

Health Risk Behaviors among Students of Private Universities in Egypt

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Abstract

Introduction:	Health beliefs and behaviors often reflect the values and norms of a particular culture and can have ramifications for health education and care in that culture. Health risk behaviors could be one of: lack of seat belt use, driving after drinking alcohol, carrying a weapon, engaging in physical fights and seriously considering attempting suicide, in addition to smoking and other drug use behaviors, eating related behaviors and physical activity behaviors.
Aim of the Study:	To study health risk behaviors in a population of private university students whose age ranged from 16-26 years.
Subjects and Methods:	Subjects were students attending colleges at MUST University answering an anonymous self administered questionnaire translated into Arabic language from the questionnaire used in NCHRBS. The surveyed students were 67.3% males and 32.7% were females.
Results:	The prevalence of violence (physical fight behavior) was 4.9%, smoking prevalence was (16.3%), while driving after drinking alcohol was significantly related to gender being higher among males, to students belonging to practical type of study and students living away from their families.
Conclusions:	It is recommended that nation-wide intervention could be directed to this group of young people.

Key words: High risk behavior, private University students.

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INTRODUCTION

Health beliefs and behaviors often reflect the values and norms of a particular culture and can have ramifications for health education and care in that culture. Understanding patterns and trends of health risk behaviors among youth is of major importance for the assessment of the burden of these behaviors in the society and efforts to decrease it.

In Egypt, the number of private universities reached 9 by the year 2004. These universities are attended by about 25.000 students. Private universities have rapidly acquired an important place in the society. Most students in private universities have been graduates of private secondary schools. Those students are ensured better job prospects and are endowed with economic and cultural capital¹.

College students engage in behaviors that threaten both their current and future health. They also establish health related behavior patterns that can continue through adulthood. In 2003, a Youth Risk Behavior Survey (YRBS) developed by the Centre for Disease Control and Prevention (CDC) was conducted to monitor health risk behaviors that contribute to the major causes of mortality, disease, injury and other health problems in United States: Injury related behaviors, smoking and substance use, eating behaviors and physical activity behaviors².

About 70% of tobacco related deaths occur in developing countries³. The first smoking experience usually occurred at the age of 18 years old. It is also the age at which smoking becomes regular⁴.

Results of study carried on to determine the relationship between tobacco smoke and other risky behaviors showed that 76% of persons who abused drugs were smokers⁴.

Approximately 300.000 deaths a year in US are currently associated with overweight and obesity. If left unabated, overweight and obesity may soon cause as much preventable disease and death as cigarette smoking⁵.

Data on prevalence of health risk behaviors among private university students in Egypt are lacking. It is necessary to collect baseline information about the magnitude of the problem among the mentioned students and accordingly, intervention programs can be adjusted and targeted to those students to raise their awareness towards the risky behaviors.

AIM OF THE STUDY

1. To determine the prevalence of health risk behaviors namely: Alcohol use, lack of physical activity, nutritional

habits and behaviors that may increase the risk of injury among university students.

2. To investigate the underlying factors related to health risk behaviors among university students.

SUBJECTS AND METHODS

The present study is a cross sectional study, carried out on university students at Misr University for Science and Technology (MUST). Sample size: Calculated according to the least prevalence of the health risk behaviors by Epi Info⁶ at confidence level 95%. A total of 1200 students were enrolled in the study to cover the non responders.

- Different university colleges were listed and classified into 2 categories: Literal and Practical colleges.
- Faculty of Medicine (940 students) was chosen to represent the practical colleges and the Faculty of Information (260 students) to represent the literal ones.

