Brief Communication
Acute Myocardial Infarction Survivors Experiences: A Qualitative Literature Review

Nidal F. Eshah, *1 A Elaine Bond 2

Abstract

Background Aims: Although cardiovascular disease is the number one killer in many countries, advanced technology has improved survival rates post acute myocardial infarction. Survivors of an acute myocardial infarction face new challenges as they try to adapt. Understanding the meaning of their experiences is vital for designing educational programs for prevention and rehabilitation. There has been no research on this topic in Jordan. Therefore, this paper will evaluate personal experiences and perspectives of acute myocardial infarction survivors.

Materials and Methods: Qualitative Literature Review from CINAHL, MEDLINE, Blackwell Synergy, and PsycINFO electronic databases. Thirteen articles, 2002-2007, met the inclusion criteria. Constant comparative method was used to identify themes.

Results: Six key themes were identified: beliefs about causes of the disease, behaviors related to the event, moving toward changing lifestyle, professional and social support, concerns about the future, and expressing needs. Many acute myocardial infarction survivors did not know CVD risk factors, or warning signs and symptoms. Participants found changing one's lifestyle is difficult and requires support from professionals and family members.

Conclusions: Health care providers need to increase community awareness campaigns about CVDs. They also need to teach risk factors, signs, symptoms, and appropriate lifestyle changes to patients during routine healthcare visits. During and after hospitalization, acute myocardial infarction survivors need time-sensitive education. They need professional and family support. Jordanian healthcare providers can use this information to develop or improve programs to assist acute myocardial infarction survivors.

Keywords: Qualitative, review, myocardial infarction, survivors, lifestyle changes, patient's needs.
Acute Myocardial Infarction Survivors Experiences... Nidal F. Eshah and A Elaine Bond.

Infarction (AMI) is one of the manifestations of CVD that affects large sectors of all populations.\(^1\)

Jordan is currently experiencing high AMI morbidity and mortality rates. Ischemic heart disease, which leads to AMI, is the first leading cause of death in Jordan, whereas cardiovascular diseases are responsible for 40% of all deaths in Jordan.\(^2\)

Recent advances in medical technology and treatment modalities are improving survival rates for those who experience an AMI. While this is a desirable effect, AMI survivors face a myriad of new challenges, as they try to adapt to a new lifestyle. To improve the outcomes for AMI survivors, health care providers have also designed specific programs that help AMI survivors to overcome the negative consequences of their cardiac event, to return to their normal lives, and to prevent other cardiac events in the future. The goal of these programs is to decrease disability, recurrent coronary events, recurrent hospitalization, and death.\(^3\)

Understanding the meaning and responses of AMI survivors is an essential requirement for designing and improving specialized intervention programs and effective cardiac rehabilitation programs. Qualitative data will provide a strong basis for understanding the experiences of AMI survivors. Therefore, the purpose of this qualitative literature review is to explore AMI survivors' perspectives about their experiences. This data will be useful for Jordanian health care providers to help develop programs to decrease AMIs and to develop appropriate cardiac rehabilitation plans. Such plans that can contribute to improving the survivors' post AMI experience.

Methods

Search Strategy

CINAHL, MEDLINE, Blackwell Synergy, and PsycINFO electronic databases were searched for related qualitative literature, using the following keywords, qualitative research, heart attack, myocardial infarction, experience, meaning of, feeling, lifestyle changes, cardiac knowledge, patient's perception, and patient's needs. The search was restricted to articles published between 2002 and 2007. This reflects the underlying assumption that newer findings would reflect improved awareness about CVDs, in light of the dramatic international efforts to improve CVD outcomes, with subsequent needs for support for survivors.

Studies were included if they met the following inclusion criteria: they were full text articles available in Jordan; English language articles, published in peer reviewed journals; used qualitative research methodology; studied patients who survived AMIs; and focused on the patients' experiences of AMI. Studies were excluded if they were quantitative studies; integrative or systematic literature reviews; or studies that focused on patients' experiences of CVDs in general. The flow of tasks during the current literature review was organized according to the Polit and Beck’s task flow plan.\(^4\)

The primary search identified 166 potential articles. The abstracts of these articles were screened for appropriateness, which resulted in 14 articles that appeared to satisfy the inclusion criteria. However, four of those articles were rejected after reading them in depth. Three additional articles were included after screening the references lists of the selected articles. Finally, 13 articles met the inclusion criteria.

Since this is an integrative literature review, the authors needed neither institutional review board nor animal protection approval.

