

Master thesis

The emotional and educational needs of women during hospital admission after a myocardial infarction

Name student: Elise van Belle
Student number: 4002326
Status: Master thesis
Date: 02-07-2015
University: Utrecht University
Master: Clinical Health Science, Nursing Sciences
Teacher: Harmieke van Os-Medendorp RN, PhD
Supervisor: Maud Heinen RN, PhD
Institute: Scientific Institute for Quality of Healthcare (IQ Healthcare), Radboud University Nijmegen Medical Centre
Aims to publish in: European Journal of Cardiovascular Nursing
Reference style: Vancouver
Amount of words: 3793

Amount of words English abstract: 299

Introduction

Cardiovascular diseases are the number one cause of death globally¹, and this is the same for women in the Netherlands². Over the last twenty years the prevalence of myocardial infarctions (MI) has increased in women of 35-54 years, while declining in similarly aged men³. MI is a condition where blood stops flowing properly to a part of the heart muscle, which results in damage because of a lack of oxygen. This is usually the result of atherosclerosis in one or more of the coronary arteries⁴. Blood flow can be restored by coronary artery bypass graft surgery (CABG), or a percutaneous coronary intervention (PCI)⁵. Survivors of MI are at great risk of reoccurrence and death⁶. This risk can be lowered by a combination of drugs and lifestyle changes such as dietary adjustments and physical activity⁶.

Women often show different symptoms while having a MI from the classical symptoms men have, which can complicate the diagnostic process. This among other factors causes a higher mortality and a longer hospital stay for women⁷. A review including 33 studies states that women cope differently with an MI than men, and that they ask less support from their spouse compared to men⁸. Even though these differences are known, the mean percentage of women enrolled in medical cardiovascular clinical trials since 2006 is 30%, from which only 50% reported results by gender analysis⁷.

The duration of hospital admissions in the Netherlands for women after an MI has declined from an average of 10.3 days in 2002, to an average of 5.9 days in 2012⁹. This trend towards quicker discharge has reduced healthcare providers' opportunities to provide education on the consequences of their condition¹⁰. Little is known about gender differences in educational needs. A study on patients who underwent a PCI or CABG (N=635, of which 176 female) showed that women needed more informational support than men before procedures¹¹, another study showed that women, elderly patients, and patients with a low level of education have a significant higher learning need before hospital discharge¹². A lack of knowledge will likely affect the adherence to lifestyle changes¹³, and therefore enlarge the risk of reoccurrence or death.

Since women are more likely to develop anxiety and depression after a MI¹⁴, it may be important for their emotional wellbeing to pay attention to their emotional needs, which is described as: "A psychologic or mental requirement of intrapsychic origin that usually centres on basic feelings and involves the understanding, empathy, and support of one person for another." These needs normally occur in everyone but usually increase during periods of excessive stress or physical and mental illness¹⁵.

Patient centred care is a form of care in which patients' wishes and expectations are leading. It emphasizes on the patient's disease and their illness experience and is a fundamental task for healthcare providers¹⁶. A recent study in the Netherlands (n=1416) showed that patient centred care is considered to be significantly more important by patients who are younger than 65, female, well-educated, and consider their health as excellent¹⁷. The engaging of patients to

participate in care has been recommended to increase patient safety¹⁸ and is associated with a significant improvement of disease-control and adherence in chronic ill patients¹⁹. Höglund found that patients in the acute phase of an MI viewed participation mainly as informational and judged participation as difficult to achieve²⁰.

Because of a lack of information on the female patients' needs, their informational and emotional needs may not be sufficiently met^{13,21-23}, and may not be recognised by nurses, as a study with 35 nurses and patients indicates that nurses cannot accurately predict patients' needs²⁴. Since only few studies report gender differentiated outcomes, despite the known differences, the question is raised if there is enough information about the current view female patients.

Objective

The aim of this research is to explore the emotional and educational needs of women who have been admitted in a hospital after their first myocardial infarction to improve in-hospital care. This leads to the following research question:

What are the emotional and educational needs of women after their first myocardial infarction during hospital admission?

Method

A qualitative design was chosen because of its flexible approach. The questions could be tailored to the situation, and so data collection and analysis could be continually adjusted to act upon new information. The study was conducted following general qualitative methods as described by Boeije²⁵, and took place from February 2015 to June 2015.