An anonymous self administered questionnaire:

- * The study questionnaire was prepared from a list of validated questions from the Youth Health Risk Behavior Surveillance Survey YHRBSS developed by CDC⁶ and translated into Arabic language.
- * The study questionnaire was filled by students after assuring them that participation is anonymous and confidential and after obtaining a verbal consent.
- * The study questionnaire was designed to collect data covering the following topics:
 - **Personal and demographic data of students:** Gender, age, nationality, college, grade and place of living.
 - **Behaviors that increase the risk of injury:** Lacking use of seat belt, driving after drinking alcohol, carrying weapon and considering attempting suicide.
 - **Dietary behaviors:** Overweight, lacking fruits and vegetables in diet and practicing fasting for 24h to keep weight.
 - **Smoking, alcohol and other drug use.**
 - **Physical activity:** Lacking regular physical activity.

Data analysis:

- The collected data were cleaned, coded and entered in the computer using the Statistical Package for Social Science (SPSS) for windows.
- Qualitative data were represented using the frequency and its related percentage.
- Comparison between groups was done using the Chi-square test or Fisher exact when appropriate.
- A P value of 0.05 was chosen as the level of significance.

RESULTS

Table 1 shows 66% of the surveyed students were males, 50% of the students were from Arab countries and the majority of them belonged to practical type of academic studies.

Table 1: Characteristics of student population.

Characteristic		Frequency	Percent
Gender	Male	807	67.3
	Female	392	32.7
Nationality	Egyptian	620	53.2
	Arab nationality	546	46.8
College	Practical	938	78.3
	Literal	260	21.7
Place of living	With family	569	47.9
	With friends or others	619	52.1
Age	Below 20 years	731	60.5
	20 years and more	468	38.7
Grade	Juniors (first 2 years)	493	40.8
	Seniors (late years)	704	58.3

Table 2 shows that the majority of the study population was at risk in terms of driving while not wearing seat belt. Very few of the students adopted behaviors like driving after drinking alcohol, carrying a weapon on the college, being engaged in a physical fight and or seriously considered attempting suicide.

Table 2: Prevalence of unsafe behaviors among private university students.

Unsafe behavior	Frequency	Percent
Rarely or never used seat belt while driving a car	815	73
Drove after drinking alcohol during the 30 days preceding the survey	55	4.6
Carried a weapon on 1 or more of the 30 days preceding the survey	35	2.9
Engaged in a physical fight during the last 12 month	58	4.9
Seriously considered attempting suicide on 1 or more time in the last 12 months	103	8.7

Table 3 shows that the percent of male students who drove after drinking alcohol was significantly high. Being in literal college, living away from family was significant factors in

prevalence of driving after drinking alcohol. The percent of Egyptians and Arab students who drove after drinking alcohol were comparable.

Table 3: Relation between driving after drinking alcohol and demographic characteristics of private university students.

Health risk behavior		Drive after drinking alcohol	
		Yes	No
Characteristic		N(%)	N(%)
Gender	Male N=795	45(5.7)	750(94.3)
	Female N=388	9(2.3)	379(97.7)
	Statistics	X ² =6.680 P≤0.05	
Nationality	Egyptians N=248	13(5.2)	235(94.8)
	Arab N=904	41(4.5)	863(95.5)
	Statistics	X ² =0.217 P>0.05	
College	Practical N=927	50(5.4)	877(94.6)
	Literal N=254	5(2.0)	249(98.0)
	Statistics	X ² =5.268 P≤0.05	
Grade	Juniors N=489	22(4.5)	467(95.5)
	Seniors N=693	33(4.8)	660(95.2)
	Statistics	X ² =0.045 P>0.05	
Age	≤ 20 y N=722	34(4.7)	688(95.3)
	> 20 y N=461	21(4.6)	440(95.4)
	Statistics	X ² =0.015 P>0.05	
Place of living	With family N=564	19(3.4)	545(96.6)
	Away N=609	36(5.9)	573(94.1)
	Statistics	X ² =4.236 P≤0.05	

Shadowed rows meant significant.

Table 4 shows that Arab students, juniors, students 20 years old and younger and those living away from families showed slightly higher percentages of carrying weapon with no significant difference.

Table 4: Relation between carrying a weapon and demographic characteristics among private university students.

