Knowledge and Practices of Older Adults with Cardiac Disease regarding Medication Adherence

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Abstract

Background: Cardiovascular diseases are a group of disorders that affect the heart and blood vessels and are a leading cause of mortality and morbidity in older adults. **Aim:** Was to assess knowledge and practices of older adults with cardiac disease regarding medication adherence. **Design:** A descriptive research design was utilized to conduct this study. **Setting:** This study was conducted at Cardiac Outpatient clinic at Benha University Hospital, in Benha City. **Sample:** A convenience sample included 150 older adults with cardiac diseases. **Tools:** Three tools were used **(I):** An interviewing questionnaire to assess socio demographic characteristics of older adults, medical history and knowledge about cardiac diseases and medication adherence. **(II):** Morisky Medication Adherence Scale (MMAS) to assess medication adherence for older adults with cardiac disease. **(III):** (a): Reported practices of older adults toward cardiac diseases and medication adherence. (b): Observational checklist to assess older adults' practices toward self-measuring pulse and blood pressure. **Results:** Showed that 40.7% of the studied patients aged from 60 to less than 65years with mean age was 64.52±6.44 and 16% of them were performed cardiac stent for only once. In addition, only 10.7% of the studied patients had good total knowledge level regarding cardiac diseases and medication adherence and 26.7% of them had satisfactory total practices level toward cardiac diseases medication. Also, 46% of them had moderate level of medication adherence **Conclusion:** There were highly statistically significant positive correlations between the studied patients' total knowledge score, total practices score and total medication adherence scores. **Recommendations:** Health educational programs are recommended to increase older adults' knowledge and practices about medication adherence related to cardiac disease.

Keywords: Cardiac disease, Medication adherence, Older adults, Practices, Knowledge.

Introduction

Older adults are defined as a chronological age of 65 years old, while those from 65 to 74years old are referred to as early elderly and those over 75 years old as late elderly. Older adults often have limited regenerative abilities and are more susceptible to disease, syndromes, injuries and sickness than younger adults. Older adults experience higher risk of chronic disease and may suffer from two or more chronic conditions. The common chronic diseases among elderly may include heart disease, cancer, chronic bronchitis or emphysema, stroke, diabetes mellitus and Alzheimer's disease. These diseases can lower quality of life of older adults and contribute to the leading causes of premature death among this population **(Pazan et al., 2021)**.

Cardiovascular Diseases (CVDs) are group of disorders of the heart and blood vessels, including coronary heart disease,

cerebrovascular disease, hypertension, peripheral arterial disease, heart failure, and arrhythmia. Older adults are more prone to developing CVDs because age plays a key role in impairing the optimal functionality of the cardiovascular system, thus the prevalence of these diseases increases with age and is the most frequent single cause of death in persons over 65 years of age **(Netala et al., 2024)**.

Pharmacologic therapy is a key component in the treatment of chronic diseases that lead to drug-related side effects and increased health care costs. Most of older adults with chronic diseases do not adhere to prescribed medication which usually leads to poor clinical outcomes. Also, it has been established that the proper use of medication is a significant key factors for the self-management of most chronic diseases. Therefore, it is important to improve medication adherence in patients with chronic diseases to reduce premature deaths and social burden **(Gackowski et al., 2024)**.

Patient adherence to medication is the degree to which patients follow treatment recommendations as prescribed by their clinician or health care provider. Adherence has been found to have positive and significant effects on treatment results. But, there are many different factors that influence medication adherence including medication factors, patient factors, physician factors and system-based factors. Non-adherence behaviors largely fall into two categories: Unintended non-adherence, which arises due to forgetfulness, bad eyesight, and difficulty in movement; while intentional non-adherence arises when medication is intentionally avoided, despite the capability to take the medication. So that, it is critical for health care providers to understand the underlying cause for non-adherence to medication to improve chronic diseases outcomes **(Kassaw et al., 2024)**.

