3rd World Conference on Psychology and Sociology, WCPS- 2014

Awareness, Attitude and Function Rate Investigation of the Over-18-year-old Clients Referring to Curing Centers of Educational Hospitals in Zanjan (Iran) Related to Cardiovascular Risk Factors in 1393 (2013-14)

Khalil Mahmoodi\textsuperscript{a}, Mehran Tahrekhani\textsuperscript{b}, Zahra Mousavi Nematiyeh\textsuperscript{c}*

\textsuperscript{a}Professor Assistant, faculty member of medical university of Zanjan, Iran
\textsuperscript{b}MS Student, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran
\textsuperscript{c}Student of Infant Assistance Student, Shahid Beheshti University, Tehran, Iran

Abstract

Cardiovascular risk factors are rise as urbanization grows and unhealthy habits prevalence is an important contributing factor. It was a descriptive-analytical study which was done with 399 over-18 people referring to curing centers of Zanjan’s educational hospitals. Data were collected using questioner Awareness, Attitude, and Function. \%51.12 of the subjects were females, \%74.18 married, \%24.31 illiterate, and \%55.20 had high education. Awareness and attitude rate revealed no significant difference in terms of age and marital status (P>0.069). Women’s fair attitude mean was more than that of men (P=0.0001). The results revealed poor functions in some aspects despite good awareness and attitude of people related to risk factors contributing to heart disease.

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Keywords: awareness, attitude, functioning, heart disease

1. Introduction

Cardiovascular diseases are one of the main problems in general health section which leads to fatality and disability in many developed and developing countries (Bayi, Zhixia, Xiaojun, Qiunao Cai & Yanjun, 2013).

* Zahra Mousavi Nematiyeh. Tel.: 09122410801.
E-mail address: mehran.tahrekhani@gmail.com
Although many of these conditions could be treated, this malady takes the highest death tolls worldwide (Shahbazi, Mazlomi, Motlagh & Sarvestani, 2011).

Heart Association of America (AHA) estimates that by 2020 there will be about 25 million fatalities due to cardiovascular conditions and this condition will be known as the first cause for death (Sohrabi, Taghi Nezhad, Moghaddam, Alizadeh & Salamati, 2013). Nowadays, 360 deaths out of 800 fatalities in Iran are due to cardiovascular conditions, and 3000 years of efficient life are wasted because of these diseases (Rosamond, Flegal & Friday, 2010).

Cardiovascular diseases are among the highly expensive treatment processes which require 3 billion dollars annually. Due to progresses in technology, it is estimated that the costs will grow in the two following decades due to increase in cardiovascular diseases (Justin et al., 2014).

Evidence suggests that increase in cardiovascular diseases occurrence in developing countries is affected by the urbanization features and wrong life style. Lack of knowledge on contributing factors to this condition gives a rise to incidence and progress of these diseases among the families through failure to observe healthy lifestyle (Adili, FakhrZadeh, Nouri, Makarem & Larijani, 2006), (Khani, Kazemi & Javanshir, 2003).

Various studies have introduced different contributing factors to cardiovascular conditions, including age, gender, diabetes, high cholesterol, high blood pressure, smoking, drinking, obesity, physical inactivity, and family background, most of which could be prevented (Shahbazi, Mazlomi, Motlagh & Momeni Sarvestani, 2011). Since most of the risk factors could be controlled and prevented, cardiovascular diseases are considered as preventable conditions (Tareq et al., 2012).

Therefore, in order to prevent cardiovascular diseases, the public’s awareness has to be increased and their attitude must be changes. Thus, it could be stated that awareness is a well-known requirement to make changes towards healthy behavior. In addition, increasing the public awareness on this condition will encourage them to accept healthy caring activities better and more easily which may lead to better results (Tareq et al., 2012).

Awareness and attitude could affect people’s performance; therefore, health system is required to investigate and analyze the attitude and awareness of the different groups of the society and plan to improve their knowledge and performance, accordingly (Bijari & Kazemi, 2014). Public awareness and attitude improvements are among fundamental and primary measures in reforming lifestyle of the people, which, in turn, will lead to better performance. The results obtained from studies on awareness, attitude and performance of the people related to cardiovascular risk factors are contradictory. Studies on women and teachers show that their awareness and attitude towards cardiac risk factors are good but their performance is poor. People’s awareness and attitude towards cardiac risk factors and diabetes are low in Saudi Arabia, Malaysia, and Yazd, while people’s awareness, attitude, and performance towards cardiac risk factors are high in the United States of America (Bijari & Kazemi, 2014).

