Original Article

Awareness about Common Diseases in selected Female College Students of Karachi

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Abstract

Objective: To determine the level of awareness about five common diseases, namely: Tuberculosis (TB), Typhoid, Hepatitis B, Hepatitis C and HIV/AIDS among college female students of Karachi.

Methods: A cross-sectional survey of female students aged 16-21 years from three colleges selected by convenient sampling method was conducted from January to May 2004. Data was collected through a self-administered questionnaire.

Results: A large number of students (71%) knew that typhoid spreads by eating contaminated food and drinking infected water. Majority (84%) knew about cough as a mode of spread for TB whereas 69% thought that TB could spread through sneeze of a TB patient. Regarding AIDS, 90% knew that it is sexually transmitted. Majority (87%) knew about the association of hepatitis B and contaminated needles; 64% were aware of hepatitis C and abuse of contaminated needles; 88% knew about the spread of HIV by the use of contaminated needles. A large number (92%) mentioned television as their main source of information.

Conclusion: The general level of awareness regarding HIV/AIDS transmission was satisfactory among college girls in this study. The level of awareness of the young educated females about the modes of spread of typhoid, TB, hepatitis B and C is low. This study emphasizes the effectiveness of health education campaign regarding common infectious diseases, especially in young girls (JPMA 55:195;2005).

Introduction

Pakistan is a developing country with limited resources and a soaring population of 149,911,000.[1] The population's annual growth rate is 2.5%.[2] There is a dearth of well-qualified and trained personnel who could effectively manage resources and influence decision making to improve the overall health status of the country.[3] In 1992, approximately 35 million Pakistanis (about 30% of the population), were unable to afford nutritionally adequate food or any non-food items. Of these, 24.3 million were rural inhabitants constituting 29% of the population. Urban areas, with one-third of the national rural population, had a poverty rate of 26%.[4] In the early 1990's, the leading causes of death remained gastroenteritis, respiratory infections, congenital abnormalities, tuberculosis, malaria and typhoid.[4] According to an estimation, the number of people less than 50 years living with HIV/AIDS in Pakistan end-2001 was 78000; tuberculosis cases were 178 per 100,000 and the death rate due to intestinal diseases were 35.15%.[5]

Preventive medicine is concerned with reducing the incidence of disease by modifying environmental or behavioral factors that are related to illness. It is necessary that the general health practitioners and family physicians work in close collaboration with the community. It is mandatory to mobilize the community for resolving their health issues and to assess their knowledge about infectious diseases. In order to adopt a healthier lifestyle, increasing the awareness of the community is an important preventive strategy.

When referring to the community, we must consider that 48.5% of the Pakistani population is female: the girl, wife and the mother.[6] The life expectancy of females at birth is 61.6 years; however, the percentage of total life expectancy lost due to poor health in females is 15%.[1]

The objective of this study is to determine the level of awareness about the five common diseases, namely: Tuberculosis, Typhoid, Hepatitis B, Hepatitis C and HIV/AIDS among the young college female students of Karachi.

Table. Correct responses of the sample to various modes of spread of five common diseases (n=245).

S.No.		Correct responses	% of correct responses	Don't Know
	Modes of spread of typhoid			
1	Eating contaminated food	175	71	34
2	Drinking infected water	181	74	35
3	Shaking hands with the patient	154	63	76
4	Eating infected shellfish	34	14	77
5	Through food handlers, e.g. chaat-walas	96	39	84
	Modes of spread of Tuberculosis			
1	Shaking hands with the patient	149	61	78
2	Inhaling in front of a coughing patient	205	84	24
3	Eating shell fish	144	59	78
4	Drinking contaminated water	89	36	65
5	From the sneeze of a TB patient	168	69	47
	Modes of spread of HIV/AIDS			
	By shaking hands with the patient	151	62	74
2	By the cough of a patient	127	52	75
3	By sex	220	90	17
4	By using infected syringes / injections	216	88	22
5	From an infected mother to her baby by breastfeeding	162	66	41
	Modes of spread of Hepatitis B			
1	By shaking hands with the patient	155	63	74
2	By sex	115	47	61
3	By using infected syringes / injections	213	87	18
4	By sharing glass of a patient	114	47	69
5	From mother to baby during birth	128	52	62
	Modes of spread of Hepatitis C			
1	By shaking hands with the patient	152	62	73
2	By using infected syringes / injections	156	64	44
3	By sharing glass or a spoon of a patient	110	45	69
4	By sex	112	46	60
5	By blood transfusion	218	89	14

Methods

A cross sectional survey was conducted on female students aged 16 to 21 years from three colleges selected by convenient sampling method. The included colleges were Home Economics, Khatoon-e-Pakistan and PECHS College for women. The study period was from January to May 2004 enrolling 245 students from 1st to 4th years. Data was collected through a self-administered questionnaire pertaining to modes of spread of different diseases namely Tuberculosis, Typhoid, Hepatitis B, Hepatitis C and HIV/AIDS. Data entry and analysis was done using Microsoft Excel and SPSS programs. Frequencies for different variables were calculated for different diseases.

