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RESEARCH ARTICLE

PATIENTS' ATTITUDES TOWARDS ATRIAL FIBRILLATION IN AL-NASIRIYAH CITY

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ABSTRACT
Background and aim: Attitude and knowledge of patients about their illness and its treatment are important factors for changing behavior and increasing compliance with treatment. So, this study is aimed at determining patients' attitudes toward atrial fibrillation (AF) and anticoagulant medications. Also to know if there is a difference in patients' attitudes according to their sociodemographic characteristics

Methods: A descriptive cross-sectional study was carried out at Al-Nasiriyah Heart Center in Al-Nasiriyah city from 13th October 2021 to 25th April 2022. Ninety AF patients were selected through purposive sampling. The instrument of the study that was used for data collection was adopted and modified depending on a previous study done in China(Xu et al., 2010). Written approval was obtained for using the questionnaire in the current study. The data were analyzed by using SPSS ver-20 and Microsoft Excel (2010) program.

Results: 36.7 % of patients had a positive attitude toward AF and anticoagulation therapy with a significant difference in patients' attitudes according to their educational level and their occupation.

Conclusion: 57.8 % of patients were neutral in their responses toward AF (neither agree nor disagree). Patients with a high level of education had more positive than those with low education. Employer or retired patients were significantly improved attitudes than other patients.

Keywords: patients, attitude, atrial fibrillation

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INTRODUCTION

Atrial fibrillation (AF) is the most frequent persistent arrhythmia, and it is linked to poor quality of life (QOL), impaired cardiac function, decreased rate of survival, and decreased functional status (Andrade et al., 2020). Atrial fibrillation affects 37,574 million people globally (0.51 percent of the population worldwide), and its prevalence has risen by 33% in the previous 20 years (Lippi & Sanchis-gomar, 2019). Asia continent is home to over half of the population around the world, and its aging population is rapidly increasing. The atrial fibrillation burden will be huge in Asia, and 72 million people in Asia will have AF by 2050, and nearly 3 million of them will develop stroke-related AF (Chiang et al., 2016). According to the statistic of the Ministry of Health in Iraq, the incidence of arrhythmia in Thi-Qar city is increased from 693 in 2015 to 1109 in 2018, so the current study aimed to identify patients' attitude toward AF and their anticoagulation therapy.

The health belief model (HBM) was used as a basis for the current study.

The original health belief model was based on five constructs about health beliefs:

- Perceived severity 'assessment performed by the individual himself or herself about disease seriousness, its consequences, and negative outcome'
- Perceived susceptibility 'assessment performed by the individual himself or herself about becoming ill risks, realizing that illness will end in an undesirable outcome'
- Perceived barriers 'an individual's judgment of the factors that inhibit the suggested action or new behavior from being adopted'.
- Perceived benefits 'assessment performed by the individual himself or herself about the positive consequences that occur after the adoption of healthy recommended action'
- Motivations for maintaining health through changing factors that trigger their health or actions(Green et al., 2021).

According to the HBM, a subject is more likely to take a "health action" if he perceives; he is at risk; the disease is severe; health action is beneficial; understands limited barriers to the health action, and receives a cue to get the health action (Jalilian et al., 2014).

METHOD

A cross-sectional study was conducted at Al-Nasiriya Heart Center in Al-Nasiriyah city, which is a specialized cardiology center that receives AF patients from all southern governorates because it is the most advanced center in the south of Iraq for the arrhythmia management. The research started on October 13th, 2021 until April 25th, 2022. 100 AF patients who met eligibility criteria and were on oral anticoagulants were chosen using non-probability purposive selection. Later, only 90 surveys were valid and statistically useful, while 10 questionnaires were invalid, either due to a mistake in filling out the questionnaire or because of missing answers to some questions. The instrument of the study is composed of two parts, the first part contains the sociodemographic characteristics of patients including age, place of residence, educational level, occupation, and gender.

