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Factors Underlying Academic Underachievement Among Pakistani Secondary School Students

Sara Nomaan, Rubina Hanif

Quaid-i-Azam University

Tasnim Rehna

Riphah International University

Present study is aimed at investigating the predictors of academic underachievement and high-achievement among secondary school students. A total sample comprising of 352 including 213 underachievers (M_{age}= 15.21, *SD* = 1.13) with 85 boys and 128 girls, and a comparative group of 139 high-achievers (M_{age} = 14.64, *SD* = .90) including 61 boys and 78 girls was drawn from a total of 1276 students from 16 conveniently selected schools. Underachievers were identified using cut-off score method. Motivated Strategies for Learning Questionnaire (Rotgans, 2010), Student-life Stress Inventory (Akhtar**,** 2005), two subscales of Teacher Checklist of Social Behaviors that is Aggression and Prosocial Behavior (Loona & Kamal, 2002) and School Social Behavior Scale (Loona & Kamal, 2002) were administered on the students. MANOVA revealed significant differences on motivation, learning strategies, teachers' reporting of social behavior, and school social behavior between high- and low-achievers. Binary logistic regression model was statistically significant for all the measured personal variables including age, locality of school, class size, and family income. Two motivation strategies i.e., control beliefs and extrinsic goal orientation and two learning strategies i.e., rehearsal and elaboration showed significant findings. Among social behaviors, aggression and academic behavior were significant predictors of achievement level, whereas all other behaviors had a nonsignificant effect.

Keywords. Underachievement, underachiever, high-achiever, learning strategies

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Sara Nomaan and Rubina Hanif, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.

Tasnim Rehna, Riphah International University, Islamabad, Pakistan.

Correspondence concerning this article should be addressed to Rubina Hanif, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan. Email: rubinahanif@hotmail.com

Underachievement is a growing concern for parents and educationists. Inability of capable children to perform in schools has urged researchers to explore the underlying factors world-over. With no biological or neurological explanation, many children with same abilities are seen performing at different levels (Rimm, 2008). Literature has established that multiple factors lead to the achievement (Baker, Bridger, & Evans, 1998; Preckel, Holling, & Vock, 2006); but the gaps in literature are observed in terms of comparison of these factors within groups of high-achievers and underachievers. This encourages exploring the psychological and social factors that may affect achievement of the children including personal, family, and school factors. The importance of understanding the phenomena is double fold for adolescents who are completing their schools and are getting ready for college. Adolescence is marked with conflict between growing need for independence still being dependent. In case of gifted, this conflict adds to existing dynamics and pressures of being in mainstream, while dealing with higher level of abilities as compared to their peers, thus leading to underachievement (Grobman, 2006). According to Compton (1982), hormonal activity during adolescence results in physiological changes that overshadows academic activity. All these factors add to the importance of understanding the problem and helping the adolescents at secondary school level. In Pakistan, secondary schools provide foundation of college education as well as of career. Thus, getting hold of the problem at the time when it is in most crucial stage is important.

Underachievement is defined by various psychologists as inability to perform as expected as per one's potential (Jone & Myhill, 2004; McCoach, 2006; Rimm, 2008; Roach & Bell, 1989). Parents and teachers are usually able to identify a student performing below expectations. This generates a broad definition of underachievement as a discrepancy between ability (Roach & Bell, 1989) and achievement or potential and performance (McCoach, 2006). On the other hand, in high-achievement, the achievement matches the ability (Jones & Myhill, 2004). Research in underachievement is mainly based on identification of gifted underachiever rather than underachievers in normal population (Roach & Bell, 1989). Psychologists define underachievement as achieving poor grades or performing below the predicted level of mental ability on some intelligence tests or standardized academic tests (Preckel et al., 2006; Smith, 2003; Stipek & Miles, 2008). Operational definitions of underachievement range from using different cutoff points to using regression definition for establishing a set predictor of achievement based on intelligence. Simple difference score method uses a standard

measure (e.g., percentile for both) and at least some notable discrepancy between both scores. Lau and Chan (2001) have used the term 'Discrepancy Score' when identifying underachiever. As evident in the approach itself, it is inconsistent as each researcher can set one's own cutoff point and somewhat subjective, but still it is frequently used due to its ease in application on a large sample (Preckel et al., 2006).

