

Ministry of Health
Family Medicine Program
Taif Region

Physical violence behavior among male secondary school students in Taif: prevalence and correlates

BY

Dr. Meshari Mohammed Altowairqi

FAMILY MEDICINE RESIDENT (R3)

Supervisor

DR. Abdulsalam Abdullah Alshehri

FAMILY MEDICINE CONSULTANT

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List of abbreviations

Abbreviation	Description
GSHS	Global School-based Health Survey
WHO	World Health Organization
KSA	Kingdom of Saudi Arabia
OR	Odds ratio
CI	Confidence interval
SPSS	Statistical Package for Social Sciences
χ^2	Chi-square test

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ABSTRACT

Background: Worldwide, violence in secondary schools is an apparent problem that requires urgent attention because of the damage it causes. It has led to deaths, destruction of school property, and disruption of teaching and learning, resulting to poor academic performance.

Objectives: To assess the magnitude and predictors of the problems of physical violence behavior among secondary school boys at Taif city, Saudi Arabia.

Material and methods: A cross-sectional study design was applied at Taif city among a random sample of male secondary school students enrolled in Taif city secondary schools private (n=13) and governmental (n=50), throughout the academic year 2017-2018. Data were collected using a self-administered questionnaire. The Arabic version of the Global School-based Student Health Survey (GSHS, 2005) was utilized in addition, background data variables of the students.

Results: This study included 323 secondary school male students. The age of more than one-third of the students (39.6%) was 17 years while 33.2% of them aged 18 years or more. About one-third of the students (32.2%) carried a weapon during the past 30 days. However, 11.2% carried this weapon at school. History of quarreling during the last year was observed among 45.5% of the students while medical and hospital care as a result of quarreling was observed among 11.5% of the students. Overall, physical violence behaviour was observed among more than half (56%) of the students. Multivariate logistic regression analysis showed that students with history of threatening somebody through telephone or internet during the past 12 months, those who started smoking at 8 years or less or those who started it at age of 17 years or more, those who chewed tobacco between one and 29 days in the last month, those who drunk once or twice alcohol in the last month and students who got alcohol beverages from somebody were at higher risk to be involved in physical violence behaviour opposed to others.

Conclusion: Physical violence is a very common behaviour among male secondary school in Taif. Other behavioral risk factors such as bullying, smoking, drinking alcohol and substance abuse were more important in the occurrence of physical violence, rather than demographic background of the students.

INTRODUCTION

INTRODUCTION

Background

Adolescence is a transitional period of physical and psychological human development characterized by rapid physical, social and cognitive changes. ⁽¹⁾

Globally, it has been documented that adolescent violence is a serious social problem. Violence is a subset of aggressive behavior, which usually start in childhood and leads to violence in adolescent and adulthood. ⁽²⁾ The World Health Organization (WHO) defined physical violence as “The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation”. ⁽³⁾

Several researches have studied the development of violence among young population and concluded that family conflicts, poor parental supervision, negative peer influence, and poverty are the main factors proved to be associated with violence. ⁽⁴⁻⁷⁾

Worldwide, violence in secondary schools is an apparent problem that requires urgent attention because of the damage it causes. It has led to deaths,

destruction of school property, and disruption of teaching and learning, resulting to poor academic performance. School factors associated with violence in secondary schools include factors related to head-teachers, teachers and students.⁽⁸⁾

The role of teachers in secondary schools is not only to teach as the kind of teaching and behaviors that teachers expressed in school can either hinder or generate violence in the school.⁽⁸⁾

Violence against school students from their teachers, family members, or colleagues damages their physical as well as mental health.⁽⁹⁾

Rationale of the study:

- The Saudi Arabian population is characterized by rapid growth and a large cohort of adolescents.
- Violence among adolescents, particularly physical type is an important public health topic as a national problem can lead to serious physical and psychosocial consequences for adolescents.
- There is no data, up to the researcher's knowledge on adolescent physical violence in Taif secondary male schools.

➤ Better understanding of the risk factors of violence related behaviors among students could offer possible targets for successful intervention.

Aim:

Assess the magnitude and predictors of the problems of physical violence behavior among secondary school boys at Taif city, Saudi Arabia.

Specific objectives:

1. Estimate the prevalence of physical violence among secondary school students, Taif, KSA, January, 2018.
2. Identify possible risk factors associated with physical violence among secondary school students, Taif, KSA
3. Compare the physical violence behaviors (prevalence and associated factors) between governmental and private schools.

Study significance

Recognition of the magnitude of the problem of physical violence among secondary school male students in our community and identification of its associated factors will be useful to guide development and implementation of appropriate concrete measures to prevent and manage the problem.

IJSER LITERATURE REVIEW

LITERATURE REVIEW

Searching online did not yield any published study carried out to assess the pattern, prevalence and correlates of physical violence among secondary school male students in Saudi Arabia. However, numerous studies have been conducted internationally. The following is summary of the methodology and most related results of these studies.

-In Turkey (2016), Aras et al carried out a cross-sectional study aimed to define the school-related factors associated with physical violence among fifth grade of the primary schools in Konak district of Izmir province, Students reported that they were exposed to at least one type of physical violence from 42.9% of teachers, 33.6% of parents, and 24.9% of children at school. The rate of encountering with the beating of another child was 53% while the rate of watching physical violence in television/cinema was 52.8%. Regarding exposure to physical violence, males were found to be significantly more exposed than females. ⁽¹⁰⁾

-In South West Nigeria (2016), Owoaje and Ndubusi conducted a cross-sectional study included a sample of secondary school students recruited from public secondary schools in Ogun State. They used the Global School Health Survey

instrument. The exposure to physical violence insults was 47.9%. More males than females (54.9% versus 39.4%) had been involved in physical violence. Multivariate logistic regression revealed that males (OR: 1.56), students having a history of a recent injury (OR: 1.73), and those having been bullied (OR: 1.78) were significantly associated with a history of physical violence.⁽¹¹⁾

-In Ghana (2015), Ohene et al used the nationwide Global School-based Health Survey (GSHS) to investigate youth physical violence among senior high school students with exploring the risk and protective factors at the individual, family, and environmental levels. About 40% of the students reported exposure to physical attacks in the year preceding the survey. Regression analysis revealed that the significant risk factors for physical violence were attempting suicide in the last year, alcohol use in the past month, and bullying other students in the past month whereas the protective factors were parent respect for privacy.⁽¹²⁾

- In Kenya (2014), Sugut and Mugasia studied in a descriptive research, the school factors associated with physical violence in secondary schools. They included head teachers, teachers and students in secondary schools. They concluded that the major causes of violence in schools can be summarized as the use of drugs, lack of enough facilities and food causes, students who have a negative attitude towards

their schools, who feel teachers do not understand their behavior, who do not do well in exams, receive peer influence, those often resort to violence to express their dissatisfaction, students who have a negative attitude towards head teachers in terms of leadership styles, communication and rules and regulations. ⁽¹³⁾