Population

The study population consist of female patients admitted to a Cardiology ward after their first MI. In order to be eligible to participate in this study, a subject had to meet all of the following criteria:

- Female gender
- Adult (>18)
- Admitted to a Cardiology ward after her first MI
- Sufficient skills in the Dutch language

The researcher (E.B.) is a nurse at the ward where the sampling took place, therefore, patients who have been taken care of by her were excluded to avoid bias. Patients with cognitive impairments

were excluded for this might cause an information bias, as answers may not be representative of the population intended to be analysed.

Sample size

The sampling was done purposively for maximum variation, so a full understanding of the experience could be reached. The variation screening was based on the factors age and ethnicity, which were identified as predictors for high levels of educational needs¹¹⁻¹², and are indicators for a higher need for patient centred care¹⁷. All patients who were approached for inclusion by the nurses on the ward were screened by the researcher (E.B.). The sampling occurred at one Cardiology ward in an academic hospital in the Netherlands.

Study procedures

The data collection consisted of semi-structured, one-on-one interviews, where a list of topics was addressed. This semi-structured way of interviewing made true understanding of what was happening possible. An interview guide was designed which recorded demographic information about the respondent and contained several open ended questions for each topic. The questions covered the topics emotional and learning needs, and the need for patient centred care (see Table 1). During the interviews there was sufficient time and opportunities for patients to make suggestions and to ventilate their ideas and thoughts about their needs. Patients were interviewed at the ward on the day of discharge or the day before, depending on the time of discharge. This moment was chosen to get as close as possible to the essence of the experience.

<Insert table 1>

Reliability was enhanced by the use of a good tape recorder, by transcribing the tape, and a training in qualitative interviewing techniques. A test interview was run to assess the needed time and the quality of the equipment, and to test the understandability of the questions for the patient. This improved the quality of the other interviews. Reliability of the coding was ensured by having seven out of ten interviews coded by both the researcher (E.B.) and the supervising senior researcher (M.H.).

A quiet and private location on the ward, or the patient's private room was used for the interviews, so that respondents could speak freely and were not distracted. Three patients insisted on doing the interview in their shared room due to fatigue. A general, open question about what had happened to them was used as an icebreaker to start off the interview and to create a genuine interest in the asking, answering, and listening in both partners during the interview, which is known as rapport²⁶. During the interview, the interviewer decided on the spot which question to ask, how to formulate them and in which order they should be posed. Exemplar questions were formulated

in the interview guide to help this process. The interviewer used probing to encourage the interviewee's replies and made memo's to assist analysis.

The interview process was iterative. The interviews were transcribed within two weeks and examined on new themes or findings. By constantly comparing the data from the interviews, new ideas or concepts were formed, which could be examined further in following interviews. The interview guide was edited during the interview process to gain more insight on information provided by the patients. A logbook was kept to help make as clear as possible how the data were handled and how transformation of the data has been achieved. Coding was done by using the computer program Atlas.ti²⁷.

Ethical considerations

The study was conducted according to the principles of the Declaration of Helsinki (version 2013) and in accordance with the Medical Research Involving Human Subjects Act (WMO) and the guideline 'Good Clinical Practice'²⁸.

Recruitment was done by nurses at the ward. The patients received an information letter in which they were informed of the minimum of 24 hours they could take to decide if they wished to consent, and the possibility to withdraw from the study at any time during or after the interview, without having to give any reason. For transparency, all patients were also informed about the fact that the researcher worked as a nurse on the ward. In the information letter and before the interview, it was stressed to the patient that all information would be handled confidentially, and that the researcher is bound to secrecy by the Wet bescherming persoonsgegevens. Before the interview, an informed consent form was signed by the patient and the researcher (E.B.).

Results

Achieved sample

Ten out of twelve eligible patients participated in the study. Two patients declined the interview, the other women consented and were interviewed on the ward. The ages of the participants varied from 38 to 85, and they were of three different ethnical backgrounds: Dutch, Chinese, and German. Six out of ten were married, and eight had children. Most had a lower vocational education level. Three women were resuscitated at home, one at the hospital. Three women were waiting to be treated with a CABG. The characteristics can be found in table 2. Saturation was reached on the topic of educational needs. The emotional needs of women are divided in two topics of which one did not reach saturation.

