Factors Contributing to School Failure among School Children in a very Fast Developing Arabian Society

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Abstract

Objective: Education is one of the main foundations for the child's development and also for national human resource development. Failure at school and grade retention is a serious concern among children, and their parents. The characteristics of school failure in Qatar have not been studied earlier. The aim of this study is to assess the presence of social, psychological, health and school related factors that cause school failure.

Methods: All students who had failed their grades and had to be retained and repeat the year from 35 randomly selected schools of all grades elementary, intermediate and high school were included in this study for academic years from 2003 to 2008. Each student was individually interviewed by a well-trained school social worker.

Results: The study was performed on a total 699 children who were classified as school failures. Social reasons include living with one parent 26.9%, parental divorce (27%) parents showing no interest in their child's education and school system (41.6%), low income (19.3%), and smoking (19.6%). Frequent absence from school was a result in 33.3%; incomplete homework (45.9%) and teachers identified 63.7% of students to be hyperactive, inattentive and disruptive in classroom. Most frequent psychological disorders include examination phobia (68.8%), anxiety (49.4%), anger (32.5%), fear (43.2%) and learning disability (37.9%). The most prevalent health disorders included visual disorders (23.5%), asthma (14.9%), anemia (15.2%), and hearing deficiency (8.2%).

Conclusion: Psychological and health related factors were found to be more prevalent in students who failed a grade in school. The primary care pediatrician can play a key role by identifying students at high risk and providing early intervention.

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Introduction

Recently, high rates of school failure have been followed by grade repetition which has become a distinctive characteristic of many primary school systems even in the developing countries.[1] It is estimated that about 8–16% of school-age children repeat a grade in school.[2,3]Moreover, greater numbers of children about 20% are scholastically backward and fail to achieve good marks.[4] School failure can lead to serious consequences if untreated.[2] The failing student loses self-confidence, becomes discouraged, decreases effort, and is more likely to fail again.

Irrespective of its cause, school failure is associated with adverse health outcomes and health professionals often do not remind educators of the correlation between child's health and academic potential.[5] Children who fail in school are more likely to engage in subsequent health-impairing behaviors as adolescents like smoking, drinking and drug abuse.[2,6,7] Comprehensive approaches to evaluation and intervention may improve outcomes. Clinicians can make a significant difference in outcomes by helping the students and their families identify the causes of failure and advocate for the resources to alter a child's downward academic performance, preventing further compromise of a child's health.[2]

Grade failure causes children to be older than their same-grade peers, which will eventually affect their self-esteem negatively. Older high school students are more likely to report smoking regularly among other high-risk behaviors.[2]

Qatar has witnessed an educational renaissance movement within the past decade, where the strategic goal of the nation has been to apply national reform to its entire educational system. In Qatar, the percentage of students who had to repeat their grade in public schools was 5% during the academic year 2003/2004 which decreased to 2% in 2005/2006 academic years.

Although the rate of school failure is known the true causes and characteristics remain hidden and unknown as no earlier studies were conducted in this setting. Pediatrician's also plays a significant role to be a child's advocate and help children to go through school smoothly and safely.[5,8,9] Therefore it becomes necessary to determine the factors contributing to school failure in order to design future interventions that tackle this problem at an individual basis and prevent students from failing at school at an earlier stage.

The objective of this study is to examine the factors contributing to school failure among students in the state of Qatar and compare it with other available reported studies.

Methods

This is a prospective cross-sectional study that was conducted at 35 randomly selected government schools across Qatar. Both boys and girls schools representing Grade 1 to grade 12 (Elementary, middle and high schools) were approached. In the state of Qatar there are a total 185 public schools (boys xx and girls xx). The Ministry of Education performed the school selection and randomization.

The study subjects were all students who had failed their grades at least once and had to repeat an academic year were included in this study; the age group ranged from 6- 20 years so as to represent grade 1 to grade 12.

A simple random sampling technique was used to select 15,000 students representing 35 schools was initially selected. A total of 699 children who had failed at least once in the academic year from 2003 to 2008 year and had to repeat their grade were identified and approached for interview.