The second part is the attitude scale which was adopted from a previous study done by xu et al., this scale is modified by adding some questions related to the use of smartphones to detect a pulse or for reminding the patients of the time of treatment. The attitude scale included five content domains as follows (1) perceived severity of AF (item1-3), (2) perceived susceptibility to having an AF episode (item 4-6), (3) perceived benefits of AF treatment (item 7-10), (4) perceived barriers to comply with treatment (item 11-14), and (5) motivation to maintain health and lifestyle modification (item 15-17).

The patients rated their self-attitude for each item on a five-point Likert scale ranging from 'I completely agree' to 'I strongly disagree' "If the question was non-invert, the answer of "I strongly disagree" was scored 0, "I agree" was scored 1, "I'm neutral" was scored 2, "I agree" was scored 3, and "I strongly agree" was scored 4. If the question was inverted 'item12, 13, 14', the scoring was reversed as 'I strongly disagree' was scored 4, and 'I completely agree' was scored zero. The total score ranging from 0 to 68 was calculated by summing up the scores of each item. If the patient gets a higher score will indicate that he/she had a more positive attitude toward AF. The overall responses according to the total Mean of the score were divided into 3 levels as follows:

M= 0-22.66 refers to Negative Attitudes.

M=22.76-45.33 refers to Neutral Attitudes.

M=45.34-68 refers to Positive Attitudes.

10 AF patients were included in the Pilot study which was carried out from the 10th to 20th of January, 2022, and these ten cases were

excluded from the total sample of the study. Cronbach's alpha coefficient was used to measure the reliability of the study instrument, which found that r = 0.87.

Ten experts (who are having than five years at least of experience in the medical and nursing profession), were consulted to check out the validity of the questionnaire for its aptitude, relevance, clearness, and the capability to be understood to achieve the objectives of the study.

Frequency, percentage, standard deviation, t-test, and analysis of variance (ANOVA) were used for analyzing the data on SPSS-version 20 and Microsoft Excel (2010) program.

RESULTS

Table (1) shows that 26 (28.9 %) of patients were between the ages of 50 and 59, 25 (27.8 %) were between the ages of 60 and 69, and only 8 (8.9%) of patients were aged more than 70 years. Female patients had a record-high proportion of 46 (51.1%) participation to male patients 44 (48.9 %). The level of education of the patients revealed that (24.3%) of them graduated from elementary school 22 (24.3%), and only 8 patients had diploma degrees. Housewives made up one-third of the sample, accounting for 32 (35.6%), followed by employer patients, who accounted for 17 (18.9 %), and students, who accounted for (1.1 %) of patients. 60% of patients were from urban areas.

Table (2) In terms of statistical mean and standard deviation, this table demonstrated that the patients expressed neutral responses regards their attitudes toward atrial fibrillation as indicated by moderate Mean scores at all studied items.

Table (3) Findings illustrated that (57.8%) of patients exhibited a neutral attitude toward atrial fibrillation at Mean and (±SD) = 42.11 (±10.209).

Table (4) findings demonstrated that attitudes towards AF are significantly higher in patients with a diploma degree (p-value=.056). Patients who are employers or retired were significantly improved attitudes toward atrial fibrillation (p-value=.002). While there is no significant association between patients' attitudes and their age, gender, and place of residency.

Table 1. Demographic characteristics of the patients (N=90)

Sociodemographic variables	Classification	F	%
Age/years	Less than 30 years	2	2.2
	30-40 years	8	8.9
	40-50 years	21	23.3
	50-60 years	26	28.9
	60-70 years	25	27.8
	70 and over	8	8.9
	Total	90	100.0
	Mean (std. deviation)	53.42 ∓ 11.52	
Gender	Male	44	48.9
	Female	46	51.1
	Total	90	100.0
Education level	Read and write	14	15.6
	Elementary school	22	24.3
	Secondary school	16	17.8
	Preparatory school	15	16.7
	Diploma	8	8.9
	Bachelors and above	15	16.7
	Total	90	100.0
Occupation	Employer	17	18.9
	Housewife	32	35.6
	Self -employ	27	30.0
	Retired	13	14.4
	Students	1	1.1
	Total	90	100.0
Residents	Urban	54	60.0
	Rural	36	40.0

	Total	90	100.0

F: Frequency, %: Percentage

Table 2. Patients' Attitudes towards Atrial Fibrillation (N=90).

