Perception of Adolescents Towards Health Related Issues in Secondary Schools, Kuwait

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ABSTRACT

A large number of adolescents face health problems. To explore health related topics that they want to know about, topics they actually discussed with their physician, their sources of health information. Two secondary schools were selected randomly (one for males and another for females) from each of three regions in Ahmadi governorate in Kuwait. All students registered in the selected schools, 15 - 18 years old were sequentially recruited. Anonymous self-administered questionnaire was used and included 4 sections (health care topics that adolescents want to talk about, topics that they actually discussed with the physician, sources of health information that adolescents depended upon, barriers against discussing health care issues with physicians). Data were collected from 2428 secondary school students. The study revealed that healthy nutrition, physical activities and ideal body weight are the most important health related topics students want to talk about. However, only about half of them actually discussed health related conditions with their physicians. Anxiety and depression, sexuality and sexually transmitted diseases were the least topics that students actually discussed. The majority of the participants depended on their parent as key sources of information. The reasons for not discussing these topics with physicians were feeling embarrassed and gender difference between physician and the student. There is a continuing need to change adolescent perceptions towards health related problems as well as improving physicians' attitude towards providing health services for this sector of the population and to enhance communication with adolescent. Education program on communication skill for primary care physicians is critical

Key words: *Adolescents, health related topics, physician, patient communications*

Kuveyt'teki Ortaokullarda Ergenlerin Sağlıkla İlgili Sorunlara Karşı Algısı

ÖZET

Birçok ergen sağlık problemleri ile karşılaşır. Amacımız; bilmek istedikleri sağlıkla ilgili konuları, doktorları ile tartıştıkları konuları ve sağlık bilgi kaynaklarını ortaya koymaktı. İki ortaokul Kuveyt'in Ahmedi ilinin her üç bölgesinden randomize olarak seçildi (biri erkekler, diğeri kızlar için). Seçilmiş okullardan kayıtlı, 15-18 yaşlarındaki her öğrenci, sırayla çalışmaya alındı. Anonim kendi kendine yapılan anket kullanıldı ve 4 bölüm dahil edildi (ergenlerin konuşmak istedikleri sağlık bakımı konuları, gerçekte doktorları ile tartıştıkları konular, ergenleri bağımlı olduğu sağlık bilgisi kaynakları ve doktorlar ile sağlık bakımı sorunlarını tartışmalarına engel durumlar) Veriler 2428 ortaokul öğrencisinden toplandı. Çalışma gösterdi ki sağlıklı beslenme, fiziksel aktiviteler ve ideal vücut ağırlığı öğrencilerin öğrenmek istedikleri en önemli sağlıkla ilişkili konulardır. Ancak, öğrencilerin sadece yarısı gerçekte doktorları ile sağlıkla ilgili durumlarını tartışmışlardı. Anksiyete ve depresyon cinsellik, cinsel ilişki ile bulaşan hastalıklar öğrencilerin gerçekte en az tartıştıkları konulardı. Katılımcıların çoğunluğu anahtar bilgi kaynağı olarak ailelerine bağımlı idiler. Doktorlarıyla bu konuları tartışmamalarının nedeni utangaçlık ve öğrenci ve doktorların cinsiyet farklıkları idi. Sağlıkla ilişkili problemlere karşı ergenlerin algılarını değiştirmek, aynı zamanda doktorların toplumun bu grubuna sağlık hizmeti sağlarkenki tutumlarının gelişmesi ve ergenlerle diyalogun artırılması için devam eden bir ihtiyaç mevcuttur. Birinci basamak hekimleri için iletişim becerileri konusunda eğitim programı önemlidir.

Anahtar kelimeler: *Ergenler, sağlıkla ilişkili konular, hekim, hasta iletişimi.*

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INTRODUCTION

Today there is increasing interest in adolescence health and health care services. The definition of adolescence varies by program, funding source, and need. The Centers for Disease Control define adolescence from age 10 to 24 years, the Maternal Child Health Bureau defines adolescence from age 11 to 21 years, and according to WHO definition adolescents are persons between 10 – 19 years. Adolescence is further divided into early, middle, and late (1,2). Adolescence is a period of rapid transition as adolescents go through many physical, psychological, sexual and behavioral changes. This is a period of great risks and opportunities due dramatic biological changes (3). Adolescents comprise one-fifth of every community population, or 1.2 billion people world-wide. Most mortality in adulthood has its roots in the adolescent period. WHO estimates that 70% of premature deaths among adults are due to behaviors initiated during adolescence (2,4).

