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Comparative study Between Gender Differences with Myocardial Infarction at Al-Hussein Teaching Hospital in Al-Nasiriyah City.

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Abstract:

Objectives: To examine the association between of myocardial infraction and gender disparities at Al-Hussein teaching hospital in Al-Nasiriyah city.
Methodology: Throughout the current study, a descriptive study design was used from December 20, 2020 to April 1, 2021.

A purposive non-probability sample of 80 patients who are admitted to Al-Hussein teaching hospital in Al-Nasiriyah city.

A designed questionnaire and the self-administrative report method were used to collect data. The questionnaire was separated into three sections: parents' sociodemographic characteristics, children's sociodemographic characteristics, and children's sociodemographic features (age, gender, educational level, occupation, monthly income and residence). The second part is a questionnaire that includes questions about medical sheet data. A panel of experts determined the instrument's content validity, and a pilot study and the Alpha Correlation Coefficient (r = 0.870) were used to determine the instrument's internal consistency. The data was analyzed using descriptive and inferential statistical techniques using IBM SPSS version 25.0.
Results: The findings revealed that the bulk of the patients in the sample (45 percent) were between the ages of 50 and 59, with a mean age of 43.2 years. The most of the study participants are male, which accounts for the majority of the findings (65.0 percent). In terms of educational achievement, the majority of them are illiterate, with 30 (37.5%) of the sample unable to read or write. In terms of marital status, the majority of the sample is married, with 74 (92.5%) of the total sample being married. In terms of profession, The data revealed that the majority of the study population is employed (jobless, unemployed, retired, and housewife). They make up 40% of the entire population (72.6 percent). The majority of those in the study sample have insufficient monthly income, accounting for 43% of the total (53.8 percent). The results show statistically significant differences between every medical sheet information regarding MI patients with a p value less than 0.05, with the exception of the site of MI, which exhibits non-statistically significant differences.

Recommendations: To determine the prevalence of myocardial infarction, a thorough big population-based (national level) study could be done.

Keywords: Patient, Gender Differences , MI.

Introduction:

Despite the fact that cardiovascular disease is still the leading cause of death in the United States, accounting for nearly one out of every three deaths, rates have dropped by 28.8% from 2003 to 2013 [1]. Cardiovascular disease is still the largest cause of death worldwide, according to the World Health Organization [2] accounting for nearly 31% of all deaths. Coronary artery disease (CAD) is a type of heart disease that affects the coronary arteries. It is also known as ischemic heart disease (IHD) or coronary heart disease (CHD). It continues to be a major cause of illness and mortality in many parts of the world. [3]. . A common complication of coronary artery disease is myocardial infarction (MI) (CAD). MI outcomes have improved and MI rates have dropped during the previous four decades [4], According to the American Heart Association, approximately 530,000 men and 385,000 women have a new or recurrent MI or a fatal CHD each year (AHA) [5]. Nearly 40% of women with CAD have suffered a heart attack [6].

The pathophysiology of CAD, as well as the symptoms of MI or impending MI, have all been shown to differ. men and women, as well as subgroups of men and women [7][8][9]. The first scientific statement on AMI in women was made by the American Heart Association (AHA) in 2016. 10 According to the findings of this study, women are more likely than men to present with non-ST-segment elevation myocardial infarctions and atypical symptoms, as well as greater complications and in-hospital mortality [10] . Moreover, many types of cardiovascular disease have historically received far less attention in women than in men, and diagnosis and treatment in women may be inadequate. [10][11].

The first cardiovascular disease prevention guidelines for women, for example, were not published until 1999 [12]. Furthermore, women account for 51% of all heart disease fatalities, and it is disturbing to observe that the rate of CAD death in the 35e54 year-old woman age group is growing [13] .

According to studies, patients may experience symptoms in the weeks and months preceding up to a MI, as well as symptoms that appear suddenly during the MI [14][15].

Acute symptoms of MI appear when the actual MI event happens, whereas prodromal symptoms appear before the actual MI event, albeit no specific time frame for the prodromal period has been established. It could occur in the months, weeks, or days leading up to the actual MI event [16].