-In Turkey (2012), a cross sectional study was implemented to identify the rates and different types of aggressive behavior and the risk factors for this behavior among high school students aged between 14 and 18 years in Istanbul. The commonest reported aggressive behavior among the students was "beating others (34.5%). Past experiences of violence of high school students were found to be the most reported risk factor to aggressive behavior. ⁽¹⁴⁾

-In Kenya (2011), Poipoi presented a mixed qualitative and quantitative research aimed to identify the perceived of forms of violent behavior among secondary school students in Western Province, as perceived by both teachers and students. Results of the study revealed that forms of violence were; rioting, bullying, sexual violence and fighting. ⁽¹⁵⁾

-In Nigeria (2011), a cross-sectional survey was done to explore experience and perpetration of physical violent behaviors among secondary school students. The

lifetime experience of physical violence was 94.4%. The most common type of physical violent behaviors experienced was slaps (84.5%). The predictors of experience of violence among males were use of alcohol, witnessing domestic violence, involving in work and parental use of alcohol. Among females parental use of alcohol and being young were predictors of violence. Report of perpetration of physical violence among males was 75.3%.⁽¹⁶⁾

-In China (2010), a cross-sectional survey was done to estimate the prevalence and identify the associated factors of school physical violence behaviors among middle school students in Beijing. The prevalence of physical violence behavior in the past 12 months was 14.3%. Male students (25.2%) had been more likely to have physical violence behaviors than female students (5.1%). Logistic regression analysis revealed that poor school cohesion was the risk factors of physical violence behaviors among both males and females. For male students, father's lower education level, remarried/single-parent families, low-grade, poor school performance were the risk factors of physical violence behaviors; while better-off family economic status, good peer relationships, and easy to communicate with the father were the protective factors of physical violence behaviors. For female students, easy to communicate with her mother was the protective factors of physical violence behaviors.⁽¹⁷⁾

- In Kuwait, Oman, Saudi Arabia and Sudan (2007), AlNabulssy et al studied risky behaviors among males and females university students during the academic year 2006-2007. They reported that 31% of the sample in the preceding year has been physically assaulted. ⁽¹⁸⁾

-In Malaysia (2007), a cross sectional study was implemented to estimate the prevalence of violence-related behaviors among secondary school students and the factors related to it. They used a modified version of the Youth Risk Behavior Surveillance questionnaire to collect data. They reported that 27.9% of students were involved in a physical fight, 6.6% were injured in a fight, 5.9% carried a weapon, and 7.2% felt unsafe at schools. Adolescents who smoked, used drugs, carried weapons to school, and felt hopeless were more likely to be involved in physical fights. ⁽⁵⁾

IJSE R METHODOLOGY

METHODOLOGY

Study area:

The study was carried out at Taif city. It is located in the Makkah region of western Saudi Arabia on the eastern slopes of the Sarawat Mountains at an altitude of 1,700 meters above sea level with an area of 1036 km². It has a population of 1,281,613 according to census of 2011.⁽¹⁹⁾ Al Taif city has 13 private secondary schools for males and 50 governmental schools. The study was conducted at male secondary schools in Taif city (63 schools).

Study period:

1. Preparatory period (4-6 weeks)
 - Selecting the title and doing the literatures review

- Taking the permissions
 - Preparing the questionnaire
 - Pilot study
2. Field work (4-6 weeks)
- Data collection
 - Data entry and analysis
3. Writing the report (4-6 weeks)

Study design:

A cross-sectional study design was applied

Study population:

Male secondary school students enrolled in Taif city secondary schools private (n=13) and governmental (n=50), throughout the academic year 2017-2018. It has been found that there are 4669 students in private schools and 13651 in governmental schools (total=18320 students).

Inclusion criteria:

All Saudi secondary school students regular attending schools, either private or governmental (2017-2018) present at the period of the study conduction were eligible for study inclusion.

Exclusion criteria:

- Non Saudi students

- Absence during study conduction or refusal to participate in the study.

Sampling:

Sample size was calculated using online Roasoft sample size calculator, setting the confidence level at 95%, the confidence limit at 5% and the expected prevalence of physical violence as 31%.⁽¹⁵⁾ Calculation according to these values produced a minimal sample size of 323 Students.

The sample was selected from both private and governmental schools proportional to total number of students in each sector. Thus, 82 students were selected from private sector and 241 were selected from governmental sector.

Four male secondary governmental schools (one from each of the four regions in Taif) and one private school were selected by simple random method.

In each randomly selected school, one class was randomly selected from each level therefore it gave a total of approximately 15 classes. Each class was considered as a cluster. Approximately 20 students of the chosen governmental classes and 27 from private classes were selected, till required sample size has been reached.

Data collection tool:

Data were collected using a self-administered questionnaire. The Arabic version of the Global School-based Student Health Survey (GSHS, 2005) was utilized. ⁽²⁰⁾ It is available free online.

The following sections of the questionnaire were utilized: physical violence, smoking, and alcohol and addictive substance use. In addition, background data variables were collected (age, nationality, educational grade, parents' education, and job).

In this study physical violence was considered if the student reported either a history of carrying a weapon during the last 30 days, carrying a weapon at school during the last 30 days, history of quarreling during the last year or history of physical fight on school property during the past 12 months.

Data collection technique:

The researcher distributed the self administered questionnaire on students with the help of teachers during the break time. Care was taken to not disturb the students' school activities as much as possible. The researcher was available to clarify any issue and the questionnaires were collected in the same

day. This was done over approximately one month period. The data were verified by hand then coded and entered to a personal computer.

Data entry and analysis:

Data entry and analysis were conducted using statistical software package SPSS version 22.0. Data were presented using descriptive statistics in the form of frequencies and percentages as all data were of categorized type. Analytic statistics were done using Chi Square (χ^2) and Fischer exact tests to investigate for the association and/or the difference between two categorical variables. P-value equal or less than 0.05 was considered statistically significant.

Physical violence was treated as dependent variable in multivariate logistic regression analysis. Significant socio-demographic variables and other risky behaviors (smoking, alcohol drinking and drug use) in univariate analysis were treated as independent categorical variables for physical violence. The adjusted

measure of association between predictor factors and physical violence was expressed as the odds ratio (OR) with 95% Confidence Interval (95% CI). Adjusted or crude ORs with 95% CI that did not include 1.0 were considered significant.

Pilot study:

- A pilot study was conducted in one school, in a class other than those selected for the study to test wording of questionnaire as well as feasibility of the study methodology. The questionnaire was clear and no modifications were done.
- The results were excluded in the final report.

Ethical considerations:

1. Acceptance from the Regional Research and Ethics committee was obtained.

2. Permission of the education director in Taif city was obtained.
3. Permissions of the school headmasters were obtained
4. A verbal consents were obtained from all students
5. All collected data were kept confidential.
6. Feedback will be send to school authorities.

Budget:

It was self-funded.

