Assessment of Lifestyle and Health Knowledge of Patients in Duhok Governorate - Iraq

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Abstract

Background: Lifestyle behaviours and Health literacy are associated with increasing the chronic diseases. This health survey questionnaire was designed to provide a lifestyle assessment and health knowledge of patients in Duhok governorate - Kurdistan Region - Iraq. **Methods:** A random sample of 200 patients (115 females and 85 males; aged above 50) was selected from public health care centres. The data were collected through a descriptive cross-sectional study by face-to-face questionnaire, between November 2015 - April 2016. The lifestyle practices and health literacy were assessed through several questions about patient demography, health attitudes and knowledge of diseases and treatments. The SPSS V.18 software was used for data analyses. **Results:** 88.5% of the respondents were diagnosed with chronic illnesses mainly hypertension (53.5%), cardiac attack (29.5%) and diabetes (24%). They have shown their interest on eating fruits and vegetables (88%) rather than consuming high quantities of salty and fatty foods. Nonetheless, the most common adverse habits were lack of physical activities including exercise (85.5%) and healthy walk (56%). Most patients knew little information about their diseases and treatments. **Conclusion:** An adequate awareness has been shown in taking healthy food, avoiding alcohol consumption and smoking. Nonetheless, there are apparent gaps in patients' knowledge about the importance of exercise and healthy walk and awareness of their disease conditions and treatments.

Keywords: Patients, Lifestyle, Health, Knowledge, Duhok.

BACKGROUND

Lifestyle behaviours are mainly associated with enhancing of chronic diseases and mortality rates, and a strong relationship has been defined between heath literacy and knowledge of the patients about their chronic diseases. [1] The study has examined the lifestyle, health literacy and knowledge of diseases and therapies among patients, majority of them presented with chronic illnesses in Duhok governorate - Iraq. According to Alwan (2011), the main reason of health issues has shifted from infectious diseases in the past century to the chronic illness nowadays. Chronic diseases such as hypertension, diabetes and cardiovascular diseases are slow progressive non-infectious conditions that considered the main leading causes of death worldwide. [2] Rapid changes in food patterns and lifestyles, which have occurred after industrialization and urbanization, have accelerated over the last years. Subsequently, there have been an increase in an inappropriate dietary pattern, decreased physical activities and smoking use, and a corresponding increase in chronic diseases, especially among poor people. [3]

In order to upgrade the population health, changes in the lifestyle practices including nutrition and physical activities are required. [4] The objective of this study is to analyse data regarding the health knowledge and attitudes of Duhok residents on physical activity, dietary intake, smoking, alcohol consumption, diseases and therapies and to associate their health awareness to the chronic diseases. Hence, this may assist public health practitioners and health providers to gain a greater understanding of these issues and to investigate the necessary routes that contribute to change the high-risk lifestyle behaviours.

The lifestyle characteristics may increase the risk of chronic disease and premature death. According to Pender 2006, the individual lifestyle is the principal reason of health issues. In addition, regular health monitoring of the population will provide an essential promotion in the health.[5] In a follow up questionnaire for Harvard alumni, aged 35 to 74, the physical activity such as walking, stair climbing, and sports associated inversely to the mortality rate. The relative reasons of death were highest among cigarette smokers and individuals with hypertension. [6] There is a tremendous growth in scientific knowledge that clarifies the relationship between diet and health. This awareness has informed nutritional recommendations and health providers to promote health and has triggered the national campaigns to educate people on more healthful eating habits. [7] The consumption of the healthful diet (reducing salt and fat) and changing the exercise patterns are most effective factors in the prevention of nutrition-related conditions.[8]

Learning about nutrition and healthful eating habits can be effectively stimulated by the awareness of a relationship between diet and health (diet-disease relationship) and, subsequently, this acts as a first step in acquiring the knowledge necessary for dietary improvement. In 1982, the Health and Diet Survey (HDS) by FDA began to study the awareness of relationship between dietary risk factors and specific chronic diseases. [7] According to Gazmararian *et al* (2003), the respondents with adequate health knowledge knew significantly more about their disease conditions than those with insufficient health literacy.[1] The medical advances and assessment of many health factors through screening protocols in older adults such as hypertension, cholesterol, diabetes and cancer screening are contributed substantially into health promotion programs. [8]

METHODOLOGY

A descriptive cross-sectional face-to-face questionnaire was developed, which began asking questions on patients' demographics covering the age, gender, education, social class and occupation. The second part included

the questions on the patients' lifestyle such as eating salt and fatty food in amounts that excess the daily requirements. They were also asked about their physical activity on daily basis, smoking, and alcohol consumption. Lastly, it included the questions about the aspects of health knowledge and attitude towards disease and its treatment.

