

# **Counseling Myocardial Infarct Patients**

Rehabilitation and a Multi Perspective Recovery

Bachelor Thesis

September 2012

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2012 English Degree Program in Nursing



SEINÄJOEN AMMATTIKORKEAKOULU

## **Thesis Summary**

Study Group: KGN1

Study Program: Nursing

Suuntautumisvaihtoehto:

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Title: Counseling Myocardial Infarct Patients: Rehabilitation and a Multi Perspective Recovery

Supervisor: Salminen- Tuomaala, Mari

Year: 2011-2012

Number of Pages: 61

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Myocardial infarction is something that is increasingly becoming a worldwide problem. During the post infarct period people or patients do not know what to do. In general it is the job of the nursing and medical staff to counsel and educate them to ease their stress. This is a systematic literature review done on the counseling of myocardial infarct patients. The articles found have been placed into several subcategories like that of patient psychosocial and psychological counseling and education; cardiac rehabilitation counseling and education and drug counseling and education.

SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

**Thesis abstract**

Faculty: Seinäjoki Ammattikorkeakoulu

Degree programme: Nursing

Specialisation:

Author/s: Ian CB Barsness

Title of thesis: Counseling Myocardial Infarct Patients:

Rehabilitation and a Multi Perspective Recovery

Supervisor(s): Mari Salminen- Tuomaala

Year: 14-10-2011 to 11-9-2012

Number of pages: 65

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This systematic literature review is done through the use of Pub Med, CINAHL and EBSCO. Acute myocardial infarction is a disorder that affects all aspects of life, and is seen worldwide. This is an article review of counseling infarct patients post infarction. This information and articles chosen have been collected and set into sub categories. The first portion will describe the process that was undertaken. Then the data that was collected from several articles will be analysed and put into charts. From the results of these articles a discussion and conclusion will be written.

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## Terms and Abbreviations

AMI/ MI                      Acute Myocardial Infarction or Heart attack

SCC                              Smoking Cessation Counseling

CR                                Cardiac Rehabilitation



## 1 BACKGROUND

Imagine waking up in a hospital bed, the sounds and noises around you are all mysterious and you are unable to move the same way you use to. You open your mouth to try and speak, nothing happens. You try and rise from the bed to see what is going on. The last thing you remember was that you were in an office meeting and your chest began to hurt to the point you blacked out. A person comes over to you, it's the Doctor, "Good morning...How are you feeling?" You try to respond yet find yourself only able to put forth slurred speech. The doctor replies "Don't worry you need to rest, and take it easy. You have just suffered your first heart attack." Acute myocardial infarction (AMI) is still seen as a leading cause of death worldwide (Thygesen et al. 2007). The European Heart Journal provides two definitions of myocardial infarction. First they describe it in terms of pathology as in the occurrence of myocardial cell death due to ischaemia. This process has been seen as a healing process, a new beginning(Thygesen et al. 2007).

Reverting back to the hospital scene, it has come now that you are ready to leave. What do you do now? Are you healthy? Are you ready to continue back to your normal life? The doctors have given you recommendations for treatment and what kind of out-patient care you should undergo on the outside of the hospital. This thesis will be described by the counseling methods for medical and nursing staff.

## **2 Aim and Objectives**

This thesis has been done through the summarization of full text articles collected from the internet. The aim was to address counseling myocardial infarct patients with focus on four subcategories of physical rehabilitation; Patient psychological counseling and education; Psychosocial counseling and education and drug counseling and education. A key objective of this study is to see what is necessary for patients to recover from a myocardial infarction.

### **2.1 Research Question-**

Counseling myocardial infarct patients in rehabilitation and education is important and necessary for a patient. What is the most beneficial form of counseling myocardial infarct patients? The question is what is key in such education for the patient to recover to their normal state of living. The following is a literature review conducted through viewing and summarising scientific articles and placing them in subcategories to justify what is really necessary to ensure patient recovery.

### **2.2 Methodology**

Through an inductive research process this systematic article review has been done with the use of Internet databases (Pub Med, Cinahl, and EBSCO) to find articles that deal with counseling methods for both myocardial infarct patients and their families. In other words this research was done by the collection of articles to create a separate and individualistic conclusion. The majority of the research was done through the use of studies that have been conducted.

### **2.3 Inclusionary Criteria**

In the search of materials it was important to put a limitation on the information or material to be viewed. Thus from the limits where used to filter or narrow down the

searches. The articles needed the following criteria; in English or Spanish, and free full texts, and the material must pertain to myocardial infarct patients. Knowing that Pubmed, Cinahl and EBSCO were used, the results found were put into subcategories underneath the main subject of patient counseling and education.

## **2.4 Exclusionary Criteria**

To narrow the search results and make this fit for a bachelors thesis the information used was limited. Only articles that allowed free full text without subscription were used. Also articles that dealt with studies published prior to 2002 were withheld from the selection unless need was specified. Further filtration allowed sources that only articles dealt with myocardial infarction.

### 3 Data Searching Process

#### 3.1 PubMed

To begin with a broad search of rehabilitation and myocardial infarction patients was conducted. The first database used was PubMed, which resulted in 5,369 articles. The search was then narrowed by limiting the search criteria to the past 10 years (2002-2012) with the use of key words “counseling myocardial infarct patients.” This then revealed 344 articles, which was later on filtered through by using the following terms and key words and filters; English language which lead to 306 articles; free full text available which gave 62 articles where as full text articles there were 245. The total number of full articles that pertained to humans was 323 and with abstracts there was also 323. The number of articles that dealt with counseling myocardial infarct patient’s families was 10; not all were used. This process can be seen in the IMAGE 1(pg 49).

The search of rehabilitation and myocardial was too much of a broad base search so it was narrowed down to focus on rehabilitation and myocardial patients and their families. IMAGE 2 on page 49, details the search process showing how and where I extracted the information using those key words. Pubmed was used first to conduct a basic search, which resulted in 115 total articles. Under the common filters the search was narrowed down; use of the English language 109; subject material that dealt with the human species 108; full text articles available 86; free full text articles available 27. The free full text articles where scanned over in search of common themes, such as counseling myocardial infarct patients and families, interpersonal relationships, rehabilitation and relapse prevention, physical exercise and quality of life, quality of care, and post infarct patients. Such themes can be seen in IMAGE 4 (pg 52).

When looking back on the articles that appeared from the Pubmed search 10 articles identified to deal with education and counseling in their title. However only 8 of them had an abstract available. Only 2 of these had the option of access of

the article via payment and 1 one was a free website, as seen on page 54. These articles are briefly summarized and later on.

Due to the lack of full text articles the search was PubMed search reconducted using "*In-patient Counseling and Education of Myocardial Infarct Patients*". As seen on page 50 this resulted in 166 total articles; 159 of these were in English; 40 have full text articles available; of the total number of articles 137 had full articles available for purchase; 160 of the articles dealt with humans as the main subject material; 163 have abstracts available and all of the articles pertained to myocardial infarct patients care. The only articles read were those that were free. As a result 25 articles were found to be relevant to the subject. There were 7 articles that pertained to smoking cessation counseling(SCC); 5 pertained to the Disparities in Gender and Ethnic and Race minorities; 10 dealt with quality of care and 2 of which were read and deemed irrelevant to the main subject material.

### **3.2 EBSCO and CINAHL**

The second database that was used to find research articles was that of CINAHL. When using the same search words or key phrases the results did not come out quite the same. These are the findings. Under the search of "rehabilitation and myocardial infarction," 148 articles were available to read. To refine and filter the search "free full texts" from the past 10 years resulted in 106 articles. There were 50 articles where the main subject dealt with myocardial infarction patients and rehabilitation. A total of which dealt solely with rehabilitation when viewed more closely. This was further narrowed down to scholarly journals and resulted in 24 articles. These articles were then put in 7 groupings based on subject similarity. Themes like the effects of extended rehabilitation on patients who suffered myocardial infarction; 2 articles pertained to social support groups, 2 articles deal with sexuality in post AMI; 9 articles from the search addressed education of post myocardial infarct patients, 3 articles fell into the subject of patients' belief and view and 8 articles dealt with quality of care in myocardial infarct patients. Each of these themes will be discussed later in depth. The last database used as a basis

for search was that of Ebrary. Using the CINAHL database 9 articles were located pertaining to the psychological support for myocardial Infarct patients. Of these 7 articles allowed access to full articles giving addiquite results to each study. Yet only 2 of them had material that was relevant to the main topic.

