Cardiac disease and its consequences on the partner relationship: A systematic review

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Received 4 November 2010; received in revised form 21 January 2011; accepted 21 January 2011

Abstract

Introduction: Cardiac disease is a chronic illness that has extensive impact on patients and their partners. No previous review has been made on how the partner relationship is affected following cardiac disease. The review limited itself to the main cardiac disease of myocardial ischemia, arrhythmia and heart failure.

Aim: The aim of this review was to identify how the partner relationship is affected following cardiac disease after hospital discharge.

Method: CINAHL, PubMed and PsycINFO were searched from 1999 to 2009. Quality assessment of included articles was made using the Joanna Briggs Institute Reviewers’ Manual. A total of 20 articles were included.

Results: Five themes identified how the partner relationship is affected following cardiac disease, namely: overprotection, communication deficiency, sexual concerns, changes in domestic roles, and adjustment to illness. Patients reported feeling overprotected by their spouses which occasionally served as a fertile ground for arguments or conflicts. Most couples experienced some implications concerning their sexual life following cardiac disease, though in various degrees. Both patients and partners seemed to experience communication deficiency concerning emotions within their relationship following the event. Most couples experienced a shift in roles and responsibilities within their partner relationship. Even though most couples experienced great distress following being afflicted with cardiac disease they reported that the disease had brought them closer together.

Conclusion: The review found that though couples found the cardiac event distressful they conformed and adjusted their relationship to the new situation.

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Keywords: Arrhythmia; Couple; Heart failure; Myocardial ischemia; Partner relationship; Systematic review

1. Introduction

To suffer from a cardiac disease, such as cardiovascular disease, is to endure a chronic illness [1] which does not only affect the patient, but also has implications on the partner. The characteristics of a chronic illness [2], are that it is permanent, it gives a lasting disability, it is caused by non-reversible pathological change, and involves special training and rehabilitation for the patient. Chronic illness involves changes and adaptation within physical, psychological, social, and environmental aspects [3,4], and often a lifelong medication. The impact of chronic illness on the partner is extensive and is associated with several aspects and difficulties, such as fear of the future, depression and anxiety, impairment of the partner relationship, decreased interest and enjoyment in sex life, social
disruption, and financial difficulties [5–7]. Studies have also shown that chronic illness has directly threatening consequences on family and healthy relatives [2,4,8,9] by altering the relationship dynamics into a care giving role [6,10] and causing a shift in occupational household duties [4,7,11].

The concept of partner relationship derives from the notion of social network and may be conceptualised as a romantic notion manifested through dating, cohabiting or marriage [12]. When a couple is afflicted with a chronic illness, it affects their social identity, their roles, their financial security, and plans for the future [4,5,9,11]. Apart from social effects, chronic illness has been reported to have a severe negative influence on the intimate relationship and sexual satisfaction [4,10], resulting from misconceptions about sexual ability, sexual dysfunction as a consequence of medication, or fear of resuming sexual activities [13,14]. However, few chronic conditions require restrictions on sexual activity, though afflicted couples may have to alter their physical intimacy [13]. In contrast to the negative effects, some couples have reported an increased closeness within their partner relationship following being afflicted with a chronic illness [9,15]. Within the partner relationship social and physical activities play a significant role for the overall quality of life [16,17]. However, ability and possibility to perform and engage in social and physical activities are reduced or limited as a consequence of patients’ chronic illness [11,18,19]. Further, close partners report that they become limited in their personal freedom as the ill partner takes a great deal of their time and energy [6,11].

No previous review has been made on the impact of cardiac disease on the partner relationship, which brings forward this review. There are numerous variations and subgroups of cardiac diseases, though this review limits itself to the three main categories: myocardial ischemia, arrhythmia and heart failure.

2. Aim

The aim of this review was to identify how the partner relationship is affected following cardiac disease after hospital discharge.

3. Methodology

This systematic literature review utilised the databases PubMed, CINAHL and PsycINFO, using the following Mesh terms for PubMed, myocardial ischemia; arrhythmias, cardiac; heart failure; spouses; life experiences; life change events, and the following Headings for CINAHL: myocardial ischemia; arrhythmia; heart failure, congestive; spouses; life experiences; life change events, and in PsycINFO with the terms; myocardial infarctions; arrhythmias (heart); couples. Additional search terms, couple, couples, spouses, and patients, were utilised as free-text in each database respectively. Applied search terms were selected through collaboration with university librarians and research specialists within the area. As indexing problems in databases and inconsistent search terminology may yield only 50% of eligible studies [20], reference tables of included papers were explored for potential papers that may have been left out.

3.1. Criteria for inclusion and exclusion

Primary criteria for inclusion were: (i) articles written in English, (ii) original papers, (iii) peer-reviewed, (iv) ethically approved, and (v) published between 1999 and 2009. Further, the review included both medical and nursing journals, as well as qualitative and quantitative studies. Books and book chapters were not applicable for inclusion. Papers for inclusion had to meet the criteria of addressing either: (i) couples’ experiences within the partner relationship following cardiac disease, or (ii) patients’ and/or spouses’ experiences within the partner relationship following cardiac disease. Papers considering experiences during the pre-/in-hospital phase were not applicable for inclusion. Further, papers explicitly addressing issues related to how supportive functions (e.g. social support) and coping are mediated were not applicable for inclusion, nor were articles addressing quality of life. The reason for this is that these concepts occur implicitly as consequences of how the partner relationship is affected, thus not answering the explicit question of how the partner relationship is affected following cardiac disease. Concerning papers on the topic of heart failure only papers dealing with congestive or chronic heart failure (CHF) were included, whilst papers concerning acute heart failure following heart transplantation or trauma were excluded.

