPA. According to Baron (2004), for EI, peer social support, or family social support to independently mediate between verbal IQ and GPA, four conditions had to be met: The independent variable (verbal IQ) must have a significant direct predictive relationship with the dependent variable (high school GPA); the independent variable (verbal IQ) must predict a significant amount of the variability of the mediating variable (EI, peer social support, or family social support); the mediating variable must predict a significant amount of the variability of the dependent variable (GPA); and the prediction of the dependent variable (GPA) by the independent variable (verbal IQ) must be decreased when the paths between verbal IQ/ mediating variable and mediating variable/GPA paths are controlled for (Baron & Kenny, 1986). Further, if all of these conditions were met it was necessary to determine if the decrease in predictability between the direct and indirect paths was significant based on the Sobel test of significance (Baron & Kenny, 1986; Frazier et al., 2004). The male and female models were analyzed together to determine if there was good fit between the models. The goodness of fit for the model was calculated using the Minimum Fit Function Chi-Square.

Results

Table 1 provides the means, standard deviations, and t tests (by gender) for age, SES, verbal IQ, EI, peer social support, and family social support. Female students had significantly higher GPAs (t= -3.24,p < .001) and perceptions of peer social support (t = -2.45,p< .01), than male students.

Table 1.Means and Standard Deviations for Age, SES, GPA, Verbal IQ, EI, and Social Support by Males and Females

Variable	Male		Female		Differences	
	Mean	SD	Mean	SD	*t*	*P*
Age	15.50	0.42	15.59	0.38	-1.66	0.099
Socioeconomic Status	43.16	14.18	47.37	16.10	-1.92	0.056
Grade Point Average	67.26	11.82	73.05	10.34	-3.24	0.001
Verbal Intelligence	93.49	15.41	94.05	13.38	-0.27	0.787

Emotional Intelligence	81.14	11.45	81.03	9.58	0.07	0.946
Intrapersonal	13.77	3.74	13.96	4.20	-033	0.744
Interpersonal	34.29	5.22	36.53	4.26	-3.26	0.001
Adaptability	28.68	6.18	26.35	5.27	2.80	0.006
Stress Management	34.97	6.45	33.05	7.00	1.97	0.050
Peer Social Support	164.04	35.29	177.29	28.89	-2.45	0.003
Emotional	36.38	8.93	42.26	6.68	-5.17	0.001
Socializing	28.47	5.24	30.64	3.75	-3.29	0.001
Practical	30.27	6.68	31.39	5.64	-1.25	0.213
Financial	25.72	6.97	27.32	6.80	-1.61	0.108
Advice	43.21	10.19	45.69	8.83	-1.80	0.073
Family Social Support	183.29	37.08	185.05	31.76	-0.35	0.724
Emotional	38.40	9.27	39.98	8.15	-1.26	0.021
Socializing	26.19	6.05	26.44	5.67	.0.30	0.768
Practical	33.88	6.40	33.69	5.43	0.22	0.827
Financial	32.96	6.98	33.21	6.34	-0.26	0.795
Advice	51.88	51.74	10.83	9.91	0.09	0.928

Discussion

This study examined the complex network of relationships between verbal IQ, SES, gender, EI, peer social support, family social support, and GPA among Iranian students. Due to the deep empirical support for the influence of verbal IQ, SES, and gender on GPA, the current study aimed to determine whether EI, peer social support, and family social support explained additional variance in GPA beyond verbal IQ, SES, and gender.

The main purpose of this study was to determine whether EI, peer social support, or family social support mediated the relationship between verbal IQ and GP A. Each of EI, peer social support, and family social support were expected to act as partial mediators. For males, the relationships between verbal IQ, EI, and GPA; and verbal IQ, peer social support and GPA met the prerequisite conditions for mediation to be assessed (Baron & Kenny, 1986; Frazier et al., 2004). However, only EI was found to be a partial mediator between verbal IQ and GPA. This means that for male adolescents, verbal IQ significantly predicted both GPA and EI, and that EI significantly predicted GPA. The influence of EI as a partial mediator was seen when EI was added to the analysis of the relationship between verbal IQ and GPA, and the significance of the prediction ofGPA by verbal IQ was significantly reduced. Therefore, for male adolescents, it is important to recognize the importance of both verbal IQ and EI abilities for academic success. No mediation relationships were found for females.

Consistent with the differences in mediation relationships between males and females, the overall pattern of relationships was significantly different for males and females. For both males and females verbal IQ (Bursik& Martin, 2006), EI (Hogan, 2002), and peer social support explained significant variability in GPA. However, family social support only explained variability for female adolescents. The gender differences in the influence of family social support may reflect differences in socialization and development; females are socialized to place more importance on relationships than male adolescents (Crosnoe, et al, 2008). The finding that peer social support but not family social support predicted GPA for male students illustrates that by male adolescents relate to peers and families differently (Harter, 1999).