Responding to the challenge of promoting adolescent health in the 21st century will require integrating knowledge bases from a variety of sources. Remarkable consensus about the direction that future efforts should take to assure the healthy development of youth has emerged from these efforts (5,6).

Adolescence is generally considered to be a healthy period. In reality a large number of adolescents face health problems associated with under nutrition, early marriage and childbearing, sexually transmitted diseases (STDs), obesity, substance abuse, violence, and injuries. All these elements have serious social, economic and public health implications (7). They are influenced by parents, teachers, peer groups, health care providers, the media and the religious and cultural norms in their communities. The health behaviors of adolescents, such as eating habits, use of tobacco and other substances, are crucial to the health and disease patterns that will be observed when this population reaches the adulthood (8,9).

Despite the biological, public health and social significance of this phase of life, adolescent health has not received adequate attention in many developing countries. It is quite clear that the currently available maternal and child health programs, school health services or reproductive health services would not be able to meet the needs of adolescent health and development (10). They need a safe and supportive environment that offers maximum opportunities for development, information and skills to address their health problems and to deal with their personal difficulties and conflicts effectively. It is well recognized that health care providers and health care services cannot meet their needs alone (11). There is a need to adolescent-friendly health services that are easily accessible and a need for privacy and confidentiality, ensuring removal of legal restrictions and cultural barriers that prevent adolescents from seeking guidance and health care (12).

EMRO is emphasizing the importance of caring for this critical group through developing an education package for parents of adolescents, teachers and adolescents themselves (13).

In Kuwait detailed and up to date information must surely, therefore, be vital to all those concerned with health promotion and the health of school children including the adolescents themselves, their parents, doctors, nurses, teachers, and health educators. Unfortunately, studies on this sector of the population are rare (14,15).

The present work was undertaken to explore belief about important topics that adolescents want to know about, to identify the health related topics adolescents actually discussed with their physician, to explain the sources of health care information for adolescents and to identify the reasons why adolescents do not discuss some impotent and sensitive health care issues with their primary care physician. This study will form a simple baseline data for decision makers to plan and implement further studies and programs to deal with the health problems of this sector of the population.

MATERIALS AND METHODS

Setting and design

The study design is a cross sectional one that was conducted on secondary school students in Kuwait during March-April 2009. This technique needs relatively, shorter time and lesser money and efforts.

Sampling

Assuming that the proportion of students who did not discuss any of health related topics with health care providers equal 20%, with 2% accepted difference, and alpha error = 5%, a total sample size of 1513 will be required. A multi-stage random sample method was adopted. Out of the six governorates of Kuwait; one was randomly selected (Ahmadi governorate). Out of

Table 1. *Adolescents' perception of health related issues*

Topics	Total n:2428	Males n:1200	Females n:1228	p value
Sensitive health care issues adolescents want to talk about				
Healthy nutrition	*61.2*	*65.6*	*57.0*	*<0.001*
Impact of physical activity on health and body shape	*60.0*	*70.5*	*49.8*	*<0.001*
Ideal body weight (obesity / underweight)	*63.5*	*58.2*	*68.6*	*<0.001*
Smoking & it's impact on human health	*32.2*	*43.3*	*21.4*	*<0.001*
Drug addiction	*26.3*	*34.2*	*18.6*	*<0.001*
Anxiety and depression	*52.2*	*45.5*	*58.7*	*<0.001*
Puberty and body changes	*40.9*	*44.3*	*37.5*	*0.001*
STDs	*38.7*	*44.6*	*33.0*	*<0.001*
Marriage and sexual knowledge	*52.7*	*64.7*	*41.0*	*<0.001*
The subjects that were actually discussed with the physician				
Healthy nutrition	*47.5*	*49.3*	*45.8*	*0.093*
Impact of physical activity on health and body shape	*32.5*	*41.3*	*23.9*	*<0.001*
Ideal body weight (obesity / underweight)	*37.6*	*38.9*	*36.4*	*0.201*
Smoking & it's impact on human health	*18.9*	*31.0*	*7.0*	*<0.001*
Drug addiction	*13.8*	*21.4*	*6.3*	*<0.001*
Anxiety and depression	*21.0*	*23.2*	*18.9*	*0.010*
Puberty and body changes	*22.6*	*26.0*	*19.2*	*<0.001*
STDs	*12.9*	*18.9*	*7.0*	*<0.001*
Marriage and sexual knowledge	*19.0*	*27.9*	*10.3*	*<0.001*
Non of the previous subjects were discussed	*30.6*	*28.8*	*32.4*	*0.05*

