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REHABILITATION AFTER AN ACUTE MYOCARDIAL INFARCTION

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Thesis Abstract

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THESIS ABSTRACT

This literature review study is based on identifying the various types of nursing interventions which are non-pharmaceutical as regard cardiac rehabilitation after an acute myocardial infarction and also to understand to what extend these various types of rehabilitation prove effective as far as the management of myocardial infarction is concerned. The worrisome challenges encountered by patients after the event of myocardial infarction hamper their chances of rapid and steady path to recovery.

Regaining a sound quality of life after undergoing a cardiac rehabilitation programme is of uppermost importance to both the patients and the multi professional caregivers. The study is also based on highlighting some key aspects of patient's cardiac rehabilitation, which the researchers thought were very important for 'improved quality of life' being the major outcome in cardiac rehabilitation to be achieved. These aspects are physical rehabilitation, social rehabilitation and emotional rehabilitation.

All the research articles reviewed were focused on adult patients, both gender and age as study criteria were not consider as important to the research

The research methodology was based on scientific literature review using quality content analysis and two or more combination of the keywords below was used during our data searching.

Key words: Rehabilitation, Myocardial infarction, Quality of life, Lifestyle and Family.

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ABBREVIATIONS

AMI	Acute Myocardial Infarction
CR	Cardiac Rehabilitation
CHD	Coronary Heart Disease
ECG	Electrocardiography
MI	Myocardial Infarction

1 INTRODUCTION

Myocardial infarction MI is an acute manifestation of coronary heart disease CHD. Patients who have had an encounter with MI have to cope with consequences of the disease´. (Löfmark & Carlssson 2003).

An acute myocardial infarction is the main cause of premature death and substantially accounts for morbidity especially in the developed world. Recently, it is shown that there are nine common potentially modifiable risk factors which are; low consumption of fruits and vegetables, smoking, abdominal obesity, diabetes, physical inactivity, no alcohol consumption, hypertension, psychological factors, Apolipoproteins. (Pluss, Karlsson & Wallen 2007).

Cardiac rehabilitation has strong-based evidence in reducing morbidity and mortality rate. However, the form of rehabilitation must be comprehensive enough so as to achieve its purpose. The effect of rehabilitation after acute infarction cannot be over emphasized because of its far reaching benefits in terms of improve physical, social, emotional and the totality of life in general. The combination of exercise, psychological and educational interventions with myocardial rehabilitation brings about enhanced recovery of day-to-day functioning and the overall quality of life. Basically the main objectives of rehabilitation after an acute cardiac infarction are to prevent re-infarction, promote good quality of life and to also promote secondary prevention. (Chan, Chau & Chang 2004.)

2 BACKGROUND

The prevention of cardiac secondary attack of patients who had experienced an acute myocardial infarction is the basic aim of any cardiac rehabilitation programme, which seek to promote patients' self-regaining, improve quality of life, readjustment to life situation (coping) and the motivation to stick to the cardiac rehabilitation (CR) programme. It involves a multifaceted approach adopted by the health caregivers and the encouragement from patients' family members towards the achievement of a comprehensive CR by the patient.

Therefore, the main focus of the thesis is to understand and show the importance of the various rehabilitation interventions after an acute myocardial infarction based on different perspective e.g. Patients, family and the health care givers. More so, to recommend where necessary which of the different interventions is more suitable for the patients' quick recovery and readjustment to quality lifestyle.

This research will be very useful for health caregivers; family members of AMI patients to fully understand the importance of the different rehabilitation interventions and to what extent is its' effectiveness in patients' recuperating after an acute myocardial infarction.

2.1 Central concepts

2.1.1 Rehabilitation

According to the World Health Organization rehabilitation is a process aimed at enabling patients to reach and maintain their optimal physical, psychological, intellecture sensory and social function levels. It provides patient with the tools they need to attain independence and self-determination

2.1.2 Physical rehabilitation

The basic fundamental functions of the human body are cantered on physical activities. This is form rehabilitation is defined as the force exerted by skeletal muscles that results in energy expenditure above resting level through physical activities or physical training in the maintenance or improvement. of both physical and mental health.(Brink,Brandsrom,Grankvist,Alsen,Herlitz & Karlson 2009.)