Conclusion and Implications

The current study is the first to examine the relationships between verbal IQ, SES, gender, EI, peer social support, and family social support in the prediction of Iranian high school students' GPA. These findings add to the present understanding of influences on GPA,have significant implications for clinical and academic supports, and suggest directions for future research. When supporting the students in attaining academic success, it is important to not only foster academic skills, but to help foster EI Skills (Parker, Creque, et al., 2004), and in particular adaptability and stress management abilities. The current study suggests that for male adolescents, the development ofEI skills is particularly crucial because EI abilities were found to mediate the relationship between verbal IQ and GPA. Further, although EI did not mediate the verbal IQ and GPA relationship for female adolescents, it did predict GPA.

Beyond the results of this study, there is empirical support for fostering both the academic and emotional aspects of education to prepare adolescents for success in adult life. Emotion and reason are interconnected, with emotion facilitating the operation of reason. Emotion assists the learning process by filtering incoming information to be taken into consideration when making decisions. Further, emotion focuses our attention on the information that is important to consider (McPhail, 2004). McPhail argued that due to brain physiology and information processing mechanisms it is not possible to separate emotion from rational thought, nor should we because emotion is central to rational thought. Therefore, well-developed EI abilities contribute to academic success. In contrast, Romasz et al. (2004) suggested that when individuals are unable to control emotions there is the potential to overwhelm the rational thought process, resulting in primitive fight or flight responses. Further, when adolescents have poor decision making ability they are more susceptible to peer pressure for engaging in problem behaviors that are associated with poorer academic outcomes (Epstein, Zhou, Bang, & Botvin, 2007). Accordingly, educating adults for success in adulthood requires education that fosters both academic and EI mastery.

This study has several limitations. The first limitation was the sample size. Although adequate for the research presented, understanding of the relationships among variables would have been enhanced if the subscales of EI (intrapersonal, interpersonal, adaptability, and stress management), peer social support (emotional, socializing, practical, financial, and advice), and family social support (emotional, socializing, practical, financial, and advice) could have been included in the path model. However, to do so required a larger sample (Frazier et al., 2004).

Future research is required to replicate and expand the current study by increasing sample size to accommodate the inclusion of the subscales of EI, peer social support, and family social support in separate path analyses by gender. Adding indicators of negative peer and family influence would provide a more balanced perspective of peer social support and family social support. Further, additional knowledge regarding developmental variations in the relationships of IQ, gender, SES, EI, peer social support, and family social support's influence on GPA could be obtained through the use of a longitudinal design spanning elementary to post-secondary school. This design would provide crucial information on which to base academic and clinical support decisions for fostering academic success.

References

Baron, R *M., &*Kenny, D. A. (1986).The moderator-mediator variable distinction in social psychology research: Conceptual, strategic, and statistical considerations.*Journal of Personality and Social Psychology,* 51(6), 1173-1182.

Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory: Technical manual.* Toronto: Multi-

Health Systems.

Bar-On, R., & Parker, J.D.A. (2000).*The Bar-On EQ-i: YV: The technical manual.*Toronto, Canada: Multi-Health Systems.

Battle, J., &Pastrana, A., Jr. (2007). The relative importance of race and socioeconomic status among Hispanic and white students.*Hispanic Journal of Behavioral Sciences,* 29(1),35-49.

Bursik, K., & Martin, T. A. (2006).Ego development and adolescent academic achievement .*Journal of Research on Adolescence,* 16(1), 1-18.

Chung, H., Elias, M., & Schneider, K. (1998).Patterns of individual adjustment changes during middle school transition.*Journal of School Psychology: Special Issue: School Violence,* 36(1),83-101.

Crosnoe, R, Riegle-Crumb, C., Field, S., Frank, K., &Muller, C. (2008). Peer group contexts of girls' and boys' academic experiences. *Child Development,* 79(1), 139- 155.

Duckworth, A.L., & Seligman, M.E.P. (2006). Self-discipline gives girls the edge: Gender in self-discipline, grades, and achievement test scores. *Journal of Educational Psychology,* 98(1), 198-208.

Epstein, J. A., Zhou, X. K., Bang, H., &Botvin, G. J. (2007). Do competence skills moderate the impact of social influences to drink and perceived social benefits of drinking on alcohol use among inner-city adolescents? *Prevention Science, 8(1),* 65-73.

Fothergill, K. E., &Ensminger, M. E. (2005).Childhood and adolescent antecedents of drug and alcohol problems: A longitudinal study.*Drug and Alcohol Dependence,* 61-76.

Frazier, P. A., Tix, A. P., &Barron, K. E. (2004).Testing moderator and mediator effects in counseling psychology research.*Journal of Counseling Psychology,* 51(1),115- 134.

Hacker, K. A., Suglia, S. F., Fried, L. E., Rappaport, N., &Cabral, H. (2006).Developmental differences in risk factors for suicide attempts between ninth and eleventh graders.*Suicide and Life-Threatening Behavior,* 36(2), 154-166.