Educational programming to increase people’s awareness has to be according to facts and living requirements of the people and relative to the features of different social groups (Shahbazi, Mazlomi, Motlagh & Sarvestani, 2011).

If the health system manages to develop effective instructional plans for targeted groups, it will be able to reform their life style and therefore, will induce positive effects in non-contagious disease prevention in the society. To implement an efficient instructional program, awareness and performance level of the target group have to be determined and the required program could be developed accordingly (Bijari & Kazemi, 2014).

Therefore, instructional programs and measures could be planned to increase awareness levels and improve attitudes in society using the obtained information. Since a survey was needed to determine awareness levels, attitudes and performances of people before prioritizing and planning, it was decided to conduct a study to attain the above-mentioned goals. The present study aims at investigating the awareness level, attitude and performance state of the people referring to the hospital of Zanjan to implement preventive measures for cardiovascular diseases in 2013-2014.
2. Methodology

This is a descriptive-analytical study whose population was all the over-18 clients referring to the hospitals of Zanjan as either a patient or patient concomitant with the patient. To determine the sample size, the following formula was used. The sample size was 384 after applying the formula.

Since the total number of the over-18 clients referring to the hospitals of Zanjan, who met the criteria of inclusion, was 399 people, it was decided to include them all in the study. The inclusion criteria included being over 18 years old, oral consent to fill in the inventory. The exclusion criteria were cardiovascular infliction and being the concomitant.

Data collection tool was Awareness Attitude Performance Inventory whose validity and reliability had been verified in previous studies. To make sure, the inventory was again verified by 15 faculty members of Medical Science University of Zanjan on the face and content validity. To test the reliability of the inventory, 40 questionnaires were handed round among the clients prior to the onset of the study and the filled questionnaires were collected. After two weeks the same people were called and asked to answer the same questions on the phone. Cronbach’s alfa coefficient was 0.75, and the pre-test and post-test reliability was acceptable, 0.80.

The inventory consisted of 4 parts. The first part was about demographic information which included 9 questions: age, gender, marital status, education, living place, occupation, and information resource. The second part was about awareness including 18 questions which investigated the subjects’ knowledge on the research on cardiovascular risk factors. In this part, 1 score was given to every correct answer and 0 was allocated to every wrong or an I-don’t-know answer. In order to grade the people, weak awareness was given to the participants with maximum %39 of awareness mean, average awareness level was assigned to people with at most %40-%69 of awareness mean and good awareness level was allocated to people with over %70 of awareness mean. The third part of the inventory consisted of 14 questions which had been developed to investigate the subjects attitude towards cardiovascular risk factors. In this part, 2 scores were given to every correct answer, 1 score was allocated to every I-have-no-idea answer, and 0 to every wrong answer. In order to grade the people, weak attitude was given to the subjects with 0-1 attitude mean score, average attitude level was assigned to people with 1 attitude mean score, and good awareness level was allocated to people with over 1-2 attitude mean score. The fourth part of the inventory consisted of 14 questions related to performance of the subjects towards cardiovascular risk factors.

In the present research, preventive behaviors of the subjects against cardiovascular diseases were assessed based on the participants’ answers. Undesirable activities included not doing exercise, smoking, not measuring blood pressure, not measuring cholesterol, and body weight, adding salt to food, using solid oil in cooking, red-meat consumption, and fatty local dairy products consumption. The rate for undesirable performance was determined in terms of percentage for every group, and then the results were compared.

Finally, in order to distribute the inventories, two sampling round were implemented. At the first stage, the samples were grouped into 3 age groups: 18-30, 31-45, and over 46 based on gender, which had a relatively similar ratio.