Literature showed various approaches in exploring dynamics of underachievement. It has been studied with reference to personal factors (Preckel et al., 2006) as well as family and school factors (Stipek & Miles, 2008). Baker et al. (1998) had also attempted to combine these factors in a single multi-model to identify interplay of causes of underachievement. In their model, study skills, parenting skills, and academic quality emerged as significant factors. Krouse and Krouse (1981) described underachievement as a multifaceted pattern, but focused only on personal factors. These factors were also assumed to be present one at a time where inability of one to explain underachievement in a child leads to consider next as a possible explanation. Multi-models has been focus of research in social sciences, since Bronfenbrenner (1979) has presented the ecological model. Adam and Ryan (2005) had adapted the model in school setting to explain achievement of the students. However, there is still lack of empirical evidence on a larger sample that can effectively explore the number of possible causes, particularly, in comparison of high-achievement and underachievement. Hence, present study has been designed to identify interplay of personal and school factors in form of a multi-model approach to study academic underachievement among secondary school children.

A Multi-model Approach

Importance of multidimensional factors as contributors of underachievement or high-achievement is understood by many researchers (Chen, 2008; Krouse & Krouse, 1981; Pirozzo, 1982; Preckel et al., 2006), although, some (Preckel et al., 2006) have focused on individual factors, while others (Stipek & Miles, 2008) focused on home and/or school factors. According to Pirozzo (1982), individual's social and psychological background, school programs and their nature are causes of discrepancy between intelligence and achievement. Mooij (1992) presented three general approaches that predict an individual's behaviors including achievement behavior that is personality, environmental, and interactional approach. Complexity of underachievement can be viewed as interplay of personal, family,

and school related factors. Baker et al. (1998) studied etiological model in reference to individual, family, and school. Each of the models individually contributed to the underachievement of the child, but combined model predicted the aggravated problem that calls for concern for parents, teachers, and counselors to work together in dealing with the issue.

Personal factors. Personal factors include individual's characteristics such as gender; behavioral characteristics such as motivation and use of learning strategies; and emotional characteristics such as stress. These variables have emerged in literature as significant factors influencing academic underachievement.

***Gender*.** Boys underachieve more as compared to girls (Bush, 2005; Lindsay & Muijs, 2006). Boys' poor performance is reciprocal in nature. The teachers believe they spend much of time in controlling their behavior, which in turn may actually cause arguable behavior. This cycle can divert attention from actual purpose of the classroom that is, the learning (Reyna, 2008). Teachers most likely label boys as underachievers. In fact, their description of typical underachiever is of 'a boy who is bright, but bored'. They perceive boys as having greater ability and potential as compared to girls. Girls' underachievement is, thus, overlooked by teachers. In Asian studies, gender differences were present, but not as great as reported in American literature. Boys were more underachievers than girls (McCall, Beach, & Lau, 2000; Stipek & Miles, 2008). On the other hand, female students achieved less in Pakistani government schools (Aslam, 2003a). However, Smith (2003) did not find any significant gender differences in underachievement.

***Motivation and learning strategies*.** Motivational factors were identified as the most apparent cause of underachievement (Baslanti, 2008). Role of motivation and its importance as a personal quality directly affects learning. In educational setting, motivation is typically linked to students' learning-oriented or achievement-oriented behavior. On the other hand, the activities other than educational activities are listed as acts of lack of motivation (Long, Wood, Littleton, Passenger, & Sheehy, 2011).