### **3.3 Ebrary**

Using the database of Ebrary with a basic search of myocardial infarction and rehabilitation was conducted. This lead to a result of 1,239 articles, that was narrowed down by using the phrase "counseling myocardial infarct patients and families" (thesis title), which lead to a result of 208 articles. To further narrow the results I used the key words "medical care", "heart", "patients" and "case studies", and "treatment" resulted in 49 Ebooks being found. The phrase "family assistance" or "family responsibility" was then added to decrease the number to 39. When reviewing the book selection 7 where selected for further reading and only one was used or will be discussed in this thesis.

## 4 Data Analysis & Inductive Content Analyses

To begin such a paper, information was collected from a variety of sources and put together to converge into one paper. The table below will show how that information has been grouped into select groups. It will show the exact data or sentences used and then will be put into a category as concrete information that will be narrowed into more abstract groups.

Concrete Sentences	Core Concepts	Sub-Categories	Main topic
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World Health Organization stated that cardiac rehabilitation as the following “ . . .the groupation of activities needed to influence positively the basis cause of the problem, to promote good physical, mental and social conditions to allow a patient may on their own return to a normal life (WHO, 1993).

Definition of Rehabilitation

Patient Counseling and Education

Concrete Sentences	Core Concepts	Subcategories	Main Topic
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that patients have had incorrect beliefs about the rehabilitation, especially the exercise component. Further research should be done to clarify the extent to which these beliefs may contribute to the decision not to attend cardiac rehabilitation. (Cooper et al., 2005.)

Misconception of rehab programs request for further research  
Patient Beliefs

Patient Counseling and Education

Later on Cooper examined how the patients perceived the necessity of cardiac rehabilitation and their concerns that led to non-attendance (Cooper et al. 2007).

Necessity of Cardiac Rehabilitation, concerns about

Concrete Sentences	Core Concepts	Subcategories	Main Topic
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...study that on average the costs for at home rehabilitation have been less (Jolly & Tayler et al. 2007). As part of the study the examiners looked into reasons for nonadherence to rehabilitation. The study showed that 96% of the at home patients adhered to the programme where as only 56% of the hospital centered group adhered to the treatment. (Jolly & Tayler et al., 2007.)

Recommended at home staff visits

Psychological Counseling Education

Patient Counseling and Education

Concrete Sentences	Core Concepts	Subcategories	Main Topic
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Sleep( as number of hours), rest(quality of rest), Patients who undergoe Quality of Life Patient Counseling and  
 emotional behavior concerns for the future(stress cardiac rehab percieve a Education  
 level), mobility(ability to change environment), better quality of life.  
 social interaction(capable of interacting with  
 others), alertness behavior(aware of their  
 surroundings), communication(how they physically  
 communicate),work and leisure time.  
 (Antonakoudis, et al., 2006.)

Concrete Sentences	Core Concepts	Subcategories	Main Topic
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Liles & Smith recorded what patients found most necessary in their rehabilitation process. They looked to see what were the most demanded or most important questions by the patients. Several of them are as follows; What to do if one has an adverse reaction to a medication? How to identify symptoms of a reinfarction? How to prevent a heart attack from reoccurring? Why one needs to take each medication? (Liles & Smith 2006).

Patient perception of Nurse  
cardiac rehab. demands Relationship  
for information regarding  
illness  
Patient Patient Counseling and  
Education

Where as younger males who were working did not see the information counseling as key to their recovery(Liles & Smith 2006).

Gender specified reaction Patient Beliefs  
to counseling

to improve survival and reduce rehospitalization after MI, Oberg et al. 2009 noticed three things that needed to be done; policy changes (benefits of smoking cessation, enlargement of rehabilitation programs), health care capacity (training, management of care), and improvements to access of care (removing barriers i.e. lowering the price, increasing facilities, targeting minority populations) could and should be implemented. Over the course of a year roughly three fourths of those who had admitted to having smoking habits, two thirds showed that the smoking cessation had helped. Those who received guidance noted a smoking cessation within a hundred days(Oberg, et al. 2009.)

Smoking Cessation

Patient Education

Patient Counseling and  
Education

<p>In 2009 the affects of nursing counseling on myocardial infarct patients were examined (Smith &amp; Burgess, 2009). In attempt to see the difference in intensive vs mild counseling. They realized those who cut cold turkey would have a better quality of life during the post discharge(Smith &amp; Burgess, 2009).</p>	<p>Smoking Cessation</p>	<p>Patient Education</p>	<p>Patient Counseling and Education</p>
<p><b>Concrete Sentences</b></p>	<p><b>Core Concepts</b></p>	<p><b>Subcategories</b></p>	<p><b>Main Topic</b></p>

A study done by Oranta et al. in 2011 looked at the affects of additional interpersonal counseling to usual treatment to specifically address depression and anxiety levels. Overall such treatment did not appear promote a health-related quality of life. However, it did help the younger patients and thus should be looked at for further research. (Oranta et al., 2011.)

Interpersonal counseling ineffective in altering Health Related Quality of life. However did assist those <60 years of age.

Age  
Counseling  
Education

Specific Patient Counseling and Education

<p>Lane &amp; Carrol studied more specifically the mortality rates for those having suffered from MI and their level of depression and anxiety during their in-hospital stay (Lane &amp; Carroll et al. 2001).</p>	<p>Mortality rates not affected by depression and anxiety levels in-hospital stay</p>	<p>Psychosocial Education</p>	<p>Patient Counseling and Education</p>
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Concrete Sentences	Core Concepts	Subcategories	Main Topic
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<p>Mayou et al. concluded from their own study results that those who were distressed during their time in the hospital were more likely to suffer lower quality of life during the discharge year (Mayou et al, 2000).</p>	<p>Patient's with depression and anxiety in or before hospital stay likely see health complications during first year post discharge.</p>	<p>Psychosocial Education</p>	<p>Patient Counseling and Education</p>
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Johansen and Baumbach et al. ran a clinical trial on the affects of group counseling to see if it helped reduce the reoccurrence of heart attack. Eventhough the health statis did not improve, the hospital readmission rates and mortality rates were much lower than those who did not undergo the group counseling (Johansen & Baumbach et al., 2003).

Coping strategies uneffected, mortality rate and readmission rate was decreased

Psychosocial education

Patient Counseling and Education

... Ganachari et al conducted patient interviews examining the effects of patient counseling. It was noted that higher levels of satisfaction of nursing care and care advice recieved. (Ganachari et al, 2004.)

Effects of counseling and education on patient satisfaction with care.

Psychosocial Counseling Education

Patient Counseling and Education

Concrete Sentences	Core Concepts	Subcatecories	Main Topic
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In Canada Cynthia et al. examined the prescription adherence of MI patients. The main outcome from their study was that the patients under 65 had a higher mortality rate for those who took longer to refill prescriptions. (Jackevicius et al., 2008.)

Greater need to fill prescriptions post discharge

Drug Education  
Patient Counseling and Education

Akincigil et al. witnessed in their own study an overall stoppage of medication after two years. They examined the average refill rates of heart medications by MI patients(Akincigil, 2008.)

