Original Article

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ASSESSMENT OF HEALTH LITERACY IN A SELECTED POPULATION OF RAWALPINDI CANTONMENT, PAKISTAN

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ABSTRACT

Objective: This study was conducted to determine health literacy of Army population in Rawalpindi cantonment.

Study Design: Descriptive cross-sectional survey.

Place and Duration of Study: The study was conducted at Rawalpindi station from November 2014 to March 2015.

Methodology: A structured questionnaire, adopted from Asian health literacy association was used. It assessed HL through 12 sub-dimensions. The sample size for the survey was 246. Sample selection was done through purposive sampling. One hundred and fifty five (63%) respondents completed the survey out of 246.

Results: The results of survey showed that 33.39% had fair HL, 21.13% had poor HL and 12.26% were very poor in HL. It also showed a positive association between HL and educational level; the higher the educational level, the higher the HL. Significant variations are noted in the gender groups, female having higher health literacy levels than males, which may be due to their higher educational levels.

Conclusion: In order to achieve better health status, assessment of HL level is important so that interventions can be carried out to address improving healthy behaviours and increase utilization of health facilities.

Keywords: Health literacy, Health behaviour, Health status, literacy.

INTRODUCTION

Health literacy is ability to obtain, process, and understand health information needed to make informed health decisions. Given the complexity of healthcare system, it is not surprising that limited health literacy is associated with poor health[1]. Weak health literacy results in less healthy choices, riskier behaviour, poorer health, less self-management and more hospitalization[2]. Health literacy entails people`s knowledge, motivation and competences to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course[3]. Patients and families who struggle to understand health information have a difficult time following medical recommendations and are at greater risk for health problems. Health information[4] can confuse anyone. Clear health communication helps better understanding and act on health information. At some point, most individuals will encounter health information they cannot understand. Even well educated people with strong reading and writing skills may have trouble comprehending a medical form or doctor's instructions regarding a drug or procedure[5]. International assessments of adults' ability to use information suggest that these assumptions may be faulty. Many people who deal effectively with other aspects of their lives may find health information difficult to obtain, understand, or use[6]. Without improvements in health literacy, the promise of scientific advances for improving health outcomes will be diminished[7].

In developing countries, health seeking behaviours and health care services utilization patterns has been studied and the determinants have been classified in physical, socio-economic, cultural and political contexts. Trends in utilization of a health care system depend on multiple factors including health

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literacy level of that community[8]. It is believed that lack of health literacy affects all segments of population, although it is disproportionate in certain demographic groups, such as the elderly, low socio economic groups and persons with low general literacy. Military personnel and their immediate family have the advantages of a system where health prevention is one of the goals of Army Medical Corps. This population, though divided into officers and soldiers' classes, they have universal access to education and health. This makes it a very interesting group for study for the assessment of health literacy in this group. This study was conducted to assess the health literacy of army population in Rawalpindi.

METHODOLOGY

It was a cross sectional study, carried out between November 2014 to March 2015 in Rawalpindi cantonment. Study population consisted of all the residents of Rawalpindi and Chaklala cantonments belonging to Army and over the 18 years age. The estimated sample for the study was 246 respondents from the study population. Data was collected by using a structured questionnaire adopted from Health Literacy Society of Asia (HLS-Asia), which in turn is based on the conceptual model of HLS-EU-Q developed by Maastricht University and the HLS-EU Steering Committee[9]. The Questionnaire was modified keeping in view the peculiar nature of the country and military environment. Individuals were selected from various units reporting to Military Hospital and Combined Military Hospital either as patient or as attendant, keeping in mind their willingness to participate in the survey. The questionnaire was explained to them and hand delivered for completion. It was taken back the next day. Data was entered and analysed using SPSS version 22. Simple frequencies and percentages were generated; variation was assessed through cross tabulation between various variables.

The study was approved by Armed Forces Postgraduate Medical Institute, Rawalpindi. Confidentiality of information and Anonymity of respondents has also been ensured.

RESULTS

Response rate: Out of the total sample of 246, only 155 respondents completed the questionnaires, thus showing a response rate of 63%.

Age: Mean age of respondents was 34.97 years (SD+ 10.89) with a range of 20 - 78 years. **Gender**: Among the respondents there were 107 (69%) males and 48 (31%) females.

Marital Status: Out of 155 respondents, 72% were married and 27% unmarried.

Education: Highest proportion was for bachelors education (25%) followed by Master (17%), and Intermediate (16%).

Profession: Majority of the respondents (46%) were government employees.