1.2. Objectives of the study:

To examine the association between of myocardial infraction and gender disparities at Al_Hussein teaching hospital in Al-Nasiriyah city.

MATERIAL AND METHODS:

1-Design of study:

Throughout the current study, a descriptive study design was used from December 20, 2020 to April 1, 2021.

2-The setting of the study:

The research was done out at Al-Hussein Teaching Hospital in Al-Nasiriyah.

3-Sample of the study: At al- Hussein teaching hospital, randomize the selection of (80) patients with post-myocardial infarction.

Criteria:

A-Age over than 18 years.

B- Patients agreed to participate in the trial.

C- Male and female patients.

4-Tools of study:

To determine the site ratio of myocardial infraction and gender discrepancies at Al-Hussein teaching hospital in Al- Nasiriyah city. The researchers' questionnaire consists of the following item

Part 1: Socio demographic characteristics includes (age, gender, educational level, occupation, marital status and monthly income).

Part 2: Questionnaire composed of questions related to patients incidence of myocardial infraction and gender differences :

This part consist of medical sheet information and where the site of myocardial infarction.

2.5. Methods: -

Official authorization was acquired from the administration of-oar health office and patients at Al-Hussein teaching hospital before the responses were included in the study. The nature and objective of the study were explained to each participant.

2.6 .Data collection:-

The data was gathered using a created questionnaire and an application that used direct interviewing and indirect responses as a data collecting method.

2.7.Validity and Reliability of the Tool of the Study:-

Validity of the Questionnaire:

The questionnaire's content validity was decided by a team of five experts. These experts were requested to examine the instruments as well as the instructional health education for content, clarity, relevance, and competence. Some items were removed and others were added following a face-to-face discussion with each expert, and the instrument was judged valid after all of the comments and recommendations were taken into account.

2.8.Reliability Indicators Inter and Intra examiner.

The same response for the specific elements that need to be watched in order to produce a consistency grade between the researcher and the expert in order to guarantee that both of them have been covered.The reliability coefficients for (Inter Examiners, Intra Examiners) were 0.870 (52:400), 0.820 (3.567), and 0.820 (3.567), respectively.

2.10.Statistical analysis:-

IBM was used to analyze the data. The data was presented in SPSS (Statistical Package for Social Sciences version 25) as numbers and percentages, and the association was determined using a frequency and chi-square test.

RESULTS AND FINDINGS:

Table (3.1): The Distribution of (80) Patients Based on Demographic Characteristics

Basic Information	Groups	Frequency	Percent
Age groups	20 – 29	5	6.3
	30 – 39	23	28.7
	40 – 49	16	20.0
	50 – 59	36	45.0
	Total	80	100
Mean ± SD 43.2± 0.999			
Gender	Male	28	35.0
	Female	52	65.0
	Total	80	100
Education Level	Not read and write	30	37.5
	Read and write	17	21.3
	Primary	15	18.8
	Intermediate	6	7.5
	Secondary	8	10.0
	Institute and colleague graduation or higher	4	5.0
	Total	80	100
Marital status	Married	74	92.5
	Single	6	7.5
	Divorced	0	0
	Widow	0	0
	Total	80	100
Occupation	Employee	6	7.5
	Government employee	14	17.5
	Free Work	1	1.3
	Unemployed	31	38.8
	Retired	14	17.5
	Housewife	13	16.3
	Student	1	1.3

	Total	**80**	**100**

Continue table……

Basic Information	**Groups**	**Frequency**	**Percent**
Income	**Sufficient**	**14**	**17.5**
	Barely sufficient	**23**	**28.7**
	Insufficient	**43**	**53.8**
	Total	**80**	**100**
Residency	**City**	**37**	**46.3**
	Rural	**43**	**53.8**
	Total	**80**	**100**

F=Frequency, %= Percent

The patients in this table were mostly between the ages of 50 and 59, with an average age of 43.2 years.

In terms of gender, men account for the majority of the study sample (65.0 percent).

In terms of educational attainment, the majority of them cannot read or write, accounting for 30 (37.5 percent) of the sample.

