

Awareness of Basic Health Practices in Private & Governmental Schools' Students in Riyadh, Saudi Arabia

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1. INTRODUCTION

Habits are things that a person does repeatedly without thinking. This indicates that many of the actions and behaviors fall within the concept of human habits whether they are good or bad. People acquire these habits from the surrounding environment by learning or repetition. Young children first learn about safety and health care from their parents, by observing adults actions and receiving verbal instructions they see. Knowledge about health practices increases with development, and it's particularly enhanced during elementary and intermediate school-stages of life.

School children are the future generation, and constitute a sizeable portion of the population. The importance of learning healthy habits for school-aged students such as: eating, controlling infections and other health practices in daily life appears in acquiring normal healthy growth and development. Researches and studies have shown that some of the behaviors and health habits can reduce person's risk of certain diseases. We should see this topic very important regarding the concept of "awareness of basic health". A good education about basic health practices like eating habits, oral hygiene, and infection control will reduce the majority of health problems that affect students; for example, dental decay, infections and disease spreading in the society. Whenever a child is infected, one or more members of the family are most likely to get infected as well, then each on their turn may transmit the infection to a smaller society that he/she lives or studies in. Therefore, it is necessary to be more aware of health education in order to raise the health level of the community, reduce disease spread by using different methods such as lectures, seminars, books, newspapers and intensify awareness programs from all sides, official and non-official.

Preventing bad behavior during childhood is easier and more effective than trying to change an unhealthy behavior during adulthood. Because school students have a direct contact with each other for six hours a day, school plays a critical role in promoting health and safety behavior of young people and helping them to establish lifelong healthy pattern.

International studies revealed that even some adult people do not have an awareness of health practices. As an example, Annals of Emergency Medicine, October, 2011 said: "evaluation of patient hygiene practices during emergency department visit, has reported that only 42% did the hand-washing after vomiting at bed side. In addition, there is an increasing incidence of obesity due to sedentary lifestyle and high fat and protein diet. Obesity among children is also becoming a big concern in Saudi Arabia, with an incidence rate reaching 18%.

Our aim by doing this study among two types of schools, private and governmental is to evaluate the basic health practices and knowledge of students, the role of school system and effect of parents' education and life style on school-aged children and their basic health knowledge. Hygiene promotion and behavior change in students is easy, and knowledge change equals a behavioral change, and so that, a whole variety of health practices would be also encouraged.

Objectives:

- 1- To evaluate the level of awareness, and practices of intermediate school students in the basic health habits including: eating habits, oral hygiene, and infection control.
- 2- To compare between the roles of governmental and private schools' systems in students' awareness regarding the previously mentioned habits.

2. LITERATURE REVIEW

• **Association of Children's Eating Behaviors with Parental Education, and Teachers' Health Awareness, Attitudes and Behaviors: A National School-Based Survey in China.**

- National Center of Biotechnology Information.
- Nov 27, 2013
- Health awareness, positive health attitudes, never-smoking and regular-exercise among teachers was positively associated with healthy eating behaviors among their students.

• **Oral Health Knowledge and Sources of Information among Male Saudi School Children.**

- King Saud University. College of Dentistry, Riyadh.
- Jun 27, 2004
- Less than half of the children had actually heard about fluoride and only one-third of them correctly reported that the fluoride prevents dental caries. The children's knowledge about the sweets (chocolates/candies) as a cariogenic diet was quite adequate. However, about one-third of the children do not consider soft drinks as harmful for dental health. The children's awareness regarding periodontal health was satisfactory in terms of recognizing a sign of gum disease and identifying the best way of preventing gum disease. A large number of children thought that a dental visit is only necessary in case of pain in the teeth. Dentists were the main source of oral health information.

• **Knowledge and Practices of Oral Hygiene Methods and Attendance Pattern among School Teachers in Riyadh, Saudi Arabia.**

- Saudi Medical Journal
- 2003
- It is concluded that there is much resemblance in knowledge and practice of oral hygiene habits among male and female schoolteachers and there is a need to enhance their knowledge regarding oral health and disease. Both need more awareness regarding oral health promotion to have a positive role in school oral health education for their students in collaboration with oral health care workers.

• **Knowledge, Attitudes, and Practices of Hygiene among School Children in Angola, Ethiopia.**

- June, 2010
- Approximately half of students were classified as having adequate knowledge of proper hygiene. Almost students reported hand washing before meals, but only about one third of them reported using soap. Although most of students (three quarters) reported that washing hands after defecation was important, only one fifth of students reported that actually follow this practice.