<Insert table 2>

Themes

The research question aimed at two topics: emotional and educational needs. From these addressed topics themes emerged which will be discussed according to topic. Extracted themes and concepts leading to these themes are visualised in diagram 1.

<Insert diagram 1>

Emotional needs

The main theme was coping with the infarction. All women expressed feelings of fear, anger, sorrow, anxiety, or frustration and handled their feelings about the situation in their own way. Many spoke of their surprise about what had happened, and shared strategies in how they were dealing with the stress. All were using an emotion focussed coping strategy²⁹ in which they tried to alleviate the distress of which they had no control. A few wanted to talk about their emotions with healthcare providers or family, but most wanted the space to process this on their own. One patient (p10) shared:

“... And at night at some point I’d start worrying. Maybe the worrying will come again tonight, who knows. I think it will. And in the morning, my husband would FaceTime me on my iPad, or I would FaceTime him, and that calmed me down a bit. [...] I’ll call someone when I want some distraction, but no, I will handle my emotions on my own.”

Most indicated that nurses and doctors had invited them to share their feelings, and appreciated this. The sub-group of women who were facing a CABG expressed more feelings of being surprised by the infarction. This was the only subtheme that showed distinctions. Some expressed to want contact with their doctor where there was attention for their personal needs. The last interview still wielded new information on coping.

Emotions of relatives is the second theme. Most families were shocked by the infarction and expressed feelings of anxiety and worries. Several women shared having to comfort their relatives after the event, since they seemed to be in greater shock than they were themselves. This was the most evident with women who were resuscitated those who were waiting for CABG. Half of the women indicated that they wanted healthcare providers to involve their family in their care by keeping them up to date and talk about care plans with them. Seven out of eight women with (grand) children shared worries about personal problems or illnesses of those (grand) children, saying that this occupied their minds a lot during the admittance. This was not something they wanted to talk about with health care providers.

Educational needs

Respondents talked about their preferences of content and form. Patients mainly reported to want information about the function of the heart, what had happened to them and what that would mean in terms of revalidation of functional decline. One participant (p5) described it as:

“... To know what is going on. I think that is very important to know, that they don't tell you afterwards 'this happened and that'. They told me what precisely had happened, and that was very pleasant. To know these things, and being able to understand what they were talking about when they visited my room. That was very important to me. It really is very important for a patient to know what has happened. “

Everyone was informed to their satisfaction. Most respondents wondered how to handle their illness at home, for example when they were allowed to take up their usual activities, what lifestyle changes they were supposed to make at home, how to handle the (re)occurrence of chest pain or dyspnoea. The response of a patient (p1) after being asked what she wanted to know before discharge:

“I want to know if there are no more narrowing's in the coronary arteries, or if there is a chance of... so if I have to follow a diet or something, I don't know. Things about food and that sort of things, if I shouldn't ride my bike so hard anymore, or whatever.”

Everyone had their own thoughts about how information should be delivered. Most wanted the information to be delivered in a conversation, and the majority wanted this to be supported by written information so that they could prepare themselves for the conversation and as a reminder of what had been said. Two reported not enjoying reading, and preferred conversations or a film. Of the seven patients residing on a shared room, two wanted talks with professionals to take place in a private room, the others did not mind this happening in their shared room. Most did not favour a nurse or a physician, as long as the message was clear and understandable. They experienced the staff as patient, kind, and able to explain their illness to them and their families.

Most women wanted information which was aimed at their own personal situation and for their families to be involved by healthcare providers, so that they could be informed as well and help them remember things. Most indicated not being able to participate in their care or decisions that had to be made due to limited knowledge or a dependent position. They experienced their admittance to the hospital as an unexpected, acute situation, in which they felt they had no clue what was supposed to happen, or what their preferences would be. A patient (p10) stated:

“Well, they explained everything they were going to do. That was fine. I’m no nurse, so...I am a patient, right? So... No, they explained everything before they were going to do something. I don’t have sufficient knowledge to make any decisions, let me put it that way. I’m no doctor.”