Harter, S. (1999).*The construction of the self: A developmental perspective.* New York: Guilford Press.

Hogan, M. J. (2002). Prediction of grade point average and retention in first-year students by social and emotional competencies.Unpublished Master's thesis, Trent University, Peterborough, Ontario, Canada.

Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student academic achievement: A meta-analysis.*Urban Education,* 42(1), *82-110.*

Joreskog, K., &Sorbom, D. (2006).*LisreI 8.80.* Lincolnwood, IL: Scientific Software International.

Kenny, M. E., Gallagher, L. A., Alvarez-Salvat, R., &Silsby, J. (2002).Sources of support and psychological distress among academically successful inner-city youth.*Adolescence,* 37(145), 161-182.

Magnuson, K. A., &Duncan, G. J. (2006). The role of family socioeconomic resources in the black-white test score gap among young children. *Developmental Review,* 26(4),365-399.

Mayes, S. D., &Calhoun, S. L. (2007).Wechsler intelligence scale for children-third and -fourth edition predictors of academic achievement in children with attentiondeficitihyperactivity disorder.*School Psychology Quarterly,* 22(2),234-249.

McPhail, K. (2004). An emotional response to the state of accounting education: Developing accounting students' emotional intelligence.*Critical Perspectives on Accounting,* 15, 629-648.

Parker, J. D. A., Creque, R. E., Barnhart, D. L., Harris, J. I., Majeski, S. A., Wood, L. M., et al. (2004). Academic achievement in high school: Does emotional intelligence matter? *Personality*

and Individual Differences, 37, 1321-1330.

Parker, J. D. A., Summerfeldt, L. J., Hogan, M. J., &Majeski, S. (2001, June).*Emotional intelligence and academic achievement.*Poster session presented at the annual meeting of the Canadian Psychological Association, Quebec City.

Parker, J. D. A., Summerfeldt, L. J., Hogan, M. J., &Majeski, S. A. (2004).Emotional intelligence and academic success: Examining the transition from high school to university.*Personality and Individual Differences,* 36, 163-172.

Pope, G. A., Wentzel, C., Braden, B., & Anderson, 1.(2006). Relationship between gender and Alberta achievement test scores during a four-year period. *Journal of Educational Research,* 52(1),4-16.

Ridgell, S. D., &Lounsbury, J. W. (2004). Predicting academic success: General intelligence, "big five" personality traits, and work drive. *College Student Journal,* 38(4),607-619.

Roisman, G. I., Masten, A. S., Coatsworth, J. D., &Tellegen, A. (2004).Salient and emerging developmental tasks in the transition to adulthood. *Child Development,* 75(1), 123-133.

Romasz, T. E., Kantor, J. H., &Elias, M. J. (2004). Implementation and evaluation of urban school-wide social-emotional learning programs. *Evaluation and Program Planning,* 27(1),89-103.

Rosenfeld, L. B., Richman, J. M., & Bowen, G. L. (2000).Social support networks and school outcomes: The centrality of the teacher.*Child &Adolescent Social Work Journal,* 17(3), 205-226.

Shiner, R. L., Masten, A. S., & Roberts, J. M. (2003). Childhood personality foreshadows adult personality and life outcomes two decades later. *Journal a/Personality,* 71(6), 1145 -1170.

Smedler, A., & Torestad, B. (1996).Verbal intelligence: A key to basic skills. *Educational Studies,* 22(3), 343-356.

Stearns, E., & Glennie, E. J. (2006).When and why dropouts leave high school.*Youth &Society,* 38(1),29-57.

Steinberg, L. (2005). *Adolescence* (7ᵗʰed.). Toronto, Canada: McGraw Hill.

Taylor, A. (2007). *Pathways for youth to the labor market: An overview of high school indicators.*Ottawa, Canada: Work and Learning Knowledge Centre.

Thomas, L. L., Kuncel, N. R, & Crede, M. (2007).Noncognitive variables in college admissions: The case of the non-cognitive questionnaire. *Educational and Psychological Measurement,* 67(4),635-657.

Vaux, A. (1988). *Social support: Theory, research and intervention.* New York: Praeger Fleming, J. E., Cook, T. D., & Stone, C. A. (2002). Interactive influences of perceived social contexts on the reading achievement of urban middle schoolers with learning disabilities. *Learning Disabilities Research &Practice,* 17(1),47-64.

Werner, E. E., &Smith, R. S. (1992).*Overcoming the odds: High risk children from birth to adulthood.* Ithaca, NY: Cornell University Press.

Woitaszewski, S. A., &Aalsma, M. C. (2004).The contribution of emotional intelligence to the social and academic success of gifted adolescents as measured by the Multifactor Emotion Intelligence Scale -Adolescent Version.*Roeper Review,* 27(1),25-30.

Wong, B. Y. L. (2003). General and specific issues for researchers' consideration in applying the risk and resilience framework to the social domain of learning disabilities. *Learning Disabilities Research &Practice,* Ɩ8(2), 68-76.