In the second stage, using the simple sampling method, the inventory was distributed in each group based on their own ratios and the attempts were made to have equal inventory distribution based on age and gender. Then, the inventories were randomly distributed among the clients over 18 and their concomitants who had declared their oral consent for two weeks, 3 days (in the morning and evening) a week, except on holidays. After collecting the inventories, the subjects were instructed by the researchers using a prepared pamphlet on different contributing factors to cardiovascular diseases and the preventive ways. The face and content validity of this pamphlet was verified by 10 faculty members of Medical College of Zanjan. Once the instruction was over, another inventory was given to the same participants, and was collected after completing the inventory. The data were analyzed using SPSS software, descriptive statistics, independent t tests, nonparametric Kruskal-Wallis test, Mann-Whitney test, and Chie squared test at the significance level of p<0.05.
3. Results

The results showed that, of 399 samples under study, %51.12 of subjects consisted of women and %49.88 were men. %22.55 of the participants were single, while %49.18 were married; %1.5 were divorced and %3.5 were widowed. The samples were divided into three age groups: 18-30, 31-45, and over 46 comprising the following percentage of the population under study, respectively: %36.09, %33.80, and % 30.82. Taking literacy into consideration, %24.31 of the sample were illiterate, %29.07 under Diploma, %23.55 Diploma, %20.55 had high education and %2.5 were dropouts. %35.83 of the subjects lived in rural areas and %64.17 lived in urban areas. The highest resource of getting information was from health workers (physicians, nurses and so on), being %37.68, and the least used resource was the internet, %4.77.

The findings revealed that the awareness level for age groups of 18-30, 31-45, and over 46 were %61±0.18, %59±0.21, and %46±0.18, respectively, suggesting no significant differences (p>0.05). Awareness level for men was %57±0.20 and %61±0.18 for women which showed significant difference statistically, suggesting higher awareness among women.

There were no significant differences between awareness, marital status, and education level but the difference between subjects’ awareness and high education was clear and significant, compared with other participants (p<0.05), so that as the education level rose, awareness grew as well. According to the results, the total mean of the subjects’ awareness in relation with cardiovascular risk factors was %57, indicating that the subjects’ awareness was at average level.

The findings revealed that there were no significant differences between the three groups in terms of marital status, education level up to Diploma (p>0.05), yet there were obviously significant differences between the attitudes of illiterate subjects and literate people and those with high educations (p<0.01) which indicates the awareness of people rises as their education increases.

The mean right attitude of men was 10.3±1.43 and 1.56±0.31 which showed no significant differences statistically (p>0.05), but women’s attitude was higher than that of men.

According to the results, the mean attitude score was 1.4 which shows good attitude among the participants towards cardiovascular problems and their prevention.

Investigating the performance in terms of doing sports, there were reversed significant differences between different groups, so that the amount of doing sports decreased as the age grew (p<0.05); contrary to the previous finding, as the education level increased, physical exercises rose as well (p<0.01). Single and married people exercised more than divorced and widowed people (p<0.01) but there were no significant differences based on gender (p>0.05).

Another result was that there were no significant differences among groups in smoking in terms of education level and marital status (p>0.05), it was significant in terms of age, and gender, so that smoking was more frequent among men that women (p<0.01) and it grew as the age increased (p<0.01).

People used ghee most for cooking and single people compared with married ones, and in terms of education level, illiterate people or dropouts used more solid vegetable oil. As the age increased, the amount of solid vegetable oil used in cooking rose too. An important finding was that the amount of ghee used by educated people was more than that among illiterate people or people with lower education. Also, men consumed more red meat than women.

On the other hand, as the age increased, the vegetable consumption fell and women had less fruit and vegetables than men. Most men and women participating in this study used vegetables in one meal daily and the highest consumption amount of fruit and vegetables was among the university students (p<0.01).

Risk factors for cardiovascular diseases related to performance rate were not significant in relation with dairy types consumed by people in terms of age, marital status, and education level, but from gender point of view it showed a significant difference (p<0.05). The males and divorced people in age group of 18-30 used fatty dairy products, but the others used low-fat products.

It could generally be stated that the level of awareness for people under study was at moderate level, attitude level was good, yet performance was undesirable from many points of view, including nutrition and physical activity.
4. Discussion

The present research showed that the level of awareness for people under study is at moderate level, attitude level is good, yet performance is undesirable from many points of view, including nutrition and physical activity. The mean awareness of the subjects was 57%. Awareness and attitude have been emphasized in various studies (Shahbazi, Mazlomi, Motlagh & Sarvestani, 2011; Ebrahimi Mamaghani, Topchiyan, Naimi & Noor Mohammadi, 2011), (Mohammadi, Dostkami, Dadkhat & Sezavare, 2002). The study conducted by Imanipour (2010) however, showed that teachers and people with high education had better awareness which accorded the results of the present research.