All patients followed their physicians’ decision for their care and accepted their passive role. A majority of the women did explain wanting to be informed about medical decisions and experienced this as being involved.

Discussion

The results of this research show that the emotional and educational needs of women after a MI can be divided in several themes. Emotionally, women want someone to listen to their stories about their experiences, or the room to process this internally. Very different coping mechanisms are being deployed, and the participants ask of the healthcare providers to handle accordingly. Sometimes even more than being worried about themselves, most women expressed a concern for the people around them with problems perceived worse than their own. On an educational level, women were mainly concerned about what had happened, how this had happened, and if this had implications for their functional level at home. Although most preferred a mix of written and verbal information, there were many opinions about how exactly this should be executed. The importance of a clear and understandable message was something they all agreed on, and for most it didn’t matter if this was brought by a nurse or a physician. Most participants have indicated in some way that it was important for them to have a personal bond with healthcare providers in which they are not treated as a number, but where there is room for their personal wishes, preferences, and the care was tailored to their circumstances. Patients saw little room for participation.

Most themes showed no distinct difference between patient groups. The group that was waiting for a CABG expressed more feelings of being caught off guard by the infarction, and the women who were resuscitated or waiting for a CABG experienced more anxiety from their relatives than the others. This is probably because of the larger emotional impact of the event.

Literature on the subject

The way of coping with the event was mainly emotion focussed and women used a wide variety of mechanisms within this style to handle the infarction. Early literature on coping³⁰ already reported that women tend to use more emotion focussed strategies than men, which is confirmed to be true in the acute phase after an MI. This is a less constructive way of dealing with emotions and could be an explanation for their increased risk for anxiety and depression. The worries which women expressed are not previously mentioned in research about the hospitalisation phase after an MI.

Findings of educational needs are congruent with existing evidence, several studies^{10, 31-32} describe a wide variety in how information should be delivered and their recommendation to match information provision with patients' preferences. Women's needs on this subject don't seem to differ from men's. Höglund¹⁹ found that patients in the acute phase of an MI viewed patient participation mainly as information and judged participation as especially difficult to achieve, although the informants also stressed the need for information in this phase. This was confirmed by this study. The more passive form, in which they are being informed about their illness and caregivers take into account their personal needs was something all patients wanted, as is confirmed by literature¹⁶.

Strengths and limitations

Because of the qualitative nature of this study, the evidence for these results relies on the experiences of ten patients. The limited sample caused a small variety in age (two women younger than 65, most older than 70), and ethnical background since the two women who were of a foreign descent did not seem to differ culturally from the Dutch women. Even though this may limit the study, saturation was achieved on most themes, which causes an understanding of significant aspects of experiences of women after a MI. The topic of coping is such an extensive subject that saturation was not likely to be reached within the timeframe. The results do give an indication of the coping technique women tend to use. An important strength of the study is the use of two coders for seven out of ten interviews, and a thorough discussion between them when describing the meaningful fragments. This enhances the reliability. The validity was enhanced by avoiding recall bias. Some limitations are to be mentioned. The researcher was also at the time working as a nurse on the ward. Patients were informed of this fact for full transparency and no one declined on this notion. It seemed not to be of impact to the outcomes of this study, but the possibility exists that this has biased the results. It is therefore also possible that interviewer bias may have been present. The researcher tried to overcome this by maintaining a neutral stance without using own perceptions during data collections. Another point of discussion is the inclusion of women who were waiting for a CABG. These women have gone through the same initial experience as women who have been treated with a stent (PCI), but face an open heart operation which is followed by an intensive revalidation period. This may have implications for the needs they express during their admission, although observations which indicated differences are reported. Third, the interviewed women had a much longer admission (median 11 days) than the average female patient after a MI. Therefore, no comparisons could be made based on the changed situation.

Conclusion

This research shows that there is a small distinction between the needs of men and women. Although they both indicate a need for information about their situation and both show a variety in coping techniques to handle what has happened to them, hospitalised women seem to focus on dealing with their emotions, instead of dealing with the problem. Being aware of this pattern gives health care professionals a chance to act upon this by means of empathetic listening and planning activities that provide a constructive outlet for the feeling or the situation causing it, which may have positive result on anxiety and depression. Many needs are directed at helping them cope with what happened. Listening to their stories in which they share their thoughts and worries about themselves and their relatives and providing them patiently with the information in a way they prefer. Patient centred care was deemed valuable by the respondents, and could be a helpful tool to help women through this phase.