2.1.3 Social rehabilitation

This is the availability of the level of social support, which can be structural, Informational and instrumental assistance through social network and social relationships. (Kristofferzon,Lofmark & Carlsson 2004.)

2.1.4 Emotional rehabilitation

This is described as a form of rehabilitation, which deals with the recovery of psychological status or emotional status after experiencing a loss. The regain of self-esteem, health related quality of life, self-confidence, functional capabilities and the ability to cope with life situations is integral part of emotional rehabilitation.(Hudson,Board & Lavallee 2001)

3 THESIS AIM AND OBJECTIVE

The aim of this systematic literature review is to describe rehabilitation after myocardial infarction from different perspectives.

The objective of this research is to help caregivers and relatives of myocardial infracted patients to understand the effectiveness of the various types of rehabilitation after an acute myocardial infarction and the suitable form of

rehabilitation after acute myocardial infarction for each patient so as to help improve the quality of life of the patients and quick readjustment to life.

3.1 Research question

What are the current nursing interventions of rehabilitation in the management of patient after an acute myocardial infarction?

4 METHODOLOGY

4.1 Data collection process

Literature review was used as a methodology. The articles, which published between the year 2000 to 2010, were included in the study. The materials were searched from two databases Cinahl and PubMed. All the articles had scientific materials, abstracts and full text. Materials were collected in English language only. The key words included Rehabilitation, Myocardial Infarction, Quality of life, Lifestyle and Family

4.2 Inclusion and exclusion criteria

Table 1: Inclusion and exclusion criteria

Inclusion criteria	**Exclusion criteria**
The research articles must be peer reviewed	Articles which are not peer reviewed
The research articles must be scientific.	Articles which are not scientific
The research articles must be from nurse's perspective.	Articles which are not from nurse's perspective

The time limit must be between 2000-2010.	Articles which are not between the year 2000- 2010
The research article must be written in English language	Articles which other than English language

4.3 Database

Figure 1: Database and Article selection

Database Used	Total Number of Articles	Articles Included	Articles excluded
Cinahl	498	12	486
PubMed	341	2	339
Website	----------	1	----------

4.4 Data analysis Process

The research adopted the inductive content analysis method to review all the articles; firstly identifying and collecting a reference from the article as a raw data, then leading to the sub-category and the main category, explain this. This type of content analysis used as a research method can be defined as a systematic way of describing and evaluating phenomena. The description of facts and the provision of understanding through valid conclusions and making similarities from the data. (Elo & Kyngäs 2008.)

The data analyses process the articles that have been reviewed according to the title, abstract and conclusion. From there the articles were selected and are read independently by the authors of this thesis at first in order to understand the

contents of the articles. The articles then rated according to their applicability for this particular topic. In the analysis process the data was divided into three main categories; physical, social and emotional. After the division it became clearer to choose the articles.

Table 2: Inductive analysis

Raw data	**Subcategories**	**Main category**
There need to be always someone for the patient to share his or her feelings with. The person might be the wife, husband, friend, nurse, physiotherapist etc. It gives encouragement and gives feeling to the patient that life is meaningful despite the disease.	Communication, anxiety reduction and encouragement.	Improved Quality of life
Healthcare professionals have an important task in giving patients and their next-of-kin adequate information about rehabilitation after AMI. The information about different types of rehabilitation given by healthcare professionals to the AMI patients before discharge helps a lot in the recovery of the patient.	Detailed information, speedy recovery and rehabilitation confidence.	Improved Quality of life

The programme that is provided to the AMI patients should be long term. The programme might be in form of physical exercise or counselling or psychological therapy. The long-term programme help them to adopt the things that they learn from the programme as their habit.	Patient's Long-term rehabilitation programme, readjustment to life, self-worth and self-confidence.	Improved Quality of life
The participants learn more by watching other people. It is more effective when people learn from other's experiences. It provides mutual feeling when they come to know that they are not the only ones facing the same kind of problem. Peer support group is more useful for the people who live alone because in this kind of group they find a friend or a group with whom they can share their experiences and listen to others.	Participation in peer group and multiple experiences from member of the same peer support group.	Improved Quality of life

Given a supportive environment patients were able to prevent or reduce further loss and to restore lost functions and gain new ones,	Supportive Atmosphere restoration of ability.	Enhanced quality of life.