Community Health Nurse (CHN) should assess older adult knowledge and practices about cardiac disease to correct any misconceptions and provide them with adequate knowledge related to disease and its management to achieve the best outcome. CHN teaches elderly people to be aware of and observe for medical issues as well as helping families to address complications of cardiac disease, causes, symptoms, treatment and observation of older adult needs and requirements. CHN also provides rehabilitation of elderly people who have already been affected by a disease to soften the impact of an ongoing illness that has lasting effects **(Pruette & Amaral., 2021).**

Community health nurses should provide information or guide the patient by using motivational interviewing techniques and engage in the teach-back method that helps patients understand and recall their instructions. The nurse can help the patient in medication adherence by using a variety of ways: Connect taking the medication with normal daily activities, keep a written schedule for prescribed medications and use a device such as medication reminder pagers, wristwatches and automatic pill dispensers **(Winnige et al., 2021)**.

Significance of the study:

Cardiac disease remains a primary cause of mortality for older adult all over the world. According to statistical data from the American Heart Association, the age-adjusted prevalence of all types of heart disease was induced mortality is 219.4 per 100,000 in 2016, 10.6%. In 2017, CVDs induced deaths are about 17.8 million globally. An estimated 17.9 million people died from CVDs in 2019,

representing 32% of all global deaths. Of these deaths, 85% were due to heart attack and stroke. CVDs accounted for approximately 19.91 million global deaths in 2021. CVDs have become a primary public health problem all over the world far beyond cancer and unintentional injuries. In Egypt, coronary heart disease deaths account for 32.40% of total deaths, making Egypt the 15th highest country with coronary heart disease deaths in the world **(Ramadan et al., 2024).**

Aim of the Study:

The aim of this study was to assess knowledge and practices of older adults with cardiac disease regarding medication adherence.

Research questions:

1-What is knowledge of older adults about cardiac disease and medication adherence?

2-What are older adult's practices toward cardiac diseases and medication adherence?

3-What is the level of older adult's adherence to medication?

4- Is there correlation between total knowledge score, total practices score and total medication adherence score among older adults?

Subjects and Method

Research design:

A descriptive research design was used in this study.

Setting:

The current study was conducted at cardiac outpatient clinic at Benha University Hospital in Benha city.

Sampling:

Convenience sample included 150 older adults with cardiac disease from the previously mentioned setting through six months.

Tools of data collection:

Three tools were used in this study:

Tool I: A structured interviewing questionnaire was developed by the researchers, which covered the following three parts:

The first part: It was concerned with socio-demographic characteristics of older adults, which included 10 closed ended questions such as (age, marital status, occupation, residence, family type, number of family members, monthly income, smoking habits sex, educational level).

The second part: It was concerned with medical history of older adults with cardiac disease, which included 8 closed ended questions such as (type of cardiac diseases you suffer, comorbidity diseases, onset of the disease, the reason for presence in the clinic, follow-up frequency, surgical history for cardiac operation, the number of times a cardiac stent was performed and current medications).

Third part: a- It was concerned with knowledge of studied older adults regarding cardiac diseases. It included 7 closed ended questions (multiple choice type) about (meaning of cardiac disease, causes, common signs & symptoms, methods of diagnoses, complications, prevention and treatment).

b- It was concerned with knowledge of studied older adults regarding medication adherence. It included of 5 closed ended questions (multiple choice type) about (meaning of medication adherence, the importance, methods of medication adherence, complications from non-adherence

to medications, the necessary precautions when starting to take the medications).

Knowledge scoring system: It was calculated as follows (2) score for correct and complete answer, and (1) score for correct and incomplete answer, while (0) score for don't know. These scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a present score. Older's adult total knowledge score was classified as the following:

Total knowledge score = 24 points

- **Good knowledge:** When the total score was ≥75% (≥18 points).
- **Average knowledge:** When the total score was 50 to <75% (12<18 points).
- **Poor knowledge:** When the total score was less than 50 % (<12points).

Tool II: Morisky Medication Adherence Scale (MMAS) adopted from **(Morisky et al., 2016)** to assess medication adherence for older adults with cardiac disease. It was translated into Arabic by the researchers and included 8 closed ended questions (did you sometimes forget taking medications, did you forget taking medications through the previous days, have you ever stopped taking medication without telling doctor because felt worse when took it, do you sometimes forget to bring medication when travel or leave the house, do you sometimes stop taking medication when feel condition is stable, are taking the drug every day a real inconvenience for some people, do you felt one day with exhaustion about commitment with plan of treatment, find any difficulty to remember taking all medications).