NO.	Attitude Items	Responses	F.	%	MS±SD	Ass.
1	I believe that AF is a serious condition	Strongly disagree	3	3.3	2.35±0.975	Neutral
		Disagree	11	12.2		
		Neutral	39	43.3		
		Agree	25	27.8		
		Strongly agree	12	13.3		
2	I think that untreated AF results in a serious Complications	Strongly disagree	3	3.3	2.37±0.943	Neutral
		Disagree	10	11.1		
		Neutral	37	41.1		
		Agree	30	33.3		
		Strongly agree	10	11		
3	I believe that if AF is not addressed, it will have an impact on one's quality of life.	Strongly disagree	2	2.2	2.52±0.877	Neutral
		Disagree	8	8.9		
		Neutral	30	33.3		
		Agree	41	45.6		
		Strongly agree	9	10		
4	I'm frightened I'll get AF complications eventually	Strongly disagree	2	2.2	2.37±0.943	Neutral
		Disagree	13	14.4		
		Neutral	34	37.8		
		Agree	31	34.4		
		Strongly agree	10	11.1		
5	I believe an AF episode might occur at any time.	Strongly disagree	2	2.2	2.31±0.894	Neutral
		Disagree	12	13.3		
		Neutral	40	44.4		
		Agree	28	31.1		
		Strongly agree	8	8.9		
6	I am quite susceptible to having an AF episode.	Strongly disagree	2	2.2	2.26±0.858	Neutral
		Disagree	13	14.4		
		Neutral	39	43.3		
		Agree	31	34.4		
		Strongly agree	5	5.6		
7	The use of preventive medicine saves more money than AF complications therapy.	Strongly disagree	3	3.3	2.94±0.928	Neutral
		Disagree	3	3.3		
		Neutral	14	15.6		
		Agree	46	51.1		
		Strongly agree	24	26.7		
8	Improving my lifestyle (e.g. exercise, maintaining a healthy weight, avoiding smoking, and caffeinated drinks such as coffee and tea) can contribute to improving my health	Strongly disagree	2	2.2	2.93±0.992	Neutral
		Disagree	4	4.4		
		Neutral	23	25.6		
		Agree	30	33.3		
		Strongly agree	31	34.4		
9	Good compliance With AF treatment can help to lessen the unpleasant symptoms of AF.	Strongly disagree	3	3.3	2.71±0.851	Neutral
		Disagree	2	2.2		
		Neutral	25	27.8		
		Agree	48	53.3		
		Strongly agree	12	13.3		
10	With correct therapy, AF can be	Strongly disagree	2	2.2	2.78±0.917	Neutral

	improved	Disagree	4	4.4		
		Neutral	25	27.8		
		Agree	39	43.3		
		Strongly agree	20	22.2		
11	The use of smartphone apps to measure the pulse rate, as well as to remind the time of treatment, contribute greatly to the detection of atrial fibrillation, as well as helps to adhere to treatment	Strongly disagree	6	6.7	2.1±1.199	Neutral
		Disagree	28	31.1		
		Neutral	21	23.3		
		Agree	21	23.3		
		Strongly agree	14	15.6		
12	Anticoagulant medications are not required if there are no embolic consequences	Strongly disagree	3	3.3	2.18±0.885	Neutral
		Disagree	12	13.3		
		Neutral	47	52.2		
		Agree	21	23.3		
		Strongly agree	7	7.8		
13	Taking medicine regularly is inconvenient; it is preferable to take a medication just when I experiencing discomfort	Strongly disagree	3	3.3	2.07±0.974	Neutral
		Disagree	21	23.3		
		Neutral	41	45.6		
		Agree	16	17.8		
		Strongly agree	9	10.0		
14	Following up regularly is a waste of time	Strongly disagree	3	3.3	2.08±0.931	Neutral
		Disagree	18	20		
		Neutral	45	50		
		Agree	16	17.8		
		Strongly agree	8	8.9		
15	The guidance of the medical staff is more reliable than the information provided by newspapers, television, or other media	Strongly disagree	2	2.2	2.93±0.909	Neutral
		Disagree	4	4.4		
		Neutral	16	17.8		
		Agree	44	48.9		
		Strongly agree	24	26.7		
16	Managing and controlling stress can help in the treatment of AF	Strongly disagree	1	1.1	2.47±0.902	Neutral
		Disagree	11	12.2		
		Neutral	33	36.7		
		Agree	34	37.8		
		Strongly agree	11	12.2		
17	I should take periodic follow-up and pulse monitoring to detect asymptomatic AF episodes and health problems in the early stage.	Strongly disagree	1	1.1	2.74±0.893	Neutral
		Disagree	4	4.4		
		Neutral	32	35.6		
		Agree	33	36.7		
		Strongly agree	20	22.2		

