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المجلد الرابع عشر • العدد الثالث • يوليو / سبتمبر ٢٠٠٧

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Assessment of Knowledge, Attitude, & Practices of MOH Physicians toward surveillance system in hospitals and PHCCs, KSA.

The surveillance of infectious diseases has recently assumed greater importance on account of emerging and re-emerging infectious diseases. Our study attempts to evaluate the knowledge, attitude and practices of Ministry of Health (MOH) physicians throughout the entire 18 health regions of the Kingdom towards the surveillance system. The study included all MOH physicians working in notifying disease in both governmental Primary Health Care Centers (PHCC's) and hospitals in July 2006 as a cross sectional study, using a self administered questionnaire.

A multistage stratified random cluster sampling technique was used to identify participants. The study sample involved 3399 physicians from all health regions; the response rate was 85%.

Regarding physicians' attitude towards the surveillance system, 83% agreed that the case definition was clear, 77.2% agreed that the operating surveillance system was good, 76.5% agreed that the notifiable diseases were sufficient, 46.4% agreed that some diseases should be added, 58.2% didn't agree that some diseases should be removed, 98.4% agreed that MOH should arrange for training courses in surveillance, and 93.9% agreed that they would like to attend such courses.

Regarding practices, the majority (95%) had not attended any surveillance training and 48% stated that they did not have a clear manual about surveillance system. 76.6% reported facing difficulties in notifying the communicable diseases that they diagnosed, ranging from always to rarely. 79.2% reported receiving feedback from the health directorate or regional district ranging from always to rarely.

The most common reasons for perceived difficulties in notifying communicable

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diseases were that patients were not cooperative in providing information (44.8%), the health inspector was not always present (37.2%), insufficient time for recording information due to high patient load (28.6%), too much information to record (22.2%), patient not knowing his address (21.9%), busy or unoperating communication system (15.8%), and other reasons (10.3%).

The most common perceived difficulties in conducting control measures were uncooperative patient contacts (50%), no communication system with patient (30.2%), transportation difficulties (27.7%), unclear control measures of diagnosed disease (26.6%), unknown patient address (24.5%), non-cooperation of non-governmental hospitals (14.3%), not knowing the control measures of diagnosed disease (13.3%), information required to fill unclear (12.7%), and other reasons (5.1%).

Physicians stated that they received feedback in the form of either letters (41.4%), reports 939 (37%), journals and/or bulletins (26.4%), Symposia & periodic meetings (9.5%), and other forms eg. by phone, through the health inspector (4.2%). Feedback was received by mail (42.7%), hand (31.5%), Fax (29%), or others (8.4%).

Regarding knowledge of the surveillance system, poor knowledge (<80% correct answers) was found among 59% of respondents. Also, most (85.7%) scored poor knowledge in the notifiable diseases.

Factors influencing physicians' knowledge of the definition and components of surveillance system and their knowledge about notification time for communicable diseases are presented in Table 1.

– Reported by: Dr. Abdu Dahlan, Dr. Abdullah Al-Rabeah, Dr. Randa Nooh (Field Epidemiology Training Program).

Editorial notes: Surveillance is the ongoing systematic collection, analysis and interpretation of health data in the process of describing and monitoring a health event.[1] The information is used for planning, implementing and evaluating public health intervention programs. Worldwide, notifiable disease surveillance often suffers from incomplete reporting.[2]

In this study, many physicians had poor knowledge about the definition and components of the surveillance system and about the time for disease notification, which is similar to many studies worldwide. A study in Nigeria evaluating doctors' knowledge of disease notification in governmental hospitals reported that 88% had poor knowledge of disease notification.[3] In Canada, 79.5% of Emergency Physicians had poor knowledge about notifiable disease reporting.[4] A study conducted in Jeddah that assessed the reporting and recording system of communicable diseases found that the reporting rate was 74%.[5]

There was significantly better knowledge of the definition and components of the surveillance system among males, older physicians, those working 5 years and above in MOH, lower qualifications (i.e. GPs), non-Saudis, working at PHCCs, and those who had previously attended training courses on surveillance. Knowledge of the notification times was significantly better among males, those working 5 years and above, physicians with lower qualifications, non-Saudis, those working in PHCCs, and those who had previously attended training courses.

