IOSR Journal of Nursing and Health Science (IOSR-JNHS)
e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 7, Issue 5 Ver. IX. (Sep.-Oct .2018), PP 56-77
www.iosrjournals.org

Risk Factors of Scholastic Underachievement among Preparatory School Students, Their Mothers' Perception and Intervention

Samiha Hamdi Sayed Ramadan [1], Nazek Ibrahim Abd Elghany [2],
Reem Bassiouny Mahmoud El Lassy [3], Hanan Hosni El-Sherbini [4].

[1](Assistant Lecturer, Community Health Nursing Department, Faculty of Nursing, Damanhour University, Egypt).
2 (Professor Emeritus, Community Health Nursing Department, Faculty of Nursing; Alexandria University, Egypt).
3 (Assistant Professor, Community Health Nursing Department, Faculty of Nursing, Damanhour University, Egypt).
4 (Assistant Professor, Community Health Nursing Department, Faculty of Nursing; Alexandria University, Egypt).
Corresponding Author: Samiha Hamdi Sayed Ramadan

Abstract: *Adolescents' scholastic underachievement is a widespread social and academic problem that has a great impact not only on the individual students but also their families, schools and the community as a whole.* ***Aims of study*** *are to identify the risk factors of scholastic underachievement among preparatory school students and explore mothers' perception about underachievement, its' risk factors and their adopted interventions measures to support their underachiever students. Descriptive and phenomenological research designs. By using multistage sampling technique 10 governmental preparatory schools in 5 educational directorates out of the 18 educational directorates in El-Beheira Governorate were randomly selected. From each directorate, one male and one female preparatory school were chosen randomly. The total sample size was 400 students (200 underachievers and 200 achievers). From each directorate, 8-10 mothers were selected using the convenient sampling technique to participate in FGDs (45 mothers). Five tools were used to collect data includes preparatory school students' assessment, family Socioeconomic Status Scale (SES), Strengths and Difficulties Questionnaire (SDQ), Assessment of the school climate inventory and Focus Group Discussions Guide (FGD). There was significant association between scholastic underachievement and multiple familial risk factors as parents' age, socioeconomic status, crowding index, and marital status. Almost all of mothers emphasized that underachievement is a multidimensional problem that should be managed through collaboration between home, school and community.* ***Conclusion****: scholastic underachievement is a vast multidimensional problem with multilevel and interrelated risk factors, which operated at personal, family, school, and community level.* ***Recommendations****: firstly, the families should act as a role model for their underachiever teens regarding the value of education, and secondly, the educational sector should establish school based counseling center for underachiever students to change their negative thought patterns about learning.*

Keywords: *intervention, perception, risk factors, underachievement.*

Date of Submission: 02-10-2018 Date of acceptance: 18-10-2018

I. Introduction

Adolescents' education is the tool for future development and achievement of the international goals. Adolescents face a variety of educational and learning problems that can shape their educational achievement which by its role draw the road of their future life [1].

Scholastic underachievement is known as failure to meet the academic requirements of the school [2]. It is not only affect the underachiever students, but also their families, teachers and all school members and the community as a whole. It is a complex problem with multi-level factors, which includes both intrinsic and extrinsic factors [3, 4].

Firstly, intrinsic factors, there are several individual characteristics and health factors. Such characteristics include; low self-concept, self-esteem, motivation, locus of control, poor self-regulation skills, poor study habits, and negative attitude toward education and learning [5].

Secondly, the extrinsic factors relating to adolescents' environment including: home, school, peer and community influences

Family as a social unit is an important determinant for shaping one's mental capacities along with their physical and social structure [3, 4]. Adolescents' mothers should offer supportive and productive home environment, maintaining positive, accepting and motivational attitude [6].

An important psychosocial drive that emerges during adolescence is the growing need for **peer group** affiliation as adolescents seek to decrease their dependence on family and be more autonomous [7].

The **school** as an educational environment influences the motivational state of the learners, but the school environment can be deprived which make it difficult for learners to satisfy their needs and fully reach their potential [8].

Today's the school nurse is often a part of an interdisciplinary school team where she has a pivotal role in reducing barriers to learning through playing a variety of roles. School health nurse works to promote the optimal health of the students. Basically, she conducts periodic comprehensive screening and assessment for students to determine the underlying causes of underachievement. She serves a leadership role of school policies and programs for helping underachiever students and eliminating failed policies that foster underachievement through collaboration with other members of school team as teachers, psychologist and social workers. Additionally, helps in health promotion of, not only students and teachers but also for all school members, families and the community [9, 10]. School health nurse can work collaboratively to provide effective counseling strategies that are based on accurate assessment of the underachiever student to tackle the underlying causes of underachievement. Moreover, the school nurse works as a **liaison** between school, family, and the community[11].

Finally, the community has a great role to facilitate adolescents' physical, social, psychological and educational development. Community should demonstrate commitment to support such issue through developing suitable infrastructure; adopt supportive policies, standards, and funding. Moreover, community based programs, services and organizations can collaborate with shared goals to help and support the underachiever students and their parents [12, 13]. With the increasing rate of underachievement and/or its hidden causes and its' consequences on the community development. Correspondingly, at the National level there are very scarce studies carried out upon underachiever students. Therefore, this study was one of the leading studies to highlight not only the risk factors of scholastic underachievement among preparatory school students in El-Beheira Governorate but also, to explore their mothers' perception of underachievement and their adopted interventions measures to support their underachiever students.

1. Research questions:-

- What are the risk factors of scholastic underachievement among preparatory school students in El-Beheira Governorate?
- What is the level of mothers' perception about scholastic underachievement and its risk factors among preparatory school students in El-Beheira Governorate?

2. Operational definition of scholastic underachievement:-

- This term will be used in this study to describe students whose grades in the annual examination of the preceding year is less than 60%.

II. Material And Methods

Materials:

Research design

Descriptive and phenomenological designs (multimethod component triangulated design) were adopted to carry out this study.

Setting

The study was conducted in 10 governmental preparatory schools in 5 educational directorates of the 18 educational directorates in El-Beheira Governorate as illustrated in the following table:-

Table (1): The randomly selected schools and study directorates

The study directorates	School name	
	Male schools	**Female schools**
1. Bandar Damanhur	Taha Hussein	Eltawn Elensani
2. Abo-Elmatamer	Mohamed Abd Elrahman Elsabah	Abo-Elmatamer
3. El-Mahmodia	Elzohor	Elzohor
4. Hosh Esa	Abo Bakr Elsedek	Hosh Esa
5. El-Rahmania	El-Rahmania	Ebn Elnafes

Subjects

The target population of this study was two groups of achiever and underachiever students enrolled in the second and third grades in the selected governmental preparatory schools in El-Beheira Governorate. In addition, mothers of the underachiever students.

The students included in the study fulfilled the following eligibility criteria:

1- Aged more than 12 years.
2- Underachiever students with grades < 60% in the annual exam of the preceding year
3- Achiever students with grades ≥ 60% in the annual exam of the preceding year.
4- Willing to participate in the study.

- Using the multistage sampling technique, the following steps were conducted to select the students. Five out of the 18 educational directorates in El-Beheira Governorate were randomly selected. From each directorate, one male and one female preparatory school were chosen randomly. From each school, 40 students (20 underachievers and 20 achievers) enrolled in the second and third grades were included in the study using systematic random sample technique to select the required sample size of 400 students (200 underachiever and 200 achiever students) which was halved by sex.
- The sample size was calculated by using EPI info7software based on the total population of 154803 (number of students enrolled in the second and third year of preparatory schools) and an estimated expected frequency of 17% of underachievement with an acceptable error of 5% and confidence limit of 99%. This resulted in minimum required sample size of 374 students. The final sample size used was 400 students to compensate for possible nonresponse.
- Using the convenient sampling technique, mothers of the underachiever students were selected to participate in the Focus Group Discussions (FGDs) (45 mothers). One FGD session was conducted in each directorate and each session contained 8-10 mothers.

Tools: in order to collect the necessary data for the study, the following five tools were used to collect data:-

Tool I: Preparatory school students' assessment tool was developed by the researcher to collect the required data. It composed of three parts as follows: -

Part 1: It included the students' characteristics: personal data, lifestyles and students' school achievement (data was obtained from the school records).

Part 2: It included assessment of students' general health status (data was obtained from the student's school health records).

Part 3: It included students' family characteristics: -

 Familysocio-demographic data, presence of family conflict, and family disruptive event.

 Students-parents relation was assessed using eight likert-scaled items, which was developed by the researcher after a thorough review of relevant literature. The score of each item ranged from 1 for the most negative to 4 for the most positive as follows; 1=never, 2 = rarely, 3=sometimes, 4= often. Higher scores correspond to better parental relation. Reversing of several items was done because they were worded in a way that higher scores implies poorer relation. The total score was calculated and categorized into three levels based on expert opinion. These three levels were [14-16]:-

 Poor relation < 50%
 Fair relation 50% - 75%
 Good relation >75%

Tool II: Family Socioeconomic Status Scale (SES); [17] the updated and validated Fahmy and El-Sherbini scale in 2012 was used to identify the social level of the students' families. It was translated into Arabic language by the researcher. The SES scale composed of seven domains creating a total score of 84; as illustrated in the following: Educational and cultural domain for both husband and wife (30 scores), Occupation for both husband

and wife (10 scores), Family domain (10 scores), Family possessions domain (12 scores), Home sanitation domain (12 scores), Economic domain (5 scores), Health care domain (5 scores).
The socioeconomic level was classified into four levels based on the quartiles as follows:
- Very low < 25%
- Low 25% - < 50%
- Middle 50% - < 75%
- High ≥ 75%

Tool III: Strengths and Difficulties Questionnaire (SDQ) [18-20]

SDQ is a brief emotional/behavioral screening questionnaire of children and adolescents (about 11-17 years old) developed by Goodman in 1999 then translated into many languages including Arabic and validated by Alyahri A. et al in 2006. It was developed to assess the behavioral, emotional and social problems among students, which help in identifying the association between the presence of these problems and scholastic underachievement. SDQ contains 25 items categorized into five scales of five items per each, which are; (hyperactivity/inattention, emotional symptoms, conduct problems, peer relationship problems and prosocial behavior) that contains both positive and negative behavioral traits. Responses to each of the 25 items consist of three options: not true, somewhat true, or certainly true. For all scales the items that are worded negatively are assigned scores of 2 for certainly true, 1 for somewhat true, and 0 for not true which is reversed for positive items.

