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Effect Of Educational Guidelines On Therapeutic Regimen Compliance And Self - Efficacy Among Patients With Myocardial Infarction

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ABSTRACT

Myocardial infarction is a life threatening disease that influences the physical, psychological and social dimensions of the individual. Improper lifestyle is one of the causes of this disease. These consequences in turn may have negative impact on the patient's physical and psychological condition, will prolong patient's hospital stay, and increase hospital costs. **Aims**: The aim of this study was to evaluate the effect of educational guidelines on therapeutic regimen compliance and self - efficacy among patients with myocardial infarction through the following: Assess the study patients' knowledge and practices regarding therapeutic regimen, level of compliance and self – efficacy, develop and implement educational guidelines for the study patients about therapeutic regimen compliance, and evaluate the effect of educational guidelines on patients' level of compliance to therapeutic regimen and self- efficacy. **Research hypotheses**: The current study hypothesized that, the educational guidelines will have a positive effect on therapeutic regimen compliance and self - efficacy among patients with myocardial infarction. **Design**: A quasi-experimental research design has been utilized to conduct this study. **Setting**: Data were collected from outpatient Clinics of Cardiology at Eldmerdash Hospital. The study was conducted on 90 patients, who have been selected by certain criteria. **Data tools**: Four tools were used for data collection (I) A structured interview questionnaire (A) sociodemographic data questionnaire, (B) Patients` knowledge assessment questionnaire, (II) An observational checklist, (III) Patients' compliance assessment questionnaire, (IV) General Self-Efficacy Scale. **Result**s: This study revealed that there was a statistically significant improvement regarding patients' knowledge, practice and compliance toward myocardial infarction throughout the study. So, this **study concluded** that the educational guidelines had a positive effect on improving therapeutic regimen compliance and self – efficacy among studied patients with MI through the enhancement of their knowledge and practices **so, the current study recommended** that: Patients` education should be held in continuous manner, because it is a fundamental part of their treatment.

Key words: Myocardial Infarction, Therapeutic Regimen, Compliance, self efficacy.

Introduction

Myocardial infarction is a disease result from sudden deprivation of circulating blood. The main change is necrosis of myocardial tissue, without prompt treatment, it can lead to damage of the affected part. The incidence of acute MI is high and it is the leading cause of death among elderly ***(Lisa, 2010).***

Myocardial infarction is a killer disease and for that reason it is advisable to look for the required treatment immediately after the symptoms have been established. The research shows that the beginning of patients hospitalization contributes a lot in the coming future since the patients is able to cope and adjust the lifestyle ***(Höglund et al., 2010)***.

Risk factors include some diseases such as diabetes mellitus, elevated blood pressure, dyslipidemia, hypercholesterolemia (abnormal levels of lipoproteins in blood), specially high low-density lipoprotein, low high-density lipoprotein and high triglycerides Obesity. A number of acute and chronic infections including: Chlamydophila pneumonia, influenza, helicobacter pylori, and porphyromonas gingivalis correlate to atherosclerosis and MI ***(Chatzidimitriou et al., 2012)***. In addition, men are more at risk than women and ischemic heart disease causes slightly more total deaths in women. Family history specially for first-degree relative who suffered a 'premature' myocardial infarction occurring at or younger than age 55 years for men or 65 for women. oral contraceptive increased risk of MI with other risk factors, e.g smoking ***(Mehta et al., 2014)***.

A therapeutic regimen is a plan for treating disease, involve participation between patients, care providers and others with an interest in treatment. Therapeutic regimen aspects: medications, procedures and lifestyle changes. Patients may need surgery, dietary modifications, or other treatments to successfully address an illness. Care providers need to know allergies to medications, or concerns expressed by the patient about the ability to follow some aspects of the plan. Even if a treatment is medically indicated, if the patient cannot comply with it, it may not be an appropriate addition to a therapeutic regimen. The patient might need education to learn how to enact some parts of the plan, such as training from a nurse to effectively track symptoms in therapy ***(Takala et al., 2014, Hamm et al., 2011 and O'Connor et al., 2010).***

Success of patient education is mainly achieved when patients accept responsibility for their own quality of life, actively participate in the plan of care and self determined to manage health care needs, which the process of taking responsibility for developing one's own health potential is called self efficacy ***(Daniels, Grendell & Wilkins, 2010)***.