A structured questionnaire was designed which was divided into four section. In section one, social factors that may be associated with school failure were assessed like child living with either parent, parental attitude towards the child's education, time spent by child on TV and games, student's smoking and also financial status of the child's family. In section two, school related issues like attitude of the students towards school, teachers, and curriculum along with frequency of absence from classroom, homework and misconduct in class were evaluated. Section three included psychological factors (self-reported) like anxiety, examination phobia, anger problems, stealing, nail-biting, learning disability, self-esteem, and sleep disturbance were evaluated with the help of teachers and the parent. Section four evaluated the current heath status of the child for the presence of any chronic diseases like asthma, epilepsy, kidney diseases, anemia, diabetes, cardiovascular disease, visual problems, history of fainting or coma, hearing disorder, and if the student is currently on any medication.

In this study, school failure is defined as students failing their grades at least once and had to repeat the year. According to the Ministry of Education in Qatar, the student who scores less than 50% in five out of six subjects fail and must repeat the academic year.

Each student was individually interviewed by a school social worker. In addition, the student's health record was reviewed to complete the questions regarding their health status. Every school has a complete health record belonging to each student; the records were updated and followed by the school nurse regularly. Students with health related issues were on regular follow up with their family doctor at their health centers and also at school health clinics.

Verbal consent was taken from authority figures at the Ministry of Education as well as from each school principle. Each student was informed of the study and was assured that refusing to contribute to this study will not have any negative impact on their school status or health. To ensure data integrity, following complete data collection, the questionnaires were put in a sealed envelope and delivered to the school health office, where they were stored in a safe secured filling cabinet where they were inaccessible to anybody but the clinician conducting the study had access.

The Chi-Square analysis was performed to test for differences between two or more groups in proportions of categorical variables. The Fisher exact test was performed in case of chi-square when cell expected count was less than 5. A p value <0.05 was considered as a cut off value for statistical significance.

Results

In this study a total of 699 students who had failed an academic year were identified. The study group consists of 369 boys and 330 girls giving a boy to girl ratio of 1.1:1.0.

Table 1 shows the social factors of the school failure of the students studied. Boys were significantly more likely to fail in grades 3-6 (45.8%) when compared to girls (26.4%). About 60.7% of the boys were older against grade compared to only 35.5% of girls. A total of 27.0% of children's parents were divorced and 26.9% of the children were living with one parent. A very high percentage of parents (41.6%) showed no interest in their child's education and school system and about 41.3% never attended parent teacher meetings. Many parents employ harsh disciplinary methods at home and it was significantly high among boys (28.9%) when compared to 23.6% in girls. 43.8% reported spending long hours on the Internet, playing video games and watching TV. Smoking was highest among boys (24.7%) predominantly beginning from the age of 12 years.

Table 2 presents all possible school related factor for school failure. Both boys and girls equally were found to have hatred towards certain subjects (61.5%). Many students show signs of poor attention and hyperactivity, talkative and disruptive in classroom 53.4% of boys specially fail to do their homework in class compared to 37.6% girls. About 38.2% of our study population hates their schools and 33.3% of the children were regularly absent and these percentages were comparable across boys and girls.

Table 1: Socio-demographics and Social Characteristics of the Studied Children according to Gender

Variable	Boys N=369	Girls N=330	Total N=699	p-value
Nationality				
Qatari	220(59.6)	217(65.8)	437(62.5)	0.094
Non-Qatari	149(40.4)	113(34.2)	262(37.5)	
Grade				
3-6	169(45.8)	87(26.4)	256(36.6)	<0.001
7-12	200(54.2)	243(73.6)	443(63.4)	
Poor family relations	110(29.8)	76(23.0)	186(26.6)	0.043
Age higher against grade	224(60.7)	117(35.5)	341(48.8)	<0.001
Live with parent	241(65.3)	234(70.9)	475(68.0)	0.113
Parents separated	117(31.7)	72(21.8)	189(27.0)	0.003
Live with one parent	112(30.4)	76(23.0)	188(26.9)	0.029
Father died	2(0.5)	3(0.9)	5(0.7)	0.565
Mother died	48(13.0)	37(11.2)	85(12.2)	0.468
Parents not interested in child's education	169(45.8)	122(37.0)	291(41.6)	0.018
No parent attend parent teacher meeting	187(50.7)	102(30.9)	289(41.3)	<0.001
Harsh disciplinary methods by parents	106(28.7)	78(23.6)	184(26.3)	0.127
Spoiled	103(27.9)	94(28.5)	197(28.2)	0.867
Treat siblings differently	88(23.8)	74(22.4)	162(23.2)	0.656
Mother is working	82(22.2)	52(15.8)	134(19.2)	0.030
Bad peers	149(40.4)	84(25.5)	233(33.3)	<0.001
Busy with internet, games and TV	185(50.1)	121(36.7)	306(43.8)	<0.001
Poor family income	86(23.3)	49(14.8)	135(19.3)	0.005
Smoking	91(24.7)	46(13.9)	137(19.6)	<0.001

