Assessment of knowledge and attitude and practice towards migraine prevention and treatment among general population in Saudi Arabia

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Abstract

Background*:* migraine is considered as one of the most common chronic neurological disorder with a high prevalence among adults worldwide. **Objective:** this study aimed to detect the knowledge and attitude and practice towards migraine prevention and treatment among general population in Kingdom of Saudi Arabia (KSA). **Methods***:* this was a descriptive cross sectional questionnaire study that was conducted at Saudi Arabia, from April to July 2018 among a random sample consisted of 600 adults in distributed in different parts of KSA. **Results:** the awareness level among the respondents was inadequate among most of the subjects regarding, the gender effect, the triggering factors of migraine and the prophylactic treatment.The attitude and the level of practice were also improper among most of the subjects as most of them don't consider migraine as a disorder that needs consultant and the majority would take medication without consultation.

Conclusion: the KAP level regarding migraine prevention and treatment was in adequate among most of the included subjects however the majority of included subjects were highly educated.

Keywords*:* knowledge, attitude, practice, migraine, prevention, treatment, KSA.

Introduction

Migraine is considered as one of the most common chronic neurological disorder with a prevalence rate of 1-year among 10% of adults worldwide [1, 2]. Its prevalence ranged from 6% among males to 18% among females [3, 4]. Diagnosing migraine is not at such ease as it relies on several criteria and may be improperly diagnosed [5, 6]. A study showed that about 33% of migraine patients were properly diagnosed which result in affecting the quality of life [7]. Also, it is related to some psychiatric conditions as anxiety and depression [8].The first step for proper and efficient treatment of migraine is accurate diagnosis, excluding alternative causes, educating the patient and finding the best medication for management of pain [9].The pharmacologic treatment has two approaches that can be used separately or together for patients with severe migraine including acute or preventive measures. The preventive therapy can be used for decreasing the intense, duration and severity of migraine attacks [10]. Improving the knowledge and practice pattern among adult population can result in prevention of migraine episodes and its effect on quality of life. This study aimed at assessment of knowledge and attitude and practice towards migraine prevention and treatment among general population.

Methods:

Study design:

This was a descriptive cross sectional questionnaire and it was conducted at Saudi Arabia, from April to July 2018.

Study population and sample size:

A simple random sample consisted of 600 subjects were interviewed in different shopping malls scattered in different parts of KSA. The inclusion criteria were Saudi Adult subjects and can read and write. All the respondents answered the questions of the questionnaire and gave a written approval for participating in the study.

Study tools:

The questionnaire was developed after reviewing the search engines including Science Direct, Scopus, Pub Med …etc. The questionnaire was then validated by three and the ethical committee of faculty of medicine. The questionnaire included 4 parts regarding subject's demographics, knowledge, attitude, and practice regarding migraine.

Ethical approval:

The ethical committee of Faculty of Medicine approved the study and the questionnaire sheet. A written informed consent was provided from the participants included in the study.

Statistical analysis:

The data processing was done by using the Statistical Package for Social

Sciences (SPSS, version 22). Frequency and percentage were used to describe the data, triggering factors and demographic variables.

Results:

Demographics of the studied subjects:

The age of included respondents ranged from 20-56 years old with a mean of 29 years old. More than half of the participants were males (57.3%) and 42.7% were females. The level of education was high among most of the subjects as 68.5% had a bachelor degree and 27.2 had gone to secondary school. Most of the subjects 88% were employed but 12% were jobless or retired (Table.1).

Table 1: demographics' of included subjects (600)

	Mean ± SD	Range
Age (years)	29± 3.6	20-56
	No.	Percentage (%)
Gender		
Male	344	57.3%
Female	256	42.7%
Educational Level		
College	411	68.5%
Secondary School	163	27.2%
Primary School	26	4.3%
Working status		
Employee	528	88%
Jobless or retired	72	12%

Assessment of knowledge among participants toward migraine:

All of the respondents were aware of the definition of migraine but only 47.8% knew that women are affected by migraine than men also only 38.8% had proper knowledge regarding the triggering factors of migraine including heredity, dietary factors, environmental factors, medications, psychological factors. On the other hand, most of the subjects had good knowledge regarding the causes of migraine as abnormal brain activity and 88% have named at least to types of drugs used for migraine treatment. Also, most of them showed sufficient awareness with the prevention through lifestyle modifications. The majority has insufficient

knowledge about the prophylaxis measures that can be used for migraine treatment.