There is a widely usage of self-efficacy as a model for examining health-promoting education in areas as cardiac rehabilitation, smoking cessation, dietary modifications, pulmonary rehabilitation, and compliance with prescribed regimens. Consequently, self-efficacy has emerged as an essential concept in developing and implementing health promotion programs in advanced practice ***(Clancy & Cronin, 2012).***

Social assistance coming from family and healthcare solutions enhanced ones patients' perceived self-efficacy, thereby leading for you to an higher degree associated with self-care compliance ***(Molley, Perkin-Porras, Strike, & Steptoe, 2013)***.

The essential role of nurse to help patient continually promote and improve their compliance regarding medical instructions is necessary to change self image, revise daily living routines and to cope with the effects of health deviations based on patient education ***(Sandell, 2012).***

Aim of the study:

The aim of this study was to evaluate the effect of educational guidelines on therapeutic regimen compliance and self - efficacy among patients with myocardial infarction through the following: Assess the study patients' knowledge and practices regarding therapeutic regimen, level of compliance and self – efficacy, develop and

implement educational guidelines for the study patients about therapeutic regimen compliance, and evaluate the effect of educational guidelines on patients' level of compliance to therapeutic regimen and self-efficacy.

Research Hypothesis:

The current study hypothesized that; The current study hypothesized that, the educational guidelines will have a positive effect on therapeutic regimen compliance and self efficacy among patients with myocardial infarction.

Subjects and Methods:

- **Research design**: A quasi-experimental research design has been utilized to conduct this study.

- **Setting:** The study was conducted at outpatient Clinics of Cardiology at Eldmerdash Hospital.

- **Subjects:** A Purposive sample of 90 patients was included in the study after explaining the aim of the study and obtaining their consent.

Tools of data collection: Four tools were used:

I. A structure interview questionnaire for patients

a) Sociodemographic data questionnaire: It included (age, gender, level of education, marital status, number of children, occupation, income and habits as smoking...etc).

b) Patients` knowledge assessment questionnaire:

This tool was developed to assess levels of patients' knowledge as regards the myocardial infarction (risk factors, clinical manifestations, treatment, complications of MI, warning signs of recurrent attacks, physical activities and life style modifications).

Scoring system: Patients` responses were scored as follow: Correct answer = 1 grade , Incorrect answer = zero Level of knowledge was considered satisfactory if the total score = 60% or more and unsatisfactory if it less than 60%.

II. An observational checklist: It was developed by the researcher based on review of the recent related literatures from **Timby & Smith (2010) and Libby et al. (2008)**, to evaluate patients' practices as regards peripheral pulse counting, relaxation methods, exercise technique, hygienic measures and blood pressure measurement.

Scoring system: Each item was observed, categorized and scored into the following: Done correctly = 2 grades, done incorrectly=1 grade and

Not done = zero. Total scores for all items were graded as follows: Satisfactory level of practice (70% and more), while unsatisfactory level was considered from (less than 70%).

III- Patients' compliance assessment sheet (Pre / Post and follow-up): This sheet will be guided by (Mohamed, 2012; Mohamed, 2005) & (Smeltzer, Bare, Cheever, and Hinkle, 2008). to evaluate patient's adherence to the prescribed regimen. It includes six main areas including: life-long post discharge instructions follow up visits, medications, diet regimen, exercise technique and stress management techniques.

Scoring system: It was categorized and scored into: always = 2 grades, sometimes = 1 and never = 0. The level of patients` compliance was categorized as satisfactory (more than 80 %) and unsatisfactory (less than 80%).

IV. General self-efficacy scale (pre/post and follow-up tests) (Appendix IV): It was adopted from **Schwarzer & Jerusalem (1995)** to assess a general sense of perceived self-efficacy with the aim to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events among patients with MI.

Scoring system: Responses are made on a 4-point scale. Sum up the responses to all 10 items to yield the final composite score with a range from 10 to 40. Rating scale (1 = Not at all true, 2 = Hardly true, 3 = Moderately true and 4 = Exactly true). Level of self-efficacy was considered high if the score 60% or more and low if it less than 60%.

Administrative design: An official permission was obtained from the settings directors to conduct this study.

Ethical consideration:

It includes the following:

- Approval was obtained from the ethical committee of the faculty of nursing – Ain shams University.

- Objectives and aims of the study was clarified to the studied patients

- Assuring and maintaining anonymity and confidentiality of patients and their right to withdraw from the study at any time.