Recommendations

Future research could lead to more insight in how factors as age and ethnicity play a role in the experience of people, and indicate more extensively how and where acute patients can benefit from person centred care. This could lead to even better tailored care. Furthermore, more (qualitative) research is needed on the distinction of the needs of female patients who are undergoing a CABG and those who are not. Also the needs of women with a short admittance date is needed to see if their preferences differ and how they can be met. A form in which patients are interviewed on the ward and after discharge could lead to insight on what form of care they missed in hindsight. It is advised to nurses and physicians to be aware of the worries women have about their relatives. The origins or implications of these worries are not yet known and could be further investigated.

Reference list

- 1 World Health Organization. Cardiovascular diseases. 2014; Available at: <http://www.who.int/mediacentre/factsheets/fs317/en/>. Accessed 10/27, 2014.
- 2 Nederlandse Hartstichting. Vrouwen en hart- en vaatziekten. 2014; Available at: <https://www.hartstichting.nl/vrouwen>. Accessed 10/27, 2014.
- 3 Maas, A.H.E.M., Janssen, T., de Boer, Menko. Acute coronary syndrome in women below 60 years of age. *Nederlands Tijdschrift Geneeskunde* 2011;155(38):A3925-A3925.
- 4 American Heart Association. About Heart Attack. 2014; Available at: http://www.heart.org/HEARTORG/Conditions/HeartAttack/AboutHeartAttacks/About-Heart-Attacks_UCM_002038_Article.jsp. Accessed 03/27, 2014.
- 5 American Heart Association. Cardiac Procedures and Surgeries. 2014; Available at: http://www.heart.org/HEARTORG/Conditions/HeartAttack/PreventionTreatmentofHeartAttack/Cardiac-Procedures-and-Surgeries_UCM_303939_Article.jsp. Accessed 03/27, 2014.
- 6 World Health Organization. Cardiovascular diseases. 2014; Available at: <http://www.who.int/mediacentre/factsheets/fs317/en/>. Accessed 03/27, 2014.
- 7 Maas, A.H.E.M., Van der Schouw, Y, Regitz Zagrosek, T., Swahn, L., Appelman E., Pasterkamp, Y., Ten Cate, G., Nilsson, H., Huisman, P., Stam, M., Eizema, H.C.G., Stramba, K., Badiale, M. Red alert for women's heart: the urgent need for more research and knowledge on cardiovascular disease in women: proceedings of the workshop held in Brussels on gender differences in cardiovascular disease. *European Heart Journal* 2011;32(11):1362-1368.
- 8 Kristofferzon M. Myocardial infarction: gender differences in coping and social support. *Journal of Advanced Nursing* 2003;44(4):360.
- 9 Centraal Bureau voor de Statistiek. Ziekenhuisopnamen. 2014; Available at: <http://www.cbs.nl/nl-NL/menu/themas/gezondheid-welzijn/cijfers/extra/2010-ziekenhuisopname.htm>. Accessed 03/27, 2014.
- 10 Ashton, K.C. Perceived learning needs of men and women after myocardial infarction. *Journal of Cardiovascular Nursing* 1997;12(1):93-100.
- 11 Kilonzo, B. Secondary prevention and learning needs post percutaneous coronary intervention (PCI): perspectives of both patients and nurses. *Journal of Clinical Nursing* 2011;20(7/8):1160
- 12 Bubela, N. Factors influencing patients' informational needs at time of hospital discharge. *Patient Education and Counseling* 1990;16(1):21
- 13 Timmins, F. A review of the information needs of patients with acute coronary syndromes. *Nursing in Critical Care* 2005;10(4):174-183.
- 14 Taylor, J. Women more likely to develop anxiety and depression after myocardial infarction than men. *European Heart Journal* 2015;36(2):69-7
- 15 Mosby. *Mosby's Medical Dictionary*. 9th ed. St. Louis, Missouri, USA: Elsevier - Health Sciences Division; 2012.