The impact supplement includes items, which identify the impact of the difficulties/psychological attributes of the adolescent on any of the following areas: emotions, concentration, behavior or being able to get along with other people. Responses to the impact supplement are: not at all, only a little, quite a lot, a great deal which assigned score of 0,0,1,2 respectively. All the scales and impact supplement; each has a score that range from 0-10. The total difficulties score ranging from 0 to 40 which is generated by summing of all subscales except the pro-social scale that represent the interpersonal interaction and concern for others which is scored separately, as shown in the following table: -

Table (2): The total score of Strengths and Difficulties Questionnaire (SDQ)

Score of scales	Normal	Borderline	Abnormal
Total difficulties score	**0-15**	**16-19**	**20-40**
Emotional	0-5	6	7-10
Conduct	0-3	4	5-10
Hyperactivity	0-5	6	7-10
Peer problem	0-3	4-5	6-10
Prosocial	6-10	5	0-4
Impact score	0	1	2-10

Tool IV: Assessment of the school climate inventory from students' perspective (physical and nonphysical school environment) [21]:-

This scale was obtained and modified from the comprehensive school climate inventory (CSCI). It is a scientifically developed survey to measure the shared perceptions of the school community among students and how they feel about the school environment. It was developed in English language and translated into Arabic by the researcher. The scale composed of 57 Likert-scaled items associated with seven dimensions distributed as follows:-

- Physical safety domain (7 items)
- Socio-emotional safety domain (9 items)
- Quality of instruction (12 items)
- Socio-emotional and ethical learning (6 items)
- Respect domain (5 items)
- Community and collaboration (4 items)
- Morale domain (5 items)
- School environment domain (9 items)

The score of each item ranged from 1 for the most negative to 4 for the most positive as follows; 1= strongly disagree, 2= disagree, 3= agree, 4= strongly agree. Higher scores correspond to better perception of school climate. Reversing of several items were done because they were worded in a way that higher scores implies poorer perception. The total score was calculated and categorized into three levels based on expert opinion as follows:-

- Poor < 50%
- Fair 50% - 75%
- Good ≥ 75%

Tool V: Focus Group Discussions Guide (FGD)

Focus Group Discussion Guide was developed by the researcher in Arabic language. It includes carefully stated and appropriately sequenced open ended questions to identify the perception of the mothers regarding scholastic underachievement, investigate the different factors behind the problem, its impact and consequences, interventions adopted by mothers to manage the problem and their help seeking behavior. It included the following parts: - Introduction; in this part the researchers introduce themselves (name, occupation), and explain the study purposes and confirming the confidentiality of data. Engagement questions (ice breaking questions) these questions were used to help participants ease into the discussion and being free to express their opinions, This questions such as what is your opinion regarding the scholastic problems facing preparatory school students in general. Exploration questions (Key questions) which addressed the key issues the researchers wanted to cover in FGDs session, these include Mothers' perception about the concept of scholastic underachievement and risk factors of scholastic underachievement among adolescents, Finally, Exit question (closing question) such as: is there anything else they would like to say?

Method

- Approval from the responsible authorities was obtained through official letters from the Faculty of Nursing.
- Meetings were held with directors of the selected schools to clarify the purpose of the study and to gain their cooperation during data collection.
- The tools were revised by a jury composed of five experts in the field of community health nursing for content validity and recommended modifications were done accordingly.
- Test-retest reliability was conducted on 40 students (20 achievers and 20 underachievers) for SES (tool II), SDQ (tool III), school climate inventory (tool IV) and parental relation scale where the correlation coefficient was 0.980, 0.8008, 0.893, and 0.930 respectively.
- A pilot study was carried out in order to ascertain the relevance, clarity and applicability of the tools. It was conducted on a randomly selected sample of 40 students (20 achievers and 20 underachievers) from another setting not included in the original study settings namely Shoubrakhitt and Kafer El-Dawar.
- El-Beheira Governorate includes eighteen educational directorates, from which five educational directorates were selected randomly. From each selected directorate two governmental general preparatory schools were chosen randomly (one male and one female school). By using systematic random sample technique, 40 students (20 underachievers and 20 achievers) enrolled in the second and third grades from each of the selected schools were included in the study. The interval was calculated for achiever and underachiever students in each school separately by dividing the total number of students in the second and third grade by the required number of students to select the required sample size. Moreover, using the convenient sampling technique, 8-10 mothers of the underachiever students were selected to participate in Focus Group Discussions (45 mothers).
- **Quantitative data collection:** The interview took approximately 45-75 minutes for each student. Data was collected on the academic year (2013-2014) over a period of 5 months (from January to May 2014).
- **Qualitative data was collected through Focus Group Discussions (FGDs):**

- One FGD session was organized and implemented in each directorate (a total of five FGD sessions). The researcher started by recruiting from the selected schools, the mothers of underachiever students with a help from the school social workers. A group of about 8-10 mothers were participated in each session. FGDs were conducted in accessible and comfortable rooms in the schools. Two sessions were held in empty classes, two in social workers room and the fifth in the library.
- After that the researcher introduced ice breaking question followed by exploration questions; using verbal and nonverbal communication such as head shaking and asking open ended questions in accordance with FGDs guide.
- The moderator actively encouraged participation of everyone in the group. An important job of the moderator was to solicit input from all group members and not let a few vocal mothers to dominate the discussion. The need and the importance of every participant's input and opinion were emphasized by the moderator.
- Diversity of comments and opinions among the group was encouraged and flexibility for clarification and probing was allowed. The focus group sessions were recorded using record tape and handwritten field notes.

Statistical analysis

Quantitative data analysis:

-Data was analyzed using the Statistical Package of Social Science (SPSS) version 16. The level of significance selected for this study was P value equal to or less than 0.05.

-Descriptive statistics: percentages, frequencies, range (minimum and maximum), arithmetic mean, standard deviation, median, and inter quartile range.
-Statistical tests: chi square test (X2), Fisher's exact test, Monte Carlo test, t-test, and Mann Whitney test.

Qualitative data analysis:

-After completion of all sessions, the data was organized for analysis by collecting all transcripts from the tapes. Each focus group session was transcribed verbatim (word for word) in order to capture the exact words and phrases voiced by the participants that capture their perspectives and experiences had been generated.
-Proofread (read through for errors) in order to check the accuracy of all transcripts against the audiotape were done. Findings together with pertinent quotations were then organized according to the discussed topics.
-The main categories covering the objectives behind the research were formulated. Examination of each category was carried out to search for subtopics and to select the most useful for various ideas, followed by clustering the categories into themes. These themes provide the major heading for the results.
-Method triangulation, member checking, peer debriefing, inquiry audit and thick description are methods adopted to ensure the trustworthiness and the quality of the qualitative data.

- **Ethical consideration**

- Written consent from the directors of each school was obtained to assume the protection of the students' human rights.
- The students were asked for an oral consent for participation in the study. The underachiever students' mothers were asked for their oral consent for participating in FGDs. Confidentiality of data was maintained and anonymity of individual responses was guaranteed.

III. Result

Results: The results of this study will be presented into two sections:-

The First Section: Results of Quantitative Data

Table (3) shows that the students' mean age were 14.6+0.9 years for underachievers and 14.2±0.8 years for achievers. Around three quarters (78.5% & 73.0%) of the underachievers and achievers groups were enrolled in the second grade of preparatory schools. The mean number of siblings was (2.8+1.5) for underachievers group and (2.2±0.9) for achievers group. While, more than one quarter of underachievers group was ranked as the first child in their families compared to more than half of achievers group. Additionally, more than three quarters of both underachievers (79.0%) and achievers groups (88.5%) were living with both parents.

Table (3) Distribution of the studied students according to their personal and socio-demographic characteristics

Items	Underachievers (n=200)		Achievers (n=200)		Significance
	No.	%	No.	%	
Age (in years)					
- 12<13	3	1.5	7	3.5	t=4.608
- 13<14	11	5.5	14	7.0	P<0.0001*
- 14<15	90	45.0	119	59.5	
- ≥ 15	96	48.0	60	30.0	
Min-Max	**12-17**		**12-16**		
Mean ± SD	**14.6±0.9**		**14.2±0.8**		
Scholastic year					
- 2nd grade	157	78.5	146	73.0	X^2=1.647
- 3rd grade	43	21.5	54	27.0	P=0.199
Number of siblings					
Min-Max	**0-10**		**0-6**		
Mean ± SD	**2.8 ± 1.5**		**2.2±0.9**		
Birth order					
- 1st	54	27.0	101	50.5	X^2=36.35
- 2nd	45	22.5	53	26.5	P<0.0001*
- 3rd	55	27.5	23	11.5	
- ≥ 4th	46	23.0	23	11.5	
Students' current living					
- Both parents	158	79.0	177	88.5	X^2=7.65
- Mother only	30	15.0	19	9.5	^{MC}P=0.054
- Father only	10	5.0	3	1.5	
- Relatives	2	1.0	1	0.5	

X^2: Chi-Square test ^{MC}P: Monte Carlo corrected P-value t: t-test *Significant at P≤0.05

Table (4) presents that the mean age of underachievers' fathers were 49.0+7.3 years compared to 46.8+5.9 years for achievers. Less than fifth of underachievers' fathers were just could read and write compared to (10.6%) of achievers' fathers. Mothers' mean age were 41.7+5.9 years for underachievers group and 39.5+5.2 years for achievers group. Less than half (43.6%) of underachievers' mothers were illiterate or just could read and write compared to only (19.7%) of achievers' mothers respectively. More than three quarters (83.4%) of underachievers' mothers and more than two thirds (69.7%) of achievers' mothers were housewives.

Table (4) Distribution of the studied students according to socio-demographic characteristics of their families

Socio-demographic characteristics	Underachievers (n=200)		Achievers (n=200)		Significance
	No.	%	No.	%	
Father's age (in years) #	**(n=185)**		**(n=188)**		
Min-Max	**34-73**		**35-65**		t=3.277 P<0.001*
Mean ± SD	**49.0±7.3**		**46.8±5.9**		
Father's education#	**(n=185)**		**(n=188)**		
- Illiterate	44	23.8	8	4.3	X^2=74.014 P<0.0001*
- Read &write	33	17.8	20	10.6	
- Primary education	27	14.6	16	8.5	
- Preparatory education	25	13.5	14	7.5	
- Secondary education	38	20.5	54	28.7	
- Intermediate education	9	4.9	23	12.2	
- University/Postgraduate	9	4.9	53	28.2	
Father's occupation#	**(n=185)**		**(n=188)**		
- Non-working/Retired	7	3.8	8	4.3	X^2=75.69 P<0.0001*
- Unskilled manual worker	90	48.7	36	19.1	
- Skilled manual worker/ farmer	37	20.0	17	9.1	
- Trades/business	30	16.2	36	19.1	
- Semi-professional/clerk	15	8.1	75	39.9	
- Professional	6	3.2	16	8.5	
Mother's age (in years)*	**(n=193)**		**(n=198)**		
Min-Max	**30– 57**		**30-55**		t=3.77 P<0.0001*
Mean ± SD	**41.7 ± 5.9**		**39.5±5.2**		
Mother's education#	**(n=193)**		**(n=198)**		
- Illiterate	58	30.1	21	10.6	X^2=95.36 P<0.0001*
- Read &write	26	13.5	18	9.1	
- Primary education	26	13.5	8	4	
- Preparatory education	30	15.5	7	3.5	
- Secondary education	41	21.2	74	37.4	
- Intermediate institutes	7	3.6	19	9.6	
- University/ Postgraduate	5	2.6	51	25.8	
Mother's occupation#	**(n=193)**		**(n=198)**		
- Housewife	161	83.4	138	69.7	X^2=40.17 ^{MC}P<0.0001*
- Unskilled manual worker	17	8.8	4	2.0	
- Skilled manual worker/farmer	2	1.0	0	0.0	
- Semi-professional/clerk	8	4.2	46	23.2	
- Professional	5	2.6	10	5.1	
Crowding index (Min –Max)	**1 -10**		**1-5**		
Mean ± SD	**2.4 ±0.9**		**2.1±0.6**		t=4.288 P<0.0001*

#Dead fathers= 27 (15 underachievers, 12 achievers) *Dead mothers=9 (7 underachievers, 2 achievers) X2: Chi-Square test MCP: Monte Carlo corrected P-value *significant at P≤0.05 t: t-test