Intrinsic and extrinsic are distinctions in motivation, especially, used in educational setting. High-achievers are mainly intrinsically motivated, as they are concerned with improving their personal skills and gaining knowledge for their future success (Bowen & Bowen, 1998). Underachiever seems to be less motivated in teacher selected activity, which is directed at an average student; while, the

underachiever finds it less interesting to inspire their higher intelligence (Compton, 1982). Learning and outcome goals are two types of outcomes desired by the students. Those students interested in learning use deep strategies and work hard, while, those who are interested in performance focus on surface strategies involving less effort (Salili, 1996). Underachievers lack effective use of learning strategies, especially, in high school as the study demands increase (Lau & Chan, 2001). High-achievers are more directed towards mastery goals, deep motivation, and deep learning strategies of goal orientation. Supportive classroom climate encourages help-seeking behavior (Ryan, Pintrich, & Midgley, 2001).

Asian culture gives importance to hard work and effort as reasons for success. This leads to a strong sense of attributing success and failure to efforts students put in learning and achieving. According to them, ability can be raised through effort or effort can compensate for the ability (Salili, 1996).

Students' life stress. Stress is negatively related to academic performance, among highly intelligent students (Malik & Balda, 2006a). Students' life stress arises from pressure to compete and succeed in school. There are gender differences in stress level faced by students. Female students mature early that expose them to more stress as compare to male students (Sulaiman, Hassan, Sapian, & Abdullah, 2009). Psychological distress at 13-14 years leads to low academic achievement at 16 yrs of age (Rothon et al., 2009). However, no correlation was found between perceived stress and achievement of college students in a study by Womble (2003).

School factors. In 1990s, focus of studies on underachievement shifted from outside to inside of school. Earlier, families were termed as a major cause of a student's inability to reach his/her full potential. Academic underachievement was also seen as a mismatch between child's potential and the mainstream curriculum taught at school (Harris, 1996). A study by Aslam (2003a) in Pakistan focused on identifying either school factors are more important in achievement of the student or family factors. Aslam (2003a) suggests schools as more influential in generating learning differences. Large class sizes and poor school conditions are linked with underachievement (Stipek & Miles, 2008).

Urban vs. rural area. According to Reimers and Warwick (1991), achievement of elementary school students was higher for students in urban schools as compared to students in rural schools. The difference was explained in terms of education of teachers and classroom practices. Teachers in urban area schools are more educated as compared to rural area schools. A study by Sulaiman et al. (2009)

also shows that students in rural area are more stressed as compared to students in urban area.

***School social behavior*.** Demands of appropriate social behavior takes a new form in school setup that is unique to the school setup in terms of relations with peers and academic behavior (Loona & Kamal, 2002). Behavior problems in school are linked with underachievement (Gupta, Verma, Singh, & Gupta, 2001). Pirozzo (1982) termed underachiever as antisocial. Underachieving children are more disruptive (McCall et al., 2000) and aggressive (Pirozzo, 1982). Hyperactive and aggressive children are less likely to achieve and pass out from high school (Magdol, 1998). Stipek and Miles (2008) focused on aggression of elementary school students as a form of externalizing behaviors against peers that predict low achievement in students.

Academic Underachievement: A Perspective from Pakistan

Secondary school education is the concluding level of school education in Pakistan providing foundation for college level education. In Pakistan, secondary schools are under different Boards of Intermediate and Secondary Education. Federal Board of Intermediate and Secondary Education (FBISE) is the most widely spread for conduction of Secondary School Certificate (SSC) examinations all over Pakistan and also in other parts of the world (FBISE, 2012). According to Christie and Afzaal (2005), the education system is not promoting diversified education outcomes and focus only on a narrow range of cognitive abilities. Traditional beliefs about child rearing influence on less verbal reasoning and more practices of memorization, as it is more linked to observable effort and hard work (Salili, 1996). There are number of studies on achievement status of school students in Pakistan (Aslam, 2003b; Islam, 2003; Salfi & Saeed, 2007). Personal abilities of a student seem less important in Pakistani society, while, causes of low achievement are searched in school and family backgrounds. Underachievement is not a well addressed issue despite of the fact that parents and teachers are concerned and often identifying intelligent students who are unable to perform well in schools.