Scoring system: Adherence scale score designed for the assessment of medication adherence was calculated as 2 score for high adherence, 1 score for moderate adherence, while 0 score for low adherence. The score of each item summed-up and then converted into a percent score. The total scoring system in medication adherence part was classified as the following:

The total medication adherence score = 8

- **High adherence** = 8
- **Moderate adherence** = 7or 6
- **Low adherence** = ≤ 5

Tool III: It was divided into two parts:

The first part: It was concerned with older adult's reported practices regarding cardiac disease. It included 4 items divided as following (24 closed ended questions, medication), (4 closed ended questions in case of forgetting taking dose of medication, (9 closed ended questions, nutrition) and (physical exercise it included 6 questions).

The second part: It was concerned with older adult's observational practices regarding medication adherence. It was adopted from **(WHO., 2023).** It included 2 main items, (measuring blood pressure it included 7 closed ended questions and (measuring pulse it included 6 closed ended questions)**.**

Scoring system of total practices: Designed for the assessment of reported practices, 2 score was given for always practice, 1 score was given for sometimes practice and score 0 was given for never practice. While designed for the assessment of observational practices, 1 score was given for done, 0 score was given for not done The score of each item summed-up and then converted into a percent score. The total scoring system in reported practices part was classified as the following:

The total practices score = 99

- Satisfactory practices when the total score was ≥ 60% (≥ 59 points).

- Unsatisfactory practices when the total the score was < 60% (< 59 points).

Content validity of the tools:

The tools were reviewed by five experts from the Community Health Nursing Specialties Department, Benha University and gave their opinion for clarity, relevance, comprehensiveness, appropriateness, legibility and applicability.

Reliability of tools:

The reliability of the tools was done by Cronbach's Alpha coefficient test which revealed that each of the three tools consisted of relatively homogeneous items as indicated by the moderate to high reliability of each tool. The internal consistency of knowledge was 0.67. The internal consistency of practice was 0.85.

Pilot study:

A pilot study was carried out on 10% (15 patients) of the total sample (150 patients) to ensure clarity, practicability and applicability of the tools and estimate the time for tool data collection. Time needed to fill each questionnaire consumed about 30-45 minutes. According to the results obtained from data analysis, items didn't need for correction or modification, so the pilot sample was included in the total sample.

Ethical considerations:

The research approval to carry out this study was obtained from the scientific Research Ethics Committee, Faculty of Nursing, Benha University. All ethical issues were assured; approval and an informed oral consent from all study participants were obtained for the fulfillment of the study. The aim of the study was explained to all older adults before applying the tools to gain their confidence, cooperation and trust. All older adults have the freedom to withdraw from participation in the study at any time. Privacy and confidentiality were assured. Ethics, values, cultural and beliefs was respected.

Filed work:

The study was carried out through a period of six months from the beginning of Augest 2024 to the end of October 2024. The researchers visited Cardiac Out Patient Clinic in Benha City two days weekly (Saturday, Monday) from 9:00 am to 1:00 pm till covering whole sample from Cardiac Out Patient Clinics. The researchers met (6-7 patients) per visit for data collection. After introducing herself and took their consent to be recruited in the study after explaining the aim of the study and then distributed the questionnaire sheet after clear explanations of the way to fill out and in the presence of the researchers. Each sheet took about (30-45 minutes) to answer from each elderly people. During the interview the researchers read each item/ question on data collection sheet and explains its meaning to the elderly people.

Statistical analysis:

All data were organized, tabulated and analyzed by using the Statistical Package for Social Science (SPSS version 20), which was used frequencies and percentage for qualitative descriptive data and chi square was used for quantitative data, spearmean correlation test (r) was used for correlation analysis and degree of significant was identified.

Significance levels were considered as the following:

High statistically significant	$P < 0.001$
Statistically significant	$P < 0.05$
Not significant	$P > 0.05$

Results:

Table (1): Shows that; 40.7% of the studied patients aged from 60 to less than 65years with mean age was 64.52±6.44 and

were married. Concerning residence; 86.7% of them were living in rural areas, 68% of them were living in extended family and had 3to5 family members or more. Regarding occupation; 73.3% of the studied patients were retired and 48.7% of them didn't have enough monthly income. Regarding smoking; only 10.7% of them were smoking for more than 10 years.

Figure (1): Illustrates that; 46% of the studied patients couldn't read and write and 27.4% had primary education. While 13.3% of the studied patients had secondary, university education and more respectively.