Figure (1) portrays that more than two thirds of underachievers group had low socioeconomic status versus more than quarter of achievers group. A statistically significant difference was found between both groups with respect to their socioeconomic status where (t- test= 11.19, P=0.000*)

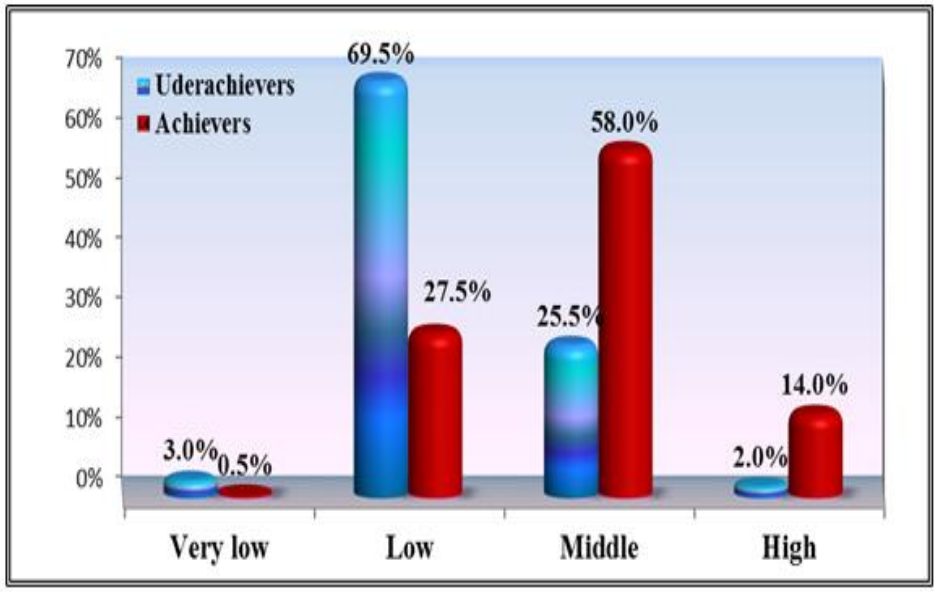

Figure (2) Distribution of the students according to their total Socioeconomic Scale

Table (5) illustrates that more than two fifths (41.5%) of underachievers group had a family disruptive event(s) in the previous year compared to more than one quarter (28.0%) of achievers group, where around one third of underachievers group had either parent/sibling travel or parent/sibling death (36.1%, 33.7%) compared to (30.4%, 33.9%) of achievers group respectively. A statistically significant difference between both groups (X2=8.04, P=0.005).

Table (5) Distribution of the studied sample (students) according to occurrence of family disruptive events (n=400)

Items	Underachievers (n=200)		Achievers (n=200)		Significance
	No.	%	No.	%	
Occurrence of family disruptive events in the previous year					
- Yes	83	41.5	56	28.0	X^2=8.04
- No	117	58.5	144	72.0	P=0.005*
Type of disruptive events #	**(n=83)**		**(n=56)**		
▪ Parent/sibling travel	30	36.1	17	30.4	
▪ Parent/sibling death	28	33.7	19	33.9	
▪ Newborn sibling	17	20.5	28	50.0	
▪ Relatives' death	14	16.9	1	1.8	
▪ Family conflict	2	2.4	1	1.8	

 # More than one answer X^2: Chi-Square test *Significant at P≤0.05

Figure (2) portrays that around half (59.0%, 45.0%) of both underachievers and achievers groups had fair relation with their parents. However, good relation with parents was reported by (15.0%) of underachievers group compared to more than two fifths (44.0%) of achievers group. Furthermore, poor relation with parents was reported by (26.0%, 11.0%) of both underachievers & achievers groups respectively. A statistically significant difference was observed between both groups with respect to relation with their parents (X^2=44.4, P=0.000)

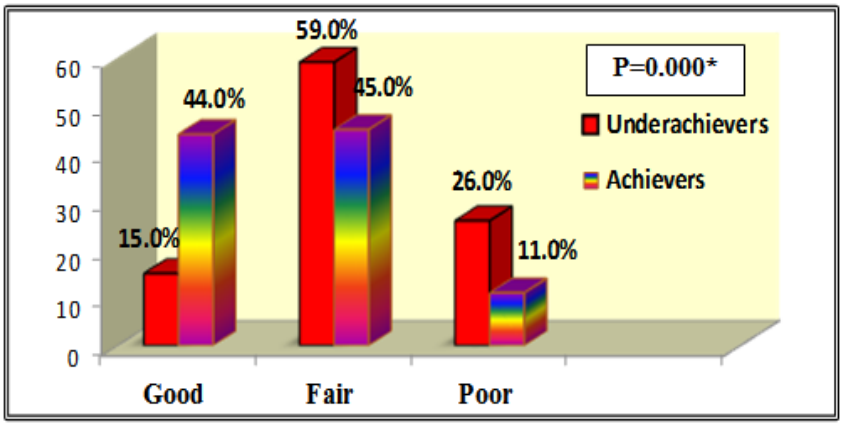

Figure (2) Distribution of the studied sample (students) according to their total score of parental relation scale

Table (6) reveals that more than half of underachiever students reported that they had a health problem compared to more than one third (37.0%) of achiever students. Anemia was the most frequent health problem as it was reported by more than three quarters (78.6%) of underachievers and nearly two thirds (63.5%) of achievers. The highest percent (71.0%, 84.1%) of both of underachievers and achievers reported that they had vision impairment (as myopia, stigmatism, squint).

Table (6) Distribution of the studied sample (students) according to their general health status (n=400)

Health status	Underachievers (n=200)		Achievers (n=200)		Significance
	No.	%	No.	%	
Presence of health problems					
- Yes	103	51.5	74	37.0	X^2=8.52
- No	97	48.5	126	63.0	P=0.004*
Type of health problems#	**(n=103)**		**(n=74)**		
- Anemia	81	78.6	47	63.5	
- Bronchial asthma	18	17.5	12	16.2	
- Parasitic disease	8	7.8	8	10.8	
- Rheumatic heart disease	5	4.8	7	9.4	
- Epilepsy	4	3.9	0	0.0	
- Skin disease	1	1.0	2	2.7	
- Digestive problems	1	1.0	1	1.3	
- Eye/nose allergy	3	2.9	0	0.0	
- Bone problems	3	2.9	2	2.7	
- Renal disease	1	1.0	3	4.0	
Presence of sensory impairment					
- Yes	76	38.0	63	31.5	X^2=1.86
- No	124	62.0	137	68.5	P=0.172
Type of sensory impairment#	**(n=76)**		**(n=63)**		
- Vision (Myopia, Stigmatism, Squint)	54	71.0	53	84.1	
- Hearing (Poor intensity)	20	26.3	8	12.7	
- Speech (Stuttering)	9	11.8	5	7.9	

 # More than one answer **X^2: Chi-Square test** ***Significant at P≤0.05**

Table (7) displays that around half (52.0% & 50.0%) of achievers and underachievers reported that they had three meals/day respectively. More than one third (34.5%) of underachievers always had breakfast compared to less than half (46.0%) of achievers. Nearly three quarters of underachievers reported that they had sleep problems versus to 40.5% of achievers. More than half (52.8%) of underachievers and nearly fifth (19.9%) of achievers had intermittent sleep while insomnia were reported by (29.9%, 22.1%) of both groups respectively.

Table (7) Distribution of the studied sample (students) according to their lifestyles (n=400)

Items	Underachievers (n=200)		Achievers (n=200)		Significance
	No.	%	No.	%	
Dietary pattern					
Number of meals per day					
- One	7	3.5	7	3.5	X^2=3.25, P=0.354
- Two	77	38.5	64	32.0	
- Three	100	50.0	104	52.0	
- Four	16	8.0	25	12.5	
Intake of breakfast meal					
- No	35	17.5	24	12.0	X^2=8.02, P=0.046*
- Sometimes	96	48.0	84	42.0	
- Always	69	34.5	92	46.0	
Sleep					
Sleeping per night (in hours)					
- <6	16	8.0	14	7.0	Z=1.68 P=0.004*
- 6<8	52	26.0	67	33.5	
- 8<10	77	38.5	91	45.5	
- ≥ 10	55	27.5	28	14.0	
Min- Max	**4-14**		**4 -12**		
Median , Inter Quartile Range (IQR)	**8 (7-10)**		**8 (7-8.8)**		
Presence of sleep problems					
- Yes	144	72.0	81	40.5	X^2=40.32 P<0.0001*
- No	56	28.0	119	59.5	
Type of sleep problems#	**(n=144)**		**(n=181)**		
▪ Intermittent sleep	76	52.8	36	19.9	
▪ Insomnia	43	29.9	40	22.1	
▪ A lot of sleep	26	18.1	13	7.2	
▪ Night mares	10	6.9	1	0.6	

 # More than one answer Z: Mann Whitney test *Significant at P≤0.05

Table (8) display the average study hours/day ranged from 0 to 7 hours among underachievers and from 0 to 8 hours among achievers respectively. More than half (53.0%) of underachievers reported that they study for less than 2 hours/ day compared to (14.5%) of achievers. Nearly half (44.5%) of both underachievers and achievers (47.0%) reported that they had auditory learning style while kinesthetic learning style was reported by more than quarter (27.5%) of underachievers compared to half (50.0%) of achievers. The difference observed between both groups with respect to average study hours/day and learning style was statistically significant (t=9.044, P<0.0001) and (X^2=10.05, P=0.007).

More than three quarters (79.0%) of underachievers reported that they didn't set a study schedule versus to more than half (57.5%) of achievers. Additionally, more than half (58.5%) and more than one third (35.5%) of both groups reported that they didn't complete their homework daily respectively. The highest percent (72.5% & 83.5%) of both underachievers and achievers preferred to study alone. The vast majority (95.0%) of underachievers reported that they had study difficulties in several school materials compared to more than half (56.0%) of achievers, with a statistically significant difference between both groups (X^2=82.23, P<0.0001). Where, more than three quarters (79.5%) of underachievers and more than one third (35.7%) of achievers had difficulty in English while (61.1%, 75.9%) of both groups had difficulty in math respectively. Moreover, difficulty in reading and writing were more encountered among underachievers (46.8% & 34.7%) than achievers (3.6% & 0.4%).

Less than half (47.4% & 41.1%) of both groups seek help in study difficulties from their mothers and more than half (57.5% & 55.0%) of both underachievers and achievers reported that their parents were not involved with them in school their activities. Surprisingly, the majority (82.5%) of achievers and nearly two thirds (65.5%) of underachievers depend on private tutoring. In addition, more than two fifths (43.5%) of underachievers had previous grade(s) repetition compared to a minority (3.5%) of achievers. A statistically significant difference was observed between both groups with respect to private tutoring and previous school failure where (X^2=15.02, P<0.0001) and (X^2=89.0, P<0.0001) respectively.