Knowledge of physicians of the correct timing of notification is crucial. It is also mandatory for physicians to be aware of the control measures of each disease. In our study, physician's good knowledge constituted only 14.3% in identifying the time for reporting of the 36 notifiable diseases, which is only slightly higher than the Nigerian study (11.9%).[3]

Only 12.2% of physicians in our study always received feedback. Studies in various countries have concluded that the low attitude of physicians with notification systems is partly caused by insufficient feedback. In Germany a study showed that out of 1,320 respondents, 59.3% stated not to have received any feedback on infectious disease surveillance.6 Feedback demonstrating that preventive action is taken as a result of notification may be effective in improving notification practices.

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Table 1: Effect of physicians' characteristics on their knowledge of the surveillance system and the notifiable diseases.

Physicians' characteristics		Surveillance system					Notifiable diseases				
		Good Knowledge		Poor Knowledge		P-Value	Good Knowledge		Poor Knowledge		P-Value
		No.	%	No.	%		No.	%	No.	%	
Gender	Male	1091	42.2	1494	57.8	0.006	398	15.5	2173	84.5	0.006
	Female	264	36.6	458	63.4		82	11.4	638	88.6	
Age (Years)	≥ 40	665	44.1	842	55.9	0.002	241	16.1	1258	83.9	0.161
	<40	577	38.7	915	61.3		212	14.2	1277	85.8	
Experience (Years)	≥ 5	726	44.3	912	55.7	0.001	290	17.8	1339	82.2	<0.001
	<5	491	38.3	790	61.7		152	11.9	1124	88.1	
Degree	GP	1113	43.0	1477	57.0	<0.001	423	16.4	2156	83.6	<0.001
	Specialist/ Consultant	247	33.4	493	66.6		56	7.6	683	92.4	
Nationality	Non-Saudi	1278	41.9	1771	58.1	<0.001	463	15.2	2577	84.8	<0.001
	Saudi	87	30.5	198	69.5		16	5.7	266	94.3	
Workplace	PHCC	957	44.7	1184	55.3	<0.001	384	18.0	1744	82.0	<0.001
	Hospital	395	33.8	774	66.2		91	7.6	1103	92.4	
Training course	Yes	89	52.0	82	48.0	0.002	53	31.2	117	68.8	<0.001
	No	1265	40.2	1879	59.8		424	13.4	2737	86.6	

Assessment of the association between health status and lifestyle-related risk factors with development of foot ulcers among male diabetic patients in Riyadh, Saudi Arabia, 2007.

This case-control study was conducted to assess the association between life-style related risk factors with development of foot ulcer proportions among Saudi male diabetic patients registered at diabetic clinics of primary health care centers by interviewing them and reviewing their records. The study included 333 diabetic patients, 111 of them represented case sample (diabetics with foot ulcer) and 222 represented control sample (diabetics without foot ulcer). Detailed information of each patients' age, occupation, education level, body mass index, type and duration of diabetes mellitus, mode of treatment, level of blood glucose control, presence of hypertension, hyperlipidemia, smoking, physical activity and type of shoes used were recorded. Further information from the cases included smoking practice, physical activity, type of shoes used and foot care information pertaining to the period before development of foot lesion.

Table 1 shows the relationship of heath status factors and table 2 shows the relationship of life style factors with development of foot ulcers among male Saudi diabetic patients in our study. The results showed that insulin-dependent Diabetes Mellitus (DM), prolonged poorly controlled blood glucose, high cholesterol level, smoking, lack of exercise, not using well fitted shoes and poor foot-care were statistically significant high risks for development of foot ulcer, while hypertension and obesity did not show statistically significant risk.

- Reported by: Dr. Salem AlKatheri, Dr. Abdul Jamil Choudhry, Dr. Nasser AlHamdan (Field Epidemiology Training Program).

Editorial note: Global prevalence of DM is increasing due to population growth, aging, urbanization, increasing prevalence of obesity and physical inactivity.[1] For all age-groups worldwide, it was estimated at 2.8% in 2000 and projected to be 4.4% in 2030.1 In Saudi Arabia, recent studies showed that the prevalence of DM among Saudis of ages 15-64 years was 19.3%.[2] Foot disease, mainly foot ulcers is a common complication among Saudi diabetic males.[3] Most Saudi patients with diabetic foot ulcers require debridement and 23.5% of them end up with major limp amputation.[4]

A tight glucose control has proven reduction of microvascular diabetic complications including peripheral sensory neuropathy, ischemia and development of foot ulcers.[3] Findings of our study showed a significant association between uncontrolled glycemia and development of foot ulcers.

A long duration of diabetes appeared to be an important factor; the study showed that the majority of cases (91.9%) developed foot ulceration 10 years after diagnosis. Insulin dependent DM in our study was significantly higher among cases (28.8%) than controls (5.9%). A correlation of foot complication with insulin dependent DM has been found in the study which revealed a high incidence of amputation among cases suffering from insulin dependent DM.