Table (2): Demonstrates that; 62% of the studied patients suffered from hypertension. In addition; 40.7% of them diagnosed with cardiac diseases since ≥ 10 years, 62% of them felt pain which was the reason for the patients' presence in the clinic, and 40.7% of them visited cardiac outpatient clinic according to the situation. Regarding surgical history for cardiac operations, 33.3% of them performed aortic valve replacement. While; 24.7% of them performed cardiac stent for only once. Concerning current medications; 78.7% of studied patients were taking Ator (atorvastatin) to treat high cholesterol and triglycerides.

Figure (2): Illustrates that; only 10.7% of the studied patients had good total knowledge level regarding cardiac diseases and medication adherence. While, 46% of them had poor total knowledge level.

Figure (3): Shows that only 13.4% of the studied patients had high total medication adherence regarding cardiac diseases. While, 46% of the studied patients had moderate total medication adherence regarding cardiac diseases, and 40.6% of the studied patients had low total medication adherence regarding cardiac diseases

Figure (4): Illustrates that; only 26.7% of the studied patients had satisfactory total practices level. While 37.3% of the studied patients had unsatisfactory total practices level toward cardiac diseases and medication adherence.

Table (3): Clarifies that; there were highly statistically significant positive correlations between the studied patients' total knowledge score, total practices score and total medication adherence scores.

Table (1): Distribution of studied patients regarding their socio-demographic characteristics, (n=150).

Socio-demographic characteristics	No.	%
Age/ years		
60 < 65	61	**40.7**
65 < 70	48	32.0
70 < 75	37	24.7
≥ 75	4	2.7
Mean ±SD	**64.52±6.44**	
Marital status		
Single	16	**10.7**
Married	61	40.7
Divorced	49	32.6
Widow	24	16.0
Occupation		
Work	16	10.7
Don't work (housewives)	24	16.0
Retirement	110	**73.3**
Residence		
Rural	130	**86.7**
Urban	20	13.3
Family type		
Nuclear	48	32.0
Extended	102	**68.0**
Number of family members:		
< 3 members	28	18.7
From 3 < 5 members	20	13.3
≥5 members or more	102	**68.0**
Monthly income		
Enough and save	16	10.7
Enough	61	40.7
Not enough	73	**48.7**
Smoking habits		
Yes	16	10.7
No	134	**89.3**
If yes (n=16)		
≥ 10Years	16	**100.0**

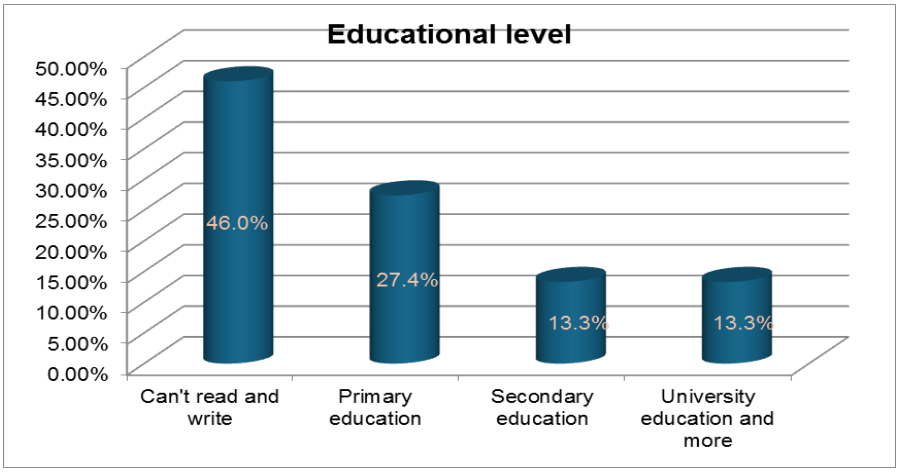

Figure (1): Percentage distribution of studied patients regarding their educational level, (n=150)

Table (2): Distribution of studied patients regarding their medical history, (n=150).