- 16 Makoul, G. Essential elements of communication in medical encounters: the Kalamazoo consensus statement. *Academic Medicine* 2001;76(4):390-3.
- 17 De Boer D, Delnoij D, Rademakers J. The importance of patient-centered care for various patient groups. *Patient Education and Counseling* 2013;90(3):405-10.
- 18 WHO. Exploring patient participation in reducing health-care-related safety risks. 2013; Available at: http://www.euro.who.int/__data/assets/pdf_file/0010/185779/e96814.pdf. Accessed 10/26, 2014.
- 19 Longtin, Y, Sax, H, Leape, L, Sheridan, S, Donaldson, L, Pittet, D. Patient participation: current knowledge and applicability to patient safety. *Mayo Clinic Proceedings* 2010;85(1):53-62.
- 20 Höglund, A.T. Patient participation during hospitalization for myocardial infarction: perceptions among patients and personnel. *Scandinavian Journal of Caring Sciences* 2010;24(3):482.
- 21 Stewart, D. E., Abbey, S.E., Shnek, Z.M., Irvine, J., Grace, S.L. Gender Differences in Health Information Needs and Decisional Preferences in Patients Recovering From an Acute Ischemic Coronary Event. *Psychosomatic Medicine* 2004 January 01;66(1):42-48.
- 22 Casey, E., O'Connell, J.K., Price, J.H. Perceptions of educational needs for patients after myocardial infarction. *Patient Education and Counseling* 1984;6(2):77-82.
- 23 Mirka, T. Meeting the learning needs of post-myocardial infarction patients. *Nurse Education Today* 1994;14(6):448-456.
- 24 Turton, J. Importance of information following myocardial infarction: a study of the self-perceived information needs of patients and their spouse/partner compared with the perceptions of nursing staff. *Journal of Advanced Nursing* 1998;27(4):770.
- 25 Boeije H. *Analysis in Qualitative Research*. 1st ed. London: SAGE publications; 2010
- 26 Creswell, J. *Qualitative Inquiry & Research Design. Choosing Among Five Approaches*. 3rd ed. United States of America: SAGE publications; 2013.
- 27 Scientific Software Development GmbH. *Atlas.ti*. 2015;7.
- 28 ICH GCP. *Good Clinical Practice*. 2014; Available at: <http://ichgcp.net/>. Accessed 11/14, 2014.
- 29 Folkman, S., Lazarus, R.S. The relationship between coping and emotion: implications for theory and research. *Social Science and Medicine* 1988;26(3):309-17
- 30 Billings, A.G., Moos, R.H. The role of coping responses and social resources in attenuating the stress of life events. *Journal of Behavioral Medicine*, 1981;4, 139-157.
- 31 Hanssen, T.A. A qualitative study of the information needs of acute myocardial infarction patients, and their preferences for follow-up contact after discharge. *European Journal of Cardiovascular Nursing* 2005;4(1):37.
- 32 Astin, F. The information needs of patients treated with primary angioplasty for heart attack: an exploratory study. *Patient Education and Counseling* 2008;73(2):325.

Table 1 Topic list

Opening question:

- Can you tell me what happened that got you admitted here?

Further topics:

- What was important during admission?
 - What topics are important to be informed about?
 - What are you experiencing emotionally?
 - How do you and your family want to be involved in your care?
-