• **Kuwait Global School-Based Healthy Survey.**

- 2011
- As for dietary behavior, the study revealed that only a trace number of students were underweight, half of them were overweight, and about one fifth were obese. The students showed high level of hygiene almost the same between male and female students.

- **The Relationship between Tooth Brushing Frequency and Personal Hygiene Habits in Teenagers.**
 - Department of Dental Surgery, Kenyatta National Hospital, Nairobi
 - Jul, 1993
 - Those who brushed their teeth more frequently also visited the medical doctor regularly for routine check-ups. These findings indicated that tooth brushing was closely related to personal hygiene habits.
- **Hand Hygiene Instructions and Illness-Related Absenteeism in Elementary Schools: A Prospective Cohort Study, Chicago, USA.**
 - Children's Memorial Hospital
 - 2009-2010
 - Adding hand hygiene instruction to existing hand hygiene practices improved attendance at public elementary schools during the flu season. That was the result of a study held in Chicago Public Elementary School during the 2009/2010 academic year. Both the percent total absent days and percent illness-related absent days were significantly lower in the group receiving short instruction during flu season. This difference peaked during the influenza season (when intervention began) and declined in the following months.
- **Health Habits of School-Age Children, Alameda City, California.**
 - Journal of Health Care for the Poor and Underserved
 - Nov, 1991
 - Multivariate analyses revealed that after controlling for gender, age, race, income, residence, and the education level of the highest wage earner in the family, only income and education were significantly related to the number of good health habits.
- **Oral Health Status and Treatment Needs Among 12- and 15-Year-Old Government and Private School Children in Shimla City, Himachal Pradesh, India.**
 - International Society of Preventive and Community Dentistry
 - Jul, 2013
 - It was found that the prevalence of dental caries in 12- and 15-year-old children in Shimla city falls within the "very low" category as defined by the world health organization. Dental caries was higher in government schools as compared with private schools. The maximum need was for one-surface restoration in both the age groups. Children in the private schools had higher proportion of healthy gingival as compared with government schools.
- **Prevalence of School Policies, Programs, and Facilities That Promote a Healthy Physical School Environment.**
 - American journal of public health.
 - Sep, 2003
 - Although schools are implementing some important school building policies and programs and have important facilities in place, room for improvement exists. On average, elementary schools had 11.0 and middle/junior and senior high schools had 10.4 out of a possible 18 policies, programs, and facilities examined in this study.

3. METHODOLOGY

Study Design:

A cross-sectional study has been conducted in two types of female intermediate schools, private and governmental.

Study population:

The study covered a number of female intermediate schools in Saudi Arabia, Riyadh, in the academic year 2014, and it was designed to produce a representative sample of students in grade 7, 8 and 9. The targeted age group is students from 12 to 15 year of age. Accordingly, students below the targeted age group who have skipped some academic years to be in

the intermediate school, and who were above 15, were excluded from the study. Absent students, irregular or home schooled students, and school visitors who were in the targeted age group were not eligible to fill in the questionnaire.

Sample size:

The study covered five schools, two private and 3 governmental, taking one classroom from each selected school. Accordingly, around 119 students in total had the chance to give the data needed for the study.

Sample technique:

Private and governmental female intermediate schools were selected randomly for the study, having only one random classroom from each school. Selected classrooms were given the questionnaire to be filled. All students in the classroom who were present in the day of the visit were eligible to fill in the questionnaire.

Sample method:

A questionnaire was distributed among students. It was divided into five parts; each included an average of four questions. The parts were: personal information, oral hygiene, personal hygiene and infection control, eating habits and physical activity, and role of the school system in educating the students with health-related information.

Analysis:

After needed data have been gathered, questionnaires filled by students who were supposed to be excluded were marginalized, and remaining data were entered and analyzed by SPSS.

4. QUESTIONNAIRE

Alma'arefa college students, 4th year, college of medicine and surgery, put in your hands some questions about general health and personal hygiene as a part of an ongoing research required by our community health program. Our goal is to increase the level of health awareness in Saudi schools starting from the current academic year 2014, and we promise to keep all the information you give in confidential.