The population size of this study was 200 from both genders (115 females and 85 males). The study involved the participants who have chronic diseases (88.5%) and the ones who recently presented with acute cases. However, most them have reported one or more chronic diseases such as hypertension, heart diseases, diabetes, asthma and rheumatic diseases in order to estimate the association between their lifestyle and morbidity. Most participants (80%) aged above 50 years old. They reported details about their educational and occupational lives. The study has shown a good enrolment rates (55%) in primary and secondary schools, where 20% of them have entered colleges. Nonetheless, the illiteracy remains a serious problem in Duhok governorate where more than 45% were uneducated whereas only about 20% have bachelor degrees. To estimate their living quality, the questionnaire involved several questions about the occupational status and monthly incomes. More than a half were retired or without work who mostly rated themselves within the intermediate social class, while 10 % only rated themselves under the poverty living line. The number of people with a constant employment comprised about 42% of participants, which reported that they get moderate monthly salaries.

All the interviewers completed their questionnaire after getting their entire consent. The participants had been informed about the purpose of the study, the type and meaning of questions, and the approximate period needed to accomplish all the questionnaire parts. This study was carried out in the governorate of Duhok, a part of the Kurdistan Region of Iraq (KRI), including the districts of Dohuk, Amedi, Sumel and Zakho between November 2015 - April 2016. The governorate of Duhok recorded a population of 1,133,627 inhabitants in the latest 2015.[9] The data were collected from public health centres. The main locations were the General Teaching Hospitals such as Azadi Hospital, Paediatric Heevi Hospital, Obstetrics and Gynaecology Hospital and Renal Dialysis centres.

The 200 questionnaires with complete and correct answers were used in this study. The respondents' data were serially numbered, coded and input into the Statistical Product and Service Solutions (SPSS version 21). The frequencies and percentages were fitted as tables and charts for quantitative analysis.

RESULTS

The participants were asked if they have any of many chronic illnesses, including hypertension, heart attack, diabetes mellitus, asthma, rheumatic diseases and renal diseases. Overall, about 88.5% of the participants reported at least one diagnosed chronic diseases, where higher number of them presented with hypertension (53.5%) (Figure 1).

Lifestyle practices: The prevalence of the lifestyle risk factors was determined by asking the respondents about smoking, alcohol consumption, exercise and healthy walking. Most of the participants reported themselves as non- smokers (79%) and they do not drink alcohol (90.5%). However, higher percentages of the respondents stated that they never walk (56%) or do an exercise (85.5%) for the health purposes (Figure 2).

Diet assessment: The higher number of participants stated eating low levels of unhealthy foods including salty and fatty food. The consumption of the vegetables and fruits were relatively high and intermediate in comparing to
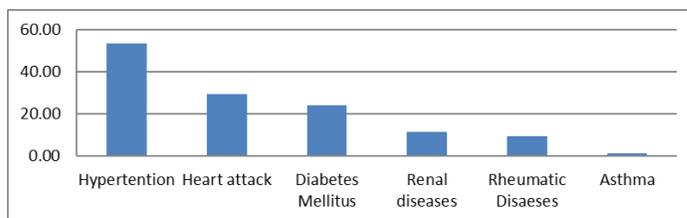

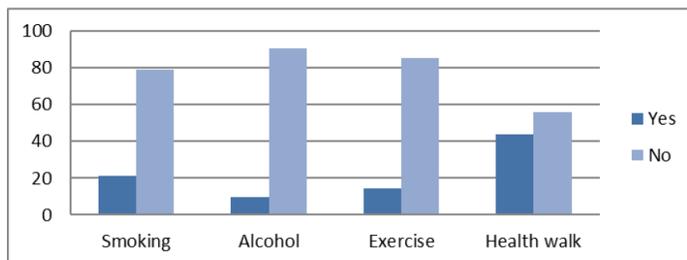Figure 1: The diagnosed chronic illnesses of participants.

Figure 2: The lifestyle practices of participants.