Smoking and hyperlipidemia are the most common risk factors presented in diabetic patients.[5] Smoking increases the risk of DM by increasing blood sugar level and decreasing the body's ability to use insulin. Lipid abnormalities are commonly associated with DM, particularly type 2.[6]

Exercise is one of the best ways to help maintain a healthy weight, a key factor in lowering the risk of diabetes; helping the body's cells use insulin effectively. Patients undergoing regular physical training showed a significant decrease in hyperglycaemia, hyperlipidaemia, obesity, hypertension and physiologic stress.[7]

Despite all the advances in diabetes treatment, education remains the cornerstone of diabetes management. Patients' education needs to be continued long after diagnosis and initial education. There is increasing evidence to suggest that education on foot care is essential for patients with diabetes. Educational programs improve foot care knowledge and behavior of high-risk patients.

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Table 1: Relationship of heath status factors with development of foot ulcers among male diabetic patients in Riyadh, Saudi Arabia 2007.

Health Status Factors	Cases (111)		Controls (222)		OR	CI 95%
	No	٪	No	٪		
Type of DM						
nsulin-dependent	32	28.8	13	5.9	6.51	3.10-13.86
Non-insulin-dpendent	79	71.2	209	5.9	1	-
Fasting Blood Glucose						
Uncontrolled	91	82.0	94	42.3	6.20	3.45-11.20
Controlled	20	18.0	128	57.7	-	-
Duration of DM						
5-10 years	9	8.1	109	49.1	1	-
11-20 years	74	66.7	105	47.3	8.54	3.89-19.31
> 21 years	28	25.2	8	3.6	42.4	13.54-140.15
Hypertension						
Yes	36	32.4	70	31.5	1.04	0.62-1.75
No	75	67.6	152	68.5	1	-
Hyperlipidemia						
Yes	26	23.4	31	14	1.88	1.01-3.50
No	85	76.6	191	86	1	-
Obesity						
Yes	71	64.0	136	61.3	1.12	0.68-1.85
No	40	36.0	86	38.7	1	-

Assessment of KAP of MOH Physicians towards Surveillance, cont...

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Lack of training (95%) and lack of clear written manuals (48%), may explain the poor knowledge of physicians in our study and advocate for arrangement of periodic training courses for physicians. Clear written manuals should also be supplied, including clear control measures of each disease. Easy reporting forms should be made available, with a condensed and feasible list of notifiable diseases. The feedback system should be evaluated to improve reporting rate. Better communication between curative and preventive health sectors would improve attitudes of doctors regarding notification.

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Saudi Epidemiology Bulletin

Editor-in-Chief

P.O. Box 6344

Riyadh 11442, Saudi Arabia

For epidemiological assistance,

call or fax the FETP at 01-496-0163

e-mail: nhamdan@fetp.edu.sa

Website: www.fetp.edu.sa

Assessment of the association between health status and lifestyle-related risk factors with development of foot ulcers, cont...

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Table 2: Relationship of Life style factors with development of foot ulcers among male Saudi diabetic patients in Riyadh, Saudi Arabia , 2007

Health Status Factors	Cases (111)		Controls (222)		OR	95% CI
	No	%	No	%		
Cigarette smoke						
Never smokers	67	60.4	164	73.9	1	-
Current smokers	20	18	38	17.1	1.29	0.67-2.47
Ex-smokers	24	21.6	20	9	2.94	1.45-5.97
Duration of smoking						
Never smokers	67	60.4	164	73.9	1	-
10-25 years	21	18.9	33	14.9	1.56	0.80-3.01
> 25 years	23	20.7	25	11.3	2.25	1.14-4.45
Exercise						
Yes	14	12.6	139	62.4	1	-
Never exercised	97	87.4	83	37.4	11.6	6.00-22.77
Use well-fitting shoes						
Always	38	34.2	136	61.3	1	-
Often	51	45.9	74	33.3	2.47	1.44-4.23
Infrequent	22	19.8	12	5.4	6.56	2.79-15.62
Foot care education						
Yes	84	80.8	213	95.9	1	-
No	20	19.2	9	4.1	5.63	2.32-13.99
Checking feet for foot lesions						
4-7 / week	5	4.5	56	25.3	1	-
1-3 / week	21	18.9	92	41.4	2.56	0.85-8.24
1-3 / month	44	39.6	63	28.4	7.82	2.72-24.20
< once/ month	41	36.9	11	5	41.75	12.11-155.43

Investigation of some components of female adolescent health in a school in Riyadh, 2007.