Medical history	No.	%
***Comorbidity diseases:**		
Diabetes mellitus	76	50.7
Hypertension	93	**62.0**
Kidney diseases	1	0.7
Liver diseases	13	8.7
Onset of the disease:		
<5 years	48	32.0
5<10	41	27.3
≥ 10 years	61	**40.7**
The reason for your presence in the clinic:		
Feeling pain	82	**62.0**
Doing an X-ray	68	38.0
Follow-up frequency:		
Once a month	8	5.3
Twice a month	28	18.7
Three times a month	53	35.3
According to the situation	61	**40.7**
Surgical history for cardiac operation:		
Open heart	37	24.7
Heart stent	24	16.0
Aortic valve replacement	50	**33.3**
Mitral valve repair or replacement	18	12.0
Atrioventricular septal defect repair surgery	16	10.7
No surgery was performed	5	3.3
The number of times a cardiac stent was performed (n=24).		
Once	24	100
***Current medications you take to treat heart disease**		
Aspirin (acetylsalicylic acid) Anticoagulant	81	54.0
Plavix (clopidogrel) Anticoagulant	49	32.7
Brilinta (ticagrelor) Anticoagulant	12	8.0
Ator (atorvastatin) to treat high cholesterol and triglycerides.	118	**78.7**
Water tablets (diuretics)	28	18.7
Digoxin	8	5.3

****Answers are not mutually exclusive**

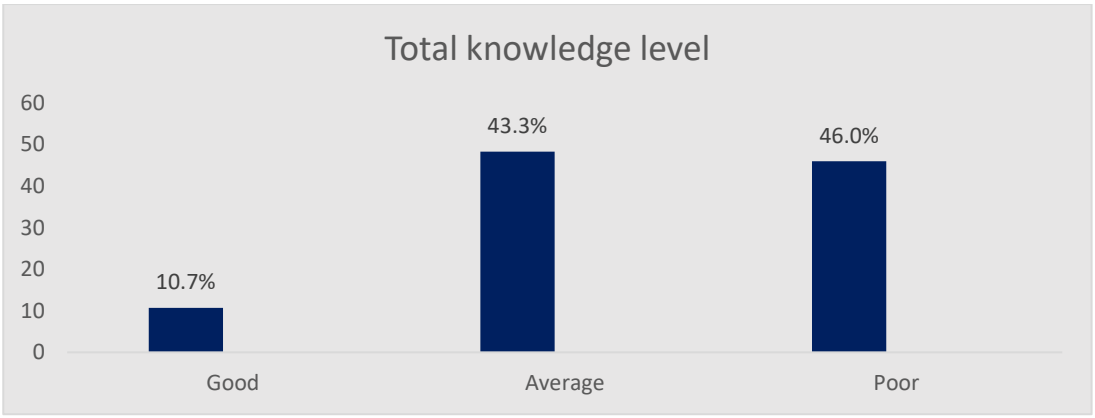

Figure (2): Percentage distribution of studied patients regarding their total knowledge level about cardiac diseases and medication adherence, (n=150).

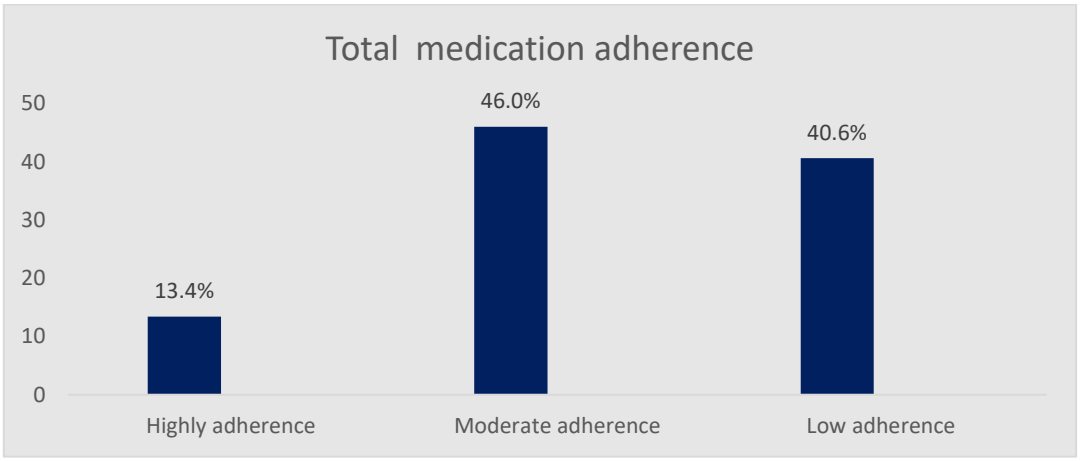

Figure (3): Percentage distribution of studied patients regarding their total medication adherence level, (n=150).