Health risk behavior		Carrying a weapon	
		Yes	No
Characteristic		N(%)	N(%)
Gender	Male n=804	33(4.1)	771(95.9)
	Female N=390	2(0.5)	388(99.5)
	Statistics	X ² =11.906 P≤0.05	
Nationality	Egyptians N=253	31(3.4)	249(98.4)
	Arab N=908	41(4.5)	877(96.6)
	Statistics	X ² =2.274 P>0.05	
College	Practical N=934	33(3.5)	901(96.5)
	Literal N=258	2(0.8)	256(99.2)
	Statistics	X ² =5.395 P≤0.05	
Grade	Juniors N=492	17(3.5)	475(96.5)
	Seniors N=701	18(2.6)	683(97.4)
	Statistics	X ² =0.800 P>0.05	
Age	≤ 20 y N=729	24(3.3)	705(96.7)
	> 20 y N=465	11(2.4)	454(97.6)
	Statistics	X ² =0.857 P>0.05	
Place of living	With family N=569	14(2.5)	555(97.5)
	Away N=615	21(3.4)	594(96.6)
	Statistics	X ² =0.938 P>0.05	

Shadowed rows meant significant.

DISCUSSION

The finding that Egyptian students constituted 53% of the surveyed students most probably reflected the pattern of demographic characteristics of private universities in Egypt. Such characteristics would reflect the social and cultural background of the student community in such behaviors due to their heterogeneous culture. Thirty three percent of the surveyed students were females, this could render high occurrence of violence and unsafe behaviors unlikely.

The high percent of students was who lacked use of seat belt (73%). In the National College Health Risk Behavior Survey (NCHRBS) performed on 4609 undergraduate college students from public and private universities in 2003, only (10.2%) lacked use of seat belt while driving², this gap could be explained on basis of cultural differences between both countries and efficacy of application of traffic rules in US.

Driving after drinking alcohol was unlikely in this study (4.6%) compared to 27.4% in the NCHRBS², this might be due to the social and cultural differences between both societies. Fortunately, only 2.9% of the surveyed students carried a weapon, 4.9% engaged in a physical fight and 8.7% had seriously considered attempting suicide compared to 8%, 10.2% and 10.3%, respectively in NCHRBS².

Male gender was a significant factor in adopting unsafe behavior like driving after drinking alcohol, carrying weapon and being engaged in physical fight but not with lack of seat belt use and considering suicide in this study. These findings came in accordance with those of Sacha and co-workers⁷ who conducted a study on 819 undergraduate college students in Northern Colorado. The authors found that men tended to engage in risky behavior that exposed them to injuries like alcohol drinking, driving behaviors.

Living away from families could in general lead to adoption of risky behaviors and was a significant factor in drinking alcohol and driving (5.9%) in this study. This could be explained by the feeling of being lonely and as a way of expression of frustration.

The practical college students were significantly more engaging in risky behaviors like driving after drinking alcohol (5.7%), carrying weapons (3.5%), most probably such behaviors referred to that those students were under stress being competent and seeking always best achievement that is why might adopt risky behaviors as a way of reaction to stress. On the other hand students of liberal college showed more considering attempting suicide (12.8%), these proved the results of a survey done by the regional office for the Eastern Mediterranean in Egypt⁸, Lebanon and Kuwait: Medical students showed high prevalence of risky driving behaviors.

The few percent of students who reported overweight (8.2%) can be based on the fact that overweight has been self reported and not objectively measured so that it could be underestimated. About the half of the students were at risk regarding eating fruits and vegetables. This could be explained by the lack of health education about the nutritive values of different food stuffs, also the rapid rhythm of life and the long time spent outdoors make ideal food unlikely.

Sarah and Jacquelyn⁹ conducted a survey on female college students to explore their attitudes toward body weight and eating behaviors. It was found that 86% of the 242 students

surveyed reported overweight, consistent with the results of the present study.

Lacking physical activity has been observed in most of the students surveyed (92%) in the present study. In the NCHRBS, the percent of those lacking physical activity was (63%)². As a matter of fact Egyptian like Arab students were raised with superficial ideas about the importance of physical activity.

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