Quality of life post ST elevation myocardial infarction: an example for a descriptive qualitative research project

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Abstract

The World Health Organisation defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Along with interventional and pharmacological advances that have improved life expectancy and symptom control came an urge to address the ways to improve health-related quality of life (HRQoL) post STEMI (Koltowski et al, 2014). Thus the research question “quality of life post ST elevation myocardial infarction: an example for a qualitative research project” was developed. When in practice, this study aims to evaluate, enhance and improve HRQoL in STEMI patients. In addition, the outcome of this study intends to identify areas in cardiovascular care which can be improved or developed. The research method chosen and best suited to the study is qualitative research with the most suitable proposed method of data collection as open-ended semi structured interviews using cardiovascular disease specific patient status surveys such as SF 36 and Seattle Angina Questionnaire (SAQ). The research recruits patients admitted in a coronary care unit or intensive care unit diagnosed with STEMI within inclusion and exclusion criteria following a written consent form signed by patients, carers and family members. Data analysis depends on individuals’ response to questionnaires and also having access to data analysis software. It is hoped that the outcome of the study raises awareness of the need to assess quality of life after STEMI and improves standard of care in both hospital and community settings.

Identification and Justification of research of interest

According to available literature, the presence of ideal cardiovascular health behaviours is associated with longevity and freedom from cardiovascular morbidity and mortality (Spring et al, 2013). However, there is little research carried out regarding the extent or format of follow up necessary to assess quality of life (QOL) after ST elevation myocardial infarction (STEMI). Hence, comes practice development as an approach that focuses on changing people and practice rather than just systems and processes, although both are integrated (Manley et al, 2008). A study conducted by Gupta and colleagues (2012) on quality of life in patients following myocardial infarction using subjective well-being inventory and the general health questionnaires demonstrates that QOL is determined by various factors such as life satisfaction, subjective well-being, and positive psychological and mental health. With increasing understanding about the value of health care comes both improvements in patients’ health and their experience with health care. Consequently, the importance of assessing the impact of cardiovascular disease and medical treatment on patients’ functional status and their QOL is reinforced (Rumsfeld et al, 2013).

Whilst there are demonstrable outcomes from practice development in assessing QOL in STEMI patients, there is an urgent need to articulate outcomes in a way that matches current and future healthcare needs in the context of global healthcare trends. This in return will become the future driver for policy makers and healthcare commissioners. On the other hand, achievable outcomes can be addressed in a sustainable way which is recognised by policy makers and healthcare commissioners as an approach worth investigating (Manley et al, 2008).

In addition, patient centered care supports clinicians in attending to their patients’ physical and emotional needs, and improving and maintaining patients’ QOL (Rumsfeld et al 2013). Accordingly, the goal of this scientific statement is to review and advocate for patient-reported health status as a measure of cardiovascular health (Rumsfeld, 2013). As a result, improving patient health status will be a primary goal, and thus should be a primary outcome, of any research study (Rumsfeld et al, 2013). Therefore, I have identified and selected QOL in patients after STEMI as it is not only an...
Literature Review

Patients experiencing an acute myocardial infarction (AMI) require immediate hospital admission. Effective management of an AMI requires collaborative systems of care to ensure that patients have access to the services that they need in a timeframe commensurate with their clinical condition and the potential benefit of treatments available in large or remote centres (Cardiac Society of Australia and New Zealand, 2010). New and effective treatment strategies have developed that have both reduced short-term mortality and increased long-term survival rates in patients post STEMI (Pavlides et al., 2013 and Rumsfeld et al., 2013). Little is known about the extent to which non-technical aspects of care such as education about cardiovascular disease, emotional support and discharge planning are associated with recovery from an AMI and longer term health outcomes. The non-technical aspects of care are often referred to as patient-centered processes of care (Fremont et al., 2001).

According to Gupta et al (2012) QOL is the most important variable in the domain of health especially in cardiovascular disease as a lifestyle disorder. Practice development in assessing QOL post STEMI aims to achieve person-centered care. This means it is manifested through change of practice and a workplace culture of effectiveness with an emphasis on currently available cardiovascular disease diagnostic instruments such as quality of life after myocardial infarction (QLMI-2/MacNew), SF 36 and SAQ (Manley et al, 2008, and Rumsfeld et al., 2013). Most aspects of patient health status are best captured by patient self-report, including symptom burden, functional status and HRQoL. (Rumsfeld et al., 2013).

Symptom burden includes types and frequencies of symptoms patients may experience as a manifestation of ischaemic heart disease or from medical treatment. For example angina or limb dysfunction post percutaneous coronary intervention (PCI) (Rumsfeld et al, 2013 and Van Leeuwen et al, 2015), while functional status includes physical, emotional and mental functioning, fatigue, depression and anxiety. Finally, HRQoL is defined as patients’ perception of actual and desired functional status and overall impact of heart attack on their well-being (Rumsfeld et al, 2013).

There is increasing use of patient-reported questionnaires that ask about specific processes of care for quality of care improvement. In a time of growing demands to improve quality in healthcare, such data are crucial to assist health practitioners evaluate the best ways to enhance care and outcome (Fremont et al, 2001).

The literature collected and analysed in this review was accessed from online databases including PubMed, Medline, Clinical Key, EMBASE, CINAHL, PsychINFO, TRIP and Joanna Briggs. No set timeframe was decided upon yet the most valuable studies came under the parameter of 2001-2013. A variety of research methods were accessed most of which were found to use qualitative research methods.

Aims and Objectives

This research proposal aims to explore and identify factors contributing to QOL in patients post STEMI in order to determine an understanding of the care currently in place and possible changes in current practice. This study also intends to highlight areas within the field of health-related recovery after STEMI which may be in need of assessment, improvement and/or complete development, and in turn improve standard and quality of care for patients experiencing an AMI. Moreover, the literature review and outcome of the study aim to contribute to the pool of knowledge in the cardiovascular field.