Data Analysis

Each primary source was reviewed, and its data were reduced to a single page. Then all the primary sources were organized in a table to facilitate ordering, coding, categorizing, and summarizing the data (Table 1). In the next step of data analysis, the themes from each individual
source were ordered and sorted to identify common themes that represented all the primary sources.

The next step was data comparison, in which Strauss and Corbin’s constant comparative method was used to assemble similar findings from each primary source under common themes.

This technique identified six key themes. Finally, the results were presented in a manner to help readers to understand the patients’ perspective about their experiences post AMI.

### Table 1: AMI Survivors Authors, Sample Size, Qualitative Research Tradition, Data Collection Methods, and Data analysis.

<table>
<thead>
<tr>
<th>Author/Country</th>
<th>n</th>
<th>Gender/Age (Mean)</th>
<th>Sampling criteria</th>
<th>Research Tradition</th>
<th>Data Collection Method</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerr et al. (2002) Canada</td>
<td>7</td>
<td>7 F</td>
<td>Purposive</td>
<td>Heideggerian Phenomenology</td>
<td>Unstructured Interviews 63-115 min.</td>
<td>Interpretive process of hermeneutic analysis</td>
</tr>
<tr>
<td>Brink et al. (2006) Sweden</td>
<td>21</td>
<td>10 M /11 F</td>
<td>Purposive and Theoretical</td>
<td>Grounded Theory</td>
<td>Unstructured Interviews</td>
<td>Grounded theory analysis technique</td>
</tr>
<tr>
<td>Condon et al. (2006) Ireland</td>
<td>10</td>
<td>9 M / 1 F</td>
<td>Purposive</td>
<td>Descriptive Qualitative</td>
<td>Semi structured Interviews 40-75 min.</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Webster et al. (2002) UK</td>
<td>35</td>
<td>25M /10 F</td>
<td>Purposive</td>
<td>Ethnography</td>
<td>Semi structured Interviews 45-60 min.</td>
<td>Thematic Analysis</td>
</tr>
<tr>
<td>Albarran et al. (2007) UK</td>
<td>12</td>
<td>12 F</td>
<td>Purposive</td>
<td>Not Specified</td>
<td>Semi structured Interviews 30-45 min.</td>
<td>Thematic analysis</td>
</tr>
<tr>
<td>Clark (2003) UK</td>
<td>14</td>
<td>8 M / 6 F</td>
<td>Purposive</td>
<td>Not Specified</td>
<td>Semi structured Interviews 35-90 min.</td>
<td>With specific focus on the language</td>
</tr>
<tr>
<td>Hanssen et al. (2005) Norway</td>
<td>14</td>
<td>12 M / 2 F</td>
<td>Purposive</td>
<td>Not Specified</td>
<td>Three focus groups</td>
<td>QSR N5 software, Content analysis</td>
</tr>
<tr>
<td>Jensen et al. (2003) Denmark</td>
<td>30</td>
<td>22 M /8 F</td>
<td>Purposive</td>
<td>Not Specified</td>
<td>Semi structured Interviews 45 min.</td>
<td>Content analysis</td>
</tr>
<tr>
<td>Kristofferzon et al. (2007) Sweden</td>
<td>39</td>
<td>19M /20 F</td>
<td>Purposive</td>
<td>Not Specified</td>
<td>Semi structured Interview 30-90 min.</td>
<td>Content Analysis</td>
</tr>
<tr>
<td>MacInnes (2006) UK</td>
<td>10</td>
<td>10 F</td>
<td>Purposive</td>
<td>Not Specified</td>
<td>Semi structured Interview 47-89 min.</td>
<td>Thematic analysis</td>
</tr>
</tbody>
</table>
Results

Among the 13 qualitative studies, seven authors reported the qualitative tradition they used to conduct their studies: six to twelve three studies used a phenomenological approach, two used the grounded theory approach, one was a descriptive qualitative study, and one was an ethnographic study. All the studies used purposive sampling, and the two grounded theory studies incorporated theoretical sampling, to ensure representation of the themes. Eight of the studies included more males than females in their sample; four studies included a sample that consisted solely of women, and one study included more women than men in its sample (Table 1).

All the studies used audio-taped recordings in their data collection. Nine studies collected data through semi-structured interviews, three through un-structured interviews, and one study used the focus group technique. Data were analyzed according to traditional qualitative analysis techniques; twelve were performed manually, whereas a software analysis program was used in one study.

The six key themes which emerged are: expectation about causes of the disease, behaviors related to the event, moving toward changing life style, professional and social support, concerns about the future, and expressing needs.