Stoppage of medication after 2 years

Drug Education  
Patient Counseling and Education

Concrete Sentences	Core Concepts	Subcategories	Main Topic
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According to a study in Australia, women who have suffered an MI would be affected more (Gallagher et al, 2003). Yet they did not show any direct affect as towards psychosocial adjustment, anxiety or depression after discharge. However women less than 55 years of age, unemployed or retired, recovered poorly and many showed higher levels of relapse. (Gallagher et al, 2003).

Telephone counselling in post discharge seen to be ineffective

Psychological Counseling Education

Patient Counseling and Education

Concrete Sentences	Core Concepts	Subcategories	Main Topic
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<p>Thompson et al(2007) described the common psychological reactions of a myocardial infarct patient. Common psychological reactions like that low mood, tearfulness, sleep irritability anxiety, acute awareness of minor somatic sensations or pains and poor concentration and memory have been noted to occur in the aftermath of a myocardial infarction.</p>	<p>Psychological reactions present in post MI, low mood, tearfulness, sleep irritability anxiety, acute awareness of minor somatic sensations or pains and poor concentration and memory</p>	<p>Psychological reactions in Patients post MI</p>	<p>Patient Counseling and Education</p>
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<p>Oterhals &amp; Hanestad et al. found through their study how patients felt about the education they where recieving. (Oterhals &amp; Hanestad et al. 2006).</p>	<p>Feelings toward education</p>	<p>Psychological Counseling Education</p>	<p>Patient Counseling and Education</p>
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Concrete Sentences	Core Concepts	Subcategories	Main Topic
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Lear & Spinelli et al. par-took in two studies that dealt with managing patient life styles and habits. One was a 4 year randomized control trial that showed how a modest risk factor and lifestyle management intervention resulted in a reduction to global risk compared with usual care and should be considered after CRP.. (Lear & Spinelli et al., 2006.)

Managing styles and habits  
 Managing styles and habits  
 Psychosocial Counseling and Education

Patient Counseling and Education

A study done in Japan performed cross-sectional study to first to examine the job stress levels between MI patients and that of healthy workers and to see the stresses that give rise to AMI re-occurrence. This study showed that it had such life stress lead a rise in mortality rate. (Fukuoka et al., 2007.)

Beliefs about Job demand, job control, support from supervisors and support from coworkers  
 Beliefs about Job demand, job control, support from supervisors and support from coworkers  
 -Psychological Counseling and Education

-Patient Counseling and Education

Concrete Sentences	Core Concepts	Subcategories	Main Topic
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One such study was that done by Berkman et al., who examined the effects of treating depression and low perceived social support on clinical events after myocardial infarction (Berkman et al, 2003). Effects of treating depression and low perceived social support in patient mortality and morbidity. Psychosocial Counseling and Education Patient Counseling and Education

According to Mierzynska in 2010, patients who have good psychological support have a higher quality of life and significantly lower risk of reinfarction in the future (Mierzyńska, et al. 2010). Those who face psychological support result in higher quality of life and lower risk of reinfarction. Psychosocial Counseling and Education Patient Counseling and Education

Concrete Sentences	Core Concepts	Subcategories	Main Topic
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Cherington et al. noted in their own study that depression and anxiety influenced patient results. However, the intensity of the original illness was measured in their study to be the real reason as to whether or not further injury would result. (Cherington et al. 2004.)

Representation of illness, Intensity of illness affects the outcome of cardiac rehab

Psychological Counseling Education

Patient Counseling and Education

Lett et al examined MI patients to see if depression and low social support ran parrallel with increased death rates. Patients's perceptions of depression and low social support were marked to examine possible changes in the mortality rates. (Lett et al, 2009.)

Patient perspective of the illness

Psychosocial Counseling Education

Patient Counseling and Education

Concrete Sentences	Core Concepts	Subcategories	Main Topic
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Alsén et al. produced a survey measuring how depression and anxiety affected the levels of fatigue for patients after having had a myocardial infarction (Alsen et al,2010). Results varied amongst age groups

Age Counseling Education

Specific Patient Counseling and Education

The length of of Cardiac Rehabilitation(CR) has been noted to have an effect on the levels of depression, anxiety and physical activity (Yohannes et al., 2010). One study showed an improvement in patient’s physical activity and quality of life and the necessity for medical staff encouragement (Yohannes et al., 2010).

Multi centered cardiac rehabilitation and its effects on and morbidity and mortality.

Physical Rehabilitation

Patient Counseling and Education

Concrete Sentences	Core Concepts	Subcategories	Main Topic
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<p>Frasure-Smith &amp; Lespérance analyzed the affects of depression and other psychological risks following myocardial infarction. They questioned whether or not depression and psychological distress have been noted to parralel the death rates (Frasure-Smith &amp; Lespérance, 2003).</p>	<p>Psychological distress and depression were noted in the mortality rates amongst those who suffered MI.</p>	<p>Psychosocial Counselling Education</p>	<p>Patient Counseling and Education</p>
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<p>The study showed that confrontational coping techniques has been shown to have positive outcomes in the longer term (Krostofferzon &amp; Löfmark et al., 2005).</p>	<p>Gender differences in social group assistance affectiveness towards quality of life.</p>	<p>Psychosocial Counseling Education</p>	<p>Patient Counseling and Education</p>
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Concrete Sentences	Core Concepts	Subcatecories	Main Topic
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<p>Masoomi et al. did case-crossover study on first heart attack occurrence patients (Masoomi et al, 2010). Unexpected life events was seen to be a greater trigger for men where as sexual activity was noted more so in women(Masoomi et al, 2010).</p>	<p>Gender Differences in Patient Education causes for MI</p>	<p>Patient Counseling and Education</p>
<p>Inhospital care has found the use of psychological assistance to be more beneficial for younger patients (Oranta et al., 2011)</p>	<p>Psychological benefits for younger patients</p>	<p>Age Specific Patient Counseling and Education</p>



## 5 Patient Beliefs

In counseling patients with myocardial infarction it is important to focus the quality of information being given. When looking back on the articles that appeared from my Pubmed search I was able to identify several articles that dealt with patients beliefs on the education and counseling they receive.

### 5.1 Beliefs on Information Needs During Post MI

When asked as to what information was needed by patients upon discharge several responses were given. So much information can be overwhelming and may discomfort the patient and. They looked to see what were the most demanded or most important questions by the patients. Several of them are as follows; What to do if one has an adverse reaction to a medication? How to identify symptoms of a reinfarction? How to prevent a heart attack from reoccurring? Why one needs to take each medication? (Liles & Smith 2006). These were what was seen to be the topics of highest demand whereas the social support, and a few others scored lower in the questionnaire. The studies results showed that older adults had more interest and drive to receive information about their situation. Whereas younger males who were working did not see the information counseling as key to their recovery(Liles & Smith 2006).

In two studies Oterhals & Hanestad et al. examined how patients felt about the education they were receiving. with the quality of information received upon discharge from the hospital while the other dealt with the overall patient experience(Oterhals & Hanestad et al. 2006). According to the study patients are still lacking in the information upon discharge from the hospital as well as additional information that would allow the patient an idea of what to expect in the future. (Oterhals & Hanestad et al. 2006).

## 5.2 In-hospital Counseling Benefits on Anxiety and Depression

While in the hospital one may feel overwhelmed with emotions. Being depressed and ashamed of the situation occur more often than not and are anxious to return to their normal life. This is where counseling and education has been studied to see if it has any affects towards patients situations. A study done by Oranta et al. in 2011 looked at the affects of additional interpersonal counseling to usual treatment to specifically address depression and anxiety levels. Overall such treatment did not appear promote a health-related quality of life. However, it did help the younger patients and thus should be looked at for further research. (Oranta et al., 2011.)

According to two studies it has been found that if a person is highly depressed or suffers from anxiety while in the hospital he or she have a lower quality of life after one year. Lane & Carrol studied more specifically the mortality rates for those having suffered from MI and their level of depression and anxiety during their in-hospital stay (Lane & Carroll et al. 2001). They found from their study that depression and anxiety once again did not have any influence on the mortality level of the patient yet it did result in lower quality of life. The other study showed similar results and offered a possible solution. Mayou et al. concluded from their own study results that those who were distressed during their time in the hospital were more likely to suffer lower quality of life during the discharge year (Mayou et al, 2000). Such results can explain the need to promote the use of psychiatric guidance to calm and ease patients.