Female adolescent's health is an important issue which has not received much attention in Saudi Arabia, therefore we decided to conduct this cross-sectional exploratory study.

Simple random sampling was used to choose one female high school in Riyadh. A total sample size of 276 participants was obtained. Their ages ranged between 15 - 18 years (mean ± S.D 16.4 ± 0.8 years). Saudi nationality constituted 93.1%. The majority of fathers' and over half the mothers were college graduates (77.9% and 54%, respectively).

Regarding oral health, 55.1% were tooth brushing 2-3 times daily. However, a large proportion had not used either dental floss 64.1% or mouth wash 56.2%, and 37.7% reported eating sweets 2 times or more per day in the week before the study. 23.9% had not visited the dentist in the previous year.

Always washing hands before eating was reported by 58.3%; 78.6% stated that they always washed their hands after eating; 90.9% always washed hands after using the toilet; 45.3% never washed hands after shaking with others; and 76.1% always used soap when washing hands.

Forty five percent reported taking a shower once daily, and the same proportion reported taking a shower once every 2-4 days. Taking shower during menstruation once daily and once every 2-4 days were equally reported (42%), and only 2.5% reported never taking a shower during menstruation.

More than half had an ideal weight self image 52.7%, 28.4% thought they were overweight, and 12% thought they were underweight; 60.8% were trying to lose weight, and 19.2% were trying to maintain their weight; 55.1% had used a diet to achieve weight loss.

A large proportion reported always eating breakfast 45.3%, and only 8% reported never eating breakfast. Eating fruits once a week or less was reported by 28.3%, eating vegetables 2-3 times per week was reported by 33%. During the week prior to the study, 39.5% reported drinking milk 1-2 times per day, 7.2% had not drunk milk, 29.7% drank soda 2-3 times per week and 9.8% reported drinking soda 3 times or more per day. In the week prior to the study, 53.6% had eaten fast foods on 1 or 2 days, and 8% on 6 or 7 days; Over half hadn't practiced any physical activity (52.2%).

Reported smoking included 11.6% who had ever smoked, of whom 75% had started smoking at 13-16 years of age. In the week prior to the study, 3.6% had smoked cigarettes, 2.9% had smoked Shisha, and 2.2% had smoked both.

Regarding exposure to violence in the week prior to the study, 34.4% reported being verbally abused at home. Among those, 74.7% had been verbally abused 1-4 times. The most frequent verbally abusive family member was a brother 26.7%. Physical abuse was reported by 9.4%, among who 84.6% had been physically abused 1-4 times. The most frequent physically abusive family member was also a brother (41%). Among all participants, 27.9% reported having been involved in a fight at home in the week prior to the study, among who 80.5% had been involved in a fight at home 1-4 times.

Regarding school violence, 15.2% reported being bullied at school in the week prior to the study, 81% of whom had been bullied 1-4 times. Stated reasons for being bullied were native region 23.1%, skin color 11.6%, nationality 3.8%, body appearance 3.8%, and other reasons 57.7%. Those who reported being physically attacked at school constituted 5.8%, 50% of whom had been physically attacked 1-4 times. Among all participants, 6.5% had ever been involved in a fight at school, among who 83.3% had been involved in a fight at school 1-4 times in the week prior to the study.

Reported received health education was: 29.7% on oral health, 26.8% hand washing, 26.1% bathing and showering, 39.9% hygiene during menstruation, 55.1% food and eating habits, 37.7% physical activity, 21.7% smoking, and 22.1% violence. Most health education on all matters was received at home. oral hygiene 63.3%, hand washing Table 1 shows the effect of fathers' education, mothers' education, and Family income on hand washing practices of adolescent females.

Higher mothers education was noticeable among those with good shower taking practices during menstruation, but was not statistically significant (OR= 1.41, 95% CI= 0.74 - 2.72). Also, those from higher income families showed better shower taking practices during menstruation, but was not statistically significant.

All cigarettes and shisha smokers among our sample belonged to fathers and mothers with higher education but both were not statistically significant.

Adolescents with ideal weight self image had better breakfast eating practices than both those with underweight self image (OR= 2.82, 95% CI= 1.32-6.07)which was statistically significantly, and those with over weight self

Table 1: Effect of some demographic features on hand washing practices of female adolescents, Riyadh, 2007.