Pilot study: A pilot study was applied on a group of (10%) patients with MI, to test applicability, clarity of the tools and estimate the time needed to fill in the tools. Patients included in the pilot study were excluded from the study group, and necessary modifications were done.

Field work:

Assessment phase: Assessment (first phase):

It was established through the following: Patients` interview to get information related to sociodemographic data and level of knowledge regarding MI, an observational checklist for patients' practices, level of therapeutic regimen compliance and self efficacy

Statistical analysis: Data analysis was done thorough using percentage, mean, standard deviation, Freidman test and correlation to compare between results pre / post guidelines implementation to evaluate the outcome on therapeutic regimen compliance and self - efficacy among patients with myocardial infarction.

Results:

Table (1): Socio- demographic characteristics of the studied patients (n=90)

Items	No	%
Age /yrs		
Less than 50	63	**70.0**
50 & more	27	30.0
Gender		
Male	42	46.7
Female	48	**53.3**
Education		
Illiterate / primary	30	33.3
Secondary level	43	**47.8**
University graduate	17	18.9
Occupation		
Hard work	25	27.8
Office work	27	**30.0**
Unemployed	17	18.9
Housewife	21	23.3
Social status		
Married	58	**64.4**
Divorced	5	5.6
Widowed	18	20.0
Single	9	10.0
Income		
Sufficient	43	47.8
Insufficient	47	**52.2**
Residence		
Rural	27	30.0
Urban	63	**70.0**
Home level		
First floor	26	28.9
Second floor	21	23.3
Third floor	34	**37.8**
More than third floor	9	10

Table (2): Presentation of studied patients` satisfactory knowledge pre / post educational guidelines (n=90).

Items	Pre-guidelines		Post-guidelines		Follow-up		Cochran's Q value	P-value
	No	%	No	%	No	%		
Definitions	83	92.2	87	96.7	87	96.7	8.000	0.018**
Causes	78	86.7	86	95.6	83	92.2	9.800	0.007**
Signs and symptoms	17	18.9	90	100.0	90	100.0	20.667	<0.001**
Diagnostic tests	76	84.4	88	97.8	86	95.6	19.263	<0.001**
Medical treatment	67	74.4	80	88.9	81	90.0	20.000	<0.001**
Precautions	17	18.9	90	100.0	90	100.0	12.000	<0.001**
Complications	22	24.4	90	100.0	88	97.8	18.200	<0.001**
Follow – up visits	78	86.7	88	97.8	88	97.8	19.400	<0.001**
Mean ± SD	**0.64±0.15**		**0.93±0.08**		**0.92±0.05**			

Descriptive statistics and results of Cochran's Q and Repeated measures ANOVA tests for comparison between correct answers to knowledge questions pre-, post-educational guidelines and at follow up.

Table (3): Presentation of satisfactory practice level among the studied patients pre / post guidelines (n=90).

Item	Pre- guidelines		Post- guidelines		Follow-up		Cochran's Q value
	Satisfactory (>70%)		Satisfactory (>70%)		Satisfactory (>70%)		
	N	%	N	%	N	%	
Pulse measurement	72	80.0	90	100.0	90	100.0	20.667**
Breathing exercises	68	75.6	80	88.9	78	86.7	28.000**
Neck exercises	68	75.6	82	91.1	82	91.1	18.200**
Shoulder joint exercises	70	77.8	80	88.9	79	87.8	18.000**
Elbow joint exercises	72	80.0	83	92.2	83	92.2	20.000**
Blood pressure measurement	76	84.4	90	100.0	90	100.0	18.000**
Hand washing	86	95.6	89	98.9	87	96.7	4.667*
Oral hygiene	80	88.9	89	98.9	89	98.9	26.000**
Mean ± SD	59.5 ± 10.3		89.9 ± 15.9		89.1 ± 16.2		

Descriptive statistics and results of Cochran's Q test for comparison between satisfactory levels of practice pre-, post- educational guidelines and at follow up

Table (4): Presentation of compliance level among the studied patients pre / post guidelines (n=90).

Item	Pre-guidelines	Post-guidelines	Follow-up	Cochran's Q value
	Satisfactory >80%	Satisfactory >80%	Satisfactory >80%	
	%	%	%	
Discharge instructions	57.8	76.7	84.4	20.000**
Follow-up visits	67.8	91.1	88.9	22.000**
Medications	74.4	83.3	85.6	20.417**
Diet regimen	75.6	88.9	83.3	25.675**
Exercise techniques	66.7	71.1	80.0	18.200**
Stress management techniques	53.3	80.0	85.6	24.000**
Mean ± SD	63.6 ± 18.2	87.9 ± 20.1	86.0 ± 14.7	

Descriptive statistics and results of Cochran's Q test for comparison between satisfactory levels of compliance pre-, post- guidelines and at follow up.