Personal Information:

- 1- Name (optional) :
- 2- Age:
- 3- Mother's education:
 - Illiterate
 - Primary
 - Intermediate
 - Secondary
 - higher education
- 4- Mother's job:
 - House wife
 - Employed
 - Retired
 - Not living in the same house
 - Deceased

General health and fitness:

- 1- Weight:
- 2- Height:
- 3- BMI:

4- In the last 30 days, how many times have you had your breakfast?

- Always
- Most days
- Sometimes
- Never

5- In the past 30 days, how many times have you had a fast food meal?

- I haven't had any meals
- 1-4 times
- 5-10 times
- More than 10 times

6- How much time do you spend in physical activity?

- Less than 30 min a day
- 30-60 min a day
- More than 60 min a day

7- Choose from each group what matches your diet:

Never	Rarely	Sometimes	Usually	Always	
					Milk & Dairy
					Meats & Legumes
					Fruits & Vegetables
					Sugar & Fats

8- You drink water:

- A lot
- Moderately
- Rarely

Personal hygiene and protection against infectious diseases:

1- Do you use a protective mask when seasonal infections spread?

- Yes
- No

2- Do you make sure to take your age required vaccines?

- Yes
- No

3- Do you make sure to eat fruits and vegetables during the spread of seasonal infections?

- Yes
- No

4- Do you groom your nails on a regular basis?

- Yes
- No

5- How many times do you change your underwear?

- Once a day
- More than once a day
- Less than once a day

6- How many times do you take a shower?

- Everyday
- More than 3 times a week

- Once a week
- 7- Do you wash your hands with soap and water before eating?
 - Yes
 - No
- 8- Do you wash your hands after using the bathroom?
 - Yes
 - No
- 9- Do you use tissues on sneezing?
 - Yes
 - No
- 10- Have you got lice this year?
 - Yes
 - No

Dental hygiene:

- 1- How many times do you brush your teeth?
 - Once a day
 - 2-3 times a day
 - More than 3 times
 - Never
- 2- Do you use dental floss?
 - Yes
 - No
- 3- Have you got dental caries?
 - Yes
 - No
- 4- If your answer was YES, when do you visit the dentist?
 - When I feel pain
 - According to the doctor's orders
 - I try to bare the pain and not go to the doctor
- 5- If your answer was No, when do you visit the dentist?
 - Regular checkup every six months
 - Regular checkup in less than 6 months
 - When I feel pain
 - Never

Role of school in educating the student

- 1- Has your school or teachers been a part of teaching you some healthy habits in this year?
 - Yes
 - No
- 2- Has your school provided you some health activities?
 - Yes
 - No

5. ANALYSIS OF DATA

Age (N=118)

Age	Private		Governmental	
	Frequency	Percentage	Frequency	Percentage
missing	1	2.4%	-	-
12	12	29.3%	5	6.5%
13	25	61.0%	18	23.4%
14	3	7.3%	13	16.9%
15	-	-	41	53.2%
Total	41	100%	77	100%

The study has been conducted in two private schools and three governmental, with a majority of students of 13 years old in the private and 15 years old in the governmental.

Body mass index (N=118)

BMI	Private		Governmental		Total
	Frequency	Percentage	Frequency	Percentage	
< 19 (underweight)	16	39.0%	17	22.1%	33
19 – 25 (normal)	20	48.8%	41	53.2%	61
25 – 30 (overweight)	4	9.8%	12	15.6%	16
> 30 (obese)	1	2.4%	7	9.1%	8
Total	41	100%	77	100%	118

BMI table shows almost equal results in the category of normal weight (48.8 % in the private schools compared to 53.2 % in the governmental). Numbers of overweight students are twice as much in the governmentals than in privates (12.2% in private schools compared to 24.7 % in governmental).

Eating habits in the last month:

Taking breakfast (N=118)

(A) Taking Breakfast	Private		Governmental	
	Frequency	Percentage	Frequency	Percentage
Always	22	53.7%	31	40.3%
Usually	13	31.7%	13	16.9%
sometimes	4	9.8%	28	36.4%
Never	2	4.9%	5	6.5%
Total	41	100%	77	100%

Concerning having breakfast, the results showed higher average consumption in private schools (53.7 %) than in governmental (40.3 %).

Fast food (N=118)

(B) Fast Food	Private		Governmental	
	Frequency	Percentage	Frequency	Percentage
never	4	9.8%	5	6.5%
1-4	20	48.8%	48	62.3%
5-10	15	36.6%	14	18.2%
> 10	2	4.9%	10	13.0%
Total	41	100%	77	100%

The table shows that students who never had a fast food meal in the last month are more in private schools than in governmental (9.8 % vs. 6.5 %), and those who had fast food more than 10 times during last month are triple times in governmental schools (13 %) compared to private schools (4.9 %).