When it comes to marital status, the majority of the sample is married, with 74 (92.5%) of the entire sample being married.

In terms of occupation, the majority of the studied population is employed, according to the findings (unemployed, no working, retired, and housewife)The bulk of the study sample's monthly income is insufficient, and they account for 43 percent of the total (53.8 percent).

Table (3-2) Summary of statistical criteria of patients with Myocarial Inarction Regarding to Medical Sheet In formations

Demographic data	Rate	F	Chi-square	p-value
BMI	Under Wieght	0	1.787	0.007
	Normal	25		
	Obese	55		
Previous Cardiovascular Disease	Yes	70	2.345	0.39
	No	10		
Previous Diabetes Mellitus	Yes	55	3.693	0.44
	No	25		
Sites of MI	Inferior	60	2.034	0.73
	Posterior	5		
	Anterior	2		
	Lateral	7		
	Other	6		
Family History	Yes	60	1.033	0.002
	No	20		
Smoking	Yes	45	3.006	0.04
	No	35		
Gender Differences with MI	Male	28	5.554	0.035
	Female	52		

The statistical significances between all medical sheet information on MI patients with a p value less than 0.05 are shown in this table, with the exception of the site of MI, which shows non-statistically significant differences.

DISCUSSION

Part-I: Discussion of the Socio-Demographic Characteristics Related to the Patients :

The data revealed that more than half of the study sample was between the ages of 40 and 59, and the bulk of the study sample was between the ages of 40 and 59. (40 - 59). They are represented by 52 patients (65%), who are on average 43.2 years old. This result is in line with [4] , This indicates the average age of the majority of the study participants (42.4). This may be attributable to the high prevalence of type 2 diabetes and long-term uncontrolled hypertension in this age group (researcher), and statistics [7] support this conclusion. The most common causes of myocardial infarction in people were diabetes and hypertension.,

When it comes to gender, it's worth noting that the majority of the study participants are female (65%), with the remainder being male. This result is equivalent to one obtained in a study done by [7].

The majority of them had a low educational level, such as not being able to read and write, reading and writing, and being a primary school graduate; such a result is common in our culture because the majority of families are poor and have little monthly money; such a result is common in our culture because the majority of families are poor and have little monthly money.

The majority of the sample (74) is married, accounting for 95 percent of the overall sample, according to the participants' marital status. As we all know, a person's marital status has an impact on their health; nevertheless, due to Iraqi culture and the country's strong sociocultural band in the south, married status may endure after a

disease. In terms of occupation, the findings revealed that the majority of the study population is employed (unemployed, no working, retired, and house wife).

Based on that and disease-related cost of care figures, both individual and group, the majority of the study sample has insufficient monthly income, especially in our country as a developing country still suffering from the global financial crisis. While, regrettably, no data on such an important subject is available in our country? Because of the crucial importance of such data in scientifically creating health programs, we feel the necessary governmental bodies in our country's Ministry of Health should be more devoted and focused on it (The researcher).

In respect of residence, the majority of the study participants live in rural areas.

Part-II-: Summary of statistical criteria of patients with Myocarial Infarction Regarding to Medical Sheet In formations:

show the statistically significances between all medical sheet information regarding MI patients with a p value less than 0.05 except for the site of MI, which shows non statistically significant differences the results of this study regarding

The gender differences with myocardial infraction, which show the statistically significant differences with p Value = 0.035 this results agree with the study done by [3] .

CONCLUSION AND RECOMMENDATIONS

Conclusions:

1. Females made up a higher percentage of the study sample than males; they were illiterate, could read and write, had attended primary school, and were married. They were unemployed, and their monthly income was minimal.
2. The results of determining the link between gender deffirences demonstrate that there are statistically significant variations between genders with p values less than 0.05. (0.05).

2. Recommendations:

Based on the findings, the study recommends that:
1. A major population-based (national level) study to estimate the prevalence of myocardial infarction be done.
2. Provide health education to family members on dieting behaviors that are in accordance with chronic illness medical and care guidelines. complications.

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