5 RESULTS

5.1 Cardiac rehabilitation

Cardiac rehabilitation includes certain actions undertaken to achieve or deliver an optimal physical, mental and social environment to patient with cardiac condition especially myocardial infarction patients, so as to be able to maintain a maximal functional capacity according to the World Health Organization 1964. Comprehensive myocardial infarction rehabilitation cannot be over emphasized to improving the patient's overall quality of life. More so, different patient react differently to various forms rehabilitation therefore, imperatively the rehabilitation must be multifaceted to be comprehensive enough. Myocardial rehabilitation on time commencement is very vital in providing a speeding recovery based on patients' clinical status it should be individualized, in phases and patients' acceptability. (Piotrowicz & Wolszakiewicz 2008.)

5.2 Types of rehabilitation

Physical Rehabilitation

Social Rehabilitation

Emotional Rehabilitation

5.3 PHYSICAL REHABILITATION

Physical rehabilitation is physical exercise oriented and it is a major comprehensive form of rehabilitation. This form of rehabilitation includes various Phases, which are; Phase I, Phase II and Phase III. (Piotrowicz et al. 2008).

5.3.1 Phase I

In hospital rehabilitation immediately after an acute life threatening occurrence on myocardial infarction and its management goals are Pharmacotherapy assessment, exercise improvement capacity, Patients' mental assessment, anxiety reduction and mental support, patient education and lastly, clinical status verification. (Piotrowicz et al. 2008.)

Upon the verification of the patients' clinical status, which starts after 12-48 days of bed rest and based on this evidence the stage, II will be initiated. However, the physiotherapist supervision during this stage is very important to help plan for stage II phase of rehabilitation depending of severity level of the infarction. It includes, Breathing, relaxation and small muscle exercise, the initial phase. Large muscle, sitting, standing up and walking exercise-Known as the continuous phase. (Piotrowicz et al. 2008.)

Exercise should be terminated if and when the patient begin to experience the following conditions; Dyspnea, chest pain, increased in heart rate by more than 20beats\min or decrease by more than 10 beats\min. Blood pressure is another very important factor to put into consideration while evaluating the clinical status of the patient before the commencement stage II rehabilitation- [Recovery stage] in planned. (Piotrowicz et al. 2008.)

5.3.2 Phase II

This is otherwise known as a recovery stage assigned after the clinical status evaluation and it is and should be initiated as soon as after the first stage I elapse. 2 to 3 weeks after infarction. (Piotrowicz et al. 2008).

Based on patients' risk exercise related complication the recovery stage of both hospitalized and ambulatory patient is ascertained. Patients with high risk get individualized in-hospital rehabilitation and those with a low risk get ambulatory rehabilitation care. The health condition of the patients determines the length of the rehabilitation. For hospitalized patients it 2 to 4 weeks and for ambulatory patients it takes up to 4 to 12 weeks with 6-12 training sessions. ECG monitory and proper medical supervision is fundamentally and potentially imperative. Recovery stage rehabilitation includes the following; general fitness training (Breathing, stretching, relaxation and water-based exercise), Endurance training Exercise and resistance exercise. Termination is also based above complications in stage I. (Piotrowicz et al. 2008.)