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RESULTS

RESULTS

This study included 323 secondary school male students. The background characteristics of the respondents are presented in table 1. The age of more than one-third of the students (39.6%) was 17 years while 33.2% of them aged 18 years or more. They are almost equally distributed between the three educational levels. The fathers of 22.3% of the students were retired while those of 22% and 19.5% of them were civil workers and military employees, respectively. About two-thirds of mothers (65.9%) were not working. Approximately half of fathers (48.6%) and more than half of mothers (52.7%) were at least university graduated.

Table 1: Background characteristics of the participants

	Frequency N=323	Percentage
Age in years		
≤16	88	27.2
17	128	39.6
≥18	107	33.2
Educational grade		
First	101	31.3
Second	115	35.5
Third	107	33.2
Paternal job		
Governmental employee	61	18.9
Civil worker	71	22.0
Military employee	63	19.5
Business/trading	34	10.5
Retired	72	22.3
Not working	10	3.1
Others	12	3.7
Maternal job		
Working	110	34.1
Not working	213	65.9
Paternal education		

Illiterate	10	3.1
Primary school	20	6.2
Intermediate school	43	13.3
Secondary school	93	28.8
University	98	30.3
Postgraduate	59	18.3
Maternal education		
Illiterate	32	9.9
Primary school	32	9.9
Intermediate school	35	10.8
Secondary school	54	16.7
University	137	42.5
Postgraduate	33	10.2

Physical violence:

Table 2 shows that about one-third of the students (32.2%) carried a weapon during the past 30 days. However, 11.2% carried this weapon at school. Absence from school last month due to safety concern was mentioned by 12.1% of the students. History of threatening by someone or intended violence during the past 30 days was reported by 16.4% of the participants. History of quarreling during the last year was observed among 45.5% of the students while medical and hospital care as a result of quarreling was observed among 11.5% of the students. History

of physical fight on school property during the past 12 months was claimed by 8% of the participants. About one-quarter of the students (25.4%) had history of physical hurt by somebody during the past 12 months.

Overall, physical violence behaviour was observed among more than half (56%) of the male secondary school students as clear from figure 1.

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Table 2: Violence-related behaviour among the participants

	Frequency N=323	Percentage
History of carrying a weapon during the past 30 days		
Never	219	67.8
1-5 days	84	26.0
≥6 days	20	6.2
History of carrying a weapon at school during the past 30 days		
Never	287	88.8
1-5 days	20	6.2
≥6 days	16	5.0
History of absenteeism from school last month for safety concerns		
Never	284	87.9
1-5 days	23	7.1
≥6 days	16	5.0
History of threatening by someone or intended violence during the past 30 days		
Never	270	83.6
1-5 times	44	13.6
≥6 times	9	2.8
History of quarreling during the last year		
Never	176	54.5
1-5 times	109	33.7
≥6 times	38	11.8
History of needing medical and hospital care as a result of quarreling during the last year		
Never	286	88.5
1-5 times	30	9.3
≥6 times	7	2.2
History of physical fight on school property during the past 12 months		
Never	297	92.0
	17	5.2

1-5 times ≥6 times	9	2.8
History of physical hurt by somebody during the past 12 months		
Never	241	74.6
1-5 times	68	21.1
≥6 times	14	4.3

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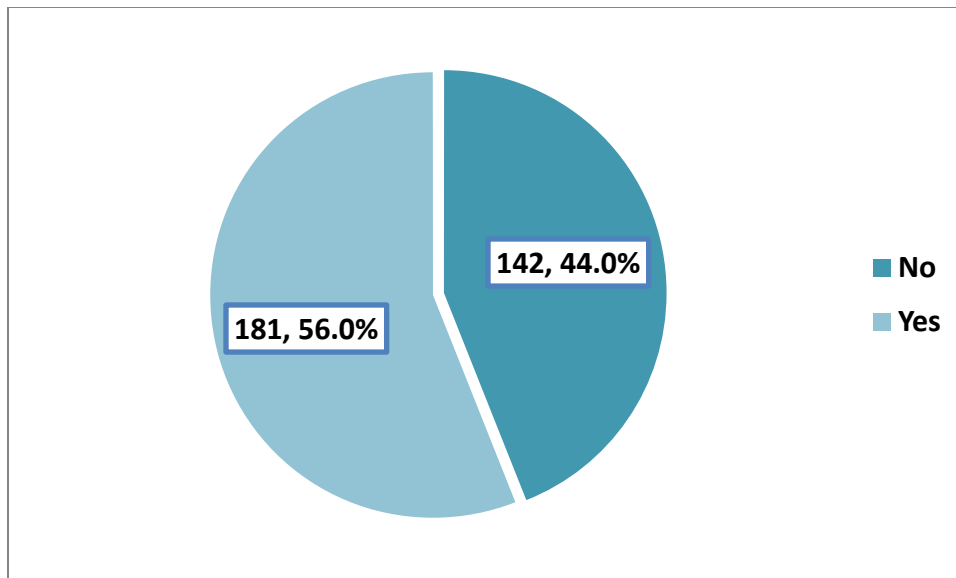


Figure 1: Prevalence of physical violence among male secondary school students, Taif

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Bullying-related behaviour

Table 3 demonstrates that history of bullying on school property during the past 12 months was mentioned by 6.8% of the students while history of electronically bullying by somebody during the past 12 months was reported by 13% of them. More than one quarter of the students (28.2%) had a history a history of threatening somebody through telephone or internet during the past 12 months.

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Table 3: Bullying-related behaviour among the participants

	Frequency N=323	Percentage
History of bullying on school property during the past 12 months		
Yes	22	6.8
No	301	93.2
History of electronically bullying by somebody during the past 12 months		
Yes	42	13.0
No	281	87.0
History of threatening somebody through telephone or internet during the past 12 months		
Yes	91	28.2
No	232	71.8

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Smoking

Table 4 shows that prevalence of ever smoking was mentioned by 31.9% of the students. Age when they smoked a whole cigarette for the first time was at or below 8 years among 6.8% of the students while it was at or above 17 years among 5.3% of them. Daily smoking in the past 30 days was mentioned by 12% of the students and daily smoking of more than 20 cigarettes per day in the last month was mentioned by 3.1% of the students. Sources of cigarettes were buying them in a store (14.2%), having them from a person ≥ 18 years old (4.3%). Fourteen students (4.3%) claimed that they smoked everyday at school during the last month. Prevalence of current smoking among the students was 19.5%. Almost two-thirds of current smokers (68.3%) tried to quit smoking. Chewing tobacco and smoking cigars all days during the past 30 days were mentioned by 5.3% of the students.