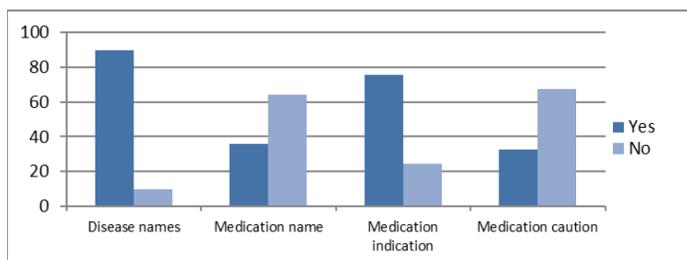| Table 1: Diet assessment.				
Consumption rate	**Salty food**	**Fatty food**	**Organic food**	**Vegetables and fruits**
High	16	20	12	70
Intermediate	70	72	41	106
Low	108	102	147	24
Never	6	6	92	0

Figure 3: Disease and therapeutic awareness.

the low levels or never eating organic foods (Table 1).

Knowledge of disease and therapy: The health knowledge of populations was estimated through several questions about their medical issues. About 90% of the answers were (yes) showing the awareness of their disease name and 75.5% could define the indication of their medication by recognizing the packet or drug shape and colors. An accurate name of the mediation was identified only by 36% of participants. Alternatively, 67.5 % of the patients reported that they do not know their main caution and how to act in case of side effects (Figure 3).

The necessity of medical checks: The high percentages of participants (22% (n=44) and 18.5% (n=37)) perceived that they refer for medical checks every 3 and 6 months respectively. An approximate of 16.5 % reported their medical checks as once per month and 12% as twice per month. Only few
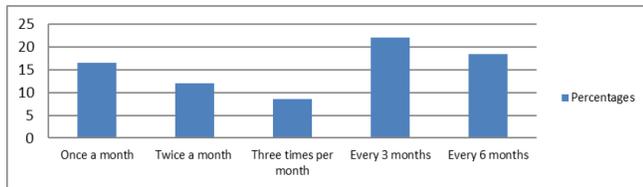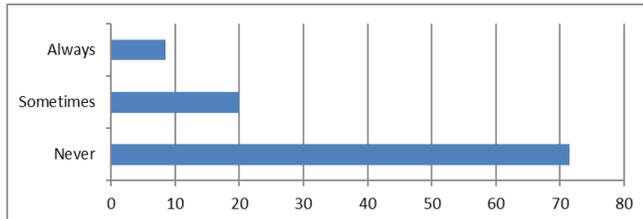
Figure 4: Health check.
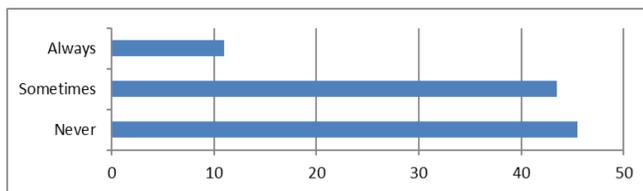

Figure 5: Reading the medical leaflet.

Figure 6: Missing the doses.

of respondents stated the necessity of regular health follow up through visiting the medical centres three times monthly (Figure 4).

The necessity of reading medical prescription and leaflet: The ability of patients to read their medication prescription and leaflet were estimated. The majority (71.5%) of the patients revealed that they never read and interpret any instructions about the medication before administration, where only 8.5% stated that they always read the medication leaflet (Figure 5).

What to do in case of missing the dosage frequencies: The participants were asked if they had ever missed their dosage frequencies. The responses were quite similar showing that 45.5% of the patients never missed their medications and 43.5% of patients missed their medications sometimes. A smaller number of patients (11%) stated that missing their medications is very common (Figure 6).

The reason behind missing their medications: The high rate of patients (22.5%) reported that the dose missing is due to their negligence. About 17% of them stated that they missed their therapies since they take several medications at once. The responses of 10% of patients included the lack of enough knowledge about the importance of the treatment, and about 15.5% reported the reason behind the high price of their medications. Finally, a small number of the patients (3%) mentioned that the administration of their medication is inconvenient. The participants were also asked if they know what to do when they missed their medications, the higher rate (65.5%) answered with (No) comparing to 34.5% who answered with (Yes) regarding such situations.