3.2. Quality assessment and data analysis

Studies that met the inclusion criteria were read and assessed upon their quality following the criteria as outlined in the Joanna Briggs Institute Reviewers’ Manual: 2008 Edition [21]. The assessment then yielded the following appraisal: good (80–100%); satisfying (70–79%); and poor (60–69%). Quality of the articles were assessed by applying 1 point for “yes” and 0 for “no” or “unclear”, and then dividing the sum with the maximum available score [22]. Articles receiving less than 60% were ultimately excluded from the review. Quality assessment was conducted by the first, second and fourth authors. Differences in assessments were met with discussion in order to reach consensus. Analysis of the included studies followed an inductive approach with focus upon identifying subjects and issues on how the partner relationship is affected following cardiac disease. The data analysis followed the methodological considerations of Whittimore and Knafll [20], in which the findings were integrated into a meaningful whole, not just a pure listing of the results from each study. This method has previously been employed [23]. Moreover, the concept of negotiated consensus [24] was employed between the authors in analysis of the findings. Fig. 1 shows an illustration of the systematic process applied within this review.
3.3. Ethical considerations

As a primary criterion for inclusion the articles subjected for this review had to receive ethical approval from an appropriate institutional body, and thereby conform with the standards as outlined in the Helsinki declaration [25].

4. Results

Twenty articles that met inclusion criteria and passed quality assessment were identified. The origins of the articles were USA (n=7), UK (n=3), Sweden (n=3), Canada (n=2), Finland (n=1), Switzerland (n=1), The Netherlands (n=1), China (n=1), and Denmark (n=1). Employed research designs of the included studies varied, with the majority having a qualitative methodology (n=15) with corresponding analysis designs, content analysis (n=7), phenomenological approach (n=5), grounded theory (n=2), and qualitative descriptive method (n=1). Studies with a descriptive quantitative design (n=3) utilised a cross-sectional design (n=1) and descriptive statistics (n=2). Two studies utilised mixed methods. Cardiac focus within the articles were in the context of myocardial ischemia/infarction (n=13), arrhythmia (n=3), and heart failure (n=3), whereas one paper dealt with both arrhythmia and heart failure. Table 1 provides an overview of the individual studies.

Five themes emerged from the analysis describing how the partner relationship is affected following cardiac disease; namely, overprotection, communication deficiency, sexual concerns, changes in domestic roles, and adjustment to illness. As notions of physical, psychological and social characteristics are imbedded within each theme, they overlap to some extent.

4.1. Overprotection

Overprotective behaviour between the spouse and the patient were reported in the context of MI [29,30,32,34,39,42,43], patients with an ICD following malign arrhythmia [28,31,38], and patients suffering from heart failure [33]. One study reported on the phenomenon in the context of both heart failure and arrhythmia [27]. Eleven of the studies employed a qualitative methodology, whilst one [27] employed a mixed method of triangulation. Evident were that patients reported feeling overprotected by their spouses regarding performance of allowable activities [28,29,31,32,39,42,43], or desired lifestyle changes [34], which occasionally served as a fertile ground for arguments or conflicts [28,30,31,34,38,39]. Patients with an imposed driving ban, following ICD implantation, felt that their dependence on others was reinforced by the overprotectiveness and hyper-vigilance by their partners [31]. Partners are constantly worried when the patients performed activities or went away from the house alone [27,29,32,33,38,39] due to concern of a new MI/angina attack [32]. Overprotective behaviour and partner control led to resentment and frustration in patients [30,31]. However, some patients understood their spouses’ good intentions [30], but sometimes still felt controlled; as being on probation in having to disclose what they had done during the day [27,29,42].

4.2. Communication deficiency

Communication deficiency was identified in the context of MI [26,28,32,39–44] and patients with ICD [28]. Eight of the studies employed a qualitative methodology, whereas one [26] utilised a quantitative approach. Both patients and
<table>
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<th>Author</th>
<th>Aim of study</th>
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<th>Summary of Findings</th>
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<td>Bennett et al., 1999</td>
<td>Explore the dyadic response in 43 cases where the male partner had experienced a myocardial infarction (MI).</td>
<td>Quantitative Questionnaires: Dyadic Adjustment Scale; The DUKE Social Support Questionnaire; The hospital anxiety and depression scale; MOS short form 36; The COPE; The peel index. Cross sectional design: correlational and regression analysis. n=43 couples</td>
<td>Anxious patients expressed their anxiety, their wives disengaged as a consequence of this high emotional expression, which in turn contributed further to patients’ anxiety.</td>
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<td>Dinesen et al., 2008</td>
<td>Investigate the experiences and attitudes of patients and their spouse/partners in regard to the application of telehomecare technology as an option within home hospitalisation.</td>
<td>Mixed Method Triangulation • Electronic patient records • Participant observation • Interviews Phenomenological-hermeneutic approach Descriptive statistics n=8 patients; 6 partners</td>
<td>The patients stated that the spouse in some situations became dominant and controlling towards them.</td>
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<td>Dougherty et al., 2004</td>
<td>Describe the domains of concern of intimate partners of sinus cardiac arrest (SCA) survivors during the first year after implantable cardioverter defibrillator (ICD) implantation; outline strategies used by partners of SCA survivors in dealing with concerns and demands of recovery in the first year after ICD implantation</td>
<td>Qualitative Interviews Grounded theory n=15 partners</td>
<td>Survivors expressed anger and frustration toward their partners. Disagreements about allowable activities were common. Role changes in the relationship evolved when partners were faced with dealing with chores that otherwise had been shared. Inability to drive had a prominent impact on the relationship. Partners were reluctant to share their feelings and thoughts with the survivor so as not to worry or distress them. Half of the partners conveyed that the SCA had brought them closer together.</td>
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<td>Eriksson et al., 2009</td>
<td>Describe the experiences