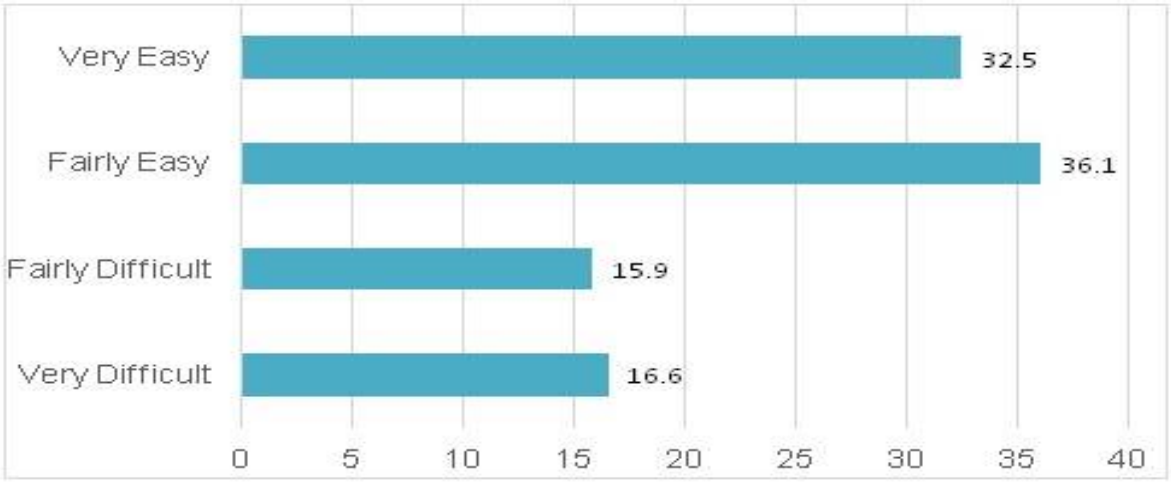

Figure-1: Finding Information on treatment of Illness.

Financial status: About half of the respondents had a monthly income between PKR. 10,000 to 40,000, 21% had monthly income between 20,000 to 40,000.

Living Arrangements. About 74.6% respondents were living at home with family at the time of the survey and the rest are either living alone or in barracks.

Self-Perceived Health Status and Illness: 84.7% respondents considered themselves to be healthy; 15% considered health status as fair while only 1.3% reported their health as bad.

Level in Society: On a scale I to 10 (where 1 is lowest level and 10 the highest level), 71% of the respondents placed themselves between 5 to 8.

Smoking status: 89.8% reported to be non-smokers and 4.8% as smokers.

Physical exercise: Only eighty individuals (51%) responded to this question. Out of the respondents, 24.7% do not do any exercise, while remaining were doing from daily to few times a month exercise.

Watching health related programs: 91% responded, out of which 46.1% said that they never or rarely watched any health related TV program.

Visited medical related sites on Internet: 76.8% who responded, use the internet to visit health related websites.

Health literacy status

In results showed that 33.39% had Fair HL, 21.13% had poor HL and 12.26% were very poor in HL.

About 31% respondents found it "difficult" to find information about symptoms of illness, its treatment and to get professional help.

Figure-2: Finding Information about unhealthy behaviours.

32.5% find it "Very easy" while 16.6% find it "Very difficult" finding Information on treatment of illness that concerns them.

33.1% respondents, said they have difficulty to find information about how to manage unhealthy behaviour such as smoking, low physical activity and eating unhealthy food.

When asked the question if they consider it difficult or easy to find information about vaccinations and health screenings (such as breast exam, blood sugar test, blood pressure) 66% find it easy.

61.9% thought that it's easy to find out what to do in case of a medical emergency; while a significant proportion of 38.1% said it is difficult.

78% said they find it "easy" to understand doctor's instructions about taking medicines, while 22% respondents found difficulty-understanding doctors' instructions.

To the question if they understand health warnings about smoking and low physical activity, 70% found it easy to understand.

65% respondents find it easy to understand information on the food packaging while 35% found difficult.

82% considered it easy to understand health advice from family and friends.

75.5% found it easy to judge the need to see a doctor for check-up; 24.5% found it difficult to do that.

59% find it easy to find which vaccination they may need; while 41% found it difficult to judge that.

67% find it easy to judge as to which type of health screening they should have; 33.6% found it difficult.

63.5% respondents found it easy to judge between the advantages and disadvantages of different treatment options.

72.72% find it easy to follow the instructions given on medications; 27.26% found it difficult

52.7% respondents find it easy to call an ambulance in emergency; 47.3% found it difficult.

48.68% found it difficult to take part in activities that will improve health and well-being of their community.

Following variables were chosen to assess variation in HL level among the respondents:

a. Gender

b. Educational Status

c. Financial Status

Those responded to it were 141. 46 (47.4%) males had never watched health related dramas on TV compared to 1 (2.3%) female. The comparison between the male and female respondents on watching health related TV programmes is as under. (p< 0.001).