Table (5): Presentation of self efficacy level among the studied patients pre / post guidelines (n=90).

Item	Pre- guidelines	Post-guidelines	Follow-up	Cochran's Q value
	High >60%	High >60%	High >60%	
	%	%	%	
Solve difficult problems if try hard enough.	75.6	85.6	82.2	10.500**
Find means and ways to get what want	71.1	87.8	88.9	13.500**
Easy to stick to aims and accomplish goals.	73.3	85.6	90.0	9.500**
Confident to deal efficiently with unexpected events.	73.3	90.0	86.7	14.600**
Know how to handle unforeseen situations	66.7	92.2	92.2	12.000**
Solve most problems if invest the necessary effort.	73.3	87.8	88.9	13.000**
Remain calm when facing difficulties	66.7	88.9	88.9	16.000**
Find several solutions when confronted with a problem.	75.6	91.1	90.0	14.576**
Always manage to solve difficult problems if I try hard enough.	73.3	90.0	90.0	12.000**
Find means and ways to get what want If someone opposes	75.6	90.0	88.9	14.000**
Mean ± SD	67.0 ± 18.8	85.8±19.0	85.1±16.2	

Descriptive statistics and results of Cochran's Q test for comparison between self efficacy levels pre-, post- guidelines and at follow up.

Table (6): Relation between studied patients` compliance levels as regards their sociodemographic characteristics (n=90).

Patients` characteristics	Compliance level					
	Satisfactory			Unsatisfactory		
	Mean±SD	Test value	P-value	Mean±SD	Test value	P-value
Gender		t=1.052	0.095		t=0.827	0.575
Male	80.1±10.2			59.3±10.0		
Female	82.5±11.1			58.0±9.9		
Social status		f=1.112	0.064		f=0.681	0.671
Married	82.1±9.2			57.0±9.3		
Divorced	81.5±10.0			58.3±11.2		
Widowed	81.9±8.8			59.0±9.9		
Single	80.6±11.3			57.5±13.3		
Income		t=6.037	<0.001*		t=13.581	<0.001*
Sufficient	85.0±10.4			48.3±12.0		
Insufficient	81.1±12.6			56.0±10.1		
Residence		t=11.260	<0.001*		t=18.947	<0.001*
Rural	77.5±8.2			63.1±13.6		
Urban	86.0±12.2			55.5±11.9		
Age		t=21.044	<0.001*		t=16.666	<0.001*
Less than 50	85.5±7.9			51.4±11.3		
50 & more	78.2±13.2			62.9±14.7		
Education		f=22.571	<0.001*		f=31.184	<0.001*
Illiterate/primary	75.2 ± 10.1^{c}			68.2 ± 12.7^{a}		
Secondary	83.9 ± 10.2^{b}			56.8 ± 10.6^{b}		
University	89.5 ± 11.9^{a}			47.5 ± 10.2^{c}		

*: Significant at $P \leq 0.05$, Different superscripts in the same column are statistically significantly different

Descriptive statistics and results of t-test and one-way ANOVA test for the relation between patients' characteristics and satisfaction with compliance.

Results

Table (1) shows that the studied patients were less than 50 yrs of age, from urban area and married (70.0%, 70.0% & 64.4 respectively). In addition, less than half of them were male, with secondary level of education and sufficient income (46.7, 47.8 & 47.8 respectively). As regards occupation and home level, nearly one third (30.0 %) of them had office work and live in third floor (37.8%).

Table (2) shows a highly statistical significant differences between pre and post guidelines, whereas more improvement was indicated among the studied patients` satisfactory knowledge post guidelines compared to pre (mean = 0.93 ± 0.08 & 0.64 ± 0.15 respectively).

Table (3) clarifies a highly statistical significant differences between pre / post guidelines among the studied patients` satisfactory practice as regards the following items (pulse measurement, breathing, neck, shoulder, elbow exercises, blood pressure measurement and oral hygiene), whereas more improvement was indicated post guidelines compared to pre (mean = 89.9 ± 15.9 & 59.5 ± 10.3 respectively).

