Journal of Pharmaceutical Research Vol. 9, No. 1, January 2010 : 22-25.

ASSESSMENT OF AWARENESS OF DISEASE KNOWLEDGE AMONG HEALTH CARE AND NON HEALTH CARE STUDENTS.

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Received on : 29.12.2009 Revised : 13.01.10 Accepted : 16.01.10

ABSTRACT

The disease knowledge is an important factor in motivating the youth to adopt healthy life style and management of health. The health illiteracy acts as a stumbling block in the treatment of diseases, as person is unable to understand and appreciate the significance of the health, disease and the drugs. He/she needs some help in relief of the symptoms and disease. The awareness of the disease knowledge is an important factor for the management of health. It is usually presumed that educated youth will have adequate knowledge regarding disease and healthy life style. There are no serious studies conducted to assess the extent of disease knowledge. In this study a survey is conducted to assess the knowledge levels of youth from health care and non health care sector. The result of the study mobilizes the necessity of health education among youth in the disease areas like AIDS, asthma, hypertension and diabetes mellitus.

Keywords: *Disease knowledge; Diabetes mellitus; AIDS; Asthma; Hypertension.*

INTRODUCTION

The health statistics indicates improvement in longevity of humans in comparison to earlier decade, worldwide, in developed and developing countries. This is mainly due to the availability of affordable health care facilities and health education among the people. In our era of information explosion, the availability of meaningful and processed wisdom becomes scarce. On the surface it appears that majority of people are well informed and are capable of using the latest health care information whenever it is required. On the contrary, the common man is ill informed and inadequacy of knowledge about diseases and health care prevails at large. The health and disease information is not only increasing in volume, but also getting highly complex and difficult to understand and practice. Many a times, people give less importance for disease information and show less interest to learn while they are healthy. It is also true that health care professionals have to spend a good amount of time in health education and counseling of patients.[1]

Even though the life expectancy has improved to a great extent (adult mortality rate i.e., probability of dying between 15-60 yrs of thousand population males was 289 in 2000 and reduced to 276 in 2006)[2], because of the over all improvement of health care facilities and health awareness, for a common man, his/her knowledge about health and the common diseases may or may not be adequate. It is desirable, that all people possess basic knowledge about the most common diseases and the early symptoms of those diseases which are highly prevalent in the society. This knowledge perhaps may help in early detection and treatment of certain dreadful diseases and thus reduce the burden of morbidity and mortality. Commonly in the field of health literacy, research focuses on measuring the ability of a person to obtain process and understand basic information and services needed to make appropriate decisions. But till date very limited efforts are being taken to know about the level of health knowledge among the youth.[3]

A study was conducted to measure the level of minimum knowledge possessed by health care versus non health care youths regarding diseases which have a high incidence rate in the present situation. In this study the minimum disease knowledge for different conditions was measured on a percentage scale.[4] The assumption is that the person with very good health knowledge would reach the maximum disease knowledge score. It is also assumed that a higher education have a synergistic effect on disease knowledge. This assumption is based on the experience of people, who actively search for disease specific information when they are challenged by specific ailment. People with higher education must be more skilled in gathering such information.

The study was conducted among the youths from the Udupi district of south Karnataka in and around Kasturba Medical College Hospital Manipal, during a period of one month, viz: 1st June 2007 to 30th June 2007. Before commencement of the main study the questionnaire was prepared after seeking suggestions from the experts and ethical clearance obtained from the institutional ethics committee of Kasturba Hospital Manipal.

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METHOD

Questionnaire Development

As suggested by expert committee, the questionnaire and their answer keys were developed. The questionnaire was focusing on basic knowledge of health concepts and disease concepts about the selected diseases; namely Diabetes Mellitus, Blood pressure, Asthma, and AIDS (See Table.1). The answers responded by the participants was documented and pooled (Table 2). If the participants gave all correct answers to all the questions, it was considered to be 100% knowledge. There were minimum of three questions on each disease, with varying number of response statements, each answer was awarded a minimum of 0.25, and a maximum of 1 score.[5]

Table 1. *Assessment of Awareness of Disease Knowledge among Health care and non Health care Students.*

1)	**Diabetes mellitus**
i.	Why Diabetes comes? (2marks)
Ans:	Obesity, Hereditary, Increased age, Low birth weight, Sedentary Life style.
ii.	What should be avoided (food) in Diabetes? (2marks)
Ans:	Sweets, Potato, Sweet fruits and juices.
iii.	What happens in Diabetes? (1mark)
Ans:	Decrease in Insulin level, Increase in blood sugar , Thirst, Frequent urination, Loss in body weight.
2.	**Blood pressure**
i..	What is Normal blood pressure? (1mark)
Ans:	120/80 mm of Hg
ii.	What happens if High blood pressure is not controlled? (2marks)
Ans:	Brain Haemorrhage, Heart failure, Kidney failure, Eye damage.
iii.	What should be avoided (food) in High blood pressure ?(2marks)
Ans:	Salty food, Pickles, Smoking, High cholesterol intake
3.	**Asthma**
i.	Is Asthma an infectious disease?(1mark)
Ans:	No
ii.	Is Asthma curable?(1mark)
Ans:	No
iii.	What should be avoided in asthma?(3marks)
Ans:	Dust, Cold environment, Mushroom, Pollution, Perfume, stress
4.	**AIDS**
i.	How AIDS spreads ?(3marks)
Ans:	Blood transfusion, Sharing Needles and razors , Sexual contact
ii.	Is AIDS curable ?(1mark)
Ans:	No
iii.	Which system of body gets affected in AIDS? (1mark)
Ans:	Immune system