Table (8): Distribution of the studied sample (students) according to their scholastic performance & study habits

School performance	Underachievers (n=200)		Achievers (n=200)		Significance
	No.	%	No.	%	
Average of study hours/day					
- < 2	106	53.0	29	14.5	t=9.044 P<0.0001*
- 2<4	73	36.5	89	44.5	
- 4<6	16	8.0	64	32.0	
- ≥ 6	5	2.5	18	9.0	
Min- Max	0-7		0-8		
Median , Inter Quartile Range (IQR)	1 (1-2)		3 (2-4)		
Learning style as perceived by students#					
- Auditory	89	44.5	94	47.0	X^2=10.05 P=0.007*
- Visual	74	37.0	66	33.0	
- kinesthetic	55	27.5	100	50.0	
Setting study schedule					
- Yes	42	21.0	85	42.5	X^2=21.33 P<0.0001*
- No	158	79.0	115	57.5	
Daily homework completion					
- Yes	83	41.5	129	64.5	X^2=21.24 P<0.0001*
- No	117	58.5	71	35.5	
Study preference					
- Alone	145	72.5	167	83.5	X^2=7.05 P=0.008*
- With friends	55	27.5	33	16.5	
Study difficulties					
- Yes	190	95.0	112	56.0	X^2=82.23 P<0.0001*
- No	10	5.0	88	44.0	
Difficulty source#	(n=190)		(n=112)		
- English	151	79.5	40	35.7	
- Math	116	61.1	85	75.9	
- Reading	89	46.8	4	3.6	
- Writing	66	34.7	5	0.4	
- Science	64	33.7	12	10.7	
- National subjects	50	26.3	6	5.4	
- Arabic	43	2.5	2	1.8	
Seeking help in study difficulties#	(n=190)		(n=112)		
- Mother	90	47.4	46	41.1	
- Father	68	35.8	21	18.7	
- Teachers	44	23.1	46	41.1	
- Relatives	23	12.1	10	8.9	
- Friends	1	0.5	2	1.8	
- None	12	6.3	4	3.6	
Parental involvement in school activities					
- Not involved	115	57.5	110	55.0	X^2=0.25 P=0.614
- Involved	85	42.5	90	45.0	
Private tutoring					
- Yes	131	65.5	165	82.5	X^2=15.02 P<0.0001*
- No	69	34.5	35	17.5	
Previous grade repetition					
- No	113	56.5	193	96.5	X^2=89.0 P<0.0001*
- Yes	**87**	43.5	**7**	3.5	
▪ One year	75	86.2	6	85.7	
▪ Two years	12	13.8	1	14.3	

 # More than one answer X^2: Chi-Square test *Significant at P≤0.05

Figure (3) portrays the distribution of the studied sample according to their total Strengths and Difficulties Questionnaire (SDQ) score. It can be observed from this figure that less than half (43.5%) of underachievers had abnormal emotional, behavioral and social difficulties compared to more than fifth (22.0%) of achievers. In addition, those who were on the borderline constituted less than one third of both groups (29.0% & 30.5% respectively).

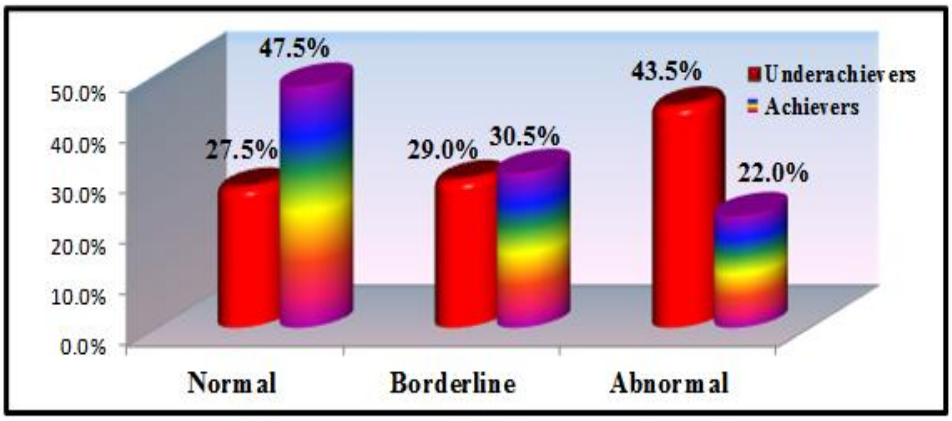

Figure (3) Distribution of the studied sample (students) according to their total Strengths and Difficulties Questionnaire (SDQ) score

Table (9) denotes that the mean score of the total school climate inventory was higher among the achievers group (149.86+15.46) than the underachievers group (141.60+13.91). Moreover, statistically significant relation was existed between students' scholastic achievement level and each of physical safety domain (t=3.989, p=0.000), socio-emotional safety domain (t=6.135, p=0.000), quality of instruction domain (t=4.317, p=0.000), respect domain (t=4.052, p=0.000), community & collaboration domain (t=4.093, P=0.000), and the total score of school climate inventory (t=5.614, p=0.000).

Table (9) Relation between students' scholastic achievement and their mean score of school climate inventory

School climate inventory score	Scholastic achievement		t-test (p value)
	Underachievers	Achievers	
	Mean+SD	Mean+SD	
Physical safety	15.08+2.83	17.04+2.94	3.989 (0.000*)
Socio-emotional safety	23.88+3.72	26.21+3.85	6.135 (0.000*)
Quality of instruction	29.11+3.89	30.95+4.61	4.317 (0.000*)
Socio-emotional & ethical learning	16.0+2.32	16.42+3.19	1.470 (0.142)
Respect	12.59+2.69	13.78+3.14	4.052 (0.000*)
Community & collaboration	9.40+2.67	10.46+2.51	4.093 (0.000*)
Morale	12.38+3.78	13.08+3.43	1.937 (0.053)
School environment	22.34+4.29	21.92+3.85	1.019 (0.309)
Total score	**141.60+13.91**	**149.86+15.46**	**5.614 (0.000*)**

t: independent samples t test ***Significant at P≤0.05**

Table (10) showed significant relation between students' scholastic achievement level with students' age (t=2.875, P=0.004), socioeconomic score (t=6.175, P<0.0001), daily study completion (t=5.893, P<0.0001), private tutoring (t=2.997, P=0.003), study preference (t=2.865, P<0.004), years of grade repetition (t=6.696, P<0.0001) and total strengths and difficulties score (t=2.550, P=0.011). Furthermore, these statistically significant variables predicted 64.0% of scholastic achievement level (R^2 =0.64) among the studied sample.

Table (10): Linear regression model for predictors of scholastic achievement among the studied students

Variables	B	S.E.	T	P value
- **Students' age (years)**	**-7.8**	**2.7**	**-2.875**	**0.004***
- **Socioeconomic score**	**1.3**	**0.2**	**6.175**	**<0.0001***
- Age of mother	-0.8	0.5	-1.756	0.080
- Presence of physical illness (no/yes)	1.7	1.4	1.212	0.226
- Average study duration	1.8	4.9	0.371	0.711
- **Daily study completion (no/yes)**	**-30.6**	**5.2**	**-5.893**	**<0.0001***
- Presence of study difficulties (no/yes)	3.7	4.7	0.794	0.428
- **Private tutoring (no/yes)**	**-15.1**	**5.0**	**-2.997**	**0.003***
- **Study preference (no/yes)**	**-13.7**	**4.8**	**-2.865**	**0.004***
- **Years of previous grade repetition**	**-0.9**	**0.1**	**-6.696**	**<0.0001***
- School climate inventory score	-0.1	0.4	-0.233	0.816
- **Total strengths and difficulties score**	**0.3**	**0.1**	**2.550**	**0.011***
Constant	**389.8**	**70.2**	**5.556**	**0.0001***

Model significance: F=22.676 **Adjusted R^2 (coefficient of determination) =0.64**
SE: standard error of estimate **B: unstandardized coefficient**
t: independent samples t test ***Significant at P<0.0001**

The second Section: Results of Qualitative Data

The emerged raw qualitative data can be clustered under the following categorical schemes:-

I. Mothers' perception of the concept of scholastic underachievement

Most of mothers pointed out that underachievement is a low performance level, getting lower school grades. Some participants highlighted that underachievement is especially prevalent in governmental than private schools due to decreased attention to governmental schools and the learning process in them. Additionally, mothers asked how he is mentally retarded while he passed the primary school successfully. Others also added that he has good thinking ability but not directed for achievement or he may not able to understand.

- مستواة ضعيف فى المدرسة ما بيجاوبش كويس وما بيجبش درجات كويسة
- هية أكتر حاجة فى المدارس الحكومية لأن الحكومية تتعلمى ما تتعلميش مش اشكال ما حدش بيستعنى بالمدارس الحكومية أصلا
- مش كل واحد متأخر فى التعليم يبقى متعوق عقليا بس هو بيبقى مش فاهم بس مش معوق
- متخلف ازاى و هو عدى الأبتدائى و كان كويس اشمعنا لما جة الأعدادى

II. Risk factors of scholastic underachievement

By focusing the light on the risk factors for scholastic underachievement, the participants' responses illustrated that it is a multidimensional problem with myriad of interrelated risk factors.

1. Personal risk factors: In relation to personal risk factors, responses revealed many personal risk factors that could influence the adolescents' scholastic performance.

A. Individual characteristics: The majority of respondents pointed out that underachiever adolescents are uninterested in education and studying, don't like school, and disorganized. Furthermore, others added that underachiever students are mainly preoccupied with playing which in turn affect their attention to studying and consume the majority of their time.

- مش غاوى تعليم بيتعب أهلة على الفاضى و هو مش غاوى (منفض للتعليم).
- مش عاوز يروح المدرسة ولا عاوز يتعلم
- منتبة للعب إللى واخد كل وقتة ونقوموا الصبح للمدرسة يبقى مش عاوز يروح ومافيش مذاكرة ولعب طول الليل

B. Cognitive factors: The majority of respondents emphasized that poor cognitive ability is a major risk factor for scholastic underachievement.

- ما بيعرفش يقرا و مش عارف الحروف من بعضها
- فهمة ضعيف و بينسى بسرعة بيبقى قاعد قدام المدرس فى الفصل و فى ثوانى ينسى إللى المدرس قالة

C. Behavioral risk factors: Almost all respondents stressed that there are several behavioral risk factors that affect adolescents' scholastic performance.

- يهربوا من المدرسة عشان يروحوا يلعبوا فى السايبر و يقعدوا يلعبوا فى ميعاد المدرسة و لما يخلص ميعاد المدرسة يروحوا
- العيل بيسيب المدرسة ويروح يلف ويشرب سجاير و حشيش

D. Psychological risk factors: The majority of respondents emphasized that there are several psychological risk factors that negatively impact adolescents' scholastic performance.

- حركتة زايدة و منتشر فى البيت زيادة عن اللزوم
- بيتخنق علطول و يجى معيط
- العيل شايف نفسة أقل من الناس كلها و يا لهوى لو إتكلمت علية مع حد يقولى ما تتكلميش علية مع حد ما تحرجنيش إنتى هتفضحينى أنا مذلول أنا مقهور

E. Physical health problems: The relation between school and health is doubtless so any physical health problem can negatively influence adolescents' scholastic achievement which is emphasized by the majority of participant mothers.

- فى طلبة بيبقوا مرضى و عيانين فظروفهم الصحية تعبانة بردة فبتأثر عليهم وعلى مذاكرتهم

2. Family risk factors: In terms of family risk factors, responses revealed numerous familial factors contributing to adolescents' scholastic underachievement.

☒ **Socioeconomic risk factors:** according to mothers' perspective poor family economic status diminishes the resources needed to support their scholastic performance which include; private tutoring and availability of external books.