Results

Most of the students knew that typhoid could spread by eating contaminated food (71%) and drinking infected water (74%). A large number (149) did not know the impor-

importance of food handlers in the spread of typhoid (Table). Out of 245 participants, 65 believed that typhoid could not spread via infected food handlers; and 84 did not know if the food handlers had a role in typhoid transmission leaving only 39% being aware of this risk. The cognizance about eating infected shellfish and typhoid is low; 14% being the correct responses and 55% thought eating infected shellfish has no role in the spread of typhoid.

Only 37% believed that drinking contaminated water could cause tuberculosis whereas, 27% did not comment and 36% said that this was not a means of TB transmission. More than half (69%) knew that TB could spread through the sneeze of a TB patient, 61% felt that TB couldn't spread by shaking hands with a TB patient; 32% gave no response and 7% recognized it incorrectly as a mode of transmission. Majority (84%) knew about cough as a mode of spread of TB. When asked about the relationship between eating infected shellfish and the spread of TB; 59% knew that there is no relation between the two; whereas 41% were unaware.

Most of the students (90%) agreed that AIDS is sexually transmitted and 88% knew about the harmful effects of contaminated needles. Regarding cough as a mode of spread of AIDS, only 52% answered correctly, 31% did not respond and 18% marked it as being a source of spread. When questioned about the role of shaking hands with the AIDS patient; 62% knew there is no harm and 30% did not know whether this was a source of spread or not. This disease could be transmitted from a mother to her newborn via breast milk was acknowledged by 66%.

The awareness about spread of hepatitis B and shaking hands with the patient was 63%; 30% did not know if there was a connection. The knowledge of hepatitis B being sexually transmitted was 47% and vertically transmitted was 52%. Sharing a patient's glass and the spread of hepatitis B, 47% were aware and 28% did not know.

Regarding the spread of hepatitis C, 46% acknowledged sex as a means of transmission and 89% knew blood transfusion to be the mode. It could not spread by shaking hands with the patient was known by 62% and 45% felt there was no connection between sharing the patient's glass or spoon and its transmission.

The association of contaminated needles with diseases gave a favourable response: for hepatitis B - 87%, hepatitis C - 64% and HIV/AIDS - 88% (Figure). Statistically significant difference was noted on comparing the sample population's knowledge about transmission of HIV/AIDS, Hepatitis B and C by the use of infected syringes ($p<0.001$).

When asked about the sources of information, a number of students mentioned more than one source. A large number (92%) mentioned television as their main source of information followed by the newspaper (59%), healthcare workers (53%), friends (36%) and radio (14%).

Discussion

The awareness regarding the common diseases has been a matter of research earlier among the different strata of the population. The knowledge of nursing staff about the modes of transmission of common diseases showed results similar to the present study.[7] Another study conducted on the fishermen revealed that their awareness about HIV/AIDS was low.[8] Other studies conducted on young college going students concluded that their awareness regarding common diseases was very low, but knowledge about AIDS was satisfactory.[9-12] The results of this study are well comparable to other studies where cough, sneeze or a casual contact with the patient was regarded as a mode of transmission of HIV/AIDS.[13,14] A study on medical students showed that hepatitis B could be transmitted by using contaminated needles or from an infected mother to her baby during birth which is comparable to the findings of this study.[15] A study on barbers showed that a small portion of the sample knew these diseases could be transmitted parenterally or by the use of a razor.[16] Interestingly, in another study, students believed that HIV/AIDS could not be transmitted from mother to her newborn, whereas more than half of the sample in this study agreed that it could spread from a mother to her baby.[13]

The results of this study are consistent with other published studies regarding television to be the main source of information followed by the health care workers, newspaper, friends and lastly the radio.[9-13] The media has the

the potential to play an important strategic role in the future for disseminating accurate information pertaining to health as evidenced.[17,18]

The awareness regarding HIV/AIDS transmission was satisfactory among college girls in this study. However, the misconception that AIDS can spread by the cough of a patient or by shaking hands with a patient needs to be clarified. Whereas, the awareness of the young educated females to the modes of spread of typhoid, TB, hepatitis B and C is low. Studies laid emphasis on public health intervention program should be initiated including education of the community and also the health workers.[8,19] This study emphasizes the effectiveness of health education campaign regarding common infectious diseases, especially in the young girls.

The limitation of the study was that male college students were not assessed and division of the female population on the basis of their economic status was not performed. Students might be belonging to different educational background, but this study failed to categorize them on this basis or on their parent's education.[12]

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