Yet physical activity is not the only thing that needs to be taken into perspective when it comes to assisting patients in managing their lifestyle. A study done in Japan performed first to examine the job stress levels between MI patients and that of healthy workers and to see the stresses that give rise to AMI re-occurrence. They noted that increased competitiveness and job stress as a possible cause for an increase in mortality. (Fukuoka et al., 2007.) Therefore, one's job and every day work is something to be taken into perspective when it comes to creating a rehabilitation plan.

### **5.3 Patients Beliefs on Rehabilitation Attendance**

Still there has been found that a lot of people fail or do not go through with the rehabilitation process at all. Why is this? One of the articles describe that patients have had incorrect beliefs about the rehabilitation, especially the exercise component. Further research should be done to clarify the extent to which these beliefs may contribute to the decision not to attend cardiac rehabilitation (Cooper et al., 2005). Later on Cooper examined how the patients perceived the necessity of cardiac rehabilitation and their concerns pertaining reason for non-attendance (Cooper et al. 2007). Thus the patients believed that the rehabilitation was not necessary for them, or that exercise may be more harm than good, and that the rehabilitation does not match with that of their work lives or that it would not be worth someone their age.

### **5.4 Does Cardiac Rehabilitation Work?**

Referring back to being the patient you have just been referred to a cardiac rehabilitation program. Questions pop into your head; Will it work? Is it worth it? There have been many studies done to see the effects of different types of cardiac rehabilitation programs work. In the period after experiencing a heart attack the quality of life is altered to an extreme. Another study was used to measure the quality of life of an individual after suffering a heart attack. The study noted many factors that affected their quality of life they as follows. Sleep( as number of hours), rest(quality of rest), emotional behavior concerns for the future(stress level), mobility(ability to change environment), social interaction(capable of interacting with others), alertness behavior(aware of their surroundings), communication(how they physically communicate),work and leisure time. (Antonakoudis, et al., 2006.) This was done to understand what it means to be patient as a whole and know what they may face.

## 5.5 Gender Differences

In Sweden the difference between gender and coping methods with myocardial infarction was examined. The study showed that confrontational coping techniques has been shown to have positive outcomes in the longer term (Krostofferzon & Löfmark et al., 2005). From their study it was noted that nurses should tell women about the importance of seeking early treatment and assistance from family and significant others. Krostofferzon et al, has shown that nurse should guide women by informing them of the importance of seeking early treatment and assistance from family members and significant others (Krostofferzon & Löfmark et al., 2005). They also noted that care planning should include family members and significant others allowing them to support and encourage patients to cope with problems in daily life. In Iran, Masoomi et al. observed the causes for first heart attack to undergo relapse (Masoomi et al, 2010). According to their study men saw suddne life changes more causitive where as women noticed sexual activity (Masoomi et al, 2010). They also noted that counseling in high-risk groups, both men and women showed considerable sudden emotional stressors during the ages of active sexual function.

## **6 Psycho-social counseling**

### **6.1 Positive Effect of Group Counseling**

Working in groups to overcome difficulties of MI may be effective when it comes to event recover and rehabilitation. Johansen and Baumbach et al. ran a clinical trial on the affects of group counseling towards the reoccurance of heart attack. Eventhough the average patient health did not improve, the hospital readmission rates and death rates were much lower than those who did not undergo the group counseling (Johansen & Baumbach et al., 2003).

In India a study was done in 2004, using group counseling for patients who suffered myocardial infarction. Ganachari et al noted that higher levels of satisfaction of nursing care and care advice recieved. (Ganachari et al, 2004.) However, further research should be done to remove other possible variables that withheld patient evidence for example, the location of the surveys.

### **6.2 Quality of Life**

Several studies have attempted to see the affects of depression and anxiety on people with low social support in the aftermath of a myocardial infarction. One such study was that done by Berkman et al., examined the effects of treating depression and low perceived social support on clinical events after myocardial infarction(Berkman et al, 2003). They did however prove that depression and anxiety may have something to do with relapse.

### **6.3 Social Support on Stress and Fatigue**

When arriving at the hospital lights are flashing and all the hospital noises are thought to overwhelm the patient. Cherington et al. noted in their own study that depression and anxiety influenced patient results. However, the intensity of the

original illness was measured in their study to be the real reason as to whether or not further injury would result. (Cherington et al. 2004.) Having a good and view of their illness results in a better recovery and a lower chance of problems during the discharge period.

One article that was reviewed discussed how social support and depression levels for people increased psychosocial risk for recovering from a myocardial infarction. Lett et al examined MI patients to see if depression and low social support ran parallel with increased death rates. Patients's perceptions of depression and low social support were marked to examine possible changes in the mortality rates. (Lett et al, 2009.) From their study they were able to conclude that those patients who lack the expanded intimate network suffer more greatly from depression and are more likely to have more stress which may lead to a relapse.

Each day we fill our schedules with activities and events that create stress and fatigue on enormous levels. Alsen et al. surveyed how depression and anxiety affected the levels of fatigue for patients after having had a myocardial infarction (Alsen et al,2010).This showed that depression and anxiety levels should have been measured seperately and not along side that of fatigue. The presence of psychological support during and after hospitalization has been noticed to help. According to Mierzynska in 2010, patients recieving good psychological support note a greater quality of life and significantly lower risk of reinfarction in the future (Mierzyńska, et al. 2010). Like other studies the this inclines that there is a need for applying psychological counseling on an individualistic level allowing staff to personalize care.

Sometimes even a simple phone call makes a difference. In women it has been sought out to see whether or not the use of phone call counseling would have any affect on women's psychosocial adjustment following a cardiac event. According to a study in Australia, women who have suffered an MI would be affected more(Gallagher et al, 2003). Yet they did not show any direct affect as towards psychosocial adjustment, anxiety or depression after discharge. However women less than 55 years of age, unemployed or retired, recovered poorly and many showed higher levels of relapse. (Gallagher et al, 2003).

## **7 Drug Counseling and Education**

### **7.1 Patient Drug Education**

Once again you are the patient lying there in the bed. You see the doctor and nursing staff to administer medication via IV or by giving you a cup filled with medications. What are they for? Why do you need to take them? Studies show adherence of patients to doctoral prescriptions wains after time.

Following a prescription has been seen as a difficulty for MI patients. Patients under 65 have been noted to have a higher mortality rate for those who took longer to refill prescriptions. (Jackevicius et al., 2008.) They described the patients that did not fill prescriptions as being of younger age, lower income, discharge medication counseling, in-hospital attending cardiologist, and the use of fewer medications before AMI. They also noted that such a group faced a higher mortality rate (Jackevicius, et al. 2008). In other words from this study it can be seen that it is beneficial for one to fill prescriptions drugs upon receiving them.

Yet learning and following the prescriptions that are written by the doctor remain to be seen as a difficulty for patients. Heart medication is not something that can or should be stopped and not taken anymore without doctors approval. Several studies have been done to see how patients follow such advice. Akincigil et al. saw an overall stoppage of medication after two years. Through viewing the average refill rates of heart medications by MI patients(Akincigil, 2008). They recommend that the nursing staff should motivate patients to continue with their medication as prescribed.

### **7.1 Smoking Cessation Telephone and Bedside Counseling**

In the hope to improve survival and reduce rehospitalization after MI, Oberg et al. 2009 noticed three things that needed to be done; policy changes (benefits of smoking cessation, enlargement of rehabilitation programs), health care capacity

(training, management of care), and improvements to access of care (removing barriers i.e. lowering the price, increasing facilities, targeting minority populations) could and should be implemented. Over the course of a year roughly three fourths of those who had admitted to having smoking habits, two thirds showed that the smoking cessation had helped. Those who received guidance noted a smoking cessation within a hundred days(Oberg, et al. 2009.) Is it that easy? Can such guidance be the key? The authors stated a lack of presence in myocardial rehabilitation leaves the affects of myocardial rehabilitation unknown.