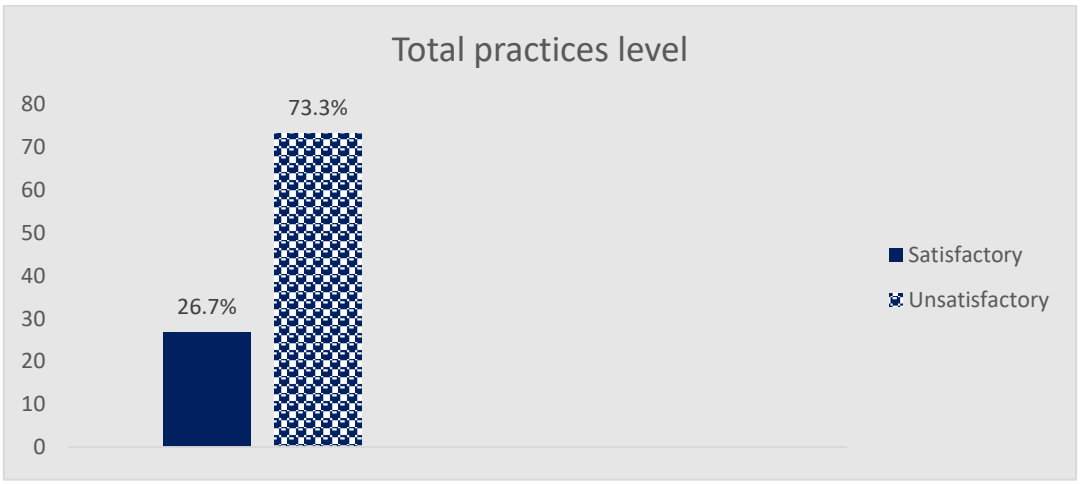

Figure (4): Percentage distribution of studied patients regarding their total practices level regarding cardiac diseases and medication adherence, (n=150).

Table (3): Correlation matrix between total knowledge score, total practices score and total medication adherence among studied patient.

Items		Total knowledge	Total practices	Total medication adherence
Total knowledge	r	1	.028	.037
	p-value		.731	.657
Total practices	r	.028	1	.149
	p-value	.731		.068
Total medication adherence	r	.037	.149	1
	p-value	.657	.068	

Discussion

Globally, CVDs are one of the main causes of death, which contribute to 32% of all mortalities. These diseases include coronary heart disease, cerebrovascular disease, peripheral arterial disease, rheumatic heart disease, congenital heart disease, deep vein thrombosis and pulmonary embolism **(Li et al., 2024).**

Adherence to medication is an important factor in controlling and reducing the side effects of cardiac diseases, particularly in the older population. The consequences of medication non-adherence to long-term therapies are poor health outcomes, increased health care costs, and frequent hospitalization of older adults **(Subih et al., 2023).**

Regarding the studied patients' socio-demographic characteristics, the current study showed that slightly more than two fifths of the studied patients' aged from 60 to less than 65years with mean age was 64.52±6.44 , nearly three quarters of them were retired and nearly half of them didn't have enough monthly income.

These results were consistent with the study performed by **(Oscalices et al.,2019),** which titled "Health literacy and adherence to treatment of patients with heart failure in Bangladesh" (n=100), and revealed that the mean age of patients was 63.3± 15.2 years. Also, these results agreed with the study conducted by **(Selvakumar et al.,2023),** who studied "Relationship between treatment burden, health literacy, and medication adherence in older adults coping with multiple chronic conditions in Saudi Arabia"(n=520), and revealed that patients aged was from 60 to 69 years and more than half of them were retired. This might be due to cardiac diseases are generally more common in elderly due to a combination of biological, age related changes, hormonal, and lifestyle factors.

Regarding smoking habit of studied patients', the current study revealed that around tenth of them were smoking for more than 10 years. This result was similar with the study performed by **(Sarhadi et al.,2023),** who studied "Effect of self-efficacy-based training on treatment adherence of patients with heart failure in Iran" (n=70), and revealed that less than tenth of patients were smokers. This might be due to smoking causes damage to the endothelial cells that line the blood vessels. This damage makes it easier for fats, cholesterol, and other substances to accumulate on the walls of arteries, leading to atherosclerosis.