Internet is used to get health related information. 81.8% females access internet to visit health related sites compared to 53.3% males. (p< 0.001).

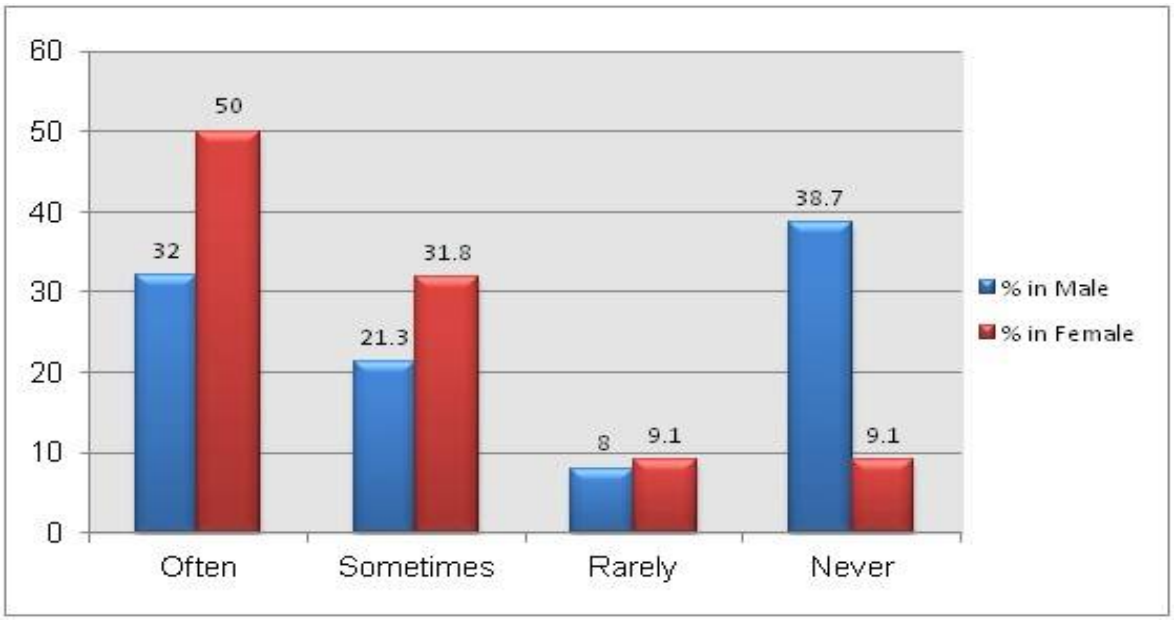

Figure-3: Use of Internet for health related information (% by gender).

24% males considered it very difficult compared to no females, while 53.2% females consider it fairly easy compared to 26.9% males. (p< 0.001)

44.2% males considered it difficult to understand the need for vaccination, while in females 8.5% considered it difficult. (p< 0.001).

45.7% males found it difficult to judge that which health screening they should have compared to 6.4% females. ($p< 0.001$).

DISCUSSION

The study showed that overall, 33.20% respondents had good Health Literacy (HL) in the Army population of Rawalpindi, which commensurate with the proficient group of NAAL. This study exhibited a direct relation of education with health literacy. The respondents with higher education level found it much easier to apply the health information. It showed that higher the educational level, better are the chances of health literacy.

Female respondents fared well on the health literacy assessment tool. Females had scored better in accessing, understanding, judging and application of health information. This can be attributed to higher literacy level of female population in Army, because most of them are inducted in officers category where educational level is bachelors and above, compared to males where a soldier can be inducted with high school education.

The study showed a positive association between health literacy and financial status. The higher the financial status, the better the health literacy. The respondents with higher income group had shown it easy to find, understand, judge and apply medical information compared to those from a lower income group. This finding favours the relationship between economic status and health literacy.

Communication plays an important role in improving HL. The study showed inadequacies of our health system in terms of communication and health education. Many of those who are at the lower level of literacy, found it difficult to negotiate through the maze of medical phrases and words mostly in English. We are still using medical jargons in our every day communication, which were difficult to understand for people with low levels of literacy. It has also been observed that the health literacy level about understanding and managing information about medical emergency was lower among the categories with lower educational levels.

CONCLUSION

Health literacy, though a new concept has become very popular in the recent past in the developed countries. Health Literacy is now considered a determinant of Health. The lower the health literacy of a population, the more chances are of lower health. Through it the need for Health Promotion is assessed. It identifies the weak areas of the population for which suitable interventions are then initiated. It has been linked directly with educational levels. By improving Health Literacy, overall Health status of a population can be improved.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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