Further examination of smoking cessation counseling was measured to be greater in patients who underwent intensive nursing counseling along with the use of prescribed medications. In 2009 the affects of nursing counseling on myocardial infarct patients were examined (Smith & Burgess, 2009). In attempt to see the difference in intensive vs mild counseling those who cut cold turkey witnessed a better quality of life during the first year post hospital discharge(Smith & Burgess, 2009). Thus the necessity of bedside counseling in patients who.. have suffered MI.



## 8 Physical Rehabilitation

Having just suffered the heart attack you cannot imagine what to do next. At this moment you feel life as it was cannot continue as normal. Knowing what myocardial infarction is we may now progress into learning about how patients and families deal with it.

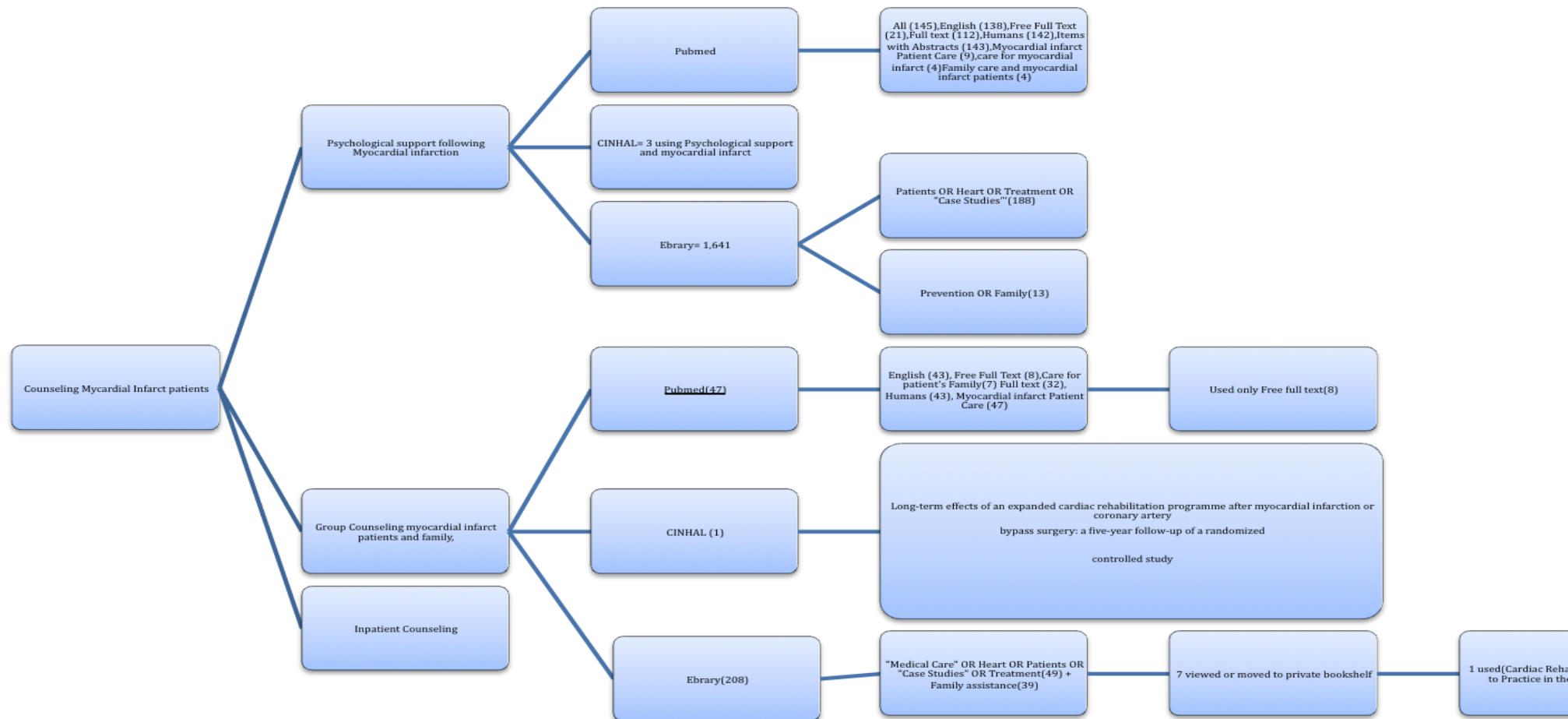
Ok, now back to you the patient. You have had an MI. What to do next? What is there to do? The doctor and staff should tell you about the services available, and amongst the things they describe is cardiac rehab. Cardiac rehabilitation has been defined by the World Health Organization as the following “ . . . the groupation of activities needed to influence positively the basis cause of the problem, to promote good physical, mental and social conditions to allow a patient may on their own return to a normal life (WHO, 1993).

### 8.1 Home Based vs Public Based Rehabilitation Programs

When it comes to home care versus hospital care have been studies to see which has been more successful in rehabilitational adherence. On average the costs for at-home rehabilitation have been less (Jolly & Tayler et al. 2007). As part a study examiners looked into reasons for why patients did not stick with the rehabilitation programs. Their study showed that the majority of the patients that stayed at home at-home followed through with the rehabilitation program. Whereas, only little bit more than half of the hospital based group continued with the treatment (Jolly & Tayler et al., 2007). The explanation behind each where different, the at-home group stated that those who failed to maintain the treatment felt the lack of motivation to complete the treatment. The hospital centered group stated that social issues(i.e. being impoverished and a minority) and location of the hospital and difficulty of getting to and from the centers. Therefore cost effectiveness and motivation appear to be key annotations for making rehabilitation programs.

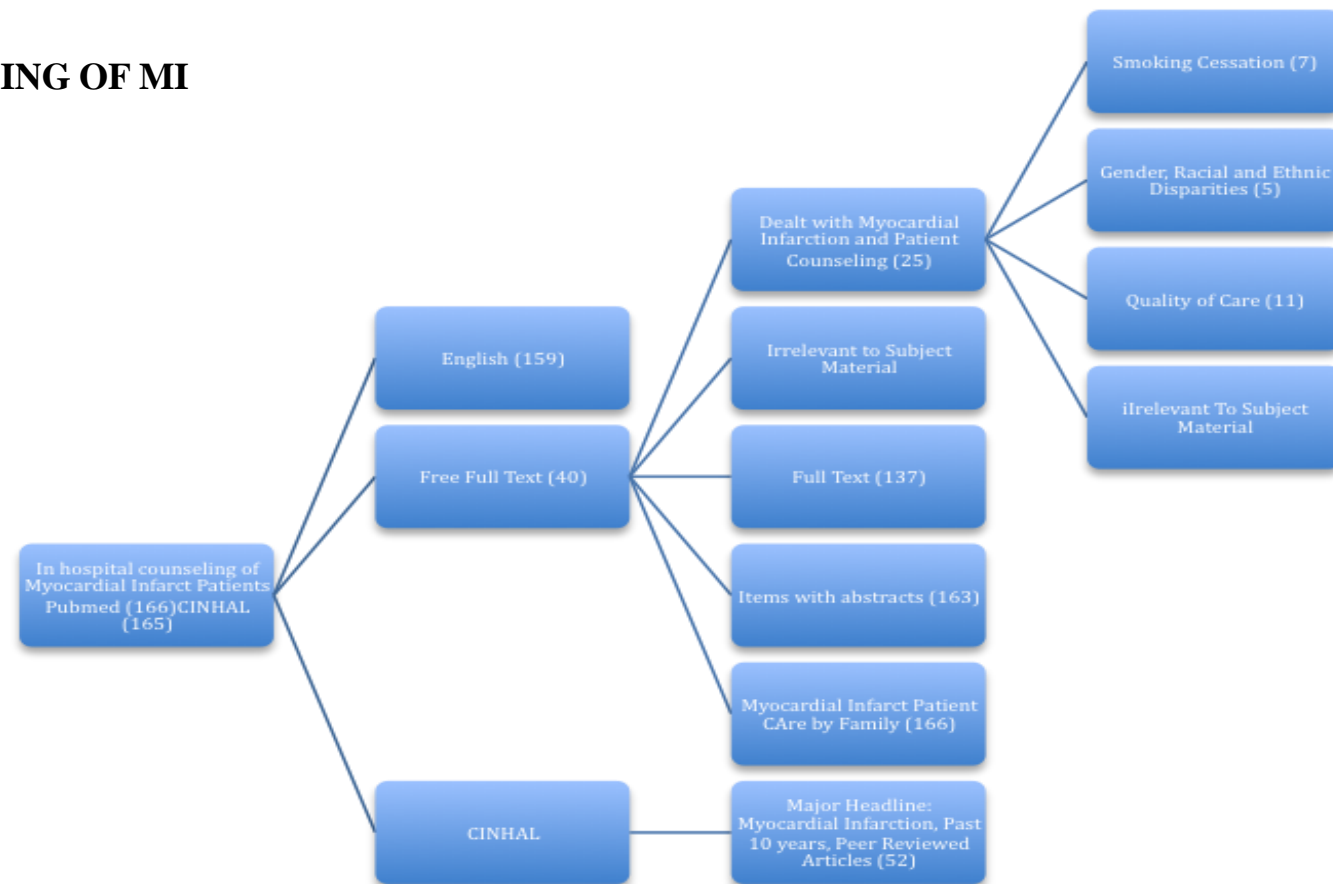
One thing MI patients need in order for them to return to the normal health they had be before the MI, is the know how. This means that the patients need to know