The women’s awareness was also higher than that of men which was again in agreement with the present study. An explanation for this finding could be higher tendency of women to gain more information and public relations and curiosity. They also may spend more time watching TV programs (Ebrahimi Mamaghani, Topchiyan, Naimi & Noor Mohammadi, 2011).

It was also revealed that there was no significant difference between attitude towards cardiovascular problems, and age as well as marital status, but in terms of gender and education level, significant difference was observed; women’s attitude was better than men’s. This issue has not been investigated in the similar studies and it could, therefore, be considered as an advantage of the present study.

The attitude and awareness mean scores were high, on average, in the 18-30-age group. According to the awareness of this young and active age group it could be expected that cardiovascular prevention measures would be effective; similar to what Ebrahimi Mamaghani, Topchiyan, Naimi and Noor Mohammadi (2011) mentioned. Based on statistics, Iran is the first solid vegetable oil consumer in the world. Consuming saturated fats, even in people who had normal cholesterol levels, resulted in cardiovascular conditions prevalence (Langille, Joffres, MacPherson, Androu, KirklandS & MacLean, 1999).

The present research showed that 27.52% of the subjects generally used solid vegetable oil. This amount was higher among illiterate people and the dropouts than the subjects with high educations. As the age increased solid vegetable oil consumption amount went up as well. 30% of the subjects in the study conducted by Shahbazi et al. (2011) and 25% of the subjects in the study done by Mohammadi et al. (2002) consumed solid vegetable oil for cooking.

There have been no studies in Iran investigating the relation between age, gender, education level, and marital status and consumed oil type. Therefore this study had this innovation. A noteworthy point which has not been mentioned in any studies was the decline of fruit and vegetables intake along with the aging. 49.6 of the subjects had one or 2 portions of fruit and vegetables daily, while the optimum consumption amount was 5 portions a day (Herring & Bakhiet, 2007; Naghavi, 2003; Kadivar, Aramesh & Sharifi, 2006).

Fatty and local dairy products were used by 50.7 and 56.12 of the subjects, respectively. Local dairy products were used by higher age groups and men more. The least amount of consumption in terms of education level was among the university students, and the highest was for the subjects with low education. These results have not been mentioned in any analogous studies, and due to the effects of dairy products on people’s health, undesirable behaviors have to be reformed.

The results of the research on physical activities indicated that only 29% of the people had regular exercises. This parameter was shown to be 20%. In a research conducted by Imanipour (2010) 33 of the subjects did physical exercise regularly.

The present research revealed that there was a statistically significant difference between different groups in terms of physical exercise. As aging, physical exercise diminished, while it grew as the education level increased. There was no difference between men and women. The only results which were not in agreement of the present study, was those obtained in the study done by Crouch in Australia, where the subject with the highest physical activity were subject with the age group of 50-60 (Couch, 2008).
Generally, the non-smokers had healthier lifestyle compared with the smokers (Shahbazi, Mazlomi, Motlagh & Sarvestani, 2011), (Ministry of Health and Medical Education, 2010; Naghavi, 2003). Several studies emphasize the strong relation between smoking and cardiovascular diseases (Shahbazi, Mazlomi, Motlagh & Sarvestani, 2011).

It was noteworthy that the number of smokers rose as the age increased which underlines the importance of preventive measure implementation from young ages to decrease such risky behaviors during adulthood.

The research done by Mohammadi et. al (2002) found the results indicating low awareness, fair attitude and weak performance similar to the findings of the present study. However, did not investigated awareness, attitude and performance in terms of age, gender, and educational level which could be considered as a weakness point for their study.

In the research done by Imanipour, Bassam poor and Haghani (2008) although, contrary to the results of the present study, the awareness was high, like all the studies, it had no effects on behavior.

5. Conclusion

According to the results of this research indicating higher awareness, and better performance of women compared with those of men, and due to the necessity of prevention and instruction from young age, it seems that instructing women as an effective factor in child upbringing, has an important role in transferring correct habits of life to next generation. Also, if instructions start from early ages and in schools, developing proper eating habits and lifestyle will be done more effectively (as it was mentioned in the study done by Ebrahimi et al. (2011). Due to teachers and women’s role in health promotion, it would be a better notion to concentrate the future studies on this level.

Finally, considering the fact that most of the subject in this study stated that their information resource was health workers (nurses, physicians and so on), could be utilized effectively to upgrade public instructions, specially the illiterate people.

Acknowledgements

The researchers feel obliged to extend their sincere gratitude to those who assisted them to conduct this research.

References