DISCUSSION

The questionnaire measured the protective lifestyle behaviours such as being physically active, non-smoking, non-alcoholic and adequate fruit and vegetable consumption. Worldwide, the health of populations and particularly elderly individuals is weakening.[10] Many researches are required to investigate the accurate relationships among the health, healthy habits and health awareness of the populations, which may slow the process of health deterioration. Overall, this study has investigated that most of the populations could distinguish the influence of healthy and unhealthy habits on their lives. It also has shown a high interest of the populations on their eating habits and most of the respondents were non-smokers and non-alcohol drinkers. Nonetheless, there is a lack of interest on physical activities particularly regular exercise and healthy walk.

Selivanova *et al* (2014) has shown that sufficient physical activity affects the self-rated health in both genders, whereas excessive alcohol consumption had no significant effect. The consumption of fruit and vegetable has a strong effect on self-rated health among women, but not men.[10] Research studies have reported the relationship of fruit and vegetable consumption and health outcomes in the U.S. population; however, few studies investigated the diet-health relationship.[8] Several studies have confirmed that lifestyle modification is an appropriate measure for prevention of chronic diseases like hypertension, diabetes and hyperlipidemia. Most of coronary heart diseases cases among US men may be preventable through adherence to healthy lifestyle practices[11] The current results have shown less devotion of the respondents to the healthy behaviours and subsequently high percentages of them are presented with chronic diseases. Additionally, this might strongly have related to several other factors such as social class, education and culture as most participants were rating themselves under an intermediate living levels and some under poverty levels. High rate of participants were illiteracies or completed the primary education only. In addition, there is an insufficient health campaigns by health providers, which play crucial roles in upgrading the awareness among the populations.

Regarding the healthy food, the result showed that low consumption of salty and fatty food, an adequate eating fruits and vegetables, but nothing or very little about the importance of organic foods. It is likely that the less attention on physical activities has a strong association with the occurrence of chronic illnesses especially hypertension and cardiac diseases since it has been revealed that treatment of chronic diseases (e.g. hypertension) could be solely through the lifestyle modification (non-drug therapy).[12]

In general, the aims of such questionnaire are to identify high-risk health behaviours, medical concerns, and its effect on health care experiences, which could provide health promotion and prevention approaches. The health knowledge has positive and meaningful correlation with patient attitudes towards their diseases; however, the effect of population awareness of these lifestyle behaviours on general and mental health is less defined.[13] A previous study in United States has suggested that health literacy can influence the patient knowledge about their diseases but not the self-care and medication adherences.[14] The health knowledge of disease and treatment were assessed through several questions involved on the basic information about their chronic diseases and medications. High numbers of the patients had adequate knowledge about the name of their diseases and the importance of medical checks frequency. However, they show less understanding of their medical conditions and therapies. For instance, 64% of the patients could not identify the correct name of the medication and further 22.5% could not know the drug indication. Most patients reported that they

could not read the drug prescription or seek for any additional information about their medications and do not know what to do in case of missing their doses or in case of side effects. This is probably due to the shortage in the availability of the health providers and particularly pharmacists in the public health centres. Worldwide, there has been broadening in the role of community pharmacists for health education and disease prevention such as risk management and intervention to improve compliances of the patients, however, there is a cycle of dysfunction in which many pharmacists do not provide sufficient instructions beyond the dispensing of a product. [15]

In Duhok governorate, there is little information on Pharmacists' roles in health care systems and their interest on disease prevention. Furthermore, the limited health literacy of the patients can obviously cause difficulties in the management of self-care factors, medication administration and other necessary cautions. The patient education is supposed to promote the medical and health literacy. However, the high percentage of participants presented with low level of education and as a subsequent, their ability to understand their disease condition and treatment instructions was very limited. There are many prospects to improve patients' knowledge of their chronic diseases, and such questionnaires are needed to consider the health literacy skills. The study intended to recognize the health knowledge and attitudes of patients toward lifestyle modification, and to identify the important factor in lowering the risk of chronic diseases.

CONCLUSION AND RECOMMENDATION

This study has provided an understanding of health knowledge and attitude of the populations in Duhok governorate that might negatively affect their health and life expectancy. An adequate awareness has been shown in using healthy food and avoiding alcohol consumption and smoking. Nonetheless, there are apparent gaps in patients' knowledge about the importance of exercise and healthy walk and awareness of their disease conditions and treatments. The data analysis of this study can be used as a basis for starting or developing educational interventions and campaigns to improve patients' health behaviours. Further studies are needed to determine the prevalence of functional health illiteracy and its effect on the health care experience to develop an effective intervention that helps the patient in the management of their health.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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