Underachievement is a crucial problem and need attention of parents, educationists, and policy makers. Different issues like low enrollment, low achievement, and drop-outs have been focus of researchers for long time. Most of the work on underachievement and its multi-model approach is based on theoretical studies. Work of different psychologists (Delisle, 1982; Krouse & Krouse, 1981;

Pirozzo, 1982) is based on personal observations and experiences with underachievers. Empirical work (Baker et al., 1998; Preckel et al., 2006) is also based on case studies or small sample qualitative researches. Research on underachievement with empirical data will help in better generalization of the contributing factors and thus planning interventions for the students (McCall et al., 2000) as prevention is better than remediation (Delisle, 1982).

Method

Participants

Sixteen schools were conveniently selected from the list of FBISE and approached after seeking permission from Federal Directorate of Education. A sample of 1276 students (M_{age} = 15.67, SD_{age} = 1.12) was selected for application of Raven's Standard Progressive Matrices (SPM; Ravens, 1983) including 624 (48.9%) boys and 652 (51.1%) girls, whereas, the schools served as clusters. Discrepancies between achievement scores in SSC-I and intelligence scores on SPM were used to identify high- and underachievers.

Percentiles were calculated for both SPM scores and SSC-I scores. Students lying on 60th percentile and above on SPM were selected for further study as they were termed as high-achievers. Students scoring equivalent or higher SSC-I scores were grouped as high-achievers, while, students showing at least 10 point discrepancy of SSC-I scores and intelligence score were grouped as underachievers. A sample of 352 students comprising two groups that is, high-achievers and underachiever was finalized for present study. The sample included 139 high-achievers (M_{age} = 14.64, SD = .90) including 61 (44.2%) boys and 78 (55.8%) girls; and 213 underachievers (M_{age} = 15.21, SD = 1.13) including 85 (39.9%) boys and 128 (60.1%) girls. Out of total sample, 58% belonged to rural setup.

Materials

Motivated Strategies for Learning Questionnaire-General (MSLQ-General). Rotgans' (2010) MSLQ-General was adopted from Pintrich, Smith, Gracia, and McKeachie's (1991) Motivated Strategies for Learning Questionnaire (MSLQ) to identify students' motivations and use of learning strategies in an overall context across all courses. MSLQ-General is 5-point Likert scale with 13 subscales,

that is, 4 subscales in Motivation section (20 items; Intrinsic Goal Orientation, Control, Self-efficacy, and Extrinsic Goal Orientation) and 9 subscales in Learning Strategies section (50 items; Organization, Self-regulation, Peer Learning, Resource Management, Effort Regulation, Critical Thinking, Rehearsal, Help-seeking, and Elaboration). Overall scores on MSLQ range from 70 to 350. Learning Strategies section of MSLQ is also used by Lau and Chan (2001) in their study on underachievers. Scoring of scales is done by summing up item scores and taking its mean. The high score on each subscale represents use for respective strategy. Urdu version of MSLQ (Noman, 2015) was used in present study. The alpha coefficients ranged from .70 to .91 and CFA also showed significant fit indices as reported by Noman (2015). For present data, the alpha coefficients are also quite satisfactory that ranged from .71 to .89 for all the subscales. Alpha coefficient for the total scale was .91 for the present study.

Student-Life Stress Inventory (SSI). It was originally developed by Gadzella (1991) and translated in to Urdu by Akhtar (2005). It is designed to assess the student-life stress and reactions to stressors. There are 51 items arranged on a Likert response format (1 = *never* to 5 = *always*) that assess five categories of stressors (Frustrations, Conflicts, Pressures, Changes, and Self-imposed) and four categories describing reactions to stressors (Physiological, Emotional, Behavioral, and Cognitive). Overall scores on SSI range from 51 to 255. High scores on each subscale of stressors shows high level of stress and low scores show low level of stress. Similarly, high scores on each category of reaction to stressors show strong reaction to stress, whereas, low scores indicate poor reaction to stressors. The alpha coefficient ranges from .68 to .87 for present data.