Physical exercise (N=118)

Physical Exercise	Private		Governmental	
	Frequency	Percentage	Frequency	Percentage
Not practicing	3	7.3%	7	9.1%
< 30 min	11	26.8%	34	44.2%
> 30 min	27	65.8%	36	46.8%
Total	41	100%	77	100%

Students who practice regular physical exercise for more than 30 minutes daily are more in private schools (65.8%) than in governmental schools (46.8%).

Water consumption (N=118)

Water Consumption	Private		Governmental	
	Frequency	Percentage	Frequency	Percentage
A lot	13	31.7%	20	26.0%
moderately	26	63.4%	54	70.1%
Rarely	2	4.9%	3	3.9%
Total	41	100%	77	100%

Majority of students showed good water consumption in both private and governmental schools (95.1% vs. 96.1%).

Diet

	Component	Always		Usually		Sometimes		Rarely		Never	
		freq	per	freq	per	freq	per	fre	per	fre	Per
Private	Milk & Dairy	14	34.1%	10	24.4%	14	34.1%	3	7.3%	-	-
	Meat & Legumes	9	22%	10	24.4%	20	48.8%	2	4.9%	-	-
	Fruits & Vegetables	20	48.8%	11	26.8%	9	22%	-	-	-	-
	Sugars & Fats	8	19.5%	10	24.4%	13	31.7%	9	22%	1	2.4%
Total		Frequency = 41				Percent = 100%					
Governmental	Milk & Dairy	20	26.0%	5	6.5%	31	40.3%	14	18.2%	6	7.8%
	Meat & Legumes	12	15.6%	24	31.2%	31	40.3%	8	10.4%	2	2.6%
	Fruits & Vegetables	23	29.9%	13	16.9%	32	21.6%	8	10.4%	1	1.3%
	Sugars & Fats	20	1.3%	25	32.5%	18	23.4%	11	14.3%	3	3.9%
Total		Frequency = 77				Percent = 100%					

This table shows a difference between governmental and private schools regarding milk and dairy products consumption, in private schools 58.5% of students consume milk and dairy products on a regular basis, while in governmental schools the result is 32.5%. Consumption of proteins is almost equal in private and governmental schools (46.4% vs. 46.8%), while more students are sugar and fats dependent in private schools than in governmental (43.9% vs. 33.8%).

Awareness of personal hygiene and infection control

	Questions	Yes		No		Missing	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Private	Wearing Protective mask	15	36.6%	25	61%	1	2.4%
	Taking Vaccines	31	75.6%	9	22%	1	2.4%
	Follow Immunization diet	27	65.9%	14	34.1%	-	-
	Nails trimming	26	63.4%	15	38.6%	-	-
	Pre-meal hand washing	37	90.2%	4	9.8%	-	-
	Using Tissue at sneezing	37	90.2%	4	9.8%	-	-
	Lice infection	-	-	41	100%	-	-
	Hand washing in WC	40	97.6%	-	-	1	2.4%
Total		Frequency = 41				Percent = 100%	
Governmental	Wearing Protective mask	26	33.8%	51	66.2%	-	-
	Taking Vaccines	42	54.5%	35	45.5%	-	-
	Follow Immunization diet	39	50.6%	36	46.8%	2	2.6%
	Nails trimming	37	48.1%	37	48.1%	3	3.9%
	Pre-meal hand washing	60	77.9%	17	22.1%	-	-
	Using Tissue at sneezing	65	84.4%	12	15.6%	-	-
	Lice infection	4	5.2%	73	94.8%	-	-
	Hand washing in WC	74	96.1%	2	2.6%	1	1.3%
Total		Frequency = 77				Percent = 100%	

How often do you take a shower?

Shower	Private		Governmental	
	Frequency	Percentage	Frequency	Percentage
every day	22	53.7%	27	35.1%
>3 times a week	16	39.0%	44	57.1%
once a week	3	7.3%	6	7.8%
Total	41	100%	77	100%

How many times do you change your underwear?