Table (4) reveals a highly statistical significant differences between pre / post guidelines among the studied patients` compliance to therapeutic regimen as regards

the following items (long-life post discharge instructions, follow-up visits, medications, diet regimen, exercise techniques and stress management techniques), whereas more improvement was indicated post guidelines compared to pre (mean = 87.9 ± 20.1 & 63.6 ± 18.2 respectively).

Table (5) shows that; there was a highly statistical significant differences between pre / post guidelines among the studied patients` self efficacy levels, whereas more improvement was indicating post guidelines compared to pre (mean = 85.8 ± 19.0 & 67.0 ± 18.8 respectively).

Table (6) reveals a statistically significant relation between total scores of compliance (satisfactory and unsatisfactory) among the studied patients as regards their socio-demographic characteristics: patients' income, residence, age and education (t = 6.037, 11.260, 21.044 & f = 22.571 respectively), whereas, patients with university level, less than 50 yrs, urban area and sufficient income had a higher mean score of satisfactory compliance. Meanwhile, insignificant relation was indicated for gender and social status (t = 1.052 & f = 1.112).

Discussion

Cardio vascular diseases (CVDs) are the most common cause of death worldwide. MI means the expression of myocardial cell necrosis due to persistent ischemia. It is usually an acute manifestation of atherosclerosis related coronary heart disease. It results from either coronary heart disease, which implies interruption of blood flow due to plaques in the coronary arteries or other obstructing mechanisms ***(Mendis et al., 2010)***.

As regards studied patients `age, the present study showed that, majority of them with age less than 50 years. This finding was supported by ***Ammar (2015)*** who found that, majority of patients their age category was more than 45 years. In addition, ***Holle et al. (2010)*** mentioned that, risk factors for the development of coronary artery diseases increases with age. In many studies the age was related to the compliance in chronic diseases, although in a few studies, the age not to be a factor causing non- compliance and the adult patients might have higher compliance ***(Theofilou, 2011 and Angerud et al., 2013).***

Considering gender of the studied patients, the present study showed that more than half of them were female. This finding goes in the opposite line with ***Anand et al. (2008) and WHO (2009)*** reports that men between the ages of 15 and 60 years have much higher risks of heart diseases than women in the same age category in every region of the world. In addition, ***Mohamed (2012)*** found that, most of the study group were males due to the serious elevated number of smoker.

In relation to studied patients` educational level, results of the current study indicated that, the highest percentage was secondary level, while university represent the minority. This result supported by ***Dawood et al. (2013)*** who revealed that about half of study subjects had university education. Moreover, ***Gulliksson et al. (2011)*** stated that one fifth of study subjects had College or university education.

Regarding total patients` knowledge about MI, a statistically significant improvement in patients` knowledge post educational guidelines was indicated. The rational for knowledge improvement might be related to the provision of educational booklet and / or verbal instructional information, added to curiosity of the studied subjects. Moreover, education for patients with chronic diseases have a perceptive effect on their knowledge and understanding the risk involved with carelessness about the health. The previous result was supported by ***Hussein (2005)***, who found that, most of the study group had unsatisfactory knowledge in

relation to follow up. Another study was conducted by ***Abdelhameed et al. (2013)*** found that, post total mean knowledge scores of the studied subjects was increased significantly as a result of educational program implementation.

Results of the current study revealed that, most of the patients had poor practice regarding pulse and blood pressure measurement, exercises, hand washing and oral hygiene before the educational guidelines compared to the majority who had a statistically significant increase in mean scores post guidelines. These findings may be as a result of continuous demonstration, redemonstration, follow up and practical content of the instructional booklet which was given to the studied subjects with the continuous explanations, reinforcement and feedback. The previous result was supported by ***Khan et al. (2007)*** who reported that, only one fourth of the study subjects were knew about the protective effect of exercise.

Concerning patients compliance, results revealed that there was a statistically significant improvement in patient compliance in long-life discharge instructions post educational guidelines. The previous result was supported by ***Labarthe (2011)*** who recommended that, cessation of tobacco use and avoidance of environmental tobacco smoke; reduction in dietary saturated fat, cholesterol, sodium and calories; increased plant-based food intake and physical activity; access to preventive healthcare services and early recognition of symptoms of heart attack.

In a study carried out by ***Hosseini et al. (2006)*** who showed that the rehabilitation program regarding MI disease and its complications, dietary and medication regime, risk factors of the disease had a positive effect on various dimensions of patients` quality of life. ***Ghahramanian, Golchin & Rostami (2011)*** showed that, educational programs and follow-up by telephone have positive effects on knowledge and self-care behaviors. Patients forget the therapeutic recommendations gradually after discharge from the hospital; therefore, it is necessary to provide such information.