Table 4: Practice of smoking among the participants

	Frequency	Percent
Ever tried cigarette smoking, even one or two puff		
Yes	103	31.9
No	220	68.1
Age when you smoked a whole cigarette for the first time		
Never smoked a whole cigarette	220	66.6
≤8	22	6.8
9-12	23	7.1
13-14	19	5.9
15-16	22	6.8
≥17	17	5.3
During the past 30 days, on how many days you did smoke cigarettes?		
Never smoked during the past 30 days	248	76.8
1-2 days	16	5.0
3-29 days	20	6.2
30 days	39	12.0
During the past 30 days, on the days you smoked, how many cigarettes did you smoke?		
Never smoked in the past 30 days	248	76.8
<one cigarette/day	25	7.7
1-20 cigarettes/day	40	12.4
>20 cigarettes/day	10	3.1
During the past 30 days, how did you usually get own cigarettes?		
Never smoked in the past 30 days	248	76.8
I bought them in a store	46	14.2
A person ≥18 years old gave them to me	14	4.3
I got them some other ways	15	4.7
During the past 30 days, on how many days you did smoke cigarettes at school?		
Zero	288	89.2
1-2	12	3.7
3-29	9	2.8
30	14	4.3
Daily smoking, even one cigarette during the past 30 days		
Yes	63	19.5
No	260	80.5
Trials to quit smoking (for smokers n=63)		
Yes	43	68.3
No	20	31.7
During the past 30 days, how many days you chewed tobacco?		
Zero	286	88.5
1-29	20	6.2

All days	17	5.3
During the past 30 days, how many days you smoked cigar?		
Zero	273	84.5
1-29	33	10.2
All day	17	5.3

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Drinking alcohol

Ever drinking alcohol was reported by 8.4% of the students. Twelve students (3.8%) started drinking alcohol at age of 14 years or less. During the past 30 days, the number of alcohol beverages, the students have drunk exceeded 2 in 3.7% of them. They got them mainly from somebody (3.4%) or purchased from a market (2.5%). Table 5

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Table 5: Practice of alcohol drinking among the participants

	Frequency N=323	Percent
During life, how many days you drink alcohol		
Never	296	91.6
1-2	15	4.6
>2	12	3.8
Age at first drinking alcohol		
Never	296	95.4
≤14 years	12	3.8
>14	15	4.6
During the past 30 days, what is the number of alcohol beverages you have drunk?		
Never	302	93.5
1-2	9	2.8
>2	12	3.7
During the past 30 days, how you got alcohol beverages?		
Not drink alcohol	302	93.5
Purchased from a market	8	2.5
From somebody	11	3.4
Others	2	0.6

Addictive substances use

Using illicit plants as Marijuana was reported by 15 students (4.6%). Age at starting using these plants was 10 years or less among 1% of the students. Using cocaine was mentioned by 11 students (3.4%). Number of times using illicit substances as inhalants exceeded 9 among 8.7% of the students. Heroin was used by 7 students (2.2%). Derivatives of illicit substances were used more than once by 9 students (2.8%). Life-time use hallucination drugs were mentioned by 7 students (2.2%). Taking analgesics without physician's prescription was reported 40 times or more during life by 33 students (10.2%). Using illicit substances by injection was reported by 8 students (2.5%). During the last year, 36 students (11.1%) reported that somebody gave them drugs to sale or transport. Using of illicit drugs at school was reported by 24 students (7.4%).

Table 6: Practice of addictive substances use among the participants

	Frequency N=323	Percent
During life, history of using illicit plants as Marijuana		
Never	308	95.4
Yes	15	4.6
Age at first using illicit plants		
Never	308	95.4
≤10 years	3	1.0
11-16	6	1.8
>16	6	1.8
History of using any form of cocaine		
Never	312	96.6
Yes	11	3.4
During life, number of times using illicit substances as inhalants:		
Never	255	78.9
1-2 times	27	8.4
3-9 times	13	4.0
>9 times	28	8.7
During life, did you use heroin?		
Never	316	97.8
Yes	7	2.2
During life, how many times you used other derivatives of illicit substances?		
Never	304	94.1
Once	10	3.1
>once	9	2.8
During life, did you use hallucination drugs?		
Never	316	97.8
Yes	7	2.2
During life, how many times you take analgesics without physician`s prescription?		
Never	170	52.6
1-2 times	48	14.9
3-9 times	29	9.0
10-19 times	27	8.4
20-39 times	16	5.0

≥40 times	33	10.2
During life, did you use illicit substances by injection?		
Never	315	97.5
Yes	8	2.5
During the last 12 months, have anybody give you drugs to sale or transport?		
Yes	36	11.1
No	287	88.9
During the past 12 months, did you use illicit drugs at school?		
Yes	24	7.4
No	299	92.6

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Factors associated with physical violence behaviour

-Type of school

It is shown in figure 2 that physical violence behaviour was slightly more reported among students of governmental than private schools (57.7% versus 51.2%). However, this difference was not statistically significant.

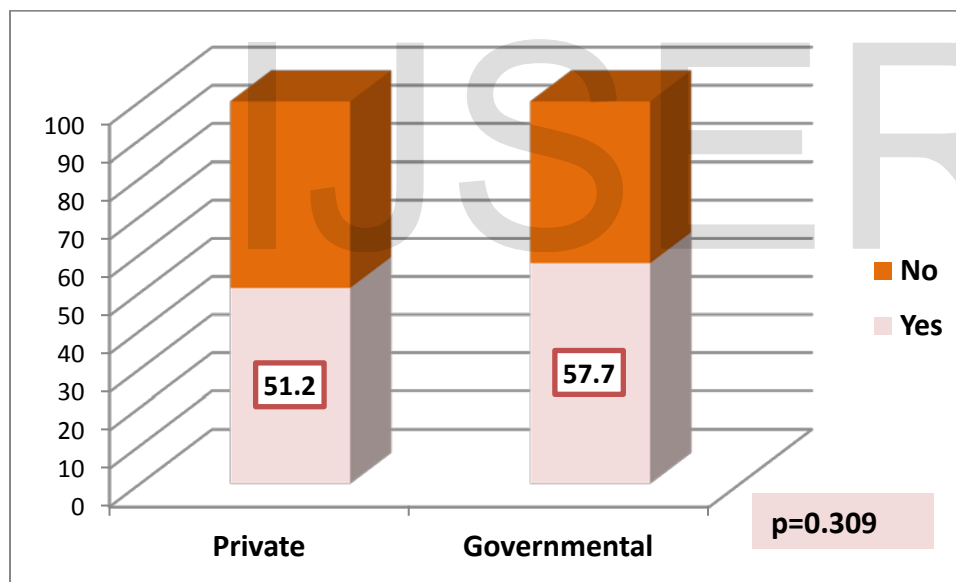


Figure 2: Comparison of physical violence behaviour of male secondary school students according to type of school.

-Background characteristics

None of the studied background characteristics of the students (age, educational grade, parental job and education) was significantly associated with physical violence behaviour as clear from table 7.