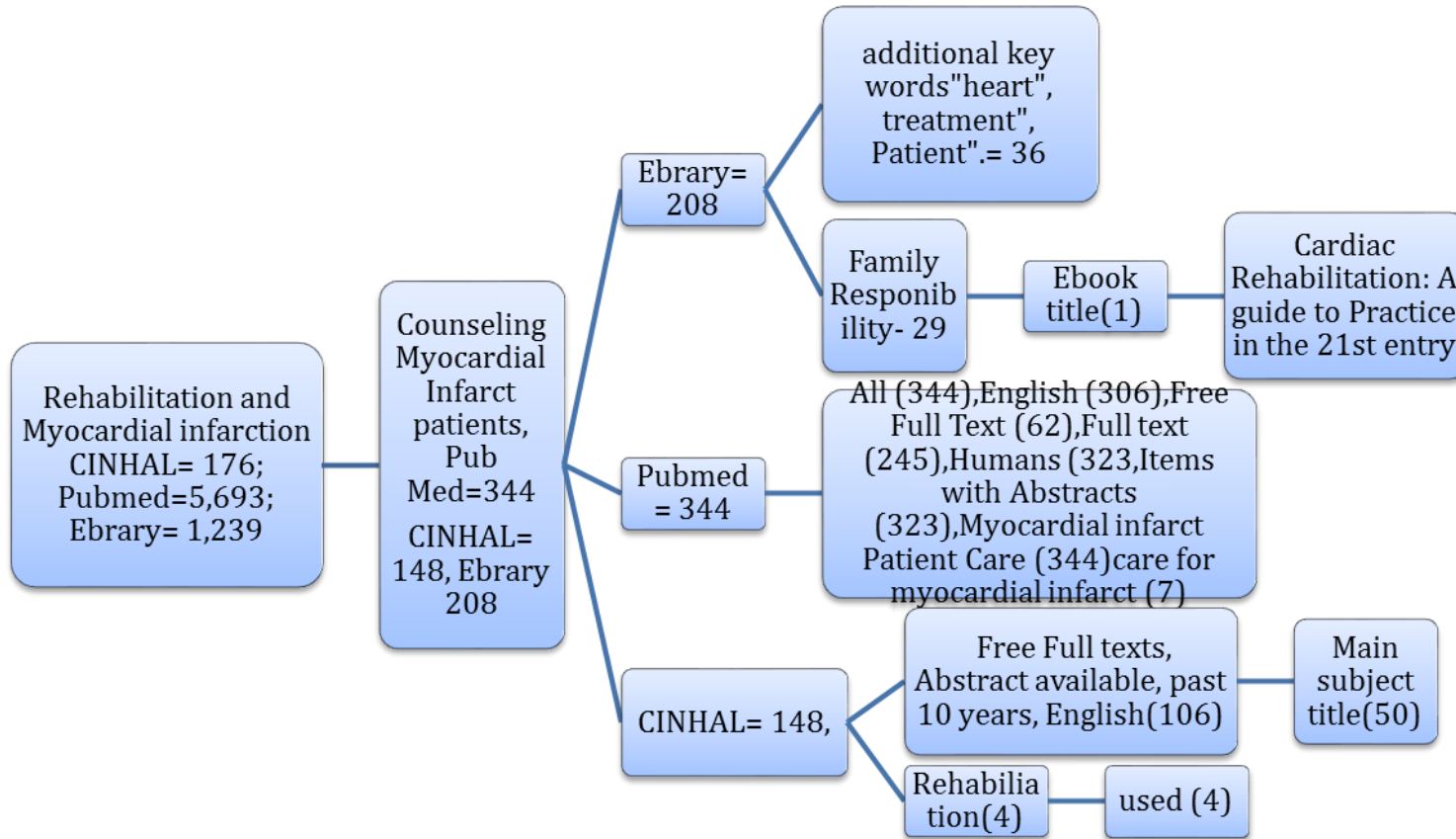
the methods and programmes that are available to assist the healing process. One study analyzed the difference between at home care vs the hospital care programs. Being at home proved resulted to give better results (Korzeniowska-Kubacka et al. 2011). They examined the difference between home based vs hospital based physical rehabilitation on maximal workload in the first and second minute of the recovery times.



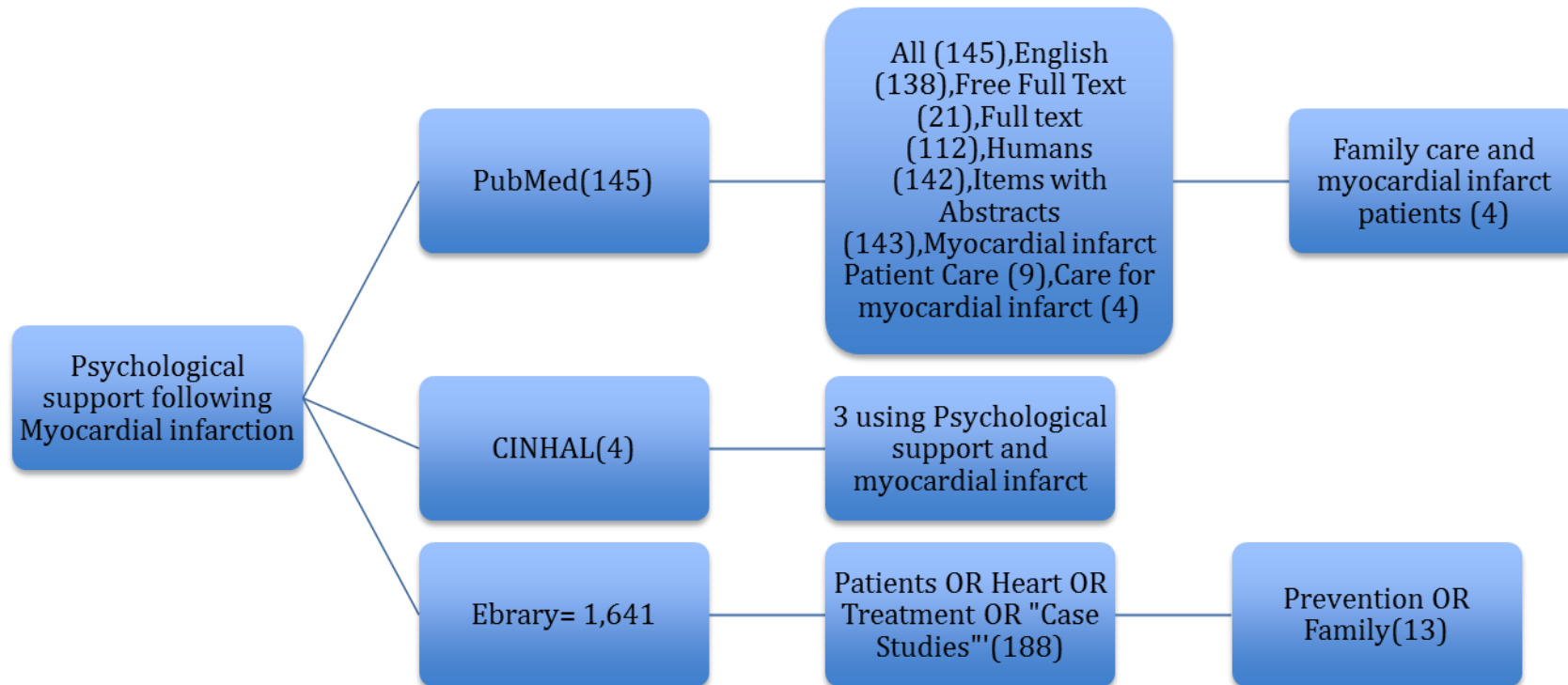
## COUNSELING MYOCARDIAL INFARCT PATIENTS