Percentages from total of each column are presented.

the regions of Ahmadi governorate only three regions were randomly selected. This was followed by preparing two sets of secondary schools, namely male and female student schools, then one male and one female school were randomly selected from each region. So, a total of six schools were selected. All students registered in the selected schools were included in the study. Inclusion criteria included male and female students, registered in the selected schools, 15 – 18 years old. All eligible subjects were asked to participate in the study. A total of 2479 students were registered in the selected schools.

Data collection

Self-administered questionnaire was derived from other published studies dealing with the same topic as well as from our own experience. After short explanation of the purpose of the study, the questionnaires were distributed to all 2479 registered students in the selected school in their classrooms through their teachers. Filled questionnaires were collected by social workers in the school without being seen by the teachers.

Study tools

The covering page of the questionnaire includes summary and importance of the study. The core of the questionnaire consisted of 4 sections. The first section included adolescents' perception of 9 sensitive health care issues they want and willing to talk about (healthy nutrition, impact of physical activity on health and body shape, ideal body weight, smoking, drug addiction, anxiety and depression, puberty and body changes, STDs, and marriage and sexual knowledge). The second section inquired about which of these subjects were actually discussed with the physician. The third section included sources of health information that adolescents depended upon (father, mother, sisters and brothers, relatives, friends, teachers, physician, nurse at school, TV/Radio, newspapers/books, internet, and religious man). The fourth section included barriers against discussing health care issues with physicians (fear of breaking confidentiality, lack of privacy in the clinic, gender differences between physician and student, the physician do not show any interest, different physician in each visit, lack of physician time during visit, feeling

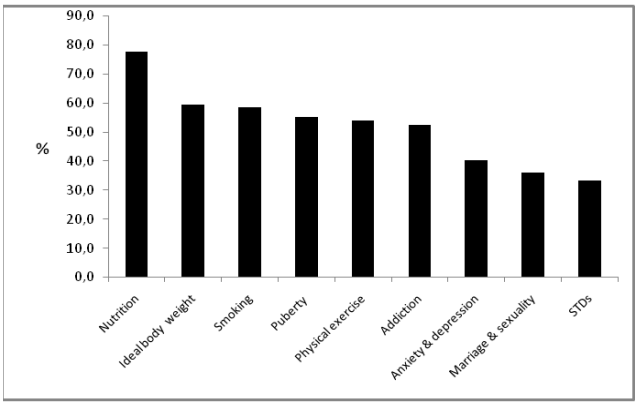

***Figure 1**. Proportion of adolescents actually discussed health related issues with physicians among those who wanted to talk about.*

***Table 2**. Key Sources of health information*

Source	*Total*	*Males*	*Females*	*p value*
Father	*51.5*	*64.7*	*38.6*	*<0.001*
Mother	*68.3*	*62.8*	*73.7*	*<0.001*
Sisters and brothers	*42.1*	*41.3*	*42.9*	*0.430*
Relatives	*40.9*	*45.0*	*36.9*	*<0.001*
Friends	*48.6*	*51.3*	*46.0*	*0.010*
Teachers	*28.5*	*34.2*	*22.9*	*<0.001*
Physician	*40.1*	*43.8*	*36.5*	*<0.001*
Nurse at school	*9.3*	*14.7*	*4.2*	*<0.001*
Media (TV/Radio)	*33.3*	*32.1*	*34.4*	*0.217*
Media (press)	*25.6*	*21.5*	*29.6*	*<0.001*
Internet	*51.4*	*48.6*	*54.2*	*0.006*
Religious man	*16.7*	*21.3*	*12.1*	*<0.001*

Percentages from total of each column are presented.

embarrassed, and depending on other sources of information). All questions were check choices. No detailed information concerning personal data was obtained except age, and sex.