Boys were more likely to display violent behavior than girls and the common characteristics were making trouble (36.0%) and running away from school (24.5%).

Psychological factors that may contribute to school failure are presented in Table 3. The highest psychological problem reported among school children was fear from the exam which was 68.8%, higher among girls 69.7% compared to boys (68.0%). This was followed by anxiety 49.4%, again significantly common in girls and anger, which was 32.5% comparable in both gender. Anger and fear characteristics constituted 32.5% and 43.2% among boys and girls. The boys were more likely to display signs of learning disability 42.8% compared to 32.4% in girls. Other characteristics among school failures included low self-esteem (41.2%) and nail biting (17.2). A significant number of boys reported behavioral problems (31.3%) when compared to 18.5% in girls ($p<0.001$). Health status of our study population is presented in Table 4. Visual disorders were the highest problem found among 23.5% of the school failures. Asthma was the most common disease with 14.9% in total school failures this was followed by anemia 15.2% significantly higher among girls 20.0% compared to 10.8% in boys.

Table 2: School related Factors among School Failures according to Gender

Variable	Boys N=369	Girls N=330	Total N=699	p-value
Student hates certain subject	216(58.5)	214(64.8)	430(61.5)	0.087
Poor attention and hyperactivity	250(67.8)	195(59.1)	445(63.7)	0.017
Doesn't do homework	197(53.4)	124(37.6)	321(45.9)	<0.001
Talkative and disturbing in class	171(46.3)	113(34.2)	284(40.6)	0.001
Student hates certain teacher	154(41.7)	118(35.8)	272(38.9)	0.106
Student hates school	144(39.0)	123(37.3)	267(38.2)	0.634
Student hates the school system	102(27.6)	87(26.4)	189(27.0)	0.704
Fights among peers	111(30.1)	88(26.7)	199(28.5)	0.318
Too many students in class	92(24.9)	102(30.9)	194(27.8)	0.078
Frequently absent	121(32.8)	112(33.9)	233(33.3)	0.748
Trouble maker at school	133(36.0)	72(21.8)	205(29.3)	<0.001
Ever caught cheating in class	99(26.8)	58(17.6)	157(22.5)	0.003
Run away from school	110(29.8)	61(18.5)	171(24.5)	0.001
Teacher threats the students	102(27.6)	74(22.4)	176(25.2)	0.113
Violent behavior	66(17.9)	48(14.5)	114(16.3)	0.233
Imitates parent's signature	74(20.1)	46(13.9)	120(17.2)	0.032

Table 3: Psychological Factors among School Failures according to Gender

Variable	Boys N=369	Girls N=330	Total N=699	p-value
Exam fear	251(68.0)	230(69.7)	481(68.8)	0.633
Anxiety	180(48.8)	165(50.0)	345(49.4)	0.747
Anger	124(33.6)	103(31.2)	227(32.5)	0.500
Fear	159(43.1)	143(43.3)	302(43.2)	0.948
Learning disabilities	158(42.8)	107(32.4)	265(37.9)	0.005
Low self-esteem	178(48.2)	110(33.3)	288(41.2)	<0.001
Shy	96(26.0)	101(30.6)	197(28.2)	0.178
Sleep disturbance	131(35.5)	100(30.3)	231(33.0)	0.145
Day dream	89(24.1)	71(21.5)	160(22.9)	0.413
Hyperactivity	94(25.5)	75(22.7)	169(24.2)	0.397
Nail biting	52(14.1)	68(20.6)	120(17.2)	0.023
Behavioral problems	115(31.2)	61(18.5)	176(25.2)	<0.001
Jealousy	49(13.3)	61(18.5)	110(15.7)	0.059
Stealing	54(14.6)	32(9.7)	86(12.3)	0.047
Selfish	36(9.8)	28(8.5)	64(9.2)	0.561
Thumb sucking	32(8.7)	19(5.8)	51(7.3)	0.139
Nocturnal enueresis	39(10.6)	26(7.9)	65(9.3)	0.221

Table 4: Common Diseases present among School Failures according to Gender.