Concerning the studied patients' educational level, the current study illustrated that less than half of the studied patients' couldn't read and write and more than one

quarter had primary education. While less than one fifth of the studied patients had secondary, university education and more. These results were incompatible with **(Li et al., 2024),** which titled "The effectiveness of a web based information knowledge attitude practice continuous intervention on the psychological status, medical compliance, and quality of life of patients after coronary artery bypass grafting surgery in Lebanon" (n=220), who revealed that more than half of patients hold middle school or less. Also, this result was different with (**Selvakumar et al., 2023),** who revealed that less than half of patients had secondary education. This might be due to several socio-economic, cultural, geographical and infrastructural challenges.

Regarding surgical history of studied patients' for cardiac operations; the present study showed that one third of them were performed aortic valve replacement. While; less than one fifth of them were performed cardiac stent for only once. Concerning current medications; more than three quarters of studied patients were taking Ator (atorvastatin) to treat high cholesterol and triglycerides.

This result was supported by **Awad et al., (2017),** who studied "Medication adherence among cardiac patients in Khartoum State, Sudan: a cross-sectional study"(n=304), and revealed that nearly half of patients were taking ator medication. This might be due to hypertension forces the heart to work harder to pump blood against the higher pressure in the arteries.

According to studied patients' total knowledge level regarding cardiac diseases and medication adherence, the current study illustrated that more than tenth of the studied patients had good total knowledge level regarding cardiac diseases and medication adherence. While less than half of them had poor total knowledge level.

This finding disagreed with (**Hunt., 2023),** who studied "Utilizing interactive digital media to impact patient knowledge and medication adherence in cardiovascular disease Patients in United States of America" (n=130), and indicated an overall increase in cardiovascular disease knowledge and self-reported medication adherence. Also this finding was different with the study performed by **(Yu et al., 2022),** who studied "Knowledge, attitudes, and barriers related to medication adherence of older patients with coronary heart disease in China" (n=120), and reported that participants' knowledge of medication adherence was high. This might be due to nursing focused on simplifying complex concepts and using plain language by presenting information in an accessible and patient-centered manner about heart disease and medication adherence.

As regard to the studied patient's total medication adherence level, the current study illustrated that less than one fifth of the studied patients had high total medication adherence regarding cardiac diseases.

This finding disagreed with **(Mohsen et al., 2021),** who studied "Effect of health literacy intervention on medication adherence among older adults with chronic diseases in Egypt" (n=140), who revealed that; nearly half of patients had high medication adherence degree among the study group. Additionally, these results were supported by **(Wangungu., 2021)**, who studied "The effect of an educational intervention on medication adherence in persons with coronary artery disease in South Korea" (n=240) , and revealed that, one quarter (25%) of the participants were identified as having high adherence, while three quarters of them (75%) were identified as having moderate adherence. While, most of them (94.4%) scored high adherence, while minority of them (5.6 %) had moderate adherence.

While, this result was disagreed with **(Kleinhans., 2021**), who studied "Health literacy and adherence to chronic medication: a descriptive study in a primary health care clinic in the Eden District in Jordon "(n=160), who showed that most of participants had poor to medium adherence to medication. This might be due to the role of mass media and internet in empowering patients by providing them with the knowledge and tools to manage their condition.

Concerning the studied patients total practices level regarding medication adherence and cardiac disease, the current study illustrated that; more than one quarter of the studied patients had satisfactory total practices level. While less than three quarter had unsatisfactory total practices level.

This finding was incompatible with (**Sarhadi et al., 2023)**, who indicated that there was a significant increase in treatment adherence scores for patients. These results were supported by (**Subih et al., 2023)**, who studied "Medication adherence among patients with cardiovascular diseases: a cross-sectional study in Jordan (no=250)", and revealed that the majority of Jordanian patients with CVDs had low medication adherence.

These results disagreed with the study conducted by (**Rezaei et al., 2022)**, which titled "Medication Adherence and Health Literacy in Patients with Heart Failure in Iran (no=250)", who revealed that nearly two fifth of patients 39% showed moderate adherence scores and none of the patients had high medication adherence rates. This might be due to improved knowledge, practical skills, and motivating patients to take an active role in their self-care, the health literacy intervention resulted in more accurate and consistent self-monitoring of their cardiac health, leading to a dramatic improvement in their total practices.