- الحالة الأجتماعية الضعيفة و المصاريف على الأد مش عارفيين نوفرلهم الكتب الخاريجية إللى صحابهم بيجيبوها وكمان فلوس الدروس

☒ **Mother employment:** Mothers' work is a risk factor for adolescents' scholastic underachievement which is emphasized by the majority of respondents.

- قلة الفضى انا ما ببقاش فاضية طول النهار عشان اذاكرلهم غير يادوب 10 دقايق ولا ربع ساعة عشان بشتغل و ببقى محتاسة بين التلات عيال عشان خاطر ينجحوا بالعافية و فى أيام الإمتحانات بقعد من الشغل عشانهم

☒ **Family disruptive events:** most of respondents indicated that occurrence of family disruptive events has a greatest influence on adolescents' scholastic performance.

- موت الأب دة مشكلة تانية خالص مع فقدان الأب فقدت السيطرة عليهم و بقى فى ميل للأنحراف جامد ورافضين يأخدوا دروس بيقولولى مش هتبقى المدرسة والدروس

☒ **Marital conflict:** nearly all participants emphasized that marital conflict is another important risk factor for scholastic underachievement.

- كترة المشاكل عندى فى البيت خلت الواد و البنت عندهم حالة نفسية عشان المشاكل ما بتتقطعش. البت المدرسين بيقولولى إنها علطول مع نفسها و مش بتتكلم خالص و الولا لا بيحترمنى ولا بيحترم أبوة

3. Peer factors: Almost all respondents stressed that peer pressure has powerful effects especially during adolescence period, even more than parents.

- الأصدقاء أهم حاجة خاصة فى الإعدادى, الصديق إللى جنب منة ما بيختارهوش لو وقع فى عيل منة للة شيطان ماشى على الأرض بيقى هيبوظة

4. School risk factors: Regarding school risk factors, responses revealed several school risk factors which affect students' scholastic performance.

👌 **Teachers related risk factors**: The majority of mothers viewed that poor teacher-student relation is the basis for students' lower performance level, school discontinuity and hatred.

- طريقة معاملة المدرس و تفريقة بين الطلبة بيحسس العيل بالنقص ويخيبة فى دراستة بالمعاملة الوحشة دى
- العيل الغنى حتى لو هيسقط المدرس بيعدية عشان قادر يدفع إنما الطالب الغلبان لأ.
- المدرس معتمد إن العيل هيجيلة الدرس و هينجحة أخر السنة و لو ماراحش الدرس عندة يفضل يشتمة و يهزقة ودة راجل متعلم و تربوى.
- المدرسيين كمان مش شاطريين و ما بيعرفوش يفهموهم حاجة

👌 **School principal leadership related risk factors:** nearly all respondents emphasized that schools lacked the required **supervision** for students especially adolescents.

- انا شوفت عيل مطلع مطواة جوة المدرسة طب إزاى إحنا مش فى الشارع إحنا فى مدرسة فين الرقابة
- العيال بيتفرجوا مع بعض على الصور المخلة على التليفون جوة المدرسة فين الرقابة من المدرسة

👌 **School environment related risk factors:** some respondent mothers mentioned that **poor school physical environment** can affect students' performance level.

- نقص كل حاجة نقص امكانيات المدرسة
- الطلبة جوة الفصل ممكن يأثروا على بعض عشان العدد كبير و مش عارفيين يقعدوا والعيال قاعدين 4 على التختة البايظة كمان ومستواهم مش حلو

5. Community risk factors: Responses revealed many risk factors which can influence adolescents' scholastic performance.

☒ **Defective educational system:** the majority of respondent mothers highlighted the defects of Egypt educational system as risk factors for adolescents' underachievement.

- نظام التعليم فى مصر نظام مشى حالك عندك تالتة إعدادى ما بيجوش المدرسة خالص عشان مافيش أعمال سنة ولو بنت جت المدرسة بيقولولها إنتى جاية لية مش بتاخدى دروس وما فيش مدرس بيدخلها الرحمة حلوة ياناس
- الكتب مابيستلموهاش كلها كاملة فى ميعادها ممكن يعدى شهر ولاشهرين من السنة أو تخلص السنة و هو لسة ما أخدش الكتاب يبقى هيفهم ازاى ويذاكر المادة ازاى
- بيجيبوا حاجات من برة فى الإمتحانات لأن دة حصل و أشتكينا المدرس عشان كدة طب إزاى يمتحنوا العيال فى حاجة ما اخدوهاش
- الغش فى الأمتحانات بيغششوا ولاد الناس الواصلة إللى ابوها مدرس أو إللى لية خدمة عندة فالعيلة تبقى مستواها قليل و تجيب مجموع أعلى فدة حرام

☒ **Poor community infrastructure:** some participants mothers highlighted that poor community infrastructure can affect adolescents' scholastic achievement.

- التامين الصحى مالوش لازمة زى قلتة فالعيل التعبان يعمل اية و ينجح ازاى
- المدرسة بعيدة والبنت بتمشى كتير من البيت للمدرسة والتكاتك غالية عشان تدفع 4 جنية كل يوم فبتطر تمشى وترجع هلكانة ومش قادرة تذاكر

☒ **Community deviant behaviors:** nearly all participants highlighted that **lack of safety and violence** in the streets has a greatest influence on adolescents' scholastic performance. Furthermore, the majority of respondents pointed out that **sexual harassment** in the street may influence girls school attendance and hence achievement.

- ما فيش امان و طول ما إحنا عايشين فى رعب كدة العيال مش هتنفع أصلا لإن العيال لما بتشوف المطاوى و السنج فى الشوارع هيطلعوا متشردين ولاهيفكروا فى تعليم ولا غيرة
- العيلة بتتأخر برة وبنبقوا قلقانين و خايفيين عليها من المشاكل إللى ماشية اليومين دول زى الخطف و لا مؤخذاة الأغتصاب وساعات بنوديها ونجيبها من الدروس يا أنا يا أخوها انما الولا لو غاب أهو ولا لكن البنت بنبقوا ماسكين قلبنا بأيدينا

☒ **Political factors: t**he majority of respondent mothers stressed that **political conflict and the revolution** have a great influence on adolescents' scholastic performance and achievement.

- مشاكل البلد و الثورة يعنى من 3 سنين من ساعة ما قامت الثورة و العيال ما بقتش تيجى المدرسة فمابقوش بيفهموا حاجة خالص و خصوصا السنة دى عشان الترم دة ضيق هما فاضلهم اية يعنى دة الشهر دة وخلاص و نص المنهج طار السنة دى

- ☒ **Socioeconomic factors:** the majority of respondents highlighted that the **high cost of living and unemployment** are also among the factors that affect the adolescents living standard and hence their education and scholastic performance.
  - الغلو لما الحاجة أجى أشتريها وألاقيها الطاق تلاتة تبقى الأسرة التلات أنفار تعمل اية يتعلموا و يعيشوا ازاى
  - العيال بتقول يعنى إللى اتعلموا خدوا اية ما هم قاعدين و ما فيش وظايف
- ☒ **Mass media risk factors:** the majority of respondents highlighted that both content exposure and screen time of media has detrimental influence on adolescents' scholastic performance.
  - المشكلة كلها فى التلفزيون والنت و الفيس بوك لأنة دة خلى العيل بيسمع الكلام الفاضى إللى فية و يمشى وراة انما زمان ما كانش كدة بس فية ناس ممكن تستفيد منة

III. Impact and consequences of scholastic underachievement

In regard to the impact of scholastic underachievement, almost all of the respondents stressed that it affects not only the underachiever student but also, the family especially mothers as well as the whole community.

- بيأثر على الطالب وأهلة وأمة بالذات والمجتمع كلة
- بيأثر على كل حاجة على الولا و علية و على ابوة و أخواتة و البلد كلها

- ☒ **Personal consequences:** The majority of participant mothers stressed that underachievement may leads to psychological problems.
  - لما العيل يبقى مستواة ضعيف ولا ساقط نفسيتة بتتعب
  - بيميل للصياعة و يتلم على شلة صايعة يشربوة سجاير ولا حشيش ولا برشام ولا يشم ويبقى فاسد
  - ممكن يمد إيدية على كل حاجة (يسرق)
  - لما يجى يتوظف ما يلاقيش وظيفة حلوة ويلاقى زمايلة متوظفين وهولأ
- ☒ **Family consequences:** Scholastic underachievement has a greatest impact on all family members' especially mothers.
  - الاب بيرمى المسئولية كلها على الأم ولو العيل سقط بيبهدلها ويهزقها
  - وبتأثر على الأم بالأخص لأنها بتبقى زعلانة لأن ابنها ساقط و فاشل
  - أبوة وأمة بيزعلة علية عشان تعبو وربو وكبرو و علمو و فى الأخرطلع فاشل وخايب فى مدرستة
  - بيوقف حال البيت كلة و لوأختة جايلها عريس هيسأل امال اية قبل ما تحاسب ناسب و يلاقى أخوها صايع هيقول لأ دة مش نسب لأ دة ما يشرفنيش
- ☒ **Community consequences:** The majority of respondents emphasized that underachievement has several effects on the community.
  - هو المجتمع الأساس هو إللى عمل فية كدة لأنة عايز يتعلم مش عارف يا اما اتعلم ومش لاقى فيطلع يسرق وينهب هو انا عايزة ابنى فاشل ولا عايزاة أحسن من الوزير
  - هو فاشل و هيجيب فشلة يبقى هيعمل إية هيخرب فى المجتمع كلة
  - هيزيد الجهل و البطالة و البلطجة فى بلدنا و هيبقى مجتمع مش متحضر
  - البلد هتخرب من كل ناحية السرقة هتكتر و النصب هيكتر لأن التعليم بردة كويس للعيل و بيخلية يخاف ربنا من الحرام

IV. Intervention measures to overcome the underachievement phenomena

Scholastic underachievement is a multidimensional problem that should be managed through collaboration between home, school and community as emphasized by almost all of participant mothers.

- البيت و المدرسة و المدرسين مع بعض لازم يكونوا متكاتفين مع بعض لازم انا من ناحيتى و المدرسة من جهة تانية لازم إحنا الأتنين مع بعض لكن واحد لواحدة مش هيجيب فايدة
- الأهالى و القرايب و كمان المجتمع نفسة لية دور

- **Family intervention measures**: mothers' have the most greatest role in shaping their children performance and outcome which is emphasized by almost all of participants as they are in more contact with them all over the day.
  - العامل الأساسى هو الأم هية المسئولة عن العيال طول النهار
  - الأب بيشتغل و يجرى و يجيب إللى إحنا عايزينة مش هشيلة الهم و أقولة إبنك عمل و سوى ما بيبقاش لية طاقة من كبسة الشغل علية و ضغوط الحياة فيسمع منى و يجيب العيل يعلقة و يضربة
  - احنا غلبنا معاهم و بنسيب العيل براحتة هنعملة اية أخر ما نزهق بنقولة انت هتتعلم لنفسك و لو ما اتعلمتش بردة لنفسك.

There are several family dimensions which can improve student academic performance as perceived by almost all of the participants. These include; good parental and marital relation, monitoring, motivation, and morale and religion cultivation besides suitable home environment and resources availability as illustrated by the following statements.