Underwear	Private		Governmental	
	Frequency	Percentage	Frequency	Percentage
Less than one	2	4.9%	2	2.6%
Once	16	39%	35	45.5%
More than one	23	56.1%	40	51.9%
Total	41	100%	77	100%

After analyzing these three tables, we noticed that 60% of private schools students and 66.2% of governmental schools students don't use protective masks, which is considered a big lack of awareness of the necessity of wearing them. We found a slight favor for the private schools students with 90.2% comparing to 77.9% of governmental schools students in pre-meal hand washing. Analysis also shows that 100% of private schools students have not been infected with lice during this year.

Dental hygiene:

How many times do you brush your teeth?

Tooth Brushing	Private		Governmental	
	Frequency	Percentage	Frequency	Percentage
never	-	-	3	3.9%
One time	6	14.6%	20	26%
2-3 times	32	78%	46	59.7%
More than 3	3	7.3%	8	10.4%
Total	41	100%	77	100%

Students of private schools showed more commitment to brushing their teeth (78%) than governmental schools students (59.7%), and 3, 9% of governmental schools' students have never brushed their teeth.

Use dental floss, dental decay

	Questions	Yes		No		Missing	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Private	Use of Dental Floss	7	17.1%	33	80.5%	1	2.4%
	Dental Decay	22	53.7%	19	46.3%	-	-
Total		Frequency = 41				Percent = 100%	
Governmental	Use of Dental Floss	12	15.6%	63	81.8%	2	2.6%
	Dental Decay	25	32.5%	52	67.5%	-	-
Total		Frequency = 77				Percent = 100%	

Use of dental floss in private schools is almost as equal as its use in governmentals (around 80%). Reports on dental decay within private schools (53.71 %) are nearly double governmental schools (32 %).

Dentist visits:

Dentist visits in those who have decay	Private		Governmental	
	Frequency	Percentage	Frequency	Percentage
missing	-	-	5	20%
when I feel pain	13	59.1%	16	64%
according to doctor's orders	9	40.9%	4	16%
Total	22	100%	25	100%

Students of private schools who have decay care more to follow the doctor’s orders in required dental visits (40, 9%) than governmental schools students (16%). 59.1% of private schools’ students visit dentist when they feel pain, while 64% of governmental schools’ students do that.

Dentist visits in those who don't have decay	Private		Governmental	
	Frequency	Percentage	Frequency	Percentage
missing	3	15.8%	7	13.6%
for routine checkup every 6 months less than 6 months	6	31.6%	8	15.4%
when I feel pain	1	5.2%	2	3.8%
Try to hold the pain	8	42.2%	31	59.6%
Total	19	100%	52	100%

Students in private school who don't have decay and visit the dentist for routine checkups are 31.6 % of all students, whereas only 15.4% of students in governmental schools do the same thing.

Role of the school in educating the students:

	Questions	Yes		No	
		Frequency	Percent	Frequency	Percent
Private	Role of school system in health promotion	34	82.9%	7	17.1%
	Schools activities about health	37	90.2%	4	9.8%
	Total	Frequency = 41		Percent = 100%	
Governmental	Role of school system in health promotion	56	72.7%	21	27.3%
	Schools activities about health	67	87.0%	10	13.0%
	Total	Frequency = 77		Percent = 100%	

Both private and governmental schools appear to make a good contribution in establishing health awareness of their students (almost 90% of students in both admitted that), with private schools having 10% higher contribution.

6. RESULT & DISCUSSION

Age (N=118):

The study has been conducted in two private schools and three governmental, with a majority of students of 13 years old in the private and 15 years old in the governmental.

Body mass index (N=118):

BMI is a reliable indicator of body fatness to identify possible weight problems. In this study, BMI table shows almost equal percentage of students between private and governmental schools who fall in the category of normal body weight. Numbers of overweight students are twice as much in the governmentals than in privates. This can be explained by the time spent in physical activity by private school students. What has been found in this study regarding prevalence of underweight BMIs in private schools was different from the finding in Kuwait global school-based healthy survey (6). Causes of this difference might be attributed to the fact that their study was conducted in a different geographic area and covered a larger population of students.

Eating habits in the last 30 days:

1- Taking breakfast (N=118):

Concerning daily breakfast, results showed better commitment by private schools students than by governmentals'. Several reasons can be considered, including lack of awareness of the importance of breakfast meal among students and their parents, inability of governmental schools to provide full breakfast meals to their students, or because of the unaffordable price of the meal.