A pilot study was carried out on 20 students. It aimed to test the suitability of the used questionnaire as regards to phrasing and culture of the participants, estimated time of filling the questionnaire, testing the analytic procedure and overall response of the students. This study revealed that overall the questionnaire was suitable. The questionnaire consumed 2-5 minutes to be filled.

Approval of the Medical Ethical Committee in Kuwait was obtained before carrying out this research. A written consent of the students was obtained after explanation of the purpose and importance of the research. In order to maintain confidentiality, questionnaires were made anonymous.

Statistical analysis

Simple descriptive statistics were used (mean + standard deviation for age, and frequency with percentage distribution for categorized variables). Chi square test was used for gender difference. All tests were done at 5% level of significance. The Statistical Package for Social Sciences (SPSS) was used for data processing.

RESULTS

Out of 2479 distributed questionnaires, 2428 were completed and returned back with 97.5% response rate. The age of the participating students ranged from 15 to 18 with a mean 16.56±0.97 years. Females were slightly predominating males (50.6% versus 49.4%).

Table 1 shows the proportions of adolescents who want and willing to talk about certain sensitive health care issues. Ideal body weight, obesity and under weight ranked first (63.5%), followed by healthy nutrition (61.2%), the importance of physical activity and its impact on human health and body shape (60.0%), marriage and sexual knowledge (52.7%), anxiety and depression (52.2%), puberty with its physical and psychological changes (40.9%), STDs (38.7%), and impact of smoking on human health (32.2%). However drug addiction, its types, complications, prevention and treatment was reported in relatively lower proportion (26.3%). Male students significantly concerned more than females about all the above sensitive health care issues that adolescents want and willing to talk about except for obesity and ideal weight as well as anxiety and depression, where the interest of female students were encountered in a significant higher proportion than males.

As regards the subjects actually discussed with the physician, the study revealed that less than 50% of the students discussed their subjects with their physicians. Health nutrition ranked as the first subject actually discussed (47.5%), followed by ideal body weight (37.6), physical activity (32.5), puberty and body changes (22.6), anxiety and depression (21.0), marriage and sexual knowledge (19.0%), smoking (18.9%), drug addiction (13.8%) and STDs (12.9%). However, 30.6% of the

***Table3**. Barriers for discussing subjects with the physician*

Barriers	*Total*	*Males*	*Females*	*p value*
Fear of breaking confidentiality	*24.9*	*26.9*	*22.9*	*0.022*
Lack of privacy in the clinic	*19.3*	*25.3*	*13.4*	*<0.001*
Gender differences between physician and student	*32.8*	*32.1*	*33.6*	*0.441*
The physician didn't show any interest	*20.1*	*28.3*	*12.1*	*<0.001*
No fixed physician in each visit	*26.9*	*32.8*	*21.2*	*<0.001*
Physicians do not give enough time during visit	*22.1*	*26.3*	*17.9*	*<0.001*
Feeling embarrassed	*44.9*	*38.3*	*51.3*	*<0.001*
Depending on other sources of information	*39.0*	*38.3*	*39.7*	*0.503*

Percentages from total of each column are presented.

students did not discuss any subjects with their physicians. Male students actually discussed most of the topics with physicians in a significant higher proportion than females. A higher proportion of females than males didn't discuss any topic with their physicians (32.4% versus 28.8%, p= 0.05)

The relation between the subjects that students concern and those actually discussed with the physicians was illustrated in figure 1. Among adolescents concerned with healthy nutrition, 77.6% discussed the topic with their physicians. The corresponding figures for obesity, smoking, puberty, physical exercises and drug addiction were 59.3%, 58.5%, 55.2%, 52.3% and 51.6% respectively. Anxiety and depression, marriage and sexual knowledge and causes, prevention and treatment of STDs were discussed in less than 50% of the students concern.