Variable	Boys N=218	Girls N=168	Total N=386	p-value
Visual problems	82(22.2)	82(24.8)	164(23.5)	0.413
Asthma	59(16.0)	45(13.6)	104(14.9)	0.383
Anemia	40(10.8)	66(20.0)	106(15.2)	0.001
Hearing deficit	26(7.0)	31(9.4)	57(8.2)	0.257
Fainting/coma	16(4.3)	29(8.8)	45(6.4)	0.017
Cardiovascular diseases	21(5.7)	16(4.8)	37(5.3)	0.619
Epilepsy	21(5.7)	25(7.6)	46(6.6)	0.316
Diabetes	17(4.6)	23(7.0)	40(5.7)	0.179
Kidney diseases	8(2.2)	16(4.8)	24(3.4)	0.052
Physically challenged	9(2.4)	17(5.2)	26(3.7)	0.059
Cancer	4(1.1)	9(2.7)	13(1.9)	0.108
Medications	44(11.9)	52(15.8)	96(13.7)	0.142

Discussion

School failure can lead to serious consequences if undetected and left untreated. The failing student loses self-confidence, becomes discouraged and decreases effort to study further. In this study, the factors contributing to school failure among school children of elementary, primary and secondary schools were evaluated.

In the study population, the majority had more than one contributing factor to their failure. Emotional disturbance as a cause of school failure is increasing as was described in many cases presented as anxiety and exam fear.

Depression among school age students is not easily detected by the school personnel, it can present itself with low self esteem, and or behavioral problems. It is encouraged that teachers are aware of the symptoms for early detection and referral to the primary care Pediatrician.

Chronic illness may lead to school failure by increasing school absence during exacerbations.[5,10] Other conditions, such as sleep disturbances, proper nutrition are other factors that have a strong correlation with school performance and grade retention.[11,12] Children need a stable emotional environment to assist them learning and circumstances like divorce, maternal employment; single parent are known to affect a child's performance at school similar to poverty and family conflict.[13]

The duration of TV viewing, playing video games and time spent on the internet is inversely associated with school performance, in this study, almost 43.8% of students who failed their grades had spent most of their time engaged in such activities.[2]

Recently, arguments against grade retention have evolved due to all the negative effects that out weigh the academic benefits. In the state of Qatar,a new evolving school system called the " Independent schools" has began to emerge. They are designed to help students with some difficulties pass their grades with no retention by tailoring the program down to the individual needs, providing special tutoring for certain subjects and above all early consultation and intervention from the medical team keeping in mind not to miss ADHD (attention deficit hyperactivity disorder), Depression, LD (Learning disability) among other health related factors.

By 2010, all the schools in Qatar will follow the new systems "Independent schools". Many families whose children fail academically need help and encouragement to become more actively involved in their child's education Advocacy for pediatric patient may be the most important role of a primary care clinician in order to provide appropriate intervention at an earlier phase and prevent the failing of students from further deterioration. The presence of child's clinician in the process seems to result in more individualized attention paid to the educational needs of a failing child.

This study has highlighted prominent social, school related, psychological and health related factors that can slow the student's progress at school and often lead to failure. The results presented will help policy makers to divert specific intervention for the target groups. Further study is warranted that could contrast present study findings among school failures with students who display excellent and good results at school. This will help in determining risk factors and definite causes of school failure in the population of Qatar. Nevertheless this study is an initial step towards that objective.

Conclusion

This study has successfully highlighted the prevalence of multi-factorial contributors such as social, school, psychological, environmental and health related factors for school failure. Both psychological and health related factors were found to be more prevalent. The role of the primary care pediatrician, in helping failing students and their families, cannot be overemphasized; early detection of students at risk of failure and intervention is the main goal.

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