Concerning patients compliance to follow-up visits, results showed that there was a statistically significant improvement post educational guidelines. The previous results was in agreement with ***El-Saadany (2007)*** who reported that, too long waiting, difficult transportation and large number of visitors were reported by the patients as the main causes of non-adherence with follow up.

Regarding patients` compliance to medications, majority of patients reported the highest value post guidelines with a statistically significant increase in mean score. At the same point ***Abu Shuaib (2014) and Hadi & Rostami-Gooran (2006)*** mentioned that the high cost of drugs and forgetfulness were the main reasons of non-adherence to medication.

Regarding patients` compliance to diet regimen, results showed that there was a statistically significant improvement in healthy diet intake post educational guidelines. The previous results was in accordance with ***Argyriou et al. (2011)*** who recognized that most patients controlled their diet after implementation of the educational program in terms of saturated fat restriction, salt restriction and increasing vegetables and fruit intake.

Concerning patients` compliance to physical activity, results showed a statistically significant improvement post educational guidelines. ***Sibai et al. (2013)*** were supporting for the results of the current study. Patients who are oriented with every-thing about the disease and physical exertion are more likely to engage in activities promoting physical well-being and enhancing daily living activities.

In relation to patients` stress management technique, majority of the study subject had high stress management technique post educational guidelines implementation. On the same line, ***Schneider et al. (2012)*** who conducted a study on patients with coronary heart disease received health education program. They reported that, there was reduction in psychological stress and anger expression as a result of the educational program. ***Zerwic (2007)*** stated that, the compliance to therapeutic regimen was promoted by nursing clarification and explanation. Therefore, the information provided through nursing intervention must be sufficient to increase patient's desire to comply with prescribed therapeutic regimen after discharge. Patients who are oriented with every-thing about the disease are more likely to engage in activities that promote changing the behaviors, physical well-being and enhancing the compliance with therapeutic regimen.

Concerning self-efficacy, there was a statistically significant increase in mean score after educational guidelines implementation. ***Joekes, Van Elderen & Schreurs (2007)*** reported that other studies have found similar relationships between self-efficacy and quality of life in persons dealing with cardiac illness. In the same line, ***Sarkar, Ali & Whooley. (2009)*** found that poorer cardiac functioning in patients with coronary heart disease was associated with a lower degree of self-efficacy. According to ***Cox (2007)*** motivation is a large part of the personal factors and helps with compliance. There are different motivations depending on age and self-efficacy is a good predictor of compliance. ***Grave et al. (2011)*** reported that, more intrinsic motivation the individual may freely engage in the activity and have a full sense of personal control.

Results of the present study clarified that, there was no statistically significant association between studied patients` demographic data and their knowledge, practice, compliance and self-efficacy scores. These findings were supported by ***Ammar (2015)*** who studied the effect of educational program on compliance of patients with lower limb ischemia regarding therapeutic regimen and found no significant correlation between socio-demographic characteristics and patients` compliance. In addition, ***Abdelhameed et al. (2013)*** who studied the impact of a designed nursing intervention protocol on MI patient's outcomes among 40 MI patients from the cardiac care units at Cairo University Hospital and found a statistically significant correlation between educational level and total mean knowledge and practice scores among studied subjects.

Conclusion

Based on the findings of this study, the following can be concluded:

The educational guidelines had a positive effect on improving therapeutic regimen compliance and self – efficacy among studied patients with MI through the enhancement of their knowledge and practices. Statistically significant relations were indicated between their knowledge, practices, compliance and self- efficacy as regards socio-demographic characteristics. Moreover, there was a significant positive correlation between their knowledge, practices and self-efficacy levels as regards compliance level, as well as between their knowledge and practices as regards self-efficacy level.

Recommendations

Based upon the results of the current study, the following recommendations are suggested:

- Patients` education should be held in continuous manner, because it is a fundamental part of their treatment.
- Level of patients` compliance must be checked over time.

- The educational media including: booklet, handouts, videos, posters and CDs, should be available for all patients at all times.

- Cardiac rehabilitation centers should be established and encouraged.

- Regular follow - up for all patients with MI to evaluate their health conditions and detect the complications early.

- Further research studies are needed to focus on measuring QOL for patients with MI longitudinally.

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