## IN-HOSPITAL COUNSELING OF MI



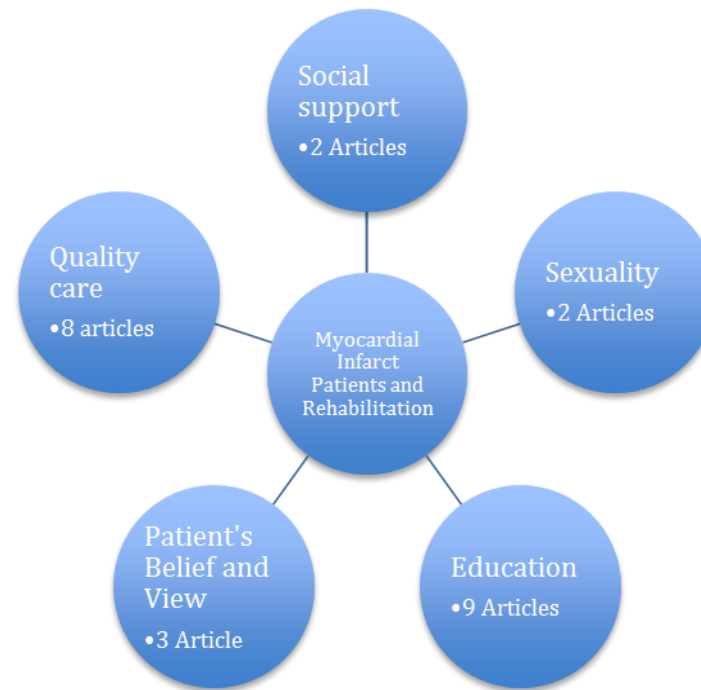


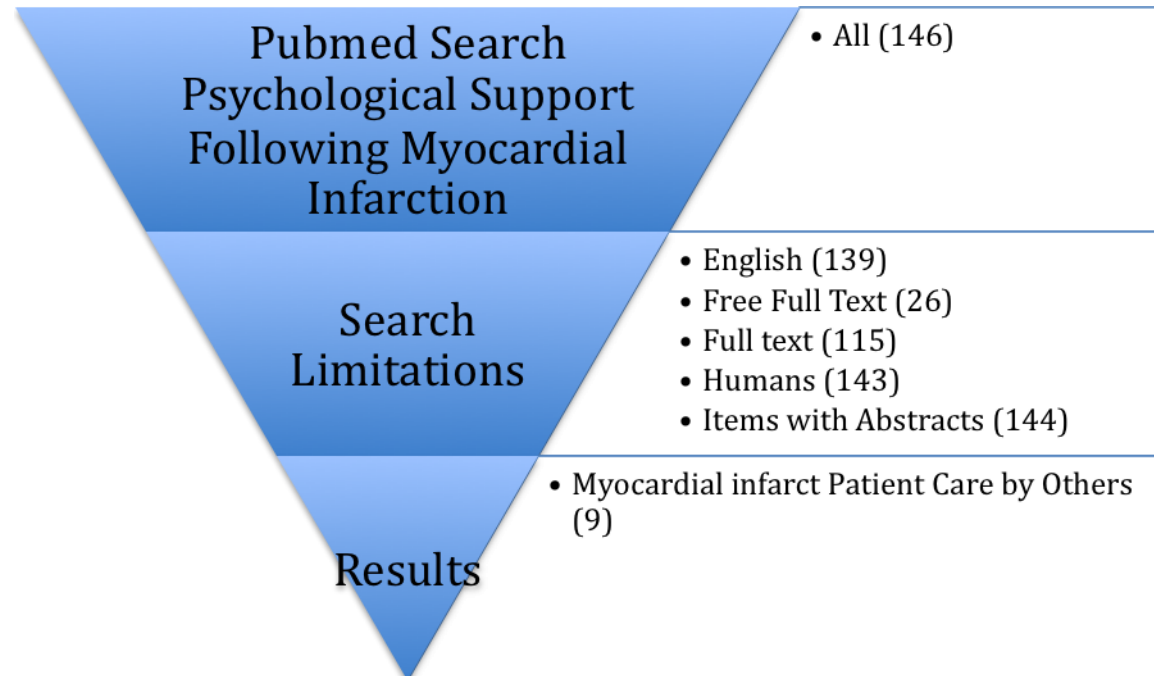
**REHABILITATION AND MYOCARDIAL INFARCTION**



## PSYCHOLOGICAL SUPPORT

## MYOCARDIAL INFARCT PATIENTS AND REHABILITATION



**PUBMED SEARCH- PSYCHOLOGICAL SUPPORT FOLLOWING MI**



## **9 Psychological Counseling and Myocardial Infarction Patients**

As part of counseling myocardial infarct patients and their families it has been seen important to lower depression and anxiety that will help prevent relapse. After having survived a myocardial infarction one may go through many problems in trying to cope with their situation. For one may go through many changes, both psychological, and the physical deminuation as well loss in sociological. Thompson et al described the common psychological reactions of a myocardial infarct patient. Common psychological reactions like that low mood, tearfulness, sleep irritability anxiety, acute awareness of minor somatic sensations or pains and poor concentration and memory have been noted to occur in the aftermath of a myocardial infarction.

### **9.1 Lifestyle management**

Looking back again at the hospital scene: you have been in the hospital for a few days and now you are now anxious to return home and to your normal life. Clearly that will not be possible due to the complications that you have to face. When it comes to manageing life styles MI patients need further medical assistances. Lear & Spinelli et al. administered two studies that dealt with managing patient life styles and habits. One of them took place over a period of four years examining how modest risk factors and lifestyle management ended in declined risk overall for patients after a cardiac event. The second was just an outline with a data set that set forth an opening for further study in extensive lifestyle management (Lear & Spinelli et al., 2006). Like many studies extensive excercise was considered to be beneficial for those who partook.