1. M/F:
2. Age:
3. Education:
4. Medical Education (Self Reported) if any
5. Affected by (self / relatives) one or more condition (Diabetes / Blood pressure/Asthma/AIDS):
6. Received the knowledge about above mentioned conditions from (like TV Newspaper, persons etc?:
7. Profession / job:

Table 2. *Raw disease knowledge survey results.*

Sample sub groups	Number	percentage
Male	144	67.88
Female	74	33.64
Medical	144	66.05
Non Medical	74	33.94
Had knowledge about 3 diseases	38	17.43
Had knowledge about 2 diseases	65	29.81
Had knowledge about 1 disease	55	25.22
Had knowledge about none	60	27.52

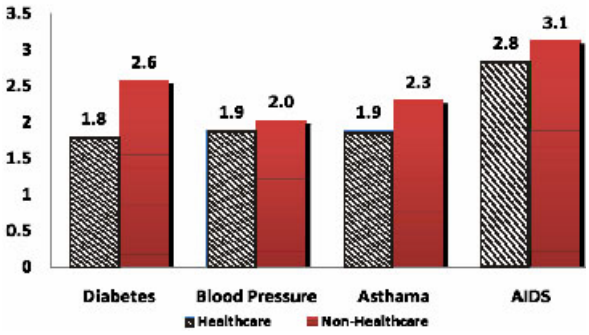
The demographic classification included data regarding gender, age, education and self reported medical education background if any, whether affected by (self/ relatives) one or more conditions (Diabetes, Blood pressure, Asthma/AIDS), and how they had acquired knowledge viz, through TV programs, News paper or with personnel. A pilot study was conducted on 15 subjects, in order to see the feasibility of the study. The ethical clearance from the Institutional Ethical Committee of Kasturba Hospital Manipal was obtained.[6]

Participants

The volunteers proposed random invitation to youths from the different campuses of Manipal University for participation in the study. Among the approached 248 respondents, only 218 (87.9%) completed the survey and returned the survey reports.

Analysis of Data

Descriptive statistics was used for data analysis. The cumulative values of correct replies were accounted and for the sake of simplicity the correct responses given respondent were assigned numerical points as specified in the beginning of the study. There were 12 questions, where the range of correct answers varied between 0 and 20. The minimum response level for a person was calculated as percentage score. Further the data were cross analyzed to know correlation between age, gender, health care professional background and specific personal experience with one of the conditions in the social settings. It was investigated whether the people with personal experience, either self or relatives, of one of the conditions would have higher score in disease knowledge for the corresponding questions. The results were expressed in graphical representation to highlight and effective projection of the results[1] (Figures 1-6).