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Table 7: Association between physical violence behaviour of the students and their background characteristics

	<u>Physical violence</u>		<u>p-value</u>
	<u>No</u> N=142 N (%)	<u>Yes</u> N=181 N (%)	
Age in years			
≤16 (n=88)	36 (40.9)	52 (59.1)	0.752
17 (n=128)	59 (46.1)	69 (53.9)	
≥18 (n=107)	47 (43.9)	60 (56.1)	
Educational grade			
First (n=101)	38 (37.6)	63 (62.4)	0.256
Second (n=115)	56 (48.7)	59 (51.3)	
Third (n=107)	48 (44.9)	59 (55.1)	
Paternal job			
Governmental employee (n=61)	29 (47.5)	32 (52.5)	0.566
Civil worker (n=71)	32 (45.1)	39 (54.9)	
Military employee (n=63)	29 (46.0)	34 (54.0)	
Business/trading (n=34)	12 (35.3)	22 (64.7)	
Retired (n=72)	28 (38.9)	44 (61.1)	
Not working (n=10)	4 (40.0)	6 (60.0)	
Others (n=12)	8 (66.7)	4 (33.3)	
Maternal job			
Working (n=110)	55 (50.0)	55 (50.0)	0.116
Not working (n=213)	87 (40.8)	126 (59.2)	

Paternal education			
Illiterate (n=10)	4 (40.0)	6 (60.0)	0.737
Primary school (n=20)	8 (40.0)	12 (60.0)	
Intermediate school (n=43)	19 (44.2)	24 (55.8)	
Secondary school (n=93)	45 (48.4)	48 (51.6)	
University (n=98)	45 (45.9)	53 (54.1)	
Postgraduate (n=59)	21 (35.6)	38 (64.4)	
Maternal education			
Illiterate (n=32)	13 (40.6)	19 (59.4)	0.133
Primary school (n=32)	10 (31.3)	22 (68.8)	
Intermediate school (n=35)	17 (48.6)	18 (51.4)	
Secondary school (n=54)	19 (35.2)	35 (64.8)	
University (n=137)	71 (51.8)	66 (48.2)	
Postgraduate (n=33)	12 (36.4)	21 (63.6)	

-Bullying behaviour

Students with histories of electronically bullying by somebody during the past 12 months and of threatening somebody through telephone or internet during the past 12 months were more likely to have physical violence behaviour than those without such histories(p-values were 0.005 and <0.001, respectively). Table 8

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Table 8: Association between physical violence behaviour of the students and their bullying behaviour

	<u>Physical violence</u>		<u>p-value</u>
	<u>No</u> N=142 N (%)	<u>Yes</u> N=181 N (%)	
History of bullying on school property during the past 12 months Yes (n=22) No (n=301)	7 (31.8) 135 (44.9)	15 (68.2) 166 (55.1)	0.234
History of electronically bullying by somebody during the past 12 months Yes (n=42) No (n=281)	10 (23.8) 132 (47.0)	32 (76.2) 149 (53.0)	0.005
History of threatening somebody through telephone or internet during the past 12 months Yes (n=91) No (n=232)	15 (16.5) 127 (54.7)	76 (83.5) 105 (45.3)	<0.001

-Smoking

Most of the students(73.8%) who tried cigarette smoking compared to 47.7% of those who never tried cigarette smoking expressed physical violence behaviour, $p<0.001$. There was a statistically significant association between the age when smoking a whole cigarette and physical violence behaviour as majority (86.4%) of students who tried smoking at age of 8 or less compared to 46.8% of those who never tried smoking a whole cigarette had physical violence behaviour, $p<0.001$. Majority of the students (84.6%) who smoked cigarettes everyday compared to 68.8% of those who smoked one-two days in the last month and 49.2% of those who never smoked expressed physical violence behaviour, $p<0.001$. As students who smoked more than 20 cigarettes/day in the last month compared to 76% of those who smoked less than one cigarette/day and 49.2% of those who never smoked expressed physical violence behaviour, $p<0.001$. The source of getting cigarettes was significantly associated with physical violence behaviour, $p<0.001$. All students who smoked at school every day compared to 75% of those who smoked only 1-2 days at school in the last months and 52.4% of those who never smoked at school had physical violence behaviour, $p=0.001$. Current smokers were more likely to express physical violence behaviour compared to non-current smokers (73% versus 51.9%), $p=0.002$. Chewing tobacco

and smoking cigar were significantly associated with physical violence behaviour,
 $p < 0.001$.

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Table 9: Association between physical violence behaviour of the students and their smoking history

	Physical violence		p-value*
	No N=142 N (%)	Yes N=181 N (%)	
Ever tried cigarette smoking, even one or two puff Yes (n=103) No (n=220)	27 (26.2) 115 (52.3)	76 (73.8) 105 (47.7)	<0.001
Age when you smoked a whole cigarette for the first time Never smoked a whole cigarette (n=220) ≤8 (n=22) 9-12 (n=23) 13-14 (n=19) 15-16 (n=22) ≥17 (n=17)	117 (53.2) 3 (13.6) 5 (21.7) 6 (31.6) 8 (36.4) 3 (17.6)	103 (46.8) 19 (86.4) 18 (78.3) 13 (68.4) 14 (63.6) 14 (82.4)	<0.001
During the past 30 days, on how many days you did smoke cigarettes? Never smoked during the past 30 days (n=248) 1-2 days (n=16) 3-29 days (n=20) 30 days (n=39)	126 (50.8) 5 (31.3) 5 (25.0) 6 (15.4)	122 (49.2) 11 (68.8) 15 (75.0) 33 (84.6)	<0.001
During the past 30 days, on the days you smoked, how many cigarettes did you smoke? Never smoked in the past 30 days (n=248) <one cigarette/day (n=25) 1-20 cigarettes/day (n=40) >20 cigarettes/day (n=10)	126 (50.8) 6 (24.0) 10 (25.0) 0 (0.0)	122 (49.2) 19 (76.0) 30 (75.0) 10 (100)	<0.001
During the past 30 days, how did you usually get own cigarettes? Never smoked in the past 30 days (n=248) I bought them in a store (n=46) A person ≥18 years old gave them to me (n=14) I got them some other ways (n=15)	126 (50.8) 10 (21.7) 3 (21.4) 3 (20.0)	122 (49.2) 36 (78.3) 11 (78.6) 12 (80.0)	<0.001
During the past 30 days, on how many days you did smoke cigarettes at school? Zero (n=288) 1-2 (n=12) 3- 29 (n=9) 30 (n=14)	137 (47.6) 3 (25.0) 2 (22.2) 0 (0.0)	151 (52.4) 9 (75.0) 7 (77.8) 14 (100)	0.001

Daily smoking, even one cigarette during the past 30 days Yes (n=63) No (n=260)	17 (27.0) 125 (48.1)	46 (73.0) 135 (51.9)	0.002
Trials to quit smoking (for smokers n=63) Yes (n=43) No (n=20)	13 (30.2) 4 (20.0)	30 (69.8) 16 (80.0)	0.297**
During the past 30 days, how many days you chewed tobacco? Zero (n=286) 1-29 (n=20) All days (n=17)	138 (48.3) 0 (0.0) 4 (23.5)	148 (51.7) 20 (100) 13 (76.5)	<0.001
During the past 30 days, how many days you smoked cigar? Zero (n=273) 1-29 (n=33) All day (n=17)	134 (49.1) 6 (18.2) 2 (11.8)	139 (50.9) 27 (81.8) 15 (88.2)	<0.001