Table 2: awareness level among participants (600)

		Correct
1-	**Migraine is a chronic neurological disease**	600 (%100)
2-	Women are more susceptible to migraine than men due to hormonal changes	287 (47.8%)
3-	It is caused by abnormal brain activity and vascular disturbance.	479 (79.8%)
4-	Heredity, dietary factors, environmental factors, medications, psychological factors are predisposing factors for migraine	233 (38.8%)
5-	Name two different medications that can be used for chronic migraine	528 (88%)
6-	Prevention through modification of life style and taking medications can be very effective for severe and chronic migraine episodes	430 (71.7%)
7-	The severity of the migraine could decide the need for prophylaxis and/or acute prophylaxis for breakthrough migraines	217 (36.2%)
8-	Preventive drugs must be used for periods of months about 2 to 3 months of daily administration	301 (50.2%)

Level of knowledge:
The level of knowledge was insufficient among 56.8% of participantsand was sufficient among43.2% of them **(Table 3).**

Table 3: first aid level of knowledge

Knowledge level	Frequency	Percent (%)
Good	259	43.2
Poor	341	56.8
Total	300	100.0

- **Evaluating the attitude towards migraine:**
The attitude of the most of the participants was negative regarding consulting a physician as they prefer asking the pharmacist or taking medication by themselves. Also, more than half of them would not change their lifestyle for prevention of migraine. Also, the majority will not follow up with a doctor for several months as presented in **table. 4.**

Table 4: attitude of participants toward migraine

	No.	Percentage (%)
If you suffer from recurrent headache, what would you do		
See a physician	128	21.3
Ask the pharmacist help	270	45
Use paracetamol by myself without consultation	202	33.7
If u suffer from migraine would you modify your life style		
Yes	268	44.7
No	332	55.3
Would you follow up with a doctor for several months for treatment of migraine?		
Yes	199	33.2
No	401	66.8

Practice pattern of included subjects:

The level of practice among most of participants was fair as presented in **table 5.**

Table 5: practice pattern among the respondents

	Yes	No
1.Have you ever suffered from migraine	471 (78.5%)	129 (21.5%)
2.The best treatment strategy is acute medication and lifestyle modifications	299 (49.8%)	301 (50.2%)
3.Wouldyou recommend seeing a physician for friends and relatives if they suffer from migraine.	102 (17%)	498 (83%)
4.I would give my friends recommendations of certain types of drugs	316 (52.7%)	284 (47.3%)

Discussion

According to our knowledge after searching the available literature, this was the first study conducted to assess the KAP regarding migraine prevention and treatment among general population to enhance their knowledge and decrease the risk of impacting the quality of life among adults. The awareness level among the respondents was inadequate among most of the subjects and this could be attributed to that most of doctors don't give their patients the full data about their illness symptoms, diagnosis, prevention and treatment thus even the migraine patients in previous studies showed insufficient knowledge about the migraine triggers, risk factors, prevention and treatment [11-13]. The attitude and the level of practice were also improper among most of the subjects as most of them don't consider migraine as a disorder that needs consultant and the majority would take medication without consultation. In the same respect but just among primary care providers, the health care providers showed inadequate KAP toward the specific recommendations for managing migraine patients[14]. This study had some limitations including there was no previous studies to keep up and compare our study results with them. Also, the sample size, transportation and time plan were other obstacle.

Conclusion:

The KAP level regarding migraine prevention and treatment was in adequate among most of the included subjects however the majority of included subjects were highly educated. The proper knowledge, positive attitude and practice skills towards migraine are essential for maintain a better quality of life among migraine patients thus it is important for the health authorities to launch educational campaigns all over the Saudi Kingdom.

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