Teacher Checklist of Social Behavior. Developed by Coie, Terry, Dodge, and Underwood (1993), it comprised of six subscales namely Aggressive-Dominant, Disruptive, Socially Insecure, Academic, Prosocial, and Attractive subscales. In the present study, two subscales (Urdu Version) were used namely Aggression subscale and Prosocial Behavior subscale (Mushtaq, 2007). Aggression subscale consists of 8 items, while Prosocial Behavior subscale has 5 items. High scores on each of the subscales show high level of the respective behavioral domain, whereas, low scores indicate low level of those social behaviors. The alpha coefficient for Prosocial Behavior subscale was .69 and .92 for Aggression subscale for current study.

School Social Behavior Scale (SSBS). It was developed by Merrell (1993) and translated and adapted by Loona and Kamal (2002). SSBS comprises of two subscales namely Social Competence and Antisocial Behavior. Both scales are further subdivide into three

subscales each. Social Competence subscales include Peer Relations, Self-Management, and Academic Behavior; while Antisocial Behavior includes Hostile-Irritable, Antisocial-Aggressive, and Disruptive-Demanding subscales. Total scores of SSBS can range from 65 to 325. High scores on each of the subscales show high level of the respective behavioral domain, whereas, low scores indicate low level of those social behaviors. The alpha coefficients range from .78 to .94 for all the subscales for current study.

Procedure

To conduct the study on secondary school students, 16 secondary schools from 4 cities that are, Islamabad, Kahuta, Wah Cantt, and Texila were approached. Only the schools affiliated with FBISE were considered for inclusion. They were divided into areas as Urban, Rural, and Cantt and Garrison. For Urban and Rural areas of Islamabad region, permission was taken from Federal Directorate of Education. Similarly, schools in Cantt and Garrison in Kahuta, Wah Cantt, and Texila were approached through their specific administrative directors.

After getting permission from the schools, informed consent was taken from each student. Only those students were included in the present study who were willing to participate in the research. Ethical considerations were also taken into account that is students were assured of their rights of privacy and confidentiality and they were guaranteed that their information will not be used other than this research purpose. Before administering the scale over sample, screening was done with the help of SPM. Measures were administered in group setting. Percentiles of SPM and SSC scores were compared to identify underachievers. Sixty percentile was taken as cutoff point to identify high ability students as well as reference for Discrepancy Score to identify underachievers. On average, the student took 30 to 40 minutes to respond the questionnaires.

Results

A two-way MANOVA was computed to explore gender differences among high- and low-achievers on the study variables. Means, standard deviations, and *F*-tests from the two-way (Achievement, Gender, and Achievement*Gender) MANOVA are displayed in Table 1.

Table 1

*Means and Standard Deviations for Measured Variables and Summary Statistics for Multivariate Analysis of Gender, Achievement, and Gender *Achievement Effects (N = 352)*

	High Achievers				Under Achievers					
	Boys		Girls		Boys		Girls		λ	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*A*	*G*
Motivation Strategies for Learning Questionnaire										
Motivation									.97*	.94**
Intrinsic Goal Orientation	16.75	2.21	16.78	2.35	16.80	2.22	16.98	2.32		
Control	17.75	1.69	17.03	2.25	18.01	2.02	17.83	2.14		
Self Efficacy	33.92	3.92	34.73	3.47	34.25	3.28	34.73	4.28		
Extrinsic Goal Orientation	17.51	2.45	18.44	1.92	18.26	1.78	18.70	1.54		
Learning Strategies									.91**	.94*
Organization	14.08	3.04	15.45	2.99	15.04	2.72	15.83	3.01		
Self-Regulation	43.77	6.09	45.68	6.23	45.92	5.46	46.21	5.88		
Peer Learning	10.03	2.24	10.76	2.16	11.00	2.11	11.21	2.21		
Resource Management	29.41	4.33	30.23	3.75	30.53	4.38	30.48	4.58		
Effort Learning	14.18	3.09	15.35	2.69	14.92	2.56	15.02	2.86		
Critical Thinking	18.69	7.17	18.36	3.84	18.49	3.07	19.13	2.72		
Rehearsal	14.36	2.68	25.65	2.60	15.85	2.26	16.39	2.62		
Help Seeking	14.89	2.30	16.05	2.22	15.92	2.18	16.05	2.36		
Elaboration	20.93	3.41	21.60	4.00	22.73	3.78	23.10	3.64		
Student Stress Inventory										
Stressors									.97	.93**
Frustration	14.69	3.86	12.92	3.57	15.44	4.59	14.06	4.77		
Conflicts	7.52	2.39	6.92	2.85	7.22	2.91	7.77	3.48		