- أصاحبة و أخدة أخ لية دة المثل بيقول إن كبر إبنك خاوية عشان ابقى أحسن من زمايلة و يحكيلى على كل حاجة و نعرف ننصحة
- المعاملة الحلوة بين الأب و الأم لأن العيل لو شاف الأب و الأم بيحترموا بعض و بيتعاملوا مع بعض كويس هيبقى كويس و أسلوبة هيبقى حضارى
- الزمن إللى إحنا فية مش عايز إللى ينام أو يغمض عينية عايز إللى مفتح عينية البت و الولا عايز يتمسك حزامهم لأن المدرسة مش كفاية للعيل لازم لا نسيبوا ولا نشدوا لإن إحنا فى زمن فاسد
- انا بحاول مع عيلى عشان يتعلم بروح المدرسة و اتابع مع المدرس عشان العيل يعرف ان علية حصار و يعرف انة ما عندوش وقت يلعب
- الهدوء فى البيت يعنى لو اخوة مشغل تلفزيون و لا حاجة مش هيعرف يذاكر

- الام الجدعة ماتشغلش بنتها فى البيت لو عايزها تنجح
- بنبقى نفسنا نساعدهم فى دروسهم بس لما تبقى الأم جاهلة و الأب جاهل هيعملوا اية
- أحفزة و اقولة لو نجحت السنة دى هطلعك مصيف هتفرحنى هفرحك
- أشجعة إنة يبقى كويس وأقولة شوف فلان بقى ظابط و فلان بقى دكتور
- لازم الواحدة تعلم ولادها الأخلاق خصوصا من صغرهم خصوصا فى سن الإعدادى عشان هو بيقعد طول اليوم برة و ممكن يتلم على شلة صايعة تفسد اخلاقة و ما تخليهوش يذاكر
- نحاول نوفرله العلاج والأكل الكويس عشان يركز ويعرف يذاكر
- أشوف مين إللى الولا بيحبة و بيسمع كلامة و هو هيأثر علية معايا حتى لو صديق مخلص بيحبة

2. **School intervention measures:** all participants highlighted that the school is the foremost and the most essential than home in improving students' school performance level. Others also added that school is the place where students spend a great deal of their time more than their homes.

- طبعا هية اول حاجة المدرسة أهم حاجة هية اهم من البيت للعيال يا تخليهم شاطرين يا تخليهم فاشلين. كمان انا بنتى بتروح المدرسة الساعة 7 الصبح وبترجع الساعة 2 الضهر يعنى بتقعد فى المدرسة أكتر من البيت

There are several schools domains that can improve student academic performance as perceived by almost all of the participants. These include; good teacher-student relation, teacher instructional competence, monitoring, and effective school principal leadership.

- المفروض إن المدرس يعلم إبنى الأحترام مش يشتمة ويقولة يا إبن الكلب و يا إبن الحمار
- لو إتأخرت فى فلوس الدروس المفروض ياخدها على جنب و يقولها بالراحة دى ما تزعلش مش يقولها على الملأ إنتى ما جبتيش الفلوس لية
- لوالعيل حب المدرس بتاع المادة بيحب المادة بتاعتة عشان المدرس ما يزعلش منى هذاكرلة دة بيحترمنى و بيعزنى لازم أذاكر عشان الاقى الحب دة و الإحترم.
- المدرس يعلم الواجب للعيل كل يوم عشان يعرف غلطة و ما يكررهوش مش بركنة و يقولة ما انت كدة كدة مش نافع
- المفروض المدرسة تصلح من وضعها
- يعملوا مجموعات تقوية حنينة على أد إيد الأب و الأم يعنى بأجر رمزى
- يزودوا وقت الحصة و يقللوا الحمل على العيال شوية ما يدوهمش درس و اتنين فى نفس الحصة عشان يستوعبوا و يفهموا لأن العيل بيزهق.
- الحزم و الرقابة فى المدرسة اهم حاجة
- يدوهم مادة الدين عشان العيلة تتقى اللة و تذاكر كويس ألا هما نسوا الدين خالص

3. **Community intervention measures**: The majority of participants stressed the role of the **educational system** to improve students' academic performance through several domains.

- يخففوا المناهج شوية ويجيبوا الإمتحان من المنهج ما يجيبوش حاجة من برة
- اسئلة الإمتحان تكون فى مستوى الطالب العادى مش الطالب الذكى جامد و بس
- ما يخلوش كل المصاريف على الطلبة يعنى السنة إللى فاتت مصاريف المدرسة اتلغت مية مية خطوة جميلة
- يرحموا و يخفضوا فلوس الدروس شوية

Additionally, the majority of respondents emphasized that government must **enactment of laws** and policies to prevent the massive availability of narcotics on street.

- المحافظة على الأمن و الأمان داخل المجتمع المفروض الحكومة تحمينا و لو بلغنا عن حاجة فى المجتمع ما نبقوش خايفيين إنهم يعملوا حاجة فى عيالنا

Most of respondents pointed out that community should work for **poverty reduction** through several measures including; put pension for poor people, widows and divorced women as poverty cut down family resources and affect adolescents' scholastic performance in addition to availability of medications in affordable cost.

- يعملوا معاشات للناس الغلابة إللى مش لاقيين و تحسين دخل الفقراء
- توفير العلاج للناس الغلابة وترخيصة
- يبصوا للأرامل و المطلقات بعين الرحمة لأن قصر الدخل بيأثر على العيل و بيضطرنا نقصر فى العلام بتاعهم

Moreover, some mothers addressed the need to **increase employment** opportunities in order to decrease deviant behaviors and as a motivator for young people through good models.

- يهيء فرص العمل مش بعد ما يبقى معاة مؤهل عالى يطلع ما يلاقيش شغل
- يشوفوا وظايف كل إللى خلص تعليم يلاقى وظيفة عشان يقدر يساعد نفسة و عيالة مش يشتغل اى حاجة و يحفز إللى بعدة

IV. Discussion

Adolescence is a period of considerable physical, social, emotional and mental changes which create a plethora of factors that are capable of promoting or retarding adolescents' educational achievement and socio-emotional development & functioning. Therefore, underachievement put a burden not only on the students but also on the family as well as the community from economic and social perspective where it contributes to wastage of human and economic resources [22, 23]. Accordingly, the present study was done with the aim of identify the risk factors of scholastic underachievement among preparatory school students and explore mothers' perception about underachievement, its' risk factors and their adopted interventions measures to support their underachiever students.

Over the years, researchers have identified that scholastic underachievement is a pervasive and widespread phenomenon especially during early adolescence period. In addition, an overwhelming weight of evidence stressed the multidimensional nature of underachievement that have multiple and interrelated risk

factors. These risk factors can be classified as individual and/or environmental risk factors including; family, peer, and school related risk factors [24, 25].

There are a numerous of individual **risk factors** which can shape adolescents educational outcomes. The influence of **students' age** on academic performance has been investigated in a number of studies with widely differing conclusions due to varying contexts as the subject of study and age & gender interactions. The results of the present study showed that underachievers significantly had higher age than achievers. Similar findings were reported by Abubakar et al (2012) [26] who found that age was the best predictor of students' academic achievement with a significant relation between students' age and their Cumulative Grade Point Average (CGPA). Similarly, all Focus Group Discussions (**FGDs)** respondents emphasized that scholastic underachievement is most widespread during adolescence. This may be attributed to the delicate nature of adolescence period with innumerable of physical, emotional and social changes that were experienced by adolescents which may increase their vulnerability to several risk factors that can end with underachievement with its peak at this age. In addition, less than half of the studied underachiever students (43.5%) have previous grade repetition.

A large body of research has examined the linkages between **siblings' variables** (number and birth-order) and academic achievement which suggest that such connection can be attributed to a variety of reasons including: decreased family resources with increasing the family size along with diminished parental monitoring and tough discipline [27-29]. Results of the current study revealed that underachievers were significantly had higher number of siblings than achievers. This result comes in lines with Suleman et al (2011) [27] who reported that the more brothers and sisters that children have, the lower their grades are in school. Many **FGDs** respondents also mentioned that the increased number of children in the home can affect adolescents' concentration and studying.

Healthy **sleep** plays a crucial role in children & adolescents' performance at school [30]. The findings of the current study revealed that underachiever students had longer night sleep duration than achievers. In addition, the study proved a statistically significant relation between number of sleeping hours per night and students' academic achievement. In contrast, Stea et al (2014) [31] postulated that there was a significant association between short sleeping time and academic achievement among adolescents. This may be attributed to the careless attitude of underachiever students toward studying and their oppositional attitude of escaping from studying by sleeping. The current study also revealed that sleep problems was significantly more encountered among underachievers than achievers where intermittent sleep and insomnia were the most frequent sleep problems reported by the students. In agreement Ming et al (2011) [32] and Mak et al (2012) [30] added that poorer academic performance was associated with symptoms of insomnia and night awakening.

Although adolescence is generally a healthy time of life, several important **health problems** either peak or start during these years. The results drawn from the current study showed that presence of health problems were significantly higher among underachievers than achievers. This was supported by Forrest et al (2013) [33] who stipulated that chronic health conditions that affect students' functional status were associated with poorer academic achievement. Additionally, the majority of **FGDs** respondents in the present study stressed that chronic diseases affecting students' ability for concentration & studying and cutting down their study time due to illness. This was supported by Stephens (2014) [34] added that adolescents in poorer health are more likely to miss school because of illness, to perform worse in school, and to have lower expectations about their educational prospects. This could be explained as chronic illness can add tasks that need adaptation to accompanied complaints and self-care tasks which can influence their quality of life, social participation, self-management, academic performance and school grades.

Proper study habits not only help in upgrading the underachiever students but also check the wastage of potentialities of competent students. Nadeem et al (2014) [35] postulated that academic achievement of adolescents is positively and significantly related to their study habits. As regards study hours, the results of the current study revealed that **students' average study hours per day** were significantly lower among underachievers than achievers. This is in line with Ng et al (2015) [36] who stated that the students who spend most hours on their studies perform highest while those who spend fewest hours are the lowest performing students. In disagreement, Fernandez-Alonso et al (2015) [37] found that there was no effect of time spent studying on performance. This may be attributed to that the quality of studying is more essential than the quantity which might be explained by several intervening factors between time spent on study and performance as students' individual characteristics (motivation, organizational skills, autonomy etc.) and family background (home environment, socioeconomic status, etc).

Homework is an essential school task that has been closely associated with self-regulated learning behaviors, so it is an important vehicle for developing better study habits, better time organization, and greater self-direction [38]. The present study showed that **daily homework completion** is a significant predictor of students' scholastic achievement. The study also revealed that underachievers were less likely to complete their homework on daily basis than achievers. In addition, the study proved a statistically significant relation between

daily homework completion and scholastic achievement. Similarly, Shashidhar et al (2009) [39] assumed that not performing regular homework contributed to scholastic backwardness. This may be attributed to the fact that underachievers are usually procrastinating work, have poor self-regulation skills and lacked the interest and enthusiasm for studying. The same was spelled out by the majority of **FGDs** at the present study which affirmed that underachievers were careless for their personal possessions, appointment of tutoring and school subjects.