* Chi-square test

**Fischer Exact test

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-Drinking alcohol

Students with history of drinking alcohol more than twice in their life were more likely to report physical violence compared to those with no history of drinking alcohol (91.7 versus 54.1%). This difference was statistically significant, $p=0.025$. Students who started drinking alcohol at age of 14 years or less were more likely to express physical violence than those who never drink alcohol (83.3 versus 54.1%), $p=0.021$. Students who drunk more than twice of alcohol beverages in the last moth had higher significant rate of physical violence compared to those who never drink in the last month (83.3 versus 54.3%), $p=0.043$. Majority of students who got alcohol somebody (90.9%) compared to 54.3% of those who did not drink alcohol in the last month reported physical violence, $p=0.025$. Table 10

Table 10: Association between physical violence behaviour of the students and their history of drinking alcohol

	Physical violence		p-value*
	No N=142 N (%)	Yes N=181 N (%)	
During life, how many days you drink alcohol			
Never (n=296)	136 (45.9)	160 (54.1)	0.025
1-2 (n=15)	5 (33.3)	10 (66.7)	
>2 (n=12)	1 (8.3)	11 (91.7)	
Age at first drinking alcohol			
Never (n=296)	136 (45.9)	160 (54.1)	0.021
≤14 years (n=12)	2 (16.7)	10 (83.3)	
>14 (n=15)	4 (26.7)	11 (73.3)	
During the past 30 days, what is the number of alcohol beverages you have drunk?			
Never (n=302)	138 (45.7)	164 (54.3)	0.043
1-2 (n=9)	2 (22.2)	7 (77.8)	
>2 (n=12)	2 (16.7)	10 (83.3)	
During the past 30 days, how you got alcohol beverages?			
Not drink alcohol (n=302)	138 (45.7)	164 (54.3)	0.025
Purchased from a market (n=8)	3 (37.5)	5 (62.5)	
From somebody (n=11)	1 (9.1)	10 (90.9)	
Others (n=2)	0 (0.0)	2 (100)	

* Chi-square test

**Fischer Exact test

-Substance abuse

Table 11 shows that 80% of student boys who had a history of using illicit plants as Marijuana compared to 54.9% of those who hadn't such history were involved in physical violence behaviour, $p=0.046$. Most of students (78.6%) who used illicit substances as inhalants for more than 9 times throughout life compared to 51.4% of those who never used these substances were involved in physical violence behaviour, $p=0.011$. Majority of students who used other derivatives of illicit substances (90%) compared to 54.3% of those never used other derivatives were involved in physical violence behaviour, $p=0.034$. Most of the students (78.8%) who took analgesics without physicians' description 40 times or more in life compared to 45.3% of those who never used analgesics without prescription were involved in physical violence behaviour, $p=0.001$. Most of students (77.3%) who reported a history of given drugs by somebody to sale or transport compared to 53.3% of those without such history were involved in physical violence behaviour, $p=0.005$. Most of students (79.2%) who used illicit drugs at school during the last year compared to 54.2% who never used these substances at school were involved in physical violence behaviour, $p=0.018$.

Table 11: Association between physical violence behaviour of the students and their history of substance abuse

	Physical violence		p-value*
	No N=142 N (%)	Yes N=181 N (%)	
During life, history of using illicit plants as Marijuana Never (n=308) Yes (n=15)	139 (45.1) 3 (20.0)	169 (54.9) 12 (80.0)	0.046
Age at first using illicit plants Never (n=308) ≤10 years (n=3) 11-16 (n=6) >16 (n=6)	139(45.1) 1 (33.3) 1 (16.7) 1 (16.7)	169 (54.9) 2 (66.7) 5 (83.3) 5 (83.3)	0.268
History of using any form of cocaine Never (n=312) Yes (n=11)	140 (44.9) 2 (18.2)	172 (55.1) 9 (81.8)	0.071
During life, number of times using illicit substances as inhalants: Never (n=255) 1-2 times (n=27) 3-9 times (n=13) >9 times (n=28)	124 (48.6) 8 (29.6) 4 (30.8) 6 (21.4)	131 (51.4) 19 (70.4) 9 (69.2) 22 (78.6)	0.011
During life, did you use heroin? Never (n=316) Yes (n=7)	140 (44.3) 2 (28.6)	176 (55.7) 5 (71.4)	0.335
During life, how many times you used other derivatives of illicit substances? Never (n=304) Once (n=10) >once (n=9)	139 (45.7) 1 (10.0) 2 (22.2)	165 (54.3) 9 (90.0) 7 (77.8)	0.034
During life, did you use hallucination drugs? Never (n=316) Yes (n=7)	140 (44.3) 2 (28.6)	176 (55.7) 5 (71.4)	0.335
During life, how many times you take analgesics without physician`s prescription? Never (n=170) 1-2 times (n=48) 3-9 times (n=29) 10-19 times (n=27) 20-39 times (n=16) ≥40 times (n=33)	93 (54.7) 18 (37.5) 12 (41.4) 7 (25.9) 5 (31.3) 7 (21.2)	77 (45.3) 30 (62.5) 17 (58.6) 20 (74.1) 11 (68.8) 26 (78.8)	0.001

During life, did you use illicit substances by injection?			
Never (n=315)	140 (44.4)	175 (55.6)	
Yes (n=8)	2 (25.0)	6 (75.0)	0.235
During the last 12 months, have anybody give you drugs to sale or transport?			
Yes	8 (22.2)	28 (77.8)	
No	134 (46.7)	153 (53.3)	0.005
During the past 12 months, did you use illicit drugs at school?			
Yes (n=24)	5 (20.8)	19 (79.2)	
No (n=299)	137 (45.8)	162 (54.2)	0.018

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Predictors of physical violence

From table 12, it is concluded that students with history of threatening somebody through telephone or internet during the past 12 months were at almost five-folds risk to have physical violence behaviours compared with those without such history (adjusted odds ratio “AOR”=5.10, 95% CI=2.64-9.85, $p<0.001$). Students who started smoking at 8 years or less or those who started it at age of 17years or more were at higher risk to be involved in physical violence behaviour opposed to those who never smoke (AOR was 6.08, 95%CI=1.27-29.05, $p=0.024$ and AOR was 4.66, 95%CI=1.24-17.62, $p=0.023$), respectively. Students who chewed tobacco between one and 29 days in the last month were more likely to have physical violence behaviour than those who didn't (AOR=4.11, 95% CI=1.17-23.46, $p=0.004$). Students who drunk once or twice alcohol in the last month were at almost four folds risk to be involved in physical violence behaviours than those who never drink alcohol (AOR=4.21, 95% CI=1.07-19.53, $p=0.047$). Students who got alcohol beverages from somebody were more likely to have physical violence behaviour compared to those who never drink alcohol (AOR=3.06, 95% CI=1.02-18.11, $p=0.013$).

Table 12: Multivariate logistic regression analysis for factors associated with physical violence among secondary school boys in Taif city.