Concerning the key sources of health information, mother was the main source for 68.3% of student followed by father (51.5%), the internet (51.4%), and friends (48.6%). Lesser proportions of students relayed upon brothers and sisters (42.1%), physician (40.1%) as key sources of information. These were followed by media as TV and radio (33.3%), teacher (28.5%), printed materials as newspapers, magazines and books (25.6%). Religious people and nurses were at the end of the list (16.7% and 9.3% respectively). Female student prefer mother, newspapers, books and internet as sources of their health information in a significant higher proportions than males, while males prefer most of the other sources. (table 2)

Regarding reasons that prevent the students from discussing their subjects of concern with their physicians, table 3 revealed that 44.9% of students were feeling embarrassed when discussing these subjects, 39.0% reported that they got their health information from other sources, 32.8% attributed this problem to gender differences between physician and the student, 24.9% were afraid of breaking confidentiality of the topic discussed, 22.1% reported that there was no enough time allowed from the physician to discuss these topics, 20.1% reported that the physician did not show any interest toward the subject, while 19.3% attributed this to lack of privacy in the clinic that prevented students to discuss their topics with their physicians.

Male students reported all the above causes that prevent them to discuss their subjects with their physicians in a significant higher proportions except feeling embarrassed when discussing the subject that encountered among female students in a significant higher proportion (51.3% Versus 38.3% respectively p<0.001)

DISCUSSION

An extremely important and currently neglected area in professional education, especially for individuals who interact with adolescents, is knowledge about normal adolescent development. Teachers and health care professionals need to be specifically prepared to teach adolescents in developmentally appropriate ways and to use principles of effective health promotion when interacting with youth (16).

Healthy nutrition and physical activity as well as body image were on the top of the list that Kuwaiti adolescents were willing to discuss. This could be attributed to the high prevalence of overweight and obesity in adolescent population in Kuwait. In a recent study that was conducted in Kuwait, it was found that the overall prevalence of overweight and obesity in adolescent Kuwaiti children aged 10 to 14 years was 30.7% and 14.6%, respectively (14).

One of the most damaging behaviors for the long-term health of young people is the use of tobacco. Full implementation of population-based strategies and clinical interventions can educate adult smokers about the dangers of tobacco use and assist them in quitting (17). Smoking and drug addiction were important topics that males, in particular, wanted to discuss. Although almost all the adolescents knew the risks of smoking; only 32.2% of them were concerned with smoking and 26.6% were concerned with drugs. Not only that, but also a lower proportion of them discussed this issues. This goes in accordance with other studies and shows the complex interplay between smoking and drug addiction among adolescents (17,18).

In the present study, male students were significantly concerned about all the sensitive health care issues except for obesity and ideal weight, anxiety and depression. Females were significantly more interested about the latter mentioned topics than males. This could be attributed to cultural factors as well as this age group is considered to be relatively healthy, making few demands on medical resources and showing little interest in their own health, their most common worries are self confidence, and academic aspects of schools. The differences between sexes in rates of consultation with the family doctor and in the use of medicines seem to be clearly established by around 15 years of age (16,19).

The study revealed that not all the students discussed what they like and even less than 50% discussed certain topics as anxiety and depression, marriage and sexual knowledge and STDs. The least topic that was actually discussed with physicians was STDs. This could be attributed to cultural factors in Arab countries.

Generally, male students tended to significantly discuss their topics with physicians than females. There is no obvious explanation for this finding, except cultural barriers, lack of information, and perceived lack of dissatisfaction with general practitioner consultations, especially as reported by females (20).