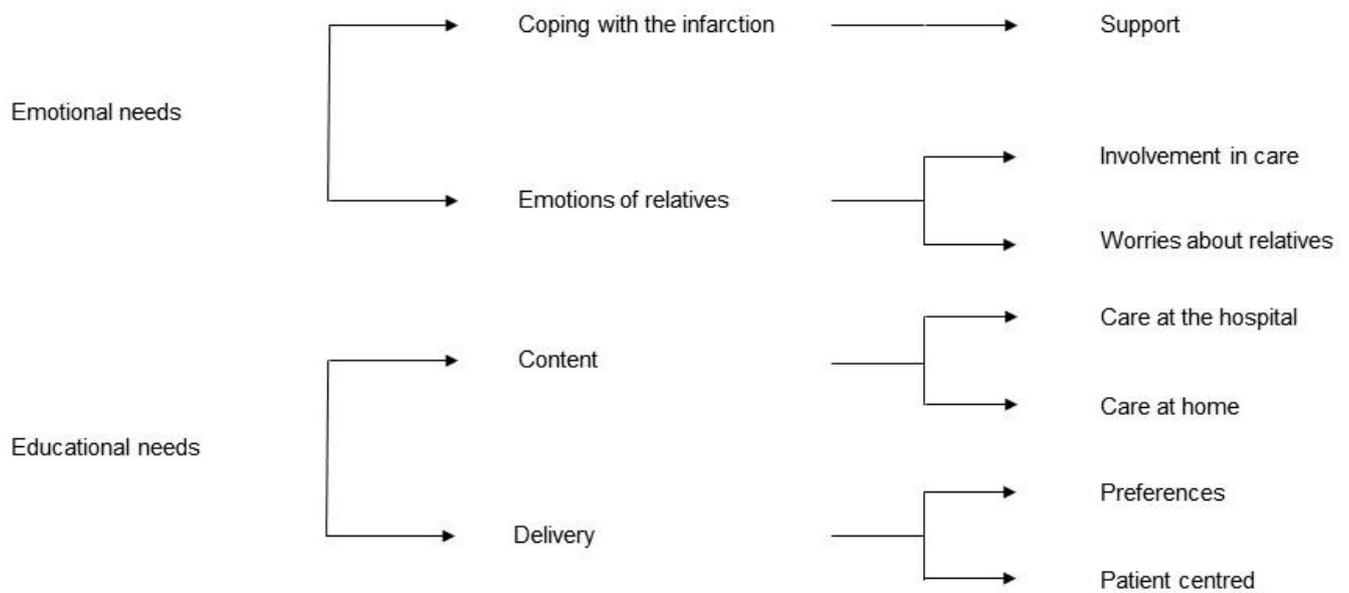
Table 2 Demographic data

Age range (median)	38-85 (71)	
Admission duration range (median)	5-31 (11)	
Nationality	Dutch	8
	Chinese and Dutch	1
	German	1
Marital status	Married	6
	Divorced	1
	Widowed	3
Children	Yes	8
	No	2
Living conditions	Independently	10
Education level	Lower vocational education	9
	Higher vocational education	1
Diagnose	STEMI ¹	7
	N-STEMI ²	3
Treatment	CAG ³	2
	PCI ⁴	4
	PCI ⁴ and CABG ⁵	1
	CAG ³ and CABG ⁵	2
	Balloon catheter angioplasty	1
Complications during procedure	Coronary artery dissection	2
Resuscitated	Yes	4
	No	6

1 = ST- segment elevated myocardial infarction 2 = Non-ST-elevated myocardial infarction 3 = Coronary Angiography

4 = Percutaneous Coronary Intervention 5= Coronary Artery Bypass Grafting

Diagram 1 Code tree



English abstract

Background: Cardiovascular diseases are the number one cause of death for women in the Netherlands, as well as globally, and the prevalence is increasing. Most research has been directed at men, and limited research is conducted to map the differences between men and women during their hospitalisation after a myocardial infarction (MI), despite known differences in emotional and educational needs.

Research question: What are the emotional and educational needs of women after their first myocardial infarction during hospital admission?

Methods: In-depth interviews were conducted with 10 female patients who were purposively sampled from a cardiac ward in an academic hospital in the Netherlands. Analysis of transcribed interviews was undertaken using constant comparative methods.

Results: Many coping techniques were mentioned in dealing with the distress of the MI. Women wanted healthcare providers to support them in this matter and wanted them to involve their relatives in their care. Educational needs showed topics of which they wanted to be informed about (function of the heart, functional decline and handling the illness at home), that most prefer a conversation supported by written information, and wanting to have their family involved. Most accepted a passive role in decision-making, but wanted to be informed about medical decisions.

Conclusion and implications of key findings: Women did not vary much in their emotional and educational needs from men, other than the tendency to use more emotion focussed strategies to cope with distress and expressing worries about their families. Many needs are directed at helping them cope with what happened and providing them with the information in a way they prefer.

Patient centred care was deemed valuable by the respondents and could be a helpful tool to help women through this phase, but more research is needed.

Key words: Qualitative research, myocardial infarction, women's health, needs assessment.