Regarding correlation matrix between total knowledge, practices and medication adherence among studied patients' pre implementation of health literacy intervention, the current study cleared that pre implementation of health literacy intervention there were moderate positive correlation between the studied patients' total knowledge score, total practices scores and medication adherence scores. While there was strong positive correlation between total knowledge score and total medication adherence scores.

These results were compatible with **Kilic et al. (2020)**, who revealed that there was a moderate positive relationship between the level of health literacy and medication adherence among hypertensive patients. Also, these results different with the study conducted by **Ocakoglu et al. (2020)**, who studied "Association between health literacy and medication adherence in the elderly population with chronic disease United Arab Emirates " (n=175), and revealed that medication adherence in elderly patients was not associated with total knowledge score about health literacy.

Additionally, these results different with **Tantoh. (2024)**, who studied "Knowledge, attitude and practices of the modifiable risk factors of cardiovascular diseases amongst the adult population of the Bokova community" (n=306) and concluded that respondents' practices do not reflect their knowledge levels. This might be due to knowledge is the prerequisite of practice and providing adequate knowledge empowers patients to understand the importance of their health behaviors and medication adherence, leading to better practices and more consistent adherence to treatment regimens.

Conclusion:

More than tenth of the studied patients had good total knowledge level regarding cardiac diseases and medication adherence. Also, more than tenth of them had high total medication adherence regarding cardiac diseases. In addition more than one third of the studied patients had satisfactory total practices level toward cardiac disease.

There was weak positive correlation between the studied patients' total knowledge score and total practices score and between total practices score and total medication adherence scores, while there were strong positive correlation between total knowledge score, total practices score and total medication adherence scores.

Recommendations:

- Develop and implement regular health educational program about medication adherence, healthy diet and exercise and follow up for older adults with cardiac diseases.
- Instruct older adults and their caregivers to review the medication regimen with their physician as it is one of the most important aspects to improve medication adherence.
- Future studies are needed for developing educational program for enhancing medication adherence and behavior modification about medication use, diet and exercise among older adults with cardiac diseases.

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معلومات وممارسات كبار السن المصابين بأمراض القلب فيما يتعلق بالالتزام بالأدوية

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تُعد أمراض القلب السبب الرئيسي للوفيات في جميع أنحاء العالم. ويُعد الالتزام بالأدوية عنصرًا أساسيًا في إدارة المرض لكبار السن المصابين بأمراض القلب. لذا هدفت الدراسة إلى تقييم معلومات وممارسات كبار السن المصابين بأمراض القلب فيما يتعلق بالالتزام بالأدوية. و تم استخدام تصميم وصفي لإجراء هذه الدراسة. وقد أجريت هذه الدراسة في عيادة القلب الخارجية بمستشفى جامعة بنها بمدينة بنها على عينة ملائمة ١٥٠ من كبار السن المصابين بأمراض القلب. وأظهرت النتائج أن؛ ٤٠,٧٪ من المرضى الذين شملهم البحث والذين تتراوح أعمارهم بين ٦٠ إلى أقل من ٦٥ عامًا بمتوسط عمر ٦٤,٥٢ ± ٦,٤٤ و٢٤,٧٪ منهم أجريت لهم دعامة قلبية مرة واحدة فقط. علاوة على ذلك؛ كان لدى ١٠,٧٪ فقط من المرضى الذين شملهم البحث مستوى جيد من المعلومات الكلية فيما يتعلق بأمراض القلب والالتزام بالأدوية. كذلك، كان لدى ٢٦,٧٪ منهم مستوى ممارسة إجمالي مُرضٍ تجاه أدوية أمراض القلب. كما كان لدى ٤٦٪ منهم مستوى التزام متوسط بالأدوية. كما وُجدت علاقة إيجابية ذات دلالة إحصائية عالية بين إجمالي معلومات و ممارسات، وإجمالي درجات الالتزام بالأدوية للمرضى. كما يُوصى تنفيذ برنامج التثقيف الصحي لزيادة معلومات وممارسات كبار السن تجاه الالتزام بالأدوية المتعلقة بأمراض القلب.