	Adjusted OR	95% CI	p-value
History of threatening somebody through telephone or internet during the past 12 months			
No (n=232) ^a	1.0	--	--
Yes (n=91)	5.10	2.64-9.85	<0.001
Age when you smoked a whole cigarette for the first time			
Never smoked a whole cigarette (n=220)	1.0	--	--
≤8 (n=22)	6.08	1.27-29.05	0.024
9-12 (n=23)	2.18	0.66-7.18	0.198
13-14 (n=19)	1.37	0.43-4.31	0.592
15-16 (n=22)	1.17	0.40-3.40	0.776
≥17 (n=17)	4.66	1.24-17.62	0.023
During the past 30 days, how many days you chewed tobacco?			
Zero (n=286)			
1-29 (n=20)	4.11	1.17-23.46	0.004
All days (n=17)	1.13	0.23-5.46	0.882
During the past 30 days, what is the number of alcohol beverages you have drunk?			
Never (n=302)	1.0	--	--
1-2 (n=9)	4.21	1.07-19.53	0.047
>2 (n=12)	2.95	0.60-14.41	0.163
During the past 30 days, how you got alcohol beverages?			
Not drink alcohol (n=302)	1.0	--	--
Purchased from a market (n=8)	1.16	0.21-22.01	0.811
From somebody (n=11)	3.06	1.02-18.11	0.013
Others (n=2)	NA	NA	NA

^a: Reference category

OR: odds ratio

CI: Confidence interval

NA: Not applicable

DISCUSSION

DISCUSSION

School violence is of public health importance as it represents a major threat to global development. It has social, economic, political and health implication on all communities, including ours.⁽²¹⁾

Since there is no data, up to the researcher`s knowledge on adolescent physical violence in Taif secondary schools` boys, this study was carried out to identify the magnitude of the problem and find out its associated factors which could be of importance in creating and implementing appropriate interventions to prevent and lessen the burden of the problem as it has been documented that establishing positive health behaviors during adolescence has great potential for reducing health problems in later life.⁽²²⁾

More than half of the students (56%) in the current study were involved in physical violence. This figure is higher than those reported in other similar studies. In Nigeria, Afolabi and Deij reported a prevalence of 43.5.⁽²³⁾ In another Nigerian study, Omoteso (2010) reported a prevalence of 54.9% of the physical violence in the male population studied.⁽²⁴⁾ However, these two studies included both genders while the present study was carried out among male students only. In China (2010), the prevalence of physical violence behavior in the past 12 months was

25.2% among male students.⁽¹⁷⁾ In Nigeria (2011), the lifetime experience of physical violence among secondary school students was 94.4%. The most common type of physical violent behaviors experienced was slaps (84.5%).⁽¹⁶⁾ In Ghana (2015), about 40% of high school students reported exposure to physical attacks in the year preceding the survey.⁽¹²⁾

In this study, 45.5% of the male students had involved in quarreling, 32.2% carried weapon, 11.5% needed hospital care as a result of fight and 8% were involved in physical fight on school property. These figures are higher than those reported from a similar study carried out in Malaysia where 27.9% of students had been involved in a physical fight, 6.6% needed medical care as a result of fight and 5.9% had carried a weapon.⁽⁵⁾ Also, high prevalence of physical violence have been reported from other studies. In a cross-sectional study carried out in five countries (Ireland, Israel, Portugal, Sweden, and the United States), an average rate of 39.8% of physical violence has been reported.⁽²⁵⁾ In China (2010), the prevalence of physical violence behavior in the past 12 months among male students was 25.2%.⁽¹⁷⁾

In the current study, although the rate of physical violence among secondary school boys was slightly higher among those enrolled in governmental schools

compared to private schools, the difference did not reach a significance level. In another study carried out by Afolabi and Deij in Nigeria (2014), physical violence among the secondary school students was higher in public than in private schools.⁽²³⁾ We suggest that in low-income countries, the difference between governmental and private schools is evident while in high income countries, like Saudi Arabia, this difference is not apparent.

In this study, none of the studied socio-demographic factors (age, educational grade, parental job and education) were significantly associated with physical violence behaviour. Different results have been reported in various studies. Lee et al in a study carried out in Malaysia, observed a significant decline in the prevalence of physical violence-related behaviours after the age of 17 and also that students with single-parent status were associated with higher rate of physical fighting.⁽⁵⁾ Also, in the same study, parental working, particularly mothers was significantly associated with higher rate of physical violence among students due to lack of parental control, which emphasizes the importance of parental monitoring. In China (2010), father's lower education level, remarried/single-parent families, low-grade, poor school performance were the risk factors of physical violence behaviors; while better-off family economic status, good peer relationships, and easy to communicate with the father were the protective factors

of physical violence behaviors.⁽¹⁷⁾ In Nigeria (2011), the predictors of physical violence among male secondary school students included witnessing domestic violence, and involving in work.⁽¹⁶⁾

In the present study, other behavioral risk factors were more important in the occurrence of physical violence, rather than demographic background of the students. It is known the most common causes of morbidity among adolescents are behavioral, and most risky behavior patterns start in adolescence.⁽²⁶⁾

In univariate analysis in the present study, school boys who smoked, drank alcohol, used illicit substances or threaten somebody through telephone or internet during the past 12 months showed more frequent physical violence-related behaviours. The same has been reported by others in Malaysia⁽⁵⁾ and Nigeria.⁽²³⁾ However, in multivariate analysis, only some aspects of smoking and drinking alcohol were significantly related to physical violence behaviour such as younger age of starting smoking, chewing tobacco most of the days, more frequent drinking alcohol and getting alcohol from somebody. In Scotland, Keganey and Norrie found that substance abuse was associated with increased violent behaviour in young people.⁽²⁷⁾ Also in Colombia, Brook et al reported that physical violence behaviour was associated with illicit drug use.⁽²⁸⁾ In Nigeria (2011), students` and

parental use of alcohol were significantly associated with physical violence among male secondary school students.⁽¹⁶⁾ In Ghana (2015), the significant risk factors for physical violence were attempting suicide in the last year, alcohol use in the past month, and bullying other students in the past month whereas the protective factors were parent respect for privacy.⁽¹²⁾ In Kenya (2014), use of drugs was associated with physical violence in secondary schools.⁽¹³⁾ In South West Nigeria (2016), students having a history of a recent injury, and those having been bullied were significantly associated with a history of physical violence.⁽¹¹⁾

The study has few but important limitations. The tool used (GSHS) is school based, therefore, the results obtained cannot be generalized for all adolescents. Also, regarding the utilized tool, the time frames used differ for the questions with health behaviours or outcomes either referring to either 30 days preceding the survey, 12 months preceding the survey or during the respondent's lifetime. Due to the cross sectional design applied, the identification of cause and effect are impossible. The data is self-reported; that lead to often underestimation of the problems particularly those related to risky behaviors. Moreover, students in adverse health behaviours may not have been accurately reported because of the desire to provide a socially acceptable response. However, despite those limitations, the

study highlighted the magnitude of physical violence and its determinants among male secondary school students in Taif

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CONCLUSION

CONCLUSION

Physical violence is a very common behaviour among male secondary school in Taif affecting more than half of the students without significant difference between governmental and private schools. Other behavioral risk factors such as bullying, smoking, drinking alcohol and substance abuse were more important in the occurrence of physical violence, rather than demographic background of the students.