"(MS) Mean of Scores, (SD) Standard deviation, Level of Assessment (Negative=0-2, Neutral=2.1-3, Positive= 3.1-4)"

Table 3. Overall Patients' Attitudes towards Atrial Fibrillation (N=90).

Attitudes	Freq.	%	*M ± SD*
Negative	5	5.6	*42.11±10.209*
Neutral	52	57.8	
Positive	33	36.7	
Total	90	100.0	

M: Mean for total score, SD=Standard Deviation for total score (Negative= 0-22.66; Neutral=22.67-45.33; Positive=45.33-68)

Table 4. Association between patients' attitudes and their sociodemographic characteristics

Attitude	Source of variance	Sum of Squares	d.f	Mean Square	F	*Sig.*
Age	Between Groups	.960	5	.192	.518	.762
	Within Groups	31.139	84	.371		
	Total	32.098	89			
Educational level	Between Groups	3.653	5	.731	2.157	.056
	Within Groups	28.445	84	.339		
	Total	32.098	89			
Occupation	Between Groups	5.698	4	1.424	4.586	.002
	Within Groups	26.401	85	.311		
	Total	32.098	89			

Attitude	Gender	Mean	SD	t-value	d.f	*Sig.*
Gender	Male	2.5027	.63728	.312	88	*.756*
	Female	2.4629	.56959			
Place of residence	Urban	2.5730	.69396	1.775	88	*.079*
	Rural	2.3464	.39517			

SD: Standard deviation, t: t-test, d.f: Degree of freedom, p: Probability value≤ 0.05, F: F-statistic.

DISCUSSION

A total number of (90) AF patients were included in the current study, the Mean of their age was 53.42∓11.52, with the most of patients 26(28.9%) were in the age group of (50-59) years. While patients aged between 60 and 69 years constituted 25 (27.8%) of the study sample. This result is different from the result of a study in which 28.7% of patients were between the ages of (65-and 69) years (Crivera et al., 2016). Our results differ from the results of a previous study which stated that about (50 %) of the participants were aged ≥ 60 years, and the Mean of their age was 56.2∓ 10.3 (Xu et al., 2010).

Concerning gender, the female got the highest participation rate (51%) than the males'. This is consistent with the result of a study in which the female participants were more than the male 55.7% (Crivera et al., 2016). Contraindicated the result of a study in which the male participants were (53.4% of) the study sample (Janion-Sadowska et al., 2019). Related to the educational level, the highest percentage of

participants were patients who graduated from primary school (24.3%) followed by patients who graduated from secondary school (16.8%). These findings were greed with the findings of a study done by Bereznicki et al., in which patients who graduated from primary school (35.8%) were higher than in other graduation categories(Bereznicki et al., 2018). Regarding the occupation of the study participants, most of the patients were housewives which represent (35.6%) of the study participants. The same result was obtained by Ibrahim et al., who found that the majority of participants were housewives (Ibrahim et al., 2019)

Regarding the awareness of the seriousness of the disease (Item 1, 2, and 3), most of the patients' responses were either neutral or agreed with the fact that atrial fibrillation is a serious disease that can cause serious complications, affecting one's quality of life if not treated. Concerning Patients' perceived susceptibility to AF (items 4, 5, and 6), the majority of the patients' responses were neutral about fearfulness of complications from atrial fibrillation someday, and also about the ease with which they have atrial fibrillation episodes.