Expectation about Causes (Risk Factors) of the Disease

Numerous participants identified stress as the major cause for AMI. These participants stated that physical and psychological stress is part of daily living, and their AMI occurred as a result of these stressors. However, a few of the participants believed that their previous lifestyle, family predisposition, neglecting regular checkups, and destiny were part of the causes of their AMIs.

Some participants thought that they were not at risk for an AMI, and that this disease would not affect them. Participants in one study believed that AMI is a disease that only affects older persons. In one all-female study, participants did not consider themselves as susceptible to AMI, even those who had confirmed risk factors.

Several participants stated that an AMI would be preceded by warning signs that would give them the chance to change their lifestyle. Furthermore, participants believed in the stories they heard from others, that AMI victims will have another second, third or even a fourth recurrent AMI. They believed that their families, neighbors and persons who had previous AMI were good sources for information. Although some participants could identify some risk factors for AMI, additional education is clearly necessary to educate the public about the risk factors for AMI and ways to reduce those that are modifiable.

Behaviors Related to the Event

Participants’ beliefs about the causes of AMI affected their behaviors related to their AMI. They didn't seek medical attention initially, because they attributed their symptoms to the aging process, or to less serious causes, such as indigestion. However, participants who had experienced a previous myocardial infarction, or those who suffered from co-morbidities recognized more symptoms and sought medical attention sooner than other participants. Again, additional education will help people increase awareness of AMI symptoms and increase response, so they will seek medical attention when necessary.

Moving Toward Changing Lifestyles

Changing lifestyle post AMI was more difficult than participants expected. Some stated that lack of knowledge, fear, and uncertainty made lifestyle changes more difficult. Some were worried that physical activity would harm them and may lead to a recurrent AMI. On the other hand, other participants realized they had to modify and moderate their previous lives, in order to return to the activities they liked to do before their AMI. However, one set of participants indicated that real lifestyle changes started with participants' efforts to live within...
Surviving an AMI was considered by many participants as a major warning sign of impending death, which motivated them to start making the changes required for a healthier lifestyle.11, 16 For instance, some participants worked to decrease psychosocial tensions,14, 16 improve their nutritional habits, quit smoking,17 decrease their working hours, and began engaging in their favorable activities.9 However, some participants tried to perform strenuous activities too soon, which caused setbacks that left them feeling discouraged.8 Individualized counseling may help survivors develop appropriate personalized lifestyle changes.

Professional and Social Support

Participants were satisfied with the professional care and support they received during hospitalization; however, some of them wished they received better professional support after they were discharged.11-12 Most of the participants did not identify nurses as a source of information. In contrast, one group of participants identified nurses as the most important source of information.17 Early periods after discharge were identified by participants as the most stressful period. They felt they needed more professional and social support at this time.16 Participants appreciated and valued the role of their families in this process of recovery.11,12, 15-17 However, the high stress within some families reinforced participants’ feelings of illness, frustration, and uselessness.7,5,11,16 Programs certainly need to provide additional healthcare support in the early days, post discharge. They also need to help families learn appropriate support methods.

Concerns about the Future

Many participants stated that they were eager to continue their previous lives after surviving an AMI.11 Unfortunately, other participants felt pessimistic about the future, fearful of having another AMI. They had a fear of death and saw life as fragile.9 Additionally, participants expressed feelings of uncertainty about the future,10, 17 feeling helpless, and powerless.7, 16 The most pessimistic view was presented by one group of participants; They believed their AMI had ended their active lives: they started preparing themselves for death through religious activities. Obviously, there was a wide range of concerns for the future. Positive support and education could help to allay serious fears and help participants address simpler challenges.

Expressing Needs

Participants sorted their needs into three phases: hospitalization, returning home, and follow up. During hospitalization, most of the participants received general information about AMI, risk factors, and healthy lifestyles. However, they felt they could not apply these early instructions, because they lacked knowledge about how to do such changes. They were still overcome with having survived. They were not ready to hear all the information they received. They also noted the lack of special direction from health care providers about how to personalize and apply the instructions.9, 12, 15, 17

Almost all participants expressed the need for more professional support and information during the returning home period. They stated they needed to know how to deal with chest pain or fatigue, how to manage stress, and how to make healthy changes in lifestyle.11, 15 They needed information about medications, their side effects, nutritional guidance, and information about cardiac rehabilitation programs.12, 16

Most of the participants expressed the need for better communication with health care providers for the follow up period, after they settled back into a home routine.9, 15, 17 Since participants’ needs varied depending on the phase of their recovery, healthcare providers need to provide time-sensitive educational content for each time period, and present it when AMI survivors are ready for it.
Discussion