Methodology

According to Parahoo (2006) the design selected for research should be the one most suited so as to achieve the proposed question. For the purpose of the study the question a qualitative research design is chosen using standard questionnaires. For example SF 36 and SAQ.

Qualitative research is a systematic, subjective approach to describe life experiences and give them meaning. (Burns and Grove 2009). By applying a qualitative approach, this study aims to explore behaviours, perspectives, feelings and experiences in depth, quality and complexity of a situation through a holistic framework and also build a theory as the research progresses (Lee, 2006). This methodology also explains and describes how change occurs (Graham et al, 2012). In addition, it assists the discovery of new meaning, describes what information currently exists and provides a systematic literature review (Bradbury-Jones et al, 2010).

This study plans to achieve a purposive sample by recruiting patients admitted with primary and final diagnosis of STEMI regardless of their previous treatment (PCI) (Rumsfeld et al, 2013). Inclusion and exclusion criteria for the study provides the inclusion and exclusion criteria for the study. (Table 1) Patients will be included in the study if they are resident within the district, female and over 18 years old. Exclusion criteria for the study. (Table 1) Patients will be excluded in the study if they are resident within the district, female and over 18 years old.

Data collection and analysis

Recruiting a purposive sampling is an essential aspect of qualitative research. In order to answer a variety of questions regarding QOL post STEMI (Ploeg, 2012). In order to retrieve accurate and standard data prior to discharge of patients from hospital, it is required to conduct face to face and semi-structured interviews. The interview should take 15-30 minutes, using the QOL questionnaire (Cardiac society of Australia and New Zealand guideline, 2006-13). In addition, conducting a pilot study allows for the identification of any weaknesses in the plans and aims to rectify any necessary amendments before carrying out the main study (Arain et al, 2010).

Pilot Study

A pilot study is required and designed to assist in the future development of a larger study. This is a mini version of a full scale study as well as the specific pretesting of research instruments such as health related questionnaires or interviews (Van Teijlingen and Hundley, 2002). In addition, conducting a pilot study allows for the identification of any weaknesses in the plans and aims to rectify any necessary amendments before carrying out the main study (Arain et al, 2010).

Ethical Considerations

It has been argued that all research that can be potentially harmful to participants must be identified and issues addressed prior to carrying out a study (Downe and Thompson, 2014). The study would only commence once ethical approval is achieved from the local research ethics committee. Initially, it is important that health and safety requirements are met and that participants are fully aware and informed of any potential harms associated with this research. Areas that must be addressed before the research is initiated include: informed consent, confidentiality, data protection, right to withdraw, potential benefits and harms (Morgans and Allen, 2000).

Table 1. Inclusion and exclusion criteria in a qualitative study assessing quality of life in patients post STEMI

<table>
<thead>
<tr>
<th>Inclusion:</th>
<th>Exclusion:</th>
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<tbody>
<tr>
<td>• STEMI with clinical symptoms consistent with an acute coronary syndrome with electrocardiogram changes including:</td>
<td>• STEMI without clinical symptoms consistent with an acute coronary syndrome such as:</td>
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<tr>
<td>Persistent ST segment elevation of ≥ 2 mm in two contiguous limb leads</td>
<td>Takotsubo cardiomyopathy</td>
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<tr>
<td>ST segment elevation of ≥ 2 mm in two contiguous chest leads</td>
<td>left ventricular hypertrophy</td>
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<tr>
<td>(Cardiac society of Australia and New Zealand guideline, 2006-13)</td>
<td>Dignox toxicity</td>
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<tr>
<td>Adults older than 18 years old</td>
<td>Acute pericarditis</td>
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<tr>
<td>Patients able to provide consent for the study</td>
<td>Fragile patients unable to participate in the study</td>
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<tr>
<td>Patients who wish to participate in the study</td>
<td>Patients with advanced Alzheimer’s and dementia with advanced care plan in place</td>
</tr>
<tr>
<td>Patients who do not wish to participate in the study</td>
<td>Patients who are not able to provide consent for the study</td>
</tr>
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Project Benefits, Potential and Problems

This study is likely to highlight patient-reported health status as an important aspect of cardiovascular health outcome. It should provide an overview of the measurement of patient-reported health status, research of relevance to the cardiovascular population, and future directions for research. It also reviews the current state of knowledge and needs for clinical use (Rumsfeld et al, 2013). Resources will be devoted to the study and the production of new knowledge that could contribute to effective and efficient patient care. However, new research evidence will not benefit individuals and populations unless health care systems, organisations and professions apply it in practice (Graham et al, 2012). One of the potential problems...
in carrying out this study is the transfer of research findings into practice which is unpredictable and can be a slow process (Graham et al, 2012). In order to overcome this problem, O’Brien (2012) suggests having a comprehensive process (Graham et al, 2012). In order to achieve lasting change including directed towards patients and organisations to achieve lasting change including education sessions for nurses, patients and families. Yet implementing evidence-based practice involves many systems and is unlikely to be accomplished through the use of educational strategies only. Other factors such as organisational support and resources that encourage nurses to participate in research projects, connect with larger networks, and gain experience are important considerations that should not be overlooked (O’Brien, 2012).

**Conclusion**

This research project as an example of a qualitative study acknowledges the importance of assessing QOL in patients after STEMI, as it is subjected to confounding factors which require the use of cardiovascular specific questionnaires (Koltowskiet al, 2014). Moreover, it is envisaged that the findings of the study will develop the research knowledge and skills of participating staff and also develop a culture of learning in an acute setting (Manley et al, 2008).

**References**


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