Continued…

	High Achievers				Under Achievers				λ	
	Boys		Girls		Boys		Girls			
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*A*	*G*
Pressure	9.23	3.11	9.36	3.74	10.08	3.92	9.39	4.23		
Changes	6.54	2.44	6.19	2.62	7.55	2.79	6.73	3.10		
Self Imposed	21.11	3.10	22.00	3.54	21.12	3.81	22.11	4.43		
Reaction to Stressors									.97	.99
Physiological	25.02	6.44	25.08	7.80	27.58	8.50	27.74	9.30		
Emotional	11.31	3.65	11.28	4.01	11.32	3.68	12.02	3.76		
Behavioral	13.64	3.76	13.41	4.53	13.80	3.88	14.27	4.56		
Cognitive	5.79	2.07	5.35	2.26	5.47	2.24	5.54	2.45		
Stressors	114.85	19.11	112.51	24.38	119.68	26.45	119.62	28.87		
Teacher Checklist of Social Behavior									.95**	.95**
Aggression	14.80	8.54	11.51	6.33	19.80	10.97	14.77	9.55		
Pro-social Behavior	19.05	6.59	20.22	6.48	18.65	7.26	20.62	5.60		
School Social Behavior Scale									.95*	.94**
Social Competence	116.25	22.46	126.67	20.68	107.93	26.77	117.61	21.57		
Peer Relations	48.26	10.79	51.63	10.55	44.80	11.87	49.16	10.14		
Self Management	36.20	6.96	39.88	6.61	34.02	8.54	36.51	7.18		
Academic Behavior	31.79	7.15	35.15	6.03	29.11	9.06	31.94	7.24		
Antisocial Behavior	52.52	18.91	45.24	16.70	53.80	20.45	48.67	17.07		
Hostile/Irritable	20.79	7.92	18.05	7.29	21.69	9.15	19.41	7.34		
Antisocial/Aggressive	18.23	6.49	15.03	5.29	17.58	6.66	16.34	5.82		
Defiant/Disruptive	13.51	5.32	12.17	4.96	14.10	5.50	12.64	4.98		

*$p < .05$, **$p < .01$.

Two way Multivariate Analysis of Variance was computed to study gender differences between high and low-achievers (Achievement, Gender, and Achievement*Gender) on all the study variables. Findings reveal that the interaction effect between gender and achievement was nonsignificant for all the study variables including motivation (F (4, 345) = .95, p = .433, Wilks' λ = .99), learning strategies (F (9, 340) = 1.137, p = .336; Wilks' λ = .97), stressors (F (5, 344) = .1.447, p = .207; Wilks' λ = .98), reaction to stressors (F (5, 344) = .394, p = .853; Wilks' λ = .99), social behaviors (F (2, 347) = .432, p = .650; Wilks' λ = .99) and school social behavior (F (6, 343) = .1.962, p = .343; Wilks' λ = .97). These results indicate that there are nonsignificant gender differences on motivation, learning strategies, stressors, reaction to stressors, and social behaviors between high- and low-achievers.

Further binary logistic regression analyses (Table 2) were conducted to study the predictive effects of demographic variables on main study variables on the level of achievement. To compute binary logistic regression for categorical predictors that is locality of schools and class size, default coding method 'Indicator' was used which is a standard dummy variable coding (Field, 2009). Moreover, first category was used as baseline reference category.