2- Fast food and physical activity:

The study shows that majority of students in both private and governmental schools are moderate fast food consumers, while those who never had fast food meals during the last 30 days are more in private schools, and those who had fast food more than 10 times during last month are triple times in governmental schools compared to privates'. This indicates higher fast food consumption among governmental schools students than private schools'. Private schools have also shown better results in maintenance of regular physical activity for more than 30 minutes daily. An article published by Saudi Gazette (1) discussed the incidence and complications of obesity in Saudi Arabia and among Saudi children mentioned that this may be a result of over consumption of fast food or the sedentary lifestyle of most individuals.

3- Diet:

In private schools, more students incorporate milk and dairy products in their diet. Consumption of proteins is almost equal in private and governmental schools while more students are sugar and fats dependent in private schools than in governmental.

Awareness of personal hygiene and infection control:

Majority of private & governmental schools' students don't use protective masks to prevent seasonal infections. This is considered a big lack of the awareness regarding the necessity of wearing them. As for pre-meal hand washing and lice infection we found that private schools' students are better than governmentals'. Regarding hygiene and hand washing, a study conducted in Angola, Ethiopia among school children (5) shared some of the current study findings. In addition, a study done Chicago (8) demonstrated how effective hand washing was in daily routine in preventing infections.

Dental hygiene:

Tooth brushing between private schools' students is more frequent than in governmentals', a trace number of governmental schools students never brush their teeth, while use of dental floss turned to be almost equal. Reports on dental decay within private schools are nearly double the governmentals' which can be reasoned by lack of educative role either by schools or parents, and keeping cariogenic food easily accessible to students. The study also shows that students of private schools who have decay care more to visit the dentist than governmental students.

This study provides an additional evidence of the findings in another study about oral health status and treatment needs among 12- and 15-year-old (10).

Role of the school in educating the students:

The results show that the role of the school in health education for students in public and private schools are almost equal, with a slight favor of the role played by private schools. This study confirms previous finding in study (2) and contributes in additional evidence that most students of both school were greatly affected by schools awareness activities.

7. RECOMMENDATIONS

A healthy diet and lifestyle are the best weapons to fight weight-related growth problems and other diseases, and so is the maintenance of a good personal and oral hygiene, so keep the following recommendations in mind:

1- Students need to be educated about how many calories they should be taking to maintain their weight, and about the sources they're taking these calories from. They should be encouraged to have these calories from sources like fruits & vegetables, not from fast food and sugar products. Breakfast meals should never be skipped, and water consumption must be maintained regularly throughout the day.

- 2- Students should maintain regular activity to improve their weight, and sport classes are strongly recommended to be added to students' school days.
- 3- Awareness about importance of personal hygiene is better be promoted, and incidence of seasonal infections can be controlled by providing protective masks, encouraging soap-and-water pre-meals hand washing, and using an alcohol-based sanitizing gel in school clinics in case soap and water aren't available.
- 4- Educating students about the importance of cleaning teeth like cleaning their hands after every meal, and about the way they brush them is essential, and dental floss is encouraged to be used in the cleaning process once a week. Dental routine checkups are considered a key in keeping a good oral health.
- 5- As schools are considered a valuable place to gain information from, we highly recommend implementing effective health awareness programs in the main system and not only as a part of the complementary system.
- 6- A future study investigating the level of awareness should concentrate more on the investigation of the resources that their population is used to get their knowledge from. In addition, another possible area of future research would be to investigate whether their population believes whatever they are doing is right or wrong to assess the level of their awareness, not their actions.

8. CONCLUSION

The main goal of the study was to determine the level of awareness among governmental and private schools' students and to evaluate the impact of both schools' systems on their students' awareness. In general, awareness of intermediate school female students about basic health habits (Eating habits, oral hygiene, and infection control) was satisfying in both governmental and private schools, with a number of differences in favor of private schools over the governmentals including taking breakfast, physical activity, personal hygiene, prevalence of lice infections, and daily care of oral health. On the other hand, governmental schools showed some better results at some points such as in showing less consumption of fast food and less incorporation of sugars into their diet.

Several limitations of the study need to be acknowledged including the low sample size and for it being restricted to a narrow geographic field in Riyadh, which makes the study not well representative to the student population of the whole city. The study was also not specifically designed to accurately evaluate dental decay as it didn't involve an actual oral health examination for students. Lastly, the study was limited by lack of information on how the school is affecting students' awareness in each aspect we've been concerned about.

ACKNOWLEDGEMENT

To every single child in the future generation, towards a better health and education in Saudi Arabia.

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