4.4 3.9 4.2 5.9

Fig. 1. Disease wise medical knowledge of respondents

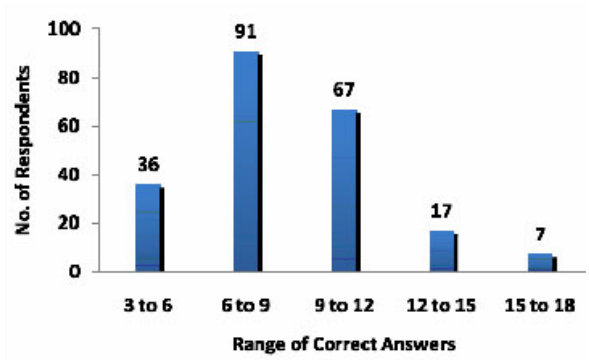


Fig. 2. Range wise distribution of respondents

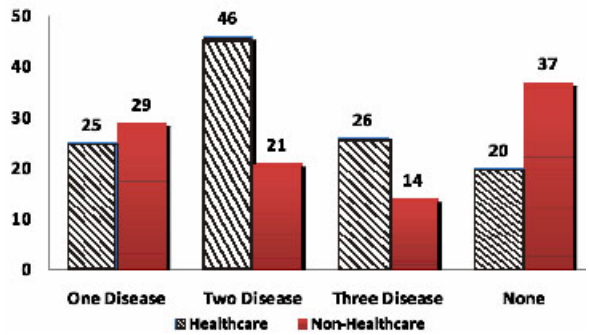


Fig. 3. Distribution of Disease wise analysis of survey participants

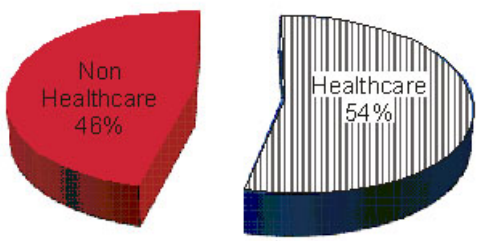


Fig. 4. Classification of respondents based on background

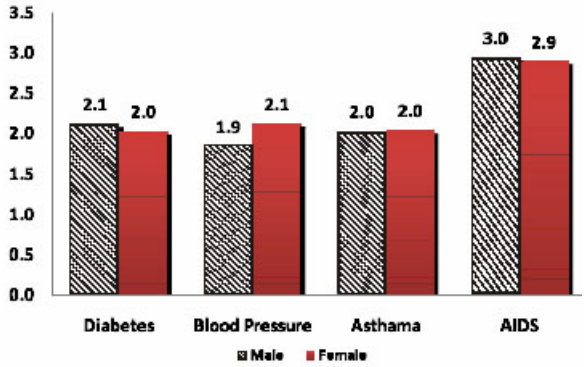


Fig. 5. Gender wise distribution of Disease Knowledge Among respondents for different diseases.

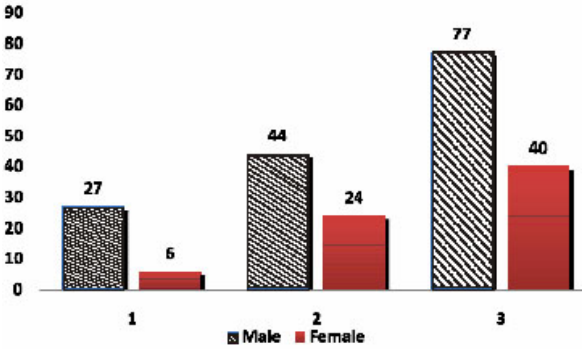


Fig. 6. Source of disease knowledge gender wise

RESULTS

None of the 218 participants possessed cent percentage knowledge of the selected diseases. The percentage of gender ratio of the respondents was 68 for men and 32 for women. The range of age of the participants varied between 17 to 28 years, within the average age of 19.71 (S.D. =1.539). The ratio of health care to non health care background was found to be 54:46. The disease knowledge score varied between 3 and 18 within the mean score of 8.51(S.D.=3.77). Only 7 respondents were able score a higher score range, i.e. 15-18(75-90% knowledge). In this group there were five nonmedical professionals and two of them were from medical background. Seventeen respondents achieved the score between 12 and 15 (60-75% knowledge), where fifteen out of seventeen were from nonmedical professionals. Sixty seven participants (30.73%) secured a knowledge score in the range of 9-12(45-60% knowledge). Majority of the respondents (91nos,41.74%) of the study population secured scores between 6 and 9 and remaining 36 of the respondents had secured a very minimum knowledge, 3 to 6.

DISCUSSION

Disease wise knowledge distribution (Fig.1) indicated an average of AIDS (5.9), Asthma, Blood Pressure and Diabetes mellitus in the descending order. However, the knowledge about AIDS is fairly good. This may be

due to the campaign in mass Media such as TV, Radio, and News paper repeatedly. However, we don't find much social messages about other three diseases which are also serious threat to mankind in terms of morbidity and mortality. It is also necessary to campaign on other diseases like AIDS. The main difference between AIDS and other diseases is that AIDS is communicable and dramatic in presentation of morbidity and mortality. There is prognosis and increased occurrences of the diseases also which are affecting not only the quality of life but also the mortality. The range wise distribution indicated (Fig.2) majority of respondents were not clear about disease knowledge which indicates the scope of education about the diseases. Majority of the respondents (88%) could not score 60% and above. The exposure to diseases by self or relatives actually gives opportunities to learn about the diseases. In the population of respondents there is fairly large number of respondents who had a good opportunity to acquire disease knowledge (Fig.3). Despite this, 26% of the respondents had no knowledge about any of the diseases. Figure 4 depicts percentage of respondents from health care and non health care sectors. A comparison of disease knowledge of men versus women respondents are given in Figure 5. The trends in disease knowledge of all the four diseases reveal there is no gender disparity as men and women have similar tends in knowledge. Figure 6 explores the source of information for men and women. The major source of information is attributed to profession or job followed by mass media and disease knowledge due to disease exposure by self or relatives being least. Irrespective of the gender, the source of knowledge follows similar pattern. The figure clearly establishes that mass media is one of the effective resource for provision of disease knowledge. But the profession or exposure to disease are not possible for any practical intervention. However, men had better exposure than women to mass media, may be one of the causes for gender disparity of disease knowledge among men and women. Targeting the women for disease knowledge seems to be a logical step to equalize the gap of disparity.

CONCLUSION

The survey was conducted to measure the minimum knowledge of disease and health care among the youths. The study revealed a significant amount of ignorance in relation to the basic knowledge regarding the symptoms and precautions to be taken to safeguard them in suffering of the disease. The disease knowledge among the medical and nonmedical background were not much different. This was in contrary to our belief that the healthcare professional background imparts good knowledge about the disease conditions and the same is questionable. A systematic study in this regard is recommended, in order to take suitable measures for increasing the awareness and minimum knowledge of prevalent diseases, especially about the precautionary measures of these common diseases. This can further help in improving the knowledge with an improved quality of life.

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