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RECOMMENDATIONS

RECOMMENDATIONS

Based on the study findings, the following recommendations are proposed:

1. Since physical violence is an important risk behavior practiced in the study sample, counseling programs are needed to deal with this problem, with the aim of re-directing the revolutionary aggression and power use of adolescents towards less risky and more beneficial activities. These might include more emphasis on sporting activities and physical education and. Also, strict restrictions on availability of arms are needed.
2. The role of parents, as well as media, in increasing adolescent`s awareness about the values and sound religious principles would also help dealing with some problems associated with violence such as smoking, drinking alcohol, threatening others, and bullying on school property.
3. Psychiatric assistance is required not only for victims of violence but also for perpetrators of violence.
4. Close monitoring of students at schools is recommended to conform to rules and regulations that are likely to minimize the prevalence rate of violence and crimes.
5. Further research is recommended for in-depth investigation of the role of household media in physical violence behaviors.

6. Adherence of Islamic rules and the educational system that emphasizes religious teaching. Religion is an important factor that should be taken in consideration in any health education program.

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REFERENCES

REFERENCES

- 1- Tubman JG, Windle M, and Windle RC. Cumulative sexual intercourse patterns among Middle adolescents: Problem Behavior Precursors and Concurrent Health Risk Behaviors. *Journal of Adolescent Health* 1996; 18: 182-191.
- 2- Loeber R, Hay D. Key issues in the development of aggression and violence from childhood to early adulthood. *Annu Rev Psychol* 1997;48:371-410.
- 3- World Health Organization. Violence: a public health priority. WHO global consultation on violence and health. Geneva: World Health Organization, 1996. WHO Document WHO/EHA/SPI.POA.2.
- 4- Hawkins JD, Herrenkohl TI, Farrington DP, Brewer D, Catalano RF, Harachi TW, et al. Predictors of youth violence. *Juvenile Justice Bulletin* 2000. Available at: http://www.ncjrs.org/html/ojjdp/jjbul2000_04_5/contents.html. Accessed 5 January 2006.
- 5- Lee LK, Chen PCY, Lee KK, Kaur J. Violence-related behaviours among Malaysian adolescents: A Cross sectional survey among secondary school students in Negeri Sembilan. *Ann Acad Med Singapore* 2007;36:169-74
- 6- Singer MI, Miller DB, Guo S, Flannery DJ, Frierson T, Slovak K. Contributors to violent behavior among elementary and middle school children. *Pediatrics* 1999;104:878-84.

7- Borowsky IW, Ireland M. Predictors of future fight-related injury among adolescents. *Pediatrics* 2004;113(3 Pt 1):530-6.

8- Sugut WK, Mugasia FA. School factors associated with student violence in secondary schools in Nandi South District, Kenya. *International Journal of Humanities and Social Science* 2014;4(1): 123-132

9- Kim DH, Kim KI, Park YC, Zhang LD, Lu MK, Li D. Children's experience of violence in China and Korea: A transcultural study. *Child Abuse Negl* 2000; 24:1163-1173.

10- Aras S, Özan S, Timbil S, Şemin S, Kazapci O. Exposure of students to emotional and physical violence in the school environment. *Arch Neuropsychiatry* 2016; 53: 303-310

11- Owoaje ET, Ndubusi NM. Peer youth physical violence among secondary schools students in south west Nigeria. *Injury Prevention* 2010;A170 16 (Suppl 1):A1–A289

12- Ohene S-A, Johnson K, Atunah-Jay S, Andrew Owusu A, Borowsky IW. Sexual and physical violence victimization among senior high school students in Ghana: Risk and protective factors. *Social Science & Medicine* 2015 Dec;146:266-275

13- Sugut WK, Mugasia FA. School factors associated with student violence in secondary schools in Nandi South District, Kenya. International Journal of Humanities and Social Science 2014;4(1): 123-132

14- Kaya F, Bilgin H, Singer MI. Contributing factors to aggressive behaviors in high school students in Turkey. J Sch Nurs. 2012 Feb;28(1):56-69.

15- Poipoi MW. Perceived forms of violent behavior among secondary school students in Western Province, Kenya. International Journal of Current Research 2011 March; 33(3):107-114

16- Ajuwon AJ, Fawole FO, Osungbade KO. Experience and perpetration of violent behaviours among secondary school students in Ibadan, Nigeria. Sierra Leone J Biomed Res 2011;3(1):27-35

17- Qiao YJ, Xing Y, Duan JL, Bai CX, Pan YP, Cui YQ, et al. Prevalence and associated factors of school physical violence behaviors among middle school students in Beijing. Zhonghua Liu Xing Bing Xue Za Zhi. 2010 May;31(5):510-2.

18- AlNabulssy B, Al-Sawaf A, AlBar A, Yousef M, Aqeil A, Alawami H, et al. Health risk behaviours among youth in Kuwait, Oman, Saudi Arabia and Sudan. Oral Presentation Topic: Community and Public Health, 6th GCC Medical Students Conference Faculty of Medicine and Health Sciences, United Arab Emirates University 18-21 January, 2009

19- WIKIPEDIA. Kingdom of Saudi Arabia. Taif Available at:
<http://en.wikipedia.org/wiki/Ta'if>.

20- Global School- Based Student Health Survey (GSHS). 2005. Available from
http://www.who.int/chp/gshs/2005_UAE_Questionnaire_arabic.pdf?ua=1

21- Hawker DS, Boulton MJ. Twenty years' research on peer victimization and psychosocial maladjustment: a meta-analytic review of cross-sectional studies. *J Child Psychol Psychiatry*. 2000 May;41(4):441-55.

22- O'Donoghue T, Rabin M. Risky Behavior Among Youths: Some Issues from Behavioral Economics. *Economics Working Papers E00-285*, University of California at Berkeley, 2000.

23- Afolabi OT, Deij SA. A comparative study on prevalence of violence among adolescents in public and private schools in Osun State Nigeris. *Advance Tropical Medicine and Public Health International* 2014; 4(2):32-40

24- Omoteso BA. Bullying behaviour, its associated factors and psychological effects among secondary students in Nigeria. *The Journal of International Social Research*. 2010; 3(10): 498-509.

25- Smith-Khuri E, Iachan R, Scheidt PC, Overpeck MD, Gabhainn SN, Pickett W, et al. A cross-national study of violence-related behaviors in adolescents. *Arch Pediatr Adolesc Med* 2004;158:539-44.

26- Wayne CS, Blum RW. Morbidity and mortality among US adolescents: An overview of data and trends. *Am J Public Health* 1996; 86:513–9

27- Mc Keganey N, Norrie J. Association between illegal drugs and weapon carrying in young people in Scotland: schools' survey. *BMJ* 2000;320:982-4.

28- Brook DW, Brook JS, Rosen Z, De la Rosa M, Montoya ID, Whiteman

M. Early risk factors for violence in Colombian adolescents. *Am J Psychiatry* 2003;160:1470-8.

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APPENDICES

Appendix 1

THE QUESTIONNAIRE

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