5.3.3 Phase III

This is secondary prevention of cardiac infarction and healthy lifestyle. This stage of rehabilitation begins 2-4 months after infarction and lasts for a lifetime. Training sessions last 45-60mins and twice a week. Patients do not need regular medical and exercise training monitory. It can be an individual or group activity and the goals are, promotion of a healthy life style, pharmacotherapy control, patients' mental and physical status maintenance and reduction of infarction factors. Various forms of exercise are included in this stage and patients become more self-conscious of their medical situation by being able to identify any worrisome symptoms and monitor their exercise-training programme. (Piotrowicz et al. 2008.)

5.4 SOCIAL REHABILITATION

Social rehabilitation is one the cardinal points of cardiac rehabilitation after myocardial infarction and carried out through social support and it influences positively to a large extent in the survival and recovery of patients of myocardial infarction. Peer support groups, spouse support, caregiver's support and information support are some of the various forms of social rehabilitation which a patient can obtain support from. The participatory commitment of the patient is important to achieve the desired rehabilitation goals. However, this type of support can either be based on seeking for the social support or declining the social support. Patient personal factors like personality, health condition and coping style have a great deal of tendency to stimulate social support. (Hildingh , Fridlund 2001.)

The differences in personality of patients, coping style being the central of focus here always affect the quality of support a patient gets. The response to social support for both man and women after an acute myocardial infarction is not parallel. While the men would see myocardial infarction as some predetermined or fatalistic event in their lives, women might become evasive (not wanting to bother

others with their problems). Those factors altars social rehabilitation approaches and prevent symptoms from being identified and treatment not given which leads to retrogressive health situation. (Kristofferzon, Löfmark & Carlsson 2004.)

5.4.1 Spousal support

An acute myocardial infarction does not alone have an adverse effect on the patient but also greatly on the spouse and the entire family. Social life and sexual life changes, fear of death, reoccurring infarction permanent disability and economic crises are some major worries to the spouse. (Santavirta, Kettunen & Solovieva 2001).

The event of myocardial infarction in any family brings about new challenges of readjustment to both the family as a whole and the spouse whose husband or wife is at the receiving end. Consequently, poor spouse support and family function can slow down the recovery pace of the patient. Whereas, sound support and encouragement from spouse can potentially positively affect the overall well- being of the patient, improve adherence to the various forms of rehabilitation and the enhancement of patient's self-worth. (Kärner, Dahlgren & Bergdahl 2003.)

The spouse(s) role in terms of assisting in the rehabilitation of a myocardial infarction family member is based on; Support, interaction and positive attitudes to changes in lifestyle. The Spousal supportive roles effectiveness provided through an empathetic way is based on the understanding of the various behavioural changes, co-operation and good communication style increases the rate of recovery a husband or a wife who had myocardial infarction and improve the patient's lifestyle in general. These aspects of the supportive roles are such as Participative role, Regulative role, Observational role, incapacitated role and Dissociative role. (Kärner et al. 2003.)

5.4.2 The role of participation

The get involve role or otherwise known as participative role encourages partner to have practical and co-operative mind set and lay much emphasis on mutual respect especially in terms of co-decision making. Positive interaction and active dialogue being the main point in this role with the patient –partner, giving a listening ear and being ready at all time to encourage the partner plays a huge role in promoting patient's "positive attitude to lifestyle changes" and increases patient's coping capability through thinking positive about his or her health situation and acting differently in terms of showing willingness to do all that is necessary to prevent a reoccurrence after an acute myocardial infarction. (Kärner et al. 2003.)

5.4.3 The role of Regulation

The spousal supportive role based on some behavioural enforcement and controlling the patient to obtain lifestyle changes and the promotion of mutuality. The patient-partner support is both practical and cognitive based. Interaction pattern is often monologue and the partner ensures that the patient is pushed to the very limit so as to achieve that all important lifestyle changes, which promotes healthy rehabilitation. The enormous responsibility of the spouse to help get back his or her partner to his or her feet again and more so to prevent the incidence of myocardial infarction are the central thought in this role and often times the patient is verbally prevented from doing certain things on his or her own. Due to the self-centred nature of the role, when there is no significant support result the partner begin to express a feeling of disappointment and frustration. However, this type of role has a huge tendency to promoting a steady positive lifestyle. (Kärner et al. 2003.)