Adolescent female's demographic features	Hand washing practice after eating				Hand washing practice after shaking hands with others			
	Good No. (٪)	Poor No. (٪)	OR	95% CI	Good No. (٪)	Poor No. (٪)	OR	95% CI
Father's education (n=276)								
High (high school & above)	233(90.3)	16 (88.9)	1.17	0- 5.77	24 (70.6)	225 (93)	0.18	0.07- 0.48
Low (below high school)	25 (9.7)	2 (11.1)			10 (29.4)	17 (7)		
Mother's education (n=276)								
High (high school &above)	208 (80.6)	16 (88.9)	0.52	0.06- 2.33	27 (79.4)	197 (81.4)	0.88	0.34- 2.38
Low (below high school)	50 (19.4)	2 (11.1)			7 (20.6)	45 (18.6)		
Family monthly income (n=116)			**Fisher exact test**				**Fisher exact test**	
High (≥ 5000 SR)	105 (99.1)	9 (90)	**P-value**		14 (87.5)	100 (100)	**P-value**	
Low (< 5000 SR)	1 (0.9)	1 (10)	**0.17**		2 (12.5)	0 (0)	**0.02**	

ملخص باللغة العربية

مدى معرفة وإدراك وتطبيق أطباء وزارة الصحة للتبليغ عن الأمراض السارية

تعتبر المراقبة الوبائية للأمراض المعدية الركيزة الأولى للمكافحة و الوقاية منها ولقد اهتمت دول العالم المختلفة بتطوير البرامج الخاصة بالمراقبة الوبائية. و قد نال نظام المراقبة الوبائية للأمراض السارية الاهتمام في المملكة العربية السعودية منذ أكثر من ستين عاما بصدور نظام الاحتياجات الصحية للحماية ضد الأمراض المعدية. وتضمن هذا النظام كيفية التبليغ عن الأمراض والتدابير التي يجب اتخاذها عند ظهور هذه الأمراض وقد أدخلت تعديلات على هذا النظام بمرور الزمن وبما يتناسب مع المستجدات.

تهدف هذه الدراسة الى معرفة مستوى أطباء وزارة الصحة بالمملكة فيما يتعلق بالأمراض السارية و طرق التبليغ عنها و تقييم النظام المتبع في التبليغ والصعوبات التي يواجهها الأطباء وطرق تحسينه.

كان عدد الأطباء المشاركين في هذه الدراسة ٣٣٩٩ طبيباً، ٧٨٪ منهم من الذكور، ٤٠,٥٪ في المجموعة العمرية ٣١ – ٤٠ سنة، وكان ٩١,٥٪ من غير السعوديين. كانت نسبة الذين يعملون في مراكز الرعاية الصحية الأولية ٦٤٪، و حوالي ٥١,٦٪ كانوا يعملون في المجال الصحي في المملكة من ١-٥ سنوات، و ٧٧,٧٪ أطباء عموميون.

عند تقييم معرفة الأطباء عن نظام المراقبة الوبائية في المملكة من حيث التعريف والمكونات كانت نسبة من حصلوا على تقييم جيد وأجابوا إجابة صحيحة أكثر من ٨٠٪ من مجموع الإجابات الصحيحة حوالي ٤١٪، بينما حوالي ١٤,٣٪ حصلوا على تقييم جيد من حيث معرفتهم بالوقت الواجب التبليغ فيه عند اكتشاف أي حالة مرضية من الواجب التبليغ عنها. بلغت نسبة الموافقين على ان تعريف الحالة المرضية في نظام التبليغ واضح حوالي ٨٣,٨٪، ووافق حوالي ٧٧٪ على ان النظام المعمول به حالياً في المملكة جيد، وأفاد حوالي ٧٦,٥٪ على ان الأمراض الواجب التبليغ عنها كافية. لم تعقد أي دورات مسبقة عن نظام التبليغ للغالبية العظمى من الأطباء حيث ان نسبة الأطباء الذين تلقوا دورات مسبقة في هذا المجال لم تتعد ٥٪.

أفاد ٢٣,٤٪ من الأطباء بأنهم لم يواجهوا صعوبات عند التبليغ. و كانت أكثر الصعوبات المذكورة عدم تعاون المرضى في إعطاء البيانات اللازمة (٤٤,٨٪)، عدم وضوح نظام التبليغ (٢٦,٦٪)، كثرة البيانات المطلوب تعبئتها في نموذج التبليغ (٢٢,٢٪)، عدم وجود مراقب صحي (٣٧,٢٪)، و الوقت الغير كافي للتبليغ لوجود أعداد كبيرة من المرضى (٢٨,٦٪). وعن التغذية الراجعة عند التبليغ أجاب حوالي ٢٣,٤٪ بأنه ليست هناك أية نوع من أنواع التغذية الراجعة، بينما أجاب ٢,٥٪ فقط بأنهم يتلقون تغذية راجعة دائما.