Concerning perceived benefit (items 7, 8, 9, 10, and 11), more than half of the study sample (51.1%) were agreed that the medication used to prevent AF complications saves more money than the treatment of complications if it occurs, while (67.7%) of patients' responses agreed towards the importance of adopting a healthy lifestyle to improve their AF, also (66.6%) of patients demonstrated that AF can be improved by the use of proper medications, this is consistent with the result of a study in which patients were highly satisfied with their medications that were offered for treatment of AF(Aliot et al., 2010). approximately one-third of patients disagreed about the use of smartphone apps for pulse monitoring or for reminding them of the treatment time

About the perceived barriers (items 12, 13, and14), approximately (31.1%) of patients demonstrated that it is unnecessary to take their anticoagulants if they did not have an embolic complication, while (27.8%) of patients reported that taking their medication on a regular schedule is not convenient, and it is more convenient to take it only if they feel uncomfortable. About the importance of the periodic follow-up, about (26.7% of patients) were disagreed and considered it a waste of time. The findings of a previous study (Xu et al., 2010) were relatively similar to our results, in which (45%) of patients agreed that the follow-up is a waste of time, while eighteen percent reported that it is troublesome to take medication on regular basis.

Concerning the motivations used to maintain health (items 15, 16, and 17), the highest rate of responses which is about (75.6 %) of patients agreed that the medical staff's instructions are more reliable than other instructions obtained through TV and others media. Concerning the relation between AF and stress, (50%) of patients agreed about the importance of controlling stress to improve their AF, while (36.7%) of their responses were neutral towards the relation between AF and stress. 58.9 % of patients agreed about the importance of periodic follow-up and pulse monitoring for early-stage detection of health problems or detecting episodes of asymptomatic AF, while (35%) of patients' responses were neutral.

The finding of the overall patients' attitude demonstrated that (57.8%) of patients exhibited a neutral response towards their AF while only 33 out of 90 patients had a positive attitude. Patients' neutral responses indicate they did not know much about AF, so they were not confident of the accuracy and validity of their responses, so they choose to be neutral. The Mean score of Patients' attitudes was (43.91±7.43) which is lower than the Mean score of a previous study done in China by (Xu et al., 2010) in which the Mean score was 71.23±6.64. Finally, this result is consistent with the result of a study that revealed a need for improvement in patients' education for achieving the better outcome and increase compliance with their anticoagulants(Amara et al., 2015)

The attitudes of the patients were influenced by the level of education ($p=0.056$), as patients with high diplomas had a more positive attitude toward AF than those with low education level, also patients who are an employer or retired demonstrated an improved attitude than other patients who were self-employers and housewives. This variation may be related to their self-learning ability, and also their ability to acquire and understand knowledge.

CONCLUSIONS

The majority of the patients had a neutral attitude toward AF, with significant variation in attitudes among patients concerning their levels of education and occupation. Therefore an educational program about AF should be established for patients to improve their attitude, and this will help the patients in achieving better self-management and adopting healthy behaviors.

ETHICAL CONSIDERATIONS COMPLIANCE WITH ETHICAL GUIDELINES

All patients were informed about the current study and its aims, and then verbal consent was obtained from participants to participate in the

study. Also, the patient was told that they have the right to agree or refuse to participate in the study. Regarding confidentiality and anonymity of participants, ethical approval was obtained from the ethical committee of research in the faculty of Nursing/ University of Baghdad

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AUTHOR'S CONTRIBUTIONS

Study concept; Writing the original draft; Data collection; Data analysis and Reviewing the final edition by all authors.

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