5.4.4 The Observatory role.

The spousal active involvement towards the smooth rehabilitation of his of her spouse as a result of an acute myocardial infarction is lacking preventing the achievable health-promotion lifestyle changes. Interaction based on dialogue, giving listening ear and patient encouragement may be evident but the passive attitudes of the partner limit there would be achievable recovery and positive adoption of a healthy and qualitative lifestyle changes. However, sometimes patient improves his or her lifestyle changes without the support from a spouse especially in the area of physical exercise. (Kärner et al. 2003.)

5.4.5 The incapacitatory role

The main aspect of this role is the inability to support supportively and the patient negative impression about his or her spouse' participation limits the option of mutual support. There is an awareness of the spouse's own limitations and an encouragement in form of psychological support which is absent and often times spouse need for his or her own psychological situation comes to bare. Therefore, there is an adequacy of support from spouse(s) to his or partner-patient even though there might be positive interaction impeding the fast rehabilitative recovery of the myocardial infarction patient-partner. (Kärner et al. 2003.)

5.4.5 The role of dissociation

The spousal role as regards to the rehabilitation and quick lifestyle changes of the partner-patient is limiting due to the separation of spouse own lifestyle from that the patient. The spousal role in this category cannot be described as being supportive and attitudinal changes which is negative is often times as a result of inadequate knowledge or information about the potential positive influence of spouse support towards the readjustment of the patient lifestyle improvement and

the effectiveness of rehabilitation after myocardial infarction event. (Kärner et al. 2003.)

5.4.5 Peer Support

Peer support group is important for the long-term rehabilitation after an cute Myocardial infarction. Peer support group can be in different form of groups like exercise groups, diet groups, stress managements groups or conversation groups. Where people meet others who has been through the same situation and where they get an opportunity to share about their problems and support each other. It provides safe and relax environment. The sharing and exchanging the experiences provides them more important information. The participants in the peer support group compare each other and many realize that their situation is more stress less than others and they also conceive that they were handling their situations better than others. The sharing of information, exchange of experiential knowledge and exchanging the support within the group provided a strong awareness of mutuality and equality_among the group members. Peer support group is very useful in all kind of Myocardial infarction patients like the patients who have spouse, friends and more effective to the patients who doesn't have anyone. The peer support rendered group more confidence and increased their coping power. (Stewart, Davidson, Meade, Hirth & Weld-Viscount 2000.)

Peer support group offers different sources and types of social support like; knowledge support, sustainable support and sentimental support, which positively influence the mechanism of CR programme. (Stewart et al. 2000).

5.4.6 Knowledge Support

The information searched through internet about symptoms of MI, the diagnosis, about diet, side-effects of medicines and exercise is different than when you here from the experienced person who have already been through that same situation. It is perceive as more real and more practical by the patient when delivered by a peer support members, peer facilitators or professionals. Information provided about dieting, resting, dealing with stress and returning to normal life by peer facilitators are straight to the point and easy to understand. (Stewart et al. 2000.)

5.4.7 Sustainable support

Sharing is caring. When everybody shared their experiences in the group like group members, peer facilitators and guest speakers they all got positive feedbacks for their actions and reactions. This helped the survivors to be relieved and they realized that the situations they faced were common. This decreased their negative impact and assures them that they were not alone in this journey. (Stewart et al. 2000.)

5.4.8 Sentimental Support

The main sentimental support supplied by the groups was listening, sharing, understanding, supporting and giving company and care. Everybody in the group got chance to speak about his or her wishes. Even the survivor and spouses generated better understanding from group members. The peer facilitators and members cared for the difficulties faced by others in the group and provide hope that the life will return to normal. (Stewart et al. 2000.)

5.5 EMOTIONAL REHABILITATION

An emotional status of any patient who has experienced AMI irrespective of age and gender differences cannot be over emphasized. Cardiac recovery through emotional rehabilitation programme is the driving force in rebuilding of patients' self-worth, self-confidence, and increased hope for the future, positive change of lifestyle readjustment and increased functional capacity. AMI event brings along with it so many challenges of losses for the patient to cope with, for example, loss of sense of confidence, loss of employment, loss of financial freedom and loss of physical functionality. All of which can slow down the pace of the cardiac rehabilitation. Therefore, negatively influencing the very purpose of emotional rehabilitation outcomes, one of which is patient self-regaining. (Hudson et al. 2001.)

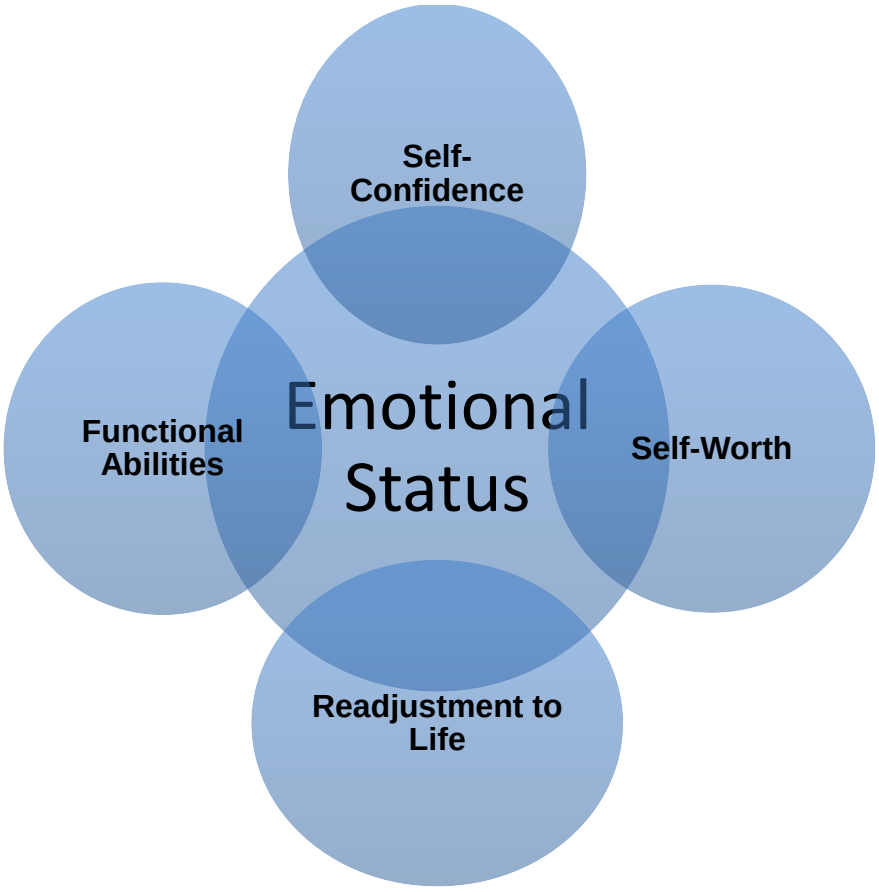

Figure 2: Psychological benefits of cardiac rehabilitation

An improved emotional status is a factor of emotional cardiac rehabilitation through an organized social group by promoting the emotional well-being of the patients. (Hudson et al. 2001.)

5.1 Self-confidence

A group therapy is where the bonding of patients meet to share their different experiences related to their previous lifestyle through social interaction and being aware of the fact that the AMI patients are not alone in their situation alleviate the fear of hiding inside a shell. Through such social interaction both formal and informal education is given and an absolute situational awareness is exposed and the patient begin to realize that he or she is not alone in the recovery path. The basic knowledge part of the cardiac rehabilitation exercise where the patient know bit and bit about what cardiology is, so that the patient can tell the difference between pains and symptoms increases self-confidence and it can also be achieved through listening to other AMI patients; how they have copped or copping with the situation. (Hudson et al. 2001.)

5.2 Self-worth

The event of an acute myocardial infarction affects a patient's self-worth and increased self-limitations. However, given the right social support and environment the patient regains his or her self-worth through being involving in helping other patient’s survival of AMI in the same social group. The indulgence of patients in the development of physical skills and the achievement of an enhanced fitness status can potentially increase the self-worth of the patient. The opportunity to affect other patients’ recovery status positively by another patient through supporting his or her self and those in similar condition and having the feeling of being important brings about a huge source of self-actualization and deep sense of purpose. (Hudson et al. 2001.)

The deep sense of satisfaction experienced by the patient upon an opportunity to give a helping hand to another patient on the same recovery path despite ones condition cannot be over emphasized. The feeling of various losses; income losses, Physical incapacitation, sense of lost individual, sense of job loss and sense of loss of active living can potentially make a patient who had just survived an acute myocardial infarction really anxious and slow down the cardiac rehabilitation interventions. However, when the patient's confidence is reassured by way of allow him or her offering assistance to other patients in similar social group and become somebody other patients can also look up to. The patient's self-worth is enhanced and quality of life is also improved then one very important aspect of cardiac rehabilitation is achieved. (Hudson et al. 2001.)

5.3 Increased functional ability

The enhancement of a patient's functional capacity after surgical procedure is very Invaluably important during cardiac rehabilitation programme and a holistic nursing approach towards improving a patient's capacity to cope with the situation and be a part his recovery process is very important. The active involvement and participation of patient who had survived AMI in any given social group during cardiac rehabilitation programme promotes both physical and emotional capacity. Soon the patient will realize to what extend he or she has achieved being self-dependent and improved ability to face his or her pains and clinical frustrations. (Hudson et al. 2001.)

The awareness of being able to do certain things, which seemed impossible to engage in due to the acute myocardial infarction condition and being able to even do more exceeding his or her limit in a very moderate fashion during the cardiac rehabilitation programme pave way for both long term and physical function

benefits, thereby improving the patient's ability to adapt to life situation and increasing the patient's hope of the future. (Hudson et al. 2001.)

5.4 Lifestyle readjustment

The challenges of going through the psychological and biological effect of any cardiac event can be very worrisome due to the alteration of some basic functions of life in the life any patient. These psychological and biological factors affect patient's quality of life and his or her overall wellbeing. A sound mental attitude and physical attitude plays a very vital role in the readjustment of patient's lifestyle. Cardiac rehabilitation interventions through the development of new coping skills, new experiences and having a new positive approach towards life in general helps to shape a balanced and qualitative lifestyle. (Hudson et al. 2001.)

The patient's developmental gains during cardiac rehabilitation programme are complete comparative achievements for any incurred losses as a result of the AMI event. The promotion of these gains will further strengthen the will of the patient to be fully aware of some insignificant odds of life after an acute myocardial infarction experience, such as avoiding stressful occupation and lifting too heavy things. The enlightenment and provision of information to the patient about certain things to avoiding doing potentially fasten the readjustment process leading to striking a healthy balance between the losses experienced by patient as result of the cardiac event and gains achieved during cardiac rehabilitation programme. And the application of those gains to the day-to-day functions of life. (Hudson et al. 2001.)

The event of MI is the primary motivational factor to taking any healthy lifestyle advices aimed at readjusting to life situation seriously by the patient. However, this factor losses its effect with time as a result of insufficient time and motivation, boredom and lack of patient monitoring. A continuous patient's support and supervision to meet all the set out goals for readjustment after AMI event (Healthy eating habit, Regular moderate exercise and quitting smoking) is highly important

in the readjustment process. The process of lifestyle changes can also involve family members and close friends of the patient to provide motivation and support towards ensuring that the goals of readjustment are met to strengthen the patient's quality of life. (Gregory, Bostock & Backett-Milburn 2005.)

Another very important factor that also influences the smooth readjustment path of AMI patient is reassurance. Patients feel often safer when they hear over and over again what they have been told before and doing things they ought to do to avoid anything which might trigger up MI. Just as the family members are interested in the reassurance from professional caregivers, patients are also interested the reassurance from both the health caregiver and their family members. (Gregory et al. 2005.)

6 VALIDITY AND ETHTICAL CONSIDERATION

6.1 Validity

The most important key point in literature review which is worthy of note is the fact that the process entails borrowing of data from articles which are from very reliable sources. The authors ensured that information in this thesis is a reflection of truth and accuracy of the information (Golafshani 2003.) The entire articles used in this study were scientific and from reliable database like Cinahl and pubmed.

In order to ensure that there was a direct relationship with the research title, subtitles and the Authors' research question to obtain relevant information, the

keywords were used regularly. Only articles based on rehabilitation and myocardial infarction were used and the Authors strictly avoided the temptation of using their own opinions. The articles were carefully analysed and the data understood before expressing the idea. All the information provided in the thesis are to best of our knowledge reliable and valid.

6.2 Ethical consideration

During literature searching process, data used were critically carefully analysed and the data clearly understood. To avoid the problem of plagiarism the various articles used strictly reflected the Original authors' intended ideas. Own words were used to portray the original authors' idea. The year, names of authors, place of publications, name of journals and pages of all the research articles used were cited the reference

The above ethical principles were followed in this literature review work. To give Professional health caregivers the confidence that this thesis is scientific and can further be used to manage the rehabilitation of patients who had experienced an acute myocardial infarction event.

7 DISCUSSION

Based on the research it is evident that cardiac rehabilitation programme for patients of acute myocardial infarction is of great importance towards ensuring that patients recover fully and prevent secondary attack. According to this research both the family members and the multi-profession caregivers play an all-important role in the adherence of an acute myocardial infarction patient to the cardiac rehabilitation programme.

Each of the various types of cardiac rehabilitation mentioned in this research has its own importance and benefits. More so, they are all dependent on each other to achieve a fast readjustment of life and improve quality of life. Based on some of the articles reviewed in this research, patients' positive attitude towards rehabilitation is an essential tool for achieving all the cardiac rehabilitation goals.

Patients experience anxiety after an acute myocardial infarction event due to the feeling of uncertainty of what the future holds for them. Therefore, it is highly imperative to control the anxiety level by using the 'Hospital Anxiety and Depression Scale before the commencement to the cardiac rehabilitation programme. Long-term cardiac rehabilitation is necessary for a complete rehabilitation as supposed to short-term. However to lack of motivation and encouragement some patients might withdraw from CR programme.

Some the research articles emphasized the importance of education through information sharing and giving as a fundamental key to ensuring patients' participation and patients 'interest stimulation for cardiac rehabilitation programme.

As at time of this research articles between the year 2000 and 2010 were reviewed and there were a lot of older research work done and this was a limitation in the view of no current research done.

8 CONCLUSION AND RECOMMENDATION

The involvement of Nurses from the rehabilitation onset is very important and carrying the patients' family members and friends along go a long way in fast tracking the patient's quick recovery and eliminating any anxiety from the patients. Providing the patients and their family members substantial information about the

coping and managing of myocardial infarction and setting rehabilitation goals for the patient will increase his or her motivation to adhere to the cardiac rehabilitation programme and thereby increasingly improving patient's overall readjustment level with time and enhanced quality of life.

The main goal of cardiac rehabilitation programme according to this research study is to improving patients' quality of life and the readjustment to life situation after an acute myocardial infarction. More so, to prevent secondary event of acute myocardial infarction, this could lead to death. This non-pharmaceutical form of rehabilitation should be followed up health caregivers even though the patients are in their homes after hospitalization.

Patients owe it to themselves the responsibility to participate in the cardiac rehabilitation programme but the health caregivers also have the professional responsibility to encourage and educate the patients about the numerous benefit of taking part in cardiac rehabilitation.

The findings in this research can be used effectively by Health caregivers for enlightening patient about the importance of cardiac rehabilitation after AMI and patients' family members in terms of providing support to their the patient with cardiac event. More research work should be done on rehabilitation after an acute myocardial infarction specially focusing on emotional rehabilitation.

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