خلصت الدراسة إلى أنه على الرغم من المستوى المقبول لإدراك الأطباء لمفهوم و أهمية الاستقصاء الوبائي إلا أنهم أظهروا مستوى متدنياً من المعرفة بنظام التبليغ عن الأمراض السارية، كما كشفت الدراسة عن ضعف وتيرة التغذية الراجعة وعن محدودية التأهيل والتدريب بين الأطباء في مجال الترصد الوبائي والتعامل مع نظام التبليغ عن الأمراض المعدية. و عليه أوصت الدراسة إلى تبني نظام فعال لتدريب الأطباء وعلى وجه الخصوص العاملين في مراكز الرعاية الصحية الأولية لتحسين مستوى أدائهم في مجال الاستقصاء الوبائي والتبليغ وفي اتباع الطرق الصحيحة للسيطرة على الحالات السارية والحيلولة دون انتشارها.

— إعداد: د. عبده دحلان ، د. عبدالله الربيعة ، د. رانده نوح (برنامج الوبائيات الحقلي).

تقييم لبعض العادات الصحية للفتاة المراهقة في مدرسة ثانوية للبنات في مدينة الرياض.

المراهقة هي المرحلة الانتقالية التي تربط بين مرحلة الطفولة و مرحلة البلوغ. و من مهام التطور في سن المراهقة تحقيق التحكم في السلوك بما يتلاءم مع القيم و التقاليد المتعارف عليها في المجتمع. و الفشل في تحقيق هذا النوع من التحكم قد يؤدي إلى اكتساب المراهق لسلوكيات و عادات منبوذة يصعب التخلص منها في المستقبل. تهدف الدراسة إلى تقييم بعض الممارسات الصحية للفتاة في سن المراهقة متمثلة في صحة الفم و الأسنان، العادات الصحية في غسل اليدين و الاستحمام، العادات الغذائية، الرياضة، التدخين و العنف الأسري و المدرسي.

قام فريق من برنامج الوبائيات الحقلي بدراسة مقطعية شملت جميع الفتيات المراهقات في مدرسة ثانوية للفتيات في شمال الرياض. شملت الدراسة ٢٧٦ فتاة متوسط أعمارهن ١٦,٤ سنة (انحراف معياري ٠,٨). شكل السعوديات ٩٣,١٪، و بلغت نسبة الآباء من خريجي الجامعات ٧٧,٩٪ و الأمهات من خريجات الجامعات ٥٤٪. أكثر من نصف العدد لم يعرفوا معدل الدخل الشهري للأسرة ٥٨٪. خلصت الدراسة إلى تدني ممارسة الفتيات لاستخدام خيط الأسنان بما يقارب ٦٤,١٪. و قد أفادت ٥٢,٥٪ من الفتيات عن تعرضهم لتسوس في الأسنان في الماضي. أكثر من نصف الفتيات عبروا عن استخدامهم للصابون عند غسل اليدين (٧٦,١٪). غالبية الفتيات قد أخذت أوزانهم في العام الماضي (٧٥,٧٪) و كان متوسط أوزانهن ٥٤,٥ كجم (انحراف معياري ١٠,٢). و قد أفادت ٤٥,٣٪ بأنهم يتناولون وجبة الإفطار يومياً. بالنسبة لتناول الخضروات و الفاكهة، أفادت ٢٨,٣٪ انهن يتناولن الفاكهة مرة واحدة في الأسبوع و أفادت ٣٣٪ بتناولهن للخضروات مرتين إلى ثلاث مرات في الأسبوع. في خلال الأسبوع السابق للدراسة أفادت ٣٩,٣٪ بشربهن للحليب مرة إلى مرتين باليوم، ٩,٨٪ كن يشربن المشروبات الغازية ٣ مرات أو أكثر باليوم، ٥٣,٦٪ تناولن الوجبات السريعة مرة أو مرتان بالأسبوع، و ٥٢,٥٪ لم يقمن بأي نشاط رياضي خلال الأسبوع السابق للدراسة.