Table 2

Binary Logistic Regression Analyses for Predicting the Level of Achievement from Measured Parameters (N = 352)

Variables	*B*(SE)	Wald Statistic	*p*
Age	.56(.12)	21.31	.000
School Locality			
Rural (reference category)			
Urban	1.61(.26)	39.05	.000
Cant./Garrison	1.76(.35)	24.89	.000
Class Size			
Small (reference category)			
Medium	-2.04(.47)	18.73	.000
Large	-.77(.28)	7.18	.007
Motivation Strategies			
Control Beliefs	.113(.056)	4.11	.04
Extrinsic Goals	.13(.064)	4.16	.041
Learning Strategies			
Rehearsal	.18(.06)	8.29	.004
Elaboration Social Behaviors	.14(.05)	9.27	.002
Aggression	-.05(.02)	13.72	.000
Academic Behaviors	-.05(.02)	9.50	.002

Table 2 shows that logistic regression model was statistically significant for variables including age $\chi^2 = 25.01$, $p < .001$; locality of school: $\chi^2(3) = 49.79$, $p < .001$; and class size $\chi^2(3) = 21.53$, $p < .001$. Increasing age is associated with high achievements producing 9% of variance (NagelkerkeR^2) where older students are 1.76 times more likely to be high-achievers than younger students. Locality of school explains 18% of the variance in achievement and students from urban locale and cantt area are 5.01 and 5.82 times more likely to high-achievers than students with rural background. Size of the class explains 8% variance in level of achievement and large class sizes are associated with underachievement among students.

Results reveal that among motivation variables control beliefs and extrinsic goal orientation show a significant effect. These two factors slightly significantly predict ($\chi^2(8) = 23.28$, $p < .001$) achievement among students indicating that increasing control beliefs and extrinsic goal orientation are associated with high achievement in students. Motivation factors collectively produce 4% of variance in students' achievement level. Among learning strategies, rehearsal ($B = .18$, $p < .01$) and elaboration ($B = .14$, $p < .01$) are strong and significant predictors of achievement among students. These findings indicate that greater intensity of rehearsal and elaboration lead to increase in the level of achievement among secondary school students. Learning strategies jointly account for up to 12% of variance in achievement among students. Among social behaviors aggression (subscale of Antisocial Behaviors) and academic behavior (subscale of Social Competence) are significant predictors, which indicate that greater aggressive behavior is an indicator of low achievement, whereas, less aggressive behavior leads to high achievement. Social behavior produces 6% of collective variance in the level of achievement among students.

Discussion

The present study focused on underlying factors of achievement levels among secondary school students. Predictive relationship of selected personal and school factors was found on academic underachievement and high-achievement groups. The study examined the impact of personal factors (motivation, learning strategies, stressors, reactions to stressors, social behaviors, age, and gender) and school factors (locality of the school and class size) on high- and low-achievement of secondary school students through binary logistic regression analysis.

To compare the underachievers with high-achievers by gender, two Way MANOVA was computed. Findings revealed that there were significant gender differences on motivation, learning strategies, teachers' reporting of social behavior, and school social behavior between high- and low-achievers. Interaction effect of achievement and gender is nonsignificant for all the study variables. According to the present study, underachievement decreases with increase in age. While, for gender, more boys are underachievers. Some of the previous researches on underachievement (Bush, 2005; Lindsay & Muijs, 2006) also suggest same findings for age and gender.

A binary logistic regression (Table 2) was performed to examine the effects of main study variables (i.e., motivation, learning strategies, stressors, reactions to stressors, and social behaviors) on the level of achievement of secondary school students. Results revealed that age produced 9% of variance in academic achievement; the findings are in line with previous study by Aslam (2003a). For school factors, locality of the school, class size, and social behavior in school were entered into the regression equation. For underachievers, significant school factors included locality of the schools and class size. Underachievement is more prevalent in rural and urban schools as compared to schools in cantonment and garrisons. There was little difference in urban and rural areas schools as the students in government schools in both areas belong to low income families. Government schools charge little or no fee on account of inclusion of parents in government service. In urban areas, students mainly belong to lower level working families including labor class and low grade government servants. On the other hand, schools in cantonment and garrison areas had students with higher level of parents' education and income level. Class size is negatively related with underachievement. The findings are supported by the literature that states, structure of locality (both physical and psychological), facilities, and system make discrepancies between high- and low-achievers (Pirozzo, 1982; Sulaiman et al., 2009).