The results also revealed that the key sources of health care information were mothers followed by fathers. This goes hand in hand with Abahussain's who found that the most common sources of information on medicines were parents (14). This parental role has its dangers, as the adolescent may not only turn to parents for advice but they may also imitate the example they give, for instance by smoking. This strongly suggests that health education of the adolescent's parents and the adolescent themselves, as future parents, should be more strongly emphasized, together with the reality that bringing about important changes in health related behavior is the result of many highly complex factors and may, if it happens at all, take a generation or more (21,22).Only 28.5% of participants depended on their teachers as key source of health related knowledge. This reflects the decreased role of school as the main source of information for these age groups (23). Schools can provide adolescents with accurate and meaningful information as well as the skills they will need to make informed, deliberate, and constructive decisions in their lives. Life skills training can be a vital part of this decision-making process. Schools can assure that adolescents have access to health services (14). However, information by itself is only one small step towards change; it is how and whether it impinges on the many other factors in peoples' lives, like their age, their priorities, and their social circumstances, and can also provide a health-promoting environment. Clear guidance at policy level, more rigorous evaluation of current interventions, and greater dissemination of good practice is necessary to ensure adolescents' emotional health needs are addressed effectively within schools (24). Adolescents spend a large part of their time in schools, and teachers probably provide the most adult contact, other than parents, that most adolescents experience. In a recent study teachers reported to be fairly confident in teaching STDs and sexuality. Further strengthening of their confidence levels could, however, be an important measure for improving the implementation of such programs (25).

Internet was considered as key source of information by 51.4% of participating students. Actually, the use of online resources to locate health related information is increasing especially within patients. Users of internet usually show a change in the way they think about their health and their subsequent health related behavior as a result of that information. They ask more questions during their office visits (26).

The role of physicians as key sources for health related information was reported by 40.1% of participants. The results of the present work confirm that a high percentage of students feel that their general practitioners should be interested in problems of weight, smoking, and fitness (19,22,27). In agreement with other studies, many adolescents who identified health worries did not

seek help from available services, in particular many with concerns over sexual health (23,28). This has worrying implications for health service aims to improve teenage health in general and sexual health in particular. Several studies explore many of the reasons that prevent the students from discussing their subjects of concern with their physicians (29-31). In the present study, 22.1% reported that there was no enough time allowed from the physician to discuss these topics, 20.1% reported that the physician did not show any interest toward the subject. This makes educating health professionals an essential critical issue because there is a great opportunity for physicians to promote health through direct interventions with adolescent patients. In this issue, education of communication skills is of great importance. Adolescents view health care providers as credible and important sources of health education, and failure to provide such intervention could be interpreted by the adolescent as tacit approval for engaging in health-damaging behaviors (16). In the current study feeling embarrassed especially among females when discussing a subject, gender differences between physician and student, fear of breaking confidentiality, consultation time, physician interest, and lack of privacy were among factors that prevented students to discuss their health topics with their physicians. Being a young male physician may make disclosure difficult, especially around issues of sexuality (16).

Clinicians who treat adolescents must be aware of the country laws related to adolescent consent and confidentiality. The circumstances of confidentiality vary from country to another depending upon the adolescent's status as a minor or adult, the service involved, and the provider's level of concern regarding harm to the patient or others. Family physicians should promote their availability and expertise in adolescent healthcare to families and community (23, 32). Also, they should consider the influence of culture on health care giving as health beliefs and practices are closely linked to patients' culture background. Culture can affect health care in an indirect manner by in influencing the physician-patient relationship (33).

Some limitations can be detected in the present study. Generalization of results was not confirmed as the survey was conducted in a single governorate. However the homogeneity of Kuwaiti population might decrease the effect of this limitation and the present work could be considered as a model for further larger study including the other governorates. The data was collected from student in the middle adolescent period, hence adolescents in the early and late adolescent periods need further studies. Another limitation of the study was its cross-sectional nature that create difficulties in ascertaining causality. Also, as self administered questionnaire was used, the accuracy of collected data should be considered cautiously. However this method might avoid bias in certain questions related to critical aspects, as smoking, drug use and STDs, that could be affected by the culture influence.

This study suggests that there is a continuing need to change adolescent perceptions towards health related problems as well as improving physicians' attitude towards providing health services for this sector of the population and to enhance communication with adolescent patients for delivering individualized culturally effective health care that is based on respect for and sensitivity to the multiple factors defined culture. Education program on communication skill for primary care physicians is critical as there is a great opportunity for physicians to promote health through direct interventions with adolescent patients. This suggests further investigation to discover how to make primary care services sensitive to requests for appropriate information from adolescents with health concerns.

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