أفادت ٣,٦٪ بتدخين السجائر، ٢,٩٪ بتدخين الشيشة، و ٢,٢٪ لكل منهما. بالنسبة للعنف الأسري خلال الأسبوع السابق للدراسة، ٣٤,٤٪ أفادوا بتعرضهن للعنف الكلامي، خاصة من قبل الأخ (٢٦,٧٪)، كما أفاد ٩,٤٪ بتعرضهن للعنف الجسدي، أيضاً من قبل الأخ (٤١٪). أما بالنسبة للعنف المدرسي خلال الأسبوع السابق للدراسة، أفاد ١٥,٢٪ بتعرضهن للعنف الكلامي، خاصة بسبب المنطقة التي ينتمين إليها ٢٣,١٪، لون البشرة ١١,٦٪، الجنسية ٣,٨٪، مظهر الجسم ٣,٨٪ و أسباب أخرى. ٥,٨٪ أفدن بتعرضهن للعنف الجسدي بالمدرسة .

تمت التوصية على العمل على تكثيف التثقيف الصحي للفتيات في سن المراهقة للمحافظة على النظافة الشخصية، الاهتمام بالغذاء الصحي، ممارسة الرياضة بشكل منتظم، و مضار التدخين. كما يجب إجراء هذه الدراسة مرة أخرى على عينة أكبر و أشمل.

— إعداد: د. غادة القديحي، د. رانده نوح (برنامج الوبائيات الحقلي).

Investigation of some components of female adolescent health cont...

(Continued from page 21)

aimage, but not significant (OR= 1.46, 95% CI= 0.82-2.59).

Poor fruit and vegetables eating habits were common among ideal, under weight, and over weight self image adolescents, but were not statistically significant.

– Reported by Dr. Ghada Al Qudeihi, Dr. Randa Nooh (Field Epidemiology Training Program)

Editorial note: Health-risk behaviors developed during adolescence contribute to the leading causes of morbidity and mortality among adults. Female adolescents in particular are a highly vulnerable group, because of tendency for poor nutritional habits and eating disorders, potentially high caries rate, increased esthetic desire, initiation of tobacco use, increased risk for violence and bullying, and unique social and psychological needs.[1]

Regarding oral health practices our study showed that 90.6% of respondents cleaned their teeth once per day or more. This is better than previously reported among intermediate school children in Riyadh (65.5%).[2] The low use of dental floss among the study sample suggests lack of awareness of this procedure and its value in preventing oral diseases.

Overall, 50.7% of girls in our study did not practice good shower taking hygiene during menstruation. A study in Tehran to assess the knowledge, attitudes and behavior of female adolescents regarding dysmenorrhea and hygienic practices during menstruation showed that the vast majority lacked appropriate knowledge about personal hygiene. Only 32% practiced positive health behaviors in this regard.[3] In our study, 83.8% of those with good hygienic practices had mothers with higher educational level. In the same respect, most education in all aspects of adolescent health was received at home. This is similar to the Iranian study, where 61% identified their mothers' as the main health information source.3 Educating mothers, who are the main source of information to their daughters, should be a main aim in health education.

Adolescents from higher income families had better hygienic practices during menstruation, which is similar to the findings of a study among 664 adolescent girls in Egypt, showing that although use of sanitary pads was increasing, but not among girls from rural and poor families.[4]

In our study, 52.5% of respondents' skipped breakfast; 53.6% ate fast foods at least on 1 or 2 days per week. When teenagers skip meals, they are more likely to consume fast foods high in fat and sugar and of poor nutritional value. Economic changes in Saudi Arabia have influenced the quality and quantity of food intake and predisposed to a sedentary lifestyle. Only 52.2% of the study sample reported physical activity in a typical week. This low level may partially be attributed to lack of sports activities in female schools in the Kingdom. Social beliefs are an important issue in adopting a physical activity program.

The present study showed an 11.6% prevalence of ever smoking. In a study assessing the gender differences in smoking behavior among adolescents in Saudi Arabia, out of 1,505 students studied, 22.3% (34% males, 11.1% females) were current cigarette smokers and 5.8% (11.1% males, 0.7% females) were daily smokers.[5]

In our study, both verbal (34.4%) and physical abuse (9.4%) were reported and a brother was the predominant abuser. Children who experience both verbal aggression and physical violence exhibit the highest rates of aggression and interpersonal problems.[6]

Considering the limitations of this study, additional studies are needed using a wider geographic scope and a larger sample size.

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Mark your calendar . . .