These qualitative studies provide a thick, rich supply of data about experiencing an AMI’s aftermath, from the perspective of survivors. While survivors were happy they had survived, they faced a myriad of challenges as they worked to re-establish their lives, post AMI. However, most of the participants lacked the ability to connect AMI with cardiac risk factors. Only a few participants mentioned dealing with modifiable risk factors and how they could decrease AMI incidence through managing their risk factors. These concerns have been validated by other researchers.\textsuperscript{19-21} Community awareness campaigns need to provide risk factor information in public media forums: Non-modifiable risk factors are heredity, age, and gender. Risk factors that can be modified through lifestyle changes include obesity, physical inactivity, smoking, high blood pressure, high cholesterol levels, and stress levels. These information may motivate people at risk to make lifestyle changes before they have an AMI.

When experiencing an AMI, participants were unable to recognize cardiac symptoms, or attribute them to other causes. These findings were confirmed in an earlier study which found that AMI victims who delayed seeking medical treatment attributed their symptoms to muscle pain, flu or flu-like illness, or breathing problems.\textsuperscript{22} Also, earlier studies have found that women are even less likely to recognize their susceptibility to AMI.\textsuperscript{23} These findings emphasized the value of continuous education for the public, especially women, about cardiac-related symptoms, and the proper response when encountering these symptoms.

Survivors evaluated the role of the family throughout recovery from their AMI but were not completely pleased with the support they received from health care providers. This finding has been validated by other research.\textsuperscript{24} Since the majority of participants commended family support and criticized the professional support they received after discharge; health care providers should incorporate patients’ families into educational programs.

This would prepare the families to be more oriented about how to manage survivors’ needs effectively. Additionally, patients’ expectations, professional resources, follow-up plan, as well as the role of health care providers post discharge should be incorporated into discharge plans. Moreover, community health nurses can help the survivors achieve great benefits, through linking them with specialized community institutions that may provide additional support, post discharge.

Western healthcare organizations- American College of Cardiology, American Heart Association, European Heart Association, and Coronary Heart Disease National Service Framework - have strongly suggested guidelines for cardiac rehabilitation, which are periodically updated.\textsuperscript{25} Unfortunately, there are no recommendations or studies that have been published in the developing countries, where there are increasing needs for cardiac rehabilitation.\textsuperscript{26} Since participants from this study identified nurses as the most important source of information, health care providers can capitalize on that relationship: nurses can provide follow-up information for survivors. In Jordan, nurses also have the highest direct contact with people in the community, where they could also be pioneers in health education and health promotion programs.

Experiencing an AMI changed the participants' perception toward life. Their positive feelings can be used as motivation to make appropriate lifestyle changes. Their pessimistic views emphasize the need for appropriate education and cardiac rehabilitation programs to facilitate healthy lifestyle changes.

Participants reported they need appropriate information related to hospitalization, post discharge, and follow up periods. These three phases are time-sensitive, and require different professional support to help the survivors throughout each phase. AMI survivors needed more professional support so they could discuss new questions, such as how to deal with pain or fatigue, or how to manage stress. Later, they need information about medications, nutritional guidance, and cardiac rehabilitation programs.
Limitations

Many journal articles are not available as full text in Jordan, which limits access to potentially differing information. When qualitative reports do not include data to establish trustworthiness (credibility, dependability, confirmability, and transferability), the data must be accepted cautiously. Nonetheless, when numerous studies contain similar results, this lends credence to the trustworthiness of findings in all the studies.

Implications and Recommendations

Since CVD is the leading cause of death globally, the two principles of cardiac disease prevention and health promotion should be a priority for health policy makers and clinicians. Additionally, health education related to cardiac diseases as well as the proper response to cardiac symptoms should be topics for continuous public education campaigns. As the population of survivors from cardiac events increases, appropriate cardiac educational and rehabilitation programs need to be developed to meet their needs. The influence of gender, age, cultural variations and education are issues that need to be discussed in future research studies.

Nurses are in the proper place to achieve great improvement in this field. They can bridge the gap between survivors and information, as well as providing community-based programs. Furthermore, post discharge professional health care support should be reinforced to provide AMI survivors with the maximum assistance, as they adapt to their new lives.

Conclusions

Since modern technologies and treatment are saving the lives of AMI patients, it is requisite to have appropriate support systems in place to facilitate their continued survival. Surviving an AMI can be exacerbated by a lack of knowledge of signs and symptoms, lack of productive communication with health care providers, lack of follow-up and professional support. Therefore, there is a judicious need for improvement in communication, plus a modification of current educational strategies and rehabilitation programs to support survivors in order to insure the maximum benefits for them. Jordanian health care providers can use these reports from other countries to direct innovative pre and post AMI programs to improve survival rates and help survivors improve their lifestyles post AMI.