Al Shawwa et al (2015) [40] stipulated that students with a high Grade Point Average (GPA) sought a solution independently when facing a difficulty during learning. Similarly, Xu (2013) [41] indicated that students who need more help and therefore, are less autonomous when doing homework tend to demonstrate more difficulties with learning, motivation and concentration, fewer self-regulating strategies and consequently get worse results. In agreement, the findings of current study revealed that **study difficulties** was significantly more encountered among underachievers than achievers especially with respect to English, reading, writing and science. Further support was provided by **FGDs** respondents since the majority of them emphasized that their underachiever teenagers usually facing difficulties during study and seeking help due to poor cognitive ability. However, some mothers stated that their underachiever teens had good thinking ability but not directed for achievement. Thus, due to being preoccupied with playing and the negative peer-pressure which in turn affected their attention to studying and consumed the majority of their time. Respondents also mentioned that their underachiever teens had poor writing, reading and dictation ability, low intelligence level, weak memorization, inability for recalling and lack of understanding. Surprisingly, the current study depicts that students' graduation to preparatory schools without being able to read and write was not only prevalent among underachievers but also among achievers. These findings shed the light on the greatest need of the Egyptian education system to enact laws and regulations to prevent cheating in exams and students' favoritism either for personal gain or based on relative relationship.

Adolescents' time management and organizational skills is a prerequisite for academic achievement. The adolescents' demands for independence coupled with the transition to preparatory schools and its associated greater workloads may contribute to certain difficulties with temporal and materials organization. The findings of the present study portrayed that underachievers were less likely to set a study schedule than achievers. In addition, the study proved a statistically significant relation between **setting of study schedule** and students' academic achievement. Consistent findings were mentioned by Al Khatib (2014) [42] who revealed that there was a positive significant relation between students' time management skills and academic achievement as it was the most significant predictor of academic achievement.

Private tutoring is being practiced at an alarming scale in Egypt and in many other developing countries. Nonetheless, studies on tutoring are still scant [43]. The present study revealed that private tutoring was a significant predictor of students' scholastic achievement. In addition, the study proved that tutoring was significantly lower among underachievers than achievers. This comes in line with Ali et al (2013) [44] who revealed a positive significant relation between tuition and academic performance. Conversely, Berberoglu et al (2010) [45} found no relation between private tutoring and academic achievement. This may be attributed to the greatest cost of tutoring in Egypt and the poor socioeconomic status of underachievers which deprive them from private tutoring that can improve their academic performance as emphasized by the majority FGDs participants. However, almost all **FGDs** participants stressed that currently the education system lacked the quality of proper education which increased the need for private tutoring. Mothers explained that teachers intentionally decreased the time and attention devoted for learning in schools in comparison with private tutoring.

Learning style is the individual preferred or habitual way of processing and transforming knowledge. Every student has certain degree of preferences in each type of learning style, and the majority of students have dominance in one or more styles of learning. In most cases, successful learner learns in several different ways [46]. The results of the current study showed that multiple learning styles (auditory, visual, kinesthetic) were less encountered among underachievers than achievers. The study also proved a statistically significant relation between academic achievement and students' learning style. In agreement, Abidin et al (2011) [47] indicated that there was a significant relationship between overall academic achievement and students' learning styles.

Retained students are more likely to experience problems such as poor interactions with peers, increased behavioral problems, negative attitudes toward school, absences from school, and lower self-esteem. The findings of the present study illustrated that students' previous **grade repetition** was a significant predictor of scholastic achievement. In addition, the study proved that grade repetition was significantly more encountered among underachievers than achievers. Consistent findings were portrayed by Jimerson & Ferguson (2007) [48] in a twelve years longitudinal study which reported that grade retention was significantly associated with lower achievement at age 14 and above. Also, retained students are 7-9 times more likely to drop out of school. Anderson et al (2005) [49] added that grade repetition improves achievement temporarily, but over time, grade repeaters fall further and further behind other low achievers who were promoted. Such temporarily achievement that occur only in the repeated year may be attributed to that the repeaters are a year older than

most of their classmates and are working through the same curriculum a second time but when facing new curriculum in the coming years the cycle of underachievement begins.

Academic underachievement is a final common pathway that may result from multiple etiologies and takes many different forms. It may be confined to a single area of function or it may affect many functions. It may have multiple forms of expression and may be associated with behavioral disturbances. The disorders that describe academic underachievement are based on the adolescents' function in cognitive, academic, or behavioral domains [50]. Using Strengths and Difficulties Questionnaire (SDQ) to detect emotional, behavioral, and social difficultiesamong adolescents, the results of the current study proved that total SDQ difficulties score was a significant predictor of students' scholastic achievement. The study also revealed that difficulties were more encountered among underachievers than achievers. In addition, the study proved a statistically significant relation between students' scholastic achievement and their total SDQ difficulties score. This comes in line with Hossain (2013) [51] who proved that academic achievement had considerable negative and significant relationship with all the attributes behavioral problems in SDQ scale. Also, Tempelaar et al (2014) [52] found that poor school performance is associated with general mental health problems in adolescence. Hence, poor school achievement can be seen as an event that might mediate the impact of other risk factors for mental health problems. Therefore, poor school achievement might function as a trigger for alterations in the causal pathway of genetic and environmental factors underlying neurobiological changes leading to mental disorders.

Family is the first important socializing agency in one's life which plays an integral role in rearing, communicating, providing financial and psychological support [53]. There is a little evidence examining the relation between **parents' age** and students' scholastic achievement. The results of the present study proved a statistically significant relation between students' scholastic achievement and their parents' age. The same, Omolade et al (2011) [54] pointed out that the parents' age can partially predict the academic achievement of students. This may be attributed to the fact that the older the parents, the greater the age gap between them and their growing adolescents.

Family socioeconomic status (SES) is one of the most important explanatory factors associated with health, cognitive and socio-emotional outcomes of students. The results of the current study portrayed that the family overall socioeconomic status was a significant predictor of students' scholastic achievement. The study also proved that underachievers were poorer than achievers; with a statistically significant relation between students' scholastic achievement and overall family SES. This comes in line with Bae (2014) [55] who indicated that families' socioeconomic conditions were directly and indirectly linked to adolescents' academic achievement. The same was emphasized by almost all **FGDs** participants who stressed that poor family economic status diminishes the resources needed to support students' scholastic performance as private tutoring, availability of external books and other needed medications, nutritious food and leisure activities.

Concerning **parents' education**, it was asserted as a powerful moderator for students' academic success. The results of the present study showed that underachievers' parents were lower educated than achievers' parents. In addition, the study proved a positive and statistically significant difference between students' scholastic achievement and parents' educational level. Consistent findings were reported by Suleman et al (2012) [56] who reported that parents' educational level plays a fundamental and significant role in enhancing students' academic performance.

A growing weight of evidence revealed that exposure of the family to any type of **disruptive events** during its life cycle has been found to be associated with poorer school performance, lower academic expectations and emotional instability of the growing adolescents. The findings of the present study showed that more than two fifths of underachievers' students had a family disruptive event(s) in the previous year. This in line with Omoruyi (2014) [57] who found that there is a significant relation between broken homes, single-parenting and adolescents' academic performance. Similarly, most of **FGDs** respondents asserted that father's death can affect adolescents' psychological status due to the shock of bereaving the family's maestro, loss of love and kindness symbol, and loss of family income source.

To sum up, the occurrence of family disruptive events including parental absence due to break-up, death, divorce, traveling may be detrimental to adolescents' scholastic performance and achievement as it undermines parental attachment, monitoring and supervision leaving adolescents more susceptible to mental, emotional and behavioral disorders. Negative emotional climate in the home and decreased parental involvement also has been associated with adolescents' scholastic underachievement.

A growing weight of evidence examined the role of the **adolescents-parents relationship** as a source of influence on children's academic well-being. Adolescence as a period of storm and stress characterized by emotional disengagement from the family which contributes to decreased closeness and increased conflict. The findings of the present study showed that bad adolescent-parents relationship was more encountered among underachiever students than achiever ones. In agreement Davey (2010) [58] indicated that sons who perceived that they have closeness to their parents, good communication, agreed with parents that parents knew "a lot"

about the son's activities and who perceived themselves to be in control of decision making exhibited greater school achievement than other adolescents. They also are less likely to engage in risky behaviors.

The **school** that one attends is the environment that sets the parameters of a students' learning experience, it can either open or close the doors that lead to academic performance. A growing body of empirical research has shown that a positive and sustained school climate is associated with and may be predictive of positive adolescents' development, effective risk prevention and health promotion efforts, student learning and academic achievement, increased student graduation rates and teacher retention. The findings of the current study portrayed that there was a positive and statistically significant relation between scholastic achievement and students' perception of school climate. This comes in line with Dangew (2014) [59] who postulated that there was a positive relationship between school climate and students' achievement. In accordance, **FGDs** some participants mothers highlighted that negative school climate may contribute to underachievement. They elaborated that decreased motivation, attention and available help for the students in the schools are among the risk factors for scholastic underachievement among adolescents.

Overall, findings from the current study portrayed that scholastic underachievement is a multidimensional problem with a myriad of interrelated risk factors which are either individual or environmental risk factors. Adolescents' environment includes family, peers, school or community; each has a role to play to act as a safety net that catches students at risk for underachievement. Adolescent's family as the first socializing agency, should work to create healthy and emotionally safe home environment to protect their children from negative peer pressure and promote their scholastic performance. That couldn't be achieved without oriented parents with underachievement problem, to develop effective preventive and remedial strategies to assist their adolescents. Promoting adolescents' learning and achievement; need a supportive and encouraging community that fosters learning and appreciates learners. All in all, this interrelated cycle ends with preventing and/or decreasing underachievement. Inside this cycle, school health nurse has a great role to play either inside the school, with students and school personnel, or as liaison between school, family and community to foster collaboration in order to effectively preventing or reversing adolescents' underachievement

V. Conclusion and recommendations

The current study concluded that the predictors of scholastic achievement among preparatory school students were age, socioeconomic status, and presence of emotional, behavioral and social difficulties. In addition to, several study habits as daily study completion and study preference, private tutoring and previous grade repetition.

The responses of underachievers' mothers revealed many community related risk factors for adolescents' scholastic underachievement including; defective educational system, poor community infrastructure, community deviant behaviors, socioeconomic factors, political factors, and mass media related risk factors. The majority of them highlighted a variety of intervention measures adopted including; maintenance of good parental relation and suitable home environment. In addition to, parental monitoring, homework assistance, motivation, and resources availability.

Based on the current study findings the following recommendations could be made:

- Families should act as a role model for their underachiever teens regarding the value of education.
- The educational sector should establish school based counseling center for underachiever students to change their negative thought patterns about learning.
- Develop hot lines for underachievers to equip them with necessary qualities and knowledge that support their academic performance.
- Campaigns to raise the awareness of the community about adolescents' underachievement in schools; its risk factors, protective & reversal strategies.

References

[1]. Johnson B, Adolescent Maturity and the Brain development: The promise and pitfalls of neuroscience research in adolescent health policy, *Journal of Adolescent Health. 2009; 45(3): 216–21.*

[2]. Balduf M, Underachievement among College Students. Fairfax county public schools, *Journal of Advanced Academics 2009(20): 274–94.*

[3]. Carlow B, Literature review on the support needs of parents of children with behavioral problems. *Centre for social & educational research, Dublin institute of technology. 2007 [Cited 2015 Oct 12]. Available from: http://www.dit.ie/cser/media/ditcser/images/ CHILDREN-WITH-BEHAVIOURAL-PROBLEMS.pdf*

[4]. Quin J, Deris A, Bischoff G., and Johnson J, The correlation between leadership, culture, and student achievement, *The Online Journal of New Horizons in Education 2015; 5(2):54-62*

[5]. Zsolani A, relationship between children's social competence, learning motivation and school achievement, *Educational psychology 2012; 22(3):317-30.*

[6]. Jeynes W, *Family Factors and the Educational Success of Children.* 2nd ed. USA; Routledge; Taylor & Francis; 2010.