Inside the Kingdom

January 19 - 21, 2008: 2nd International Conference of Advanced Child Health Care in Collaboration with Saudi Pediatric Association.
Location: King Fahad Medical City, Riyadh, Saudi Arabia.
Contact: KFMC Tel. 01-2889999 Ext. 4114 Or 7497

Outside the Kingdom

September 3-7, 2007: 27th Annual Forum for General Practitioners.
Location: London, England
Contact: Thea Campkin, Events Coordinator, Academic Department, Royal Society of Medicine, 1 Wimpole Street, London W1G OAE.
Tel: +44(0)2072903942, Fax: +44(0)20729029898
Email: gpforum@rsm.ac.uk
website: http://www.rsm.ac.uk/

October 24 - 27, 2007: EACS 2007 - 11th European AIDS Conference.
Location: Palacio Municipal de Congresos de Madrid, Madrid, Spain.
Contact address: Avda. Capital de España, S/N; Campo de las Naciones; 28042 - MADRID
website: http://www.eacs-conference2007.com

Selected notifiable diseases by region, Jul - Sept 2007

	Riyadh	Makkah	Jeddah	Madinah	Taif	Qassim	Eastern	Hasa	Hafr Al-batin	Asir	Bisha	Tabuk	Hail	Al-Shamal	Jizan	Najran	Baha	Al-Jouf	Goriat	Gonfuda	TOTAL
Measles	0	0	74	0	4	24	5	7	4	82	4	4	143	0	0	25	0	0	0	0	376
Mumps	0	0	10	0	0	16	1	0	0	0	0	0	2	0	5	3	0	0	0	0	37
Rubella	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Varicella	1064	219	626	261	232	1088	880	1321	214	946	375	359	229	129	173	261	18	116	32	22	8565
Meningitis mening.	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Meningitis other	13	3	15	0	12	8	2	3	3	4	3	1	0	0	0	0	0	3	0	0	70
Hepatitis B	246	5	250	71	24	82	149	6	3	65	27	85	6	9	32	19	0	46	1	12	1138
Hepatitis C	134	0	225	43	4	39	86	7	0	33	11	28	3	1	0	5	0	13	0	5	637
Hepatitis unspecified	4	0	2	0	0	0	0	0	0	8	3	0	2	0	4	0	0	0	0	0	23
Hepatitis A	22	5	13	10	1	28	9	3	8	25	7	18	9	6	28	39	0	0	9	0	240
Typhoid & paratyphoid	2	1	11	2	0	3	17	5	2	9	8	3	0	0	0	1	0	0	0	0	64
Amoebic dysentery	17	0	708	9	11	5	75	91	2	48	34	0	7	0	24	4	0	0	1	2	1038
Shigellosis	19	0	1	2	0	1	8	12	2	0	0	5	0	1	0	10	0	0	0	0	61
Salmonelosis	198	2	45	9	0	7	179	52	14	9	38	11	0	4	2	42	0	21	1	2	636
Brucellosis	106	19	5	25	65	220	109	24	38	210	110	15	56	7	15	44	0	9	2	4	1083

Comparisons of selected notifiable diseases, Jul - Sept 2006 - 2007

DISEASE	Jul - Sep 2007	Jul - Sep 2006	Change %	Jan - Sep 2007	Jan - Dec 2006	DISEASE	Jul - Sep 2007	Jul - Sep 2006	Change %	Jan - Sep 2007	Jan - Dec 2006
Cholera	1	4	-75	3	10	Meningitis mening.	2	13	-85	6	22
Diphtheria	3	0	0	3	2	Meningitis other	70	247	-72	304	395
Pertussis	34	15	127	65	34	Hepatitis B	1138	3606	-68	3310	4264
Tetanus,neonat	6	2	200	15	18	Hepatitis C	637	2201	-71	2150	2964
Tetanus,other	1	2	-50	5	8	Hepatitis unspecified	23	156	-85	541	691
Poliomyelitis	0	0	0	0	0	Hepatitis A	240	998	-76	1874	2631
Guilain Barre Syndrome	18	33	-45	64	105	Typhoid & paratyphoid	64	215	-70	209	293
Measles	376	193	95	4606	807	Amoebic dysentery	1038	2831	-63	2436	2907
Mumps	37	24	54	56	79	Shigellosis	61	122	-50	129	149
Rubella	4	5	-20	35	23	Salmonelosis	636	1513	-58	1313	1572
Varicella	8565	6625	29	51635	43070	Brucellosis	1083	3456	-69	3440	3997

Diseases of low frequency, Jul - Sept 2007

Guillian Barre Syndrome : 18 Cases (Riyadh 5, Jeddah 4, Asir 2, Najran 2, Eastern 1, Tabuk 1 , Baha 1,Bisha 1, Qurriat 1)