References

المعاناة من النوبة القلبية، وتأثير التعرض لها في حياة الناجين

نصاً فريد: عشاً 1 إلى بود 2

1- كلية التمريض، الجامعة الأردنية، عمان، الأردن: 2 - مديرية الدراسات العليا، كلية التمريض، الجامعة الأردنية، عمان، الأردن

الملخص
في ظل الحياة المعاصرة، تُعتبر أمراض القلب والشرايين القاتل الأولى في معظم بلدان العالم. وخصوصاً المحيط، فإن التقدم الطبي أدى إلى زيادة فرص الحياة للذين يعانون هذا المرض، ولكن الحقيقة هي أن هذا المرض لا يعني إنهاء آثاره في الشخص المصاب وذالك لأن الناجين سيواجهون اضطرابات بنية ونفسية ناجمة عنه. إنهم معاناة الناجين من النوبة القلبية يُعدّ أحد الخطوط الأساسية من أجل بناء وتطوير الخطط الصحية التي تهدف إلى الوقاية من ذلك المرض مستقبلاً، بالإضافة إلى تأهيل الناجين على نحو صحيح، مما سيساعدهم على العودة إلى حياة سابقة بأفضل حال.

هدف الدراسة الحالي إلى تعرف كيفية تعامل الناجين مع أمراض النوبة القلبية، بالإضافة إلى عدّة أثرٍ آخر في حياة الناجين، وتلقيح أهداف الدراسة قام الباحثون بالبحث الكبلي عن البحوث النوعية المتميزة لهذا الموضوع والنشرة في مجلات محكمة دولية. نتيجة لذلك تم تحديد ثلاثة عشر نموذجاً توضحاً لتعزيزهم باستخدام طريقة المقابلة المستمرة والاستنتاجية

أدت المقترح المستمرة والاستنتاجية إلى تحديد ستة موضوعات أساسية طرحت من قبل الناجين من النوبة القلبية، تلك الموضوعات هي:

- أظهرت تناول الدراسة الحالية من خلال الموضوعات الأساسية التي طرحها الناجون أن هناك نقصًا في المعلومات الأساسية التي تخص أمراض القلب والشرايين، كما أظهرت عدم القدرة على الربط ما بين عوامل الخطورة والإصابة بالنوبة القلبية، فضلًا عن أن غالبية الناجين لم يدركو أهم مهودون بالإصابة بالنوبة القلبية. وقد شكل تجاوز الأعراض الناشئة عن النوبة القلبية وإنكارها رد الفعل الأول لدى العديد من الناجين، مما انعكس سلباً على صححتهم، وذل أن إنكارهم لأعراض النوبة القلبية وتجاوزهم لها منعهم من التوجه إلى المستشفى مبكراً. كما أُثر العديد من الناجين بخصوص تغيير نمط الحياة بعد النجاة من النوبة القلبية، ومع ذلك فقد أكد غالبية الناجين أنهم أعطوا فرصة ثانية للحياة، مما يوجب عليهم القيام بالتغييرات الصحية التي تتماشى مع قدراتهم وإمكاناتهم. بالإضافة لما سبق، فقد أعرب الناجون عن ضرورة تدابير توعية وتعليمية تساعدهم على تنظيم حياتهم وتعزيز العادات غير الصحية فيها، بالإضافة للحاجتهم إلى مزيد من الدعم المقدم من الجهات الصحية المخصصة.

- تشير تمايز الدراسة الحالية إلى أهمية زيادة الوعي بعوامل الخطورة، التي تؤدي إلى الإصابة بالنوبة القلبية، كما يجب أن تكون العاملين في القطاع الصحي على إنشاء وتطوير برامج التوعية والإرشاد التي تهدف إلى التعريف بالنوبة القلبية وكيفية التعامل معها. أما الناخبون فإنهم في حاجة إلى تزويدهم بالدعم والمساعدة للمستفيدين، الذين يتسمونهم أعراض أثار النوبة القلبية. كما يمكن للعاملين في القطاع الصحي في الأردن الإفادة من نتائج هذه الدراسة، لتفهم رغم فعل المصابين بالنوبة القلبية، من أجل تعزيز التعامل مع هذه المشكلة في مجتمعنا ومن كل الحد من آثارها السلبية.

الكلمات الدالة: نوسع، مراجعة، النوبة القلبية، الناجون، تغيير نمط الحياة، احتياجات المرضى.