Further, among motivation variables, all the factors showed a nonsignificant effect on achievement except control beliefs and extrinsic goal orientation. These two factors slightly significantly predicted achievement among students indicating that increasing control beliefs and extrinsic goal orientation were associated with high achievement in students. Motivation factors collectively produced 4% of variance in students' achievement level. Among learning strategies, rehearsal and elaboration were strong and significant predictors of achievement among students, whereas, all other factor of learning remained nonsignificant predictors. These findings indicate that

greater intensity of rehearsal and elaboration lead to increase in the level of achievement among secondary school students. Learning strategies jointly accounted for upto 12% of variance in achievement among students. The findings have literature support (e.g., Long et al., 2011); and depict that Pakistani students have controlled beliefs as per their socialization practices and more prone to be motivated by extrinsic factors. As extrinsic goal orientation increases, underachievement decreases. Bowen and Bowen (1998) also suggests high achievement to be linked with intrinsic motivation, not extrinsic motivation. Learning strategies were positively related with achievement difference in sample of high-achievers. As the sample includes underachievers, they use surface learning in rehearsal, which does not add to learning and achievement. Lua and Chan (2001) also report similar findings. Learning strategies used by underachievers are not much helpful.

Further, all domains of stressors had a nonsignificant effect on students' achievement level. Though, findings are inconsistent with existing literature (i.e., Malik & Balda, 2006b), but our indigenous situations may be one leading factor. As our adolescents are used to face a lot of pressures and stressors in their daily lives, they may have developed resilience to cope and stressors that may not be influencing their academic performances, but it needs empirical support and yet to be tested. Only emotional reactions to the stressors were negatively related to underachievement. This might lead in a change of focus from emotional reaction to learning and thus achievement. Previous researches (Rothon et al., 2009) report different findings. Stress was found to be associated with low achievement. Among social behaviors, aggression and academic behavior were significant predictors of achievement level among students, whereas, all other behaviors had a nonsignificant effect. These findings indicate that greater aggressive behavior is an indicator of low-achievement, whereas, less aggressive behavior leads to high-achievement. Social behavior produced 6% of collective variance in the level of achievement among students. The findings are consistent with previous findings (Stipek & Miles, 2008).

Conclusively, school variables emerged as overall most significant predictors of underachievement. Previous research by Aslam (2003a) also suggested greater importance of schools as compared to personal or family factors. Locality of the school, class size, and aggression appeared as significant predictors of underachievement. With increase in aggression and class size, underachievement increased. Earlier researchers (Maxwell, 2003; McCall et al., 2000; Pirozzo, 1982; Stipek & Miles, 2008) suggested

the same. Locality of the school was a significant predictor where rural and urban schools have high number of underachievers as compared to high-achievers. The study is beneficial for parents, teachers, as well as government agencies to identify the causes and work for the prevention. The areas considered more prone to underachievement need to be evaluated as what are the factors that actually hinder child's performance. Organization and teaching practice of the schools with better achievement results can be applied in other schools as well.

Limitations and Suggestions

Major proportion of the sample is taken from F.G. schools of four cities. Excluding other areas and private schools limit generalization. It is advisable for future researchers to take a more diverse sample and incorporate other localities and private schools to have comprehensive picture of the phenomenon studied. School factors were restricted to students' behavior in school. Taking administration and faculty in school factors is recommended for future research.

Family factors were not taken into account which would be worth studying regarding academic achievement among secondary school children in prospective studies. Extending the study to other areas and private schools can help better generalizable findings in future.

Future research should be carried out with qualitative approach and a number of different methods addressing school and family dynamics in detail should be used to better identify the causes and understand the phenomena of underachievement. Another limitation was the cross-sectional design of the current research. Longitudinal studies, in future, can also help in better understanding of emergence and causes of underachievement.

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