[7]. Daniel K. Kipkemboi F, The impact of school environment and peer influences on students' academic performance in Vihiga County, *Kenya. Journal of Education and Practice 2014; 11(5):1-11.*

[8]. Chere N, Hlalele D, Academic Underachievement of Learners at School: A Literature Review, *Mediterranean Journal of Social Sciences 2014; 23 (5):827-39*

[9]. *National Association of School Nurses (NASN), Position Statements; Resolutions and Consensus Statements, Joint Statements*; 2015 [Cited 2014 Feb 22]. Available from www. nans. org/portals/0/binder_papers_reports.pdf

[10]. *American Nurses Association & National Association of School Nurses. Scope and standards of practice - School nursing*. 2nd ed. Silver Spring, MD: Nursesbooks.org. 2011.

[11]. Eddy L, *Caring for Children with Special Healthcare Needs and Their Families: A hand book for health professional*. USA: Wiley-Blackwell; 2013.

[12]. *Department for children, schools and families. Promoting the educational achievement of looked after children: Statutory Guidance for Local Authorities.* National Children's Bureau. UK; Crown: 2014 [Cited 2015 March 24]. Available from www.ncb.org.uk/corporateparenting

[13]. Castleton T, *Successful interventions for underachieving students. A synthesis of research on what works in high-performing/high-poverty schools*. Center for School Improvement & Policy Studies: Boise State University; 2010 [Cited 2014 Feb 12]. Available from: www.http:// boisestate.edu.

[14]. Soenens, Vansteenkiste, Luyckx, and Goossens L, Parenting and adolescent problem behavior: An integrated model with adolescent self-disclosure and perceived parental knowledge as intervening variables, *Developmental Psychology 2006; 42: 305-18.*

[15]. Purcell S, *The parent-adolescent relationship, adolescents' disclosure to parents, and adolescent substance use* [PhD Thesis]. Department of psychology. University of North Carolina; 2007 [Cited 2012 Jan 13]. Available from: https://cdr.lib.unc.edu/indexablecontent/uuid:0c3d9bfb-96ea-4114-9670-4cbcf48511ee.

[16]. Steinberg L, Mounts N, Lamborn D, and Dornbusch S, Authoritative parenting and adolescent adjustment across varied ecological niches, *Journal of Research on Adolescence 1991; 1:19-37.*

[17]. El-Gilany A, El-Wehady A, El-Wasify M, Updating and validation of the socioeconomic status scale for health research in Egypt, *Eastern Mediterranean Health Journal 2012; 18(9): 962-68.*

[18]. Goodman R, Meltzer H, Bailey V, The Strengths and Difficulties Questionnaire: A pilot study on the validity of the self-report version, *European Child and Adolescent Psychiatry 1998; 7: 125-30.*

[19]. Goodman R, The extended version of the Strengths and Difficulties Questionnaire as a guide to child psychiatric caseness and consequent burden, *Journal of Child Psychology and Psychiatry 1999; 40: 791-801*.

[20]. Alyahri A, Goodman R, Validation of the Arabic Strengths and Difficulties Questionnaire and the Development and Well-Being Assessment, *Eastern Mediterranean health journal 2006; 12 (2):138-46.*

[21]. *The comprehensive school climate inventory. Measuring the climate for learning.* Prepared for Hatboro-horsham high school. The Center for Social and Emotional Education (CSCI), 2008. [Cited 2012 Jan 20]. Available from: schoolclimate.org

[22]. Bukatko D, *Child and Adolescent Development: A Chronological Approach.* USA, Boston, New York: Houghton Mifflin; 2012.495-550.

[23]. Shashidhar S, Rao C, Hegde R, Factors Affecting Scholastic Performances of Adolescents, *Indian Journal of Pediatrics 2009(76):495-9.*

[24]. Rimm S, *Underachievement syndrome: A national epidemic.* In Colangelo N, Davis G editors. *Handbook of Gifted Education*; 2nd ed. Boston: Allyn and Bacon; 2007b: 416-35.

[25]. Gonzaleza V, Solterob S, Alternative Multidimensional Models Explaining and Improving Academic Achievement in Latino Students, *Bilingual Research Journal: The Journal of the National Association for Bilingual Education 2011; 34(3): 263-78.*

[26]. Abubakar R. Oguguo O, Age and gender as determinants of academic achievements in college mathematics, *Asian journal of natural & applied sciences 2012;1(2): 203-13*

[27]. Suleman Q, Hussain I, Akhtar Z, Effects of Family Structure on the Academic Performance of Students at Elementary Level in District Karak, Khyber Pukhtunkhwa (Pakistan), *Journal of Sociological Research 2011; 2(3):235-47.*

[28]. Hotz V. Pantano J, Strategic Parenting, Birth Order and School Performance, *forthcoming in Journal of Population Economics 2015*

[29]. Gorman L, Birth Order and Student Performance, *EBSCO host Connection. NBER Digest 2014; p6.*

[30]. Mak K, Lee L, Ho Y, Lo S, and Lam H, Sleep and academic performance in Hong Kong adolescents, *Journal of School Health 2012;82(11):522-7*

[31]. Stea H, Knutsen T, Torstveit K, Association between short time in bed, health-risk behaviors and poor academic achievement among Norwegian adolescents, *Sleep Med 2014; 15(6):666-71.*

[32]. Ming X, Koransky R, Kang V, Buchman S, Sarris C, and Wagner G, Sleep insufficiency, sleep health problems and performance in high school students, *Journal of Clinical Medicine Insights Circulatory Respiratory Pulmonary Medicine 2011; (5): 71-9.*

[33]. Forrest C. Bevans K. Riley A. Crespo R. and Louis L, Health and school outcomes during children's transition into adolescence, *Journal of Adolescents Health 2013; 52(2):186-94.*

[34]. Stephens S, Children with chronic health conditions less likely to graduate from high school, *Journal of Adolescents Health 2014; (6):1-12.*

[35]. Nadeem N, Ahamd J, Ahamd S, Study habits and academic achievement of Kashmiri & Ladakhi adolescent girls: A Comparative Study, *Turkish Online Journal of Distance Education-TOJDE 2014; 15(7):91-7.*

[36]. Ng S, Zakariaa R, Laia S, and Confessoreb G, A study of time use and academic achievement among secondary-school students in the state of Kelantan, Malaysia, *International Journal of Adolescence and Youth 2015;(2):1-16*

[37]. Fernandez-Alonso R, Suarez-Alvarez J, Muniz J, Adolescents' homework performance in mathematics and science: personal factors and teaching practices, *Journal of Educational Psychology 2015;1(4):1-11.*

[38]. Van Der Elst W, Ouwehand C, Van Der Werf G, Kuyper H, Lee N, and Jolles J, The Amsterdam Executive Function Inventory (AEFI): psychometric properties and demographically corrected normative data for adolescents aged between 15 and 18 years, *J. Clin. Exp. Neuropsychol 2012; (34):160-71.*

[39]. Shashidhar S, Rao C, Hegde R, Factors affecting scholastic performances of adolescents, *Indian Journal of Pediatrics 2009 ;(76):495-9.*

[40]. Al Shawwa L, Abulaban A, Abulaban A, Merdad E, Baghlaf S, Algethami A, Abu-shanab J, and Balkhoyor B, Factors potentially influencing academic performance among medical students, *Advances in Medical Education and Practice 2015; (6): 65-75.*

[41]. Xu J, Why do students have difficulties completing homework? The need for homework management, *Journal of Education and Training Studies 2013; (1): 98-105.*

[42]. Al Khatib A, Time Management and Its Relation to Students' Stress, Gender and Academic Achievement among Sample of Students at Al Ain University of Science and Technology, UAE, *International Journal of Business and Social Research (IJBSR) 2014;4(5):48-58*

[43]. Bagala B, Private tutoring and public corruption: a cost-effective education system for developing countries, *The Developing Economies journal 2007; 37(2): 222- 40.*
[44]. Ali S, Haider Z, Munir F, Khan H, and Ahmed A, "Factors contributing to the students' academic performance: a case study of Islamia university sub-campus.", *American Journal of Educational Research 2013; 1(8): 283-9.*
[45]. Berberoglu G, Demirtasl N, Best C, Arikan S, and Libby Tuncer C, School of foreign relations of the student success factors: Effects on factors of out-of-school students' achievement, *Cito Education: Theory and Practice 2010; 1 (7): 28-38.*
[46]. Zargar S, Ganai M, *Self - concept, learning styles, study habits and academic achievement of adolescents in Kashmir. A study of physiological variables and academic achievement of adolescents in Kashmir* [monograph on line]. Hamburg, Germany: Anchor Academic Publishing; 2014 [Cited 2015 May 20]. Available from: library.ecu.edu.
[47]. Abidin M, Rezaee A, Abdullah H, and Singh K, Learning Styles and Overall Academic Achievement in a Specific Educational System, *International Journal of Humanities and Social Science 2011; 1 (10):143-52*
[48]. Jimerson S, Ferguson S, A Longitudinal study of grade retention: academic and behavioral outcomes of retained students through adolescence, *School Psychology Quarterly 2007; 22(3): 314-39.*
[49]. Anderson G, Jimerson S, Whipple A, Student ratings of stressful experiences at home and school: Loss of a parent and grade retention as superlative stressors, *Journal of Applied School Psychology 2005; (21): 1-20.*
[50]. Shapiro k, Academic Underachievement: A neurodevelopmental perspective, *Rev. Med. Clin. Condes 2011; 22(2):212-17.*
[51]. Hossain S, A study of determining the relationship between academic achievement and problem behavior of urban secondary school students in Bangladesh, *International journal of social sciences 2013; 8(1):1-10.*
[52]. Tempelaar W, Otjes C, Bun C, Plevier C, Van Gastel W, MacCabe J, Kahn R, and Boks M, Delayed school progression and mental health problems in adolescence: a population-based study in 10.803 adolescents, *Journal of BMC Psychiatry 2014; 14(244):2-6.*
[53]. Borah S, Family environment and academic achievement of adolescent students of Jorhat District, Assam, *Indian journal of education, research experimentation and innovation 2013; 3(3):1-25.*
[54]. Omolade A, Kassim A, Modupe S, Relative effects of parents' occupation, qualification and academic motivation of wards on students' achievement in senior secondary school mathematics in Ogun State, *British Journal of Arts and Social Sciences 2011; 3 (2): 242-52.*
[55]. Bae D, Family socioeconomic status and academic achievement among korean adolescents. Linking mechanisms of family processes and adolescents' time use, *The Journal of Early Adolescence September. 2014(11).*
[56]. Suleman Q, Hussain I, Khan F, and Nisa Z, Effects of Parental Socioeconomic Status on the Academic Achievement of Secondary School Students in District Karak (Pakistan), *International Journal of Human Resource Studies 2012; 2(4): 17-31.*
[57]. Omoruyi I, Influence of broken homes on academic performance and personality development of the adolescents in Lagos state metropolis, *European Journal of Educational and Development Psychology 2014; 2(2):10-23.*
[58]. Davey L, Developmental Implications of Shared and Divergent Perceptions in the Parent-Adolescence Relationship, *Journal of youth and adolescence. 2010; (20):1-12.*
[59]. Dangew A, Impact of school climate on students' academic achievement in Bahir Dar secondary schools: Ethiopia, *Education Research Journal 2014; 4(2): 28-36.*