### **9.2 Depression Levels and the Duration of Cardiac Rehabilitation**

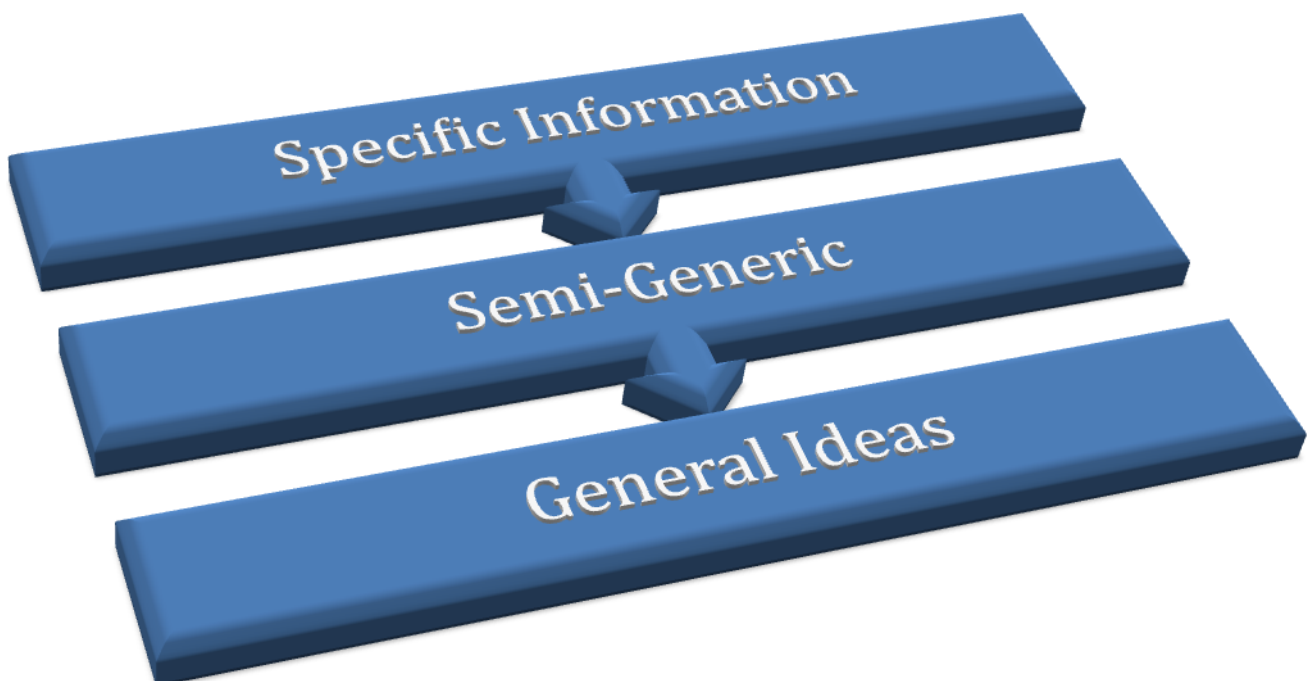
Often a patient may think to themselves, "How long is it going to take to return to full health". The length of of Cardiac Rehabilitation(CR) has been noted to have an

effect on the levels of depression, anxiety and physical activity (Yohannes et al., 2010). One study showed an improvement in patient's physical activity and quality of life and the necessity for medical staff encouragement (Yohannes et al., 2010). Through the use of long term period observation may show different results of depression and anxiety. These alone have been seen as an influencing factor to mortality levels in MI patients. Frasure-Smith & Lespérance analyzed the affects of depression and other psychological risks following myocardial infarction. They questioned whether or not depression and psychological distress have been noted to parralel the death rates (Frasure-Smith & Lespérance, 2003). Yet from their results one can see that things like that of lack of self interested, social support and overt anger can be of little affect to the mortality rates amongst the MI patients.

## 10 Discussion

In the end, counseling myocardial infarct patients is quite important. Mentioned earlier where 4 main subtopics from the main topic of counseling MI patients and families, myocardial infarction, definition plus signs and symptoms, education and counseling, psychological support. As seen in the chart below the information was collected from various articles and studies. Hence forth this study follows the characteristics of an inductive study. From each of the articles found info was taken and then put into subcategories which were more generic. These subcategories then fell into line with that of the main subject matter.

### **COUNSELING MYOCARDIAL INFARCT PATIENTS 1**



The figure above shows the paper has been organized. Starting with the most specific details and information collected from the articles read. Then subtopics were then emmerged as similarities in the articles came out of the data collected. Each of these subtopics fell under the main topic of counseling methods for patients with myocardial infarction.

To further explain this one should refer back to the texts summarized previously. For example in hospital care has found the use of psychological assistance to be more accepted among younger patients (Oranta et al., 2011). Yet both studies mentioned are that MI relapse does not correlate directly with depression and anxiety. Liles & Smith examined the necessity for educating different age groups amongst heart attack patients. Thus age groups are important to take into consideration when it comes to counseling MI patients.

Myocardial infarction has been seen as a problem that affects lots of people around the world. If one looks at myocardial infarction as a healing process as noted earlier in the universal definition a longer duration of assistance is required (Thygesen et al. 2007). As noted, in the articles above to ensure a beneficial treatment for myocardial infarct patients and families can and should be a complete process. Complete to the extent that a nursing staff should provide an individualistic and relentless care to both patients and their families. The staff should also feel comfortable and capable to address patients with what ever information they request. The rehabilitation period should be adequate in length to ensure that both patients and their families feel in control of their health situation.

### **10.1 Analysis of the Systematic Review:**

Looking back at the entire process many things have been accomplished in the study process. The original search process seemed relatively easy only to find that many of the articles only provided abstracts or summaries of the complete. The end result after having read through the articles and sort them into separate and individual categories. Several of the articles required a little bit of further research. Subtopics gradually appeared to deal with patient beliefs, psychosocial relationships in recovery and rehab, physical exercise, and drug care. As to the original searches, many times articles were found of no use and or required purchase of the article.

### **10.1 Ethics of Systematic Review**

To become a nurse and to ensure that a patient has received quality care is a difficult. Discussing certain issues such as sexuality may seem such a taboo that one should not talk about it. Yet it is the job of the nursing and medical staff to insure that they cover all subjects when advising patients upon recovery. Ethically this article review maybe lacking in the perspective of patient staff beliefs, therefore further research in the different perspectives could be seen to influence each situation.

### **10.2 Validity and Reliability of Systematic Review**

The articles how ever are indeed valid and have been collected from scholarly journals and have been peer reviewed. Being the fact that the material has been chosen from peer edited and scientific articles from the last 10 years the material is relavent to the current ongoing events. However, new information and studies take place each deay that produce newer and more valid results each year that may prove such research as invalid. Therefore a continous research of myocardial infarction and the effects of counseling and education towards patient recovery.

### **10.3 Conclusion.**

During the post infarction period a patient may witness many things. The job of the nurse and the medical staff is and always should be to inform the patient of the expectations. Through this critical analysis paper one can see the necessity for MI patients to follow through with their doctor orders and look into a multicentred rehabilitation program. In agreance to the definition of MI by the Thygesen et al. in the action being a healing process. Knowing that the care and assistance should be provided from before and after the occurance. Assistancess should cover all perspectives of health. Patients and staff should hold a more close relationship that would allow information to be discussed more at ease. It can be seen that from the use of inhospital counseling patients have been able to lead a healthier

life. Also the nursing staff should update and maintain a good knowledge base of their care group in hope to be capable of informing patients and their families as to the type of care needed. As seen in the articles summarized information has been lacking when it comes to the perspective of post discharge life and life management. Public policy should also ensure an adequate hospital duration should allow patients and families more freedom upon deciding when they are ready to leave the hospital.

#### **10.4 Recommendations for Further Study**

As stated in the European Journal of Health in their definition of myocardial infarction being a "healing process...", counseling patients with myocardial infarction remains an area open for further study and research. One example is the affects of group physical fitness counseling and rehabilitation in myocardial infarct patients. Further research also should be done as to the affects of myocardial infarction on the patients' family. Also as noted from the articles found several times the authors recommended further research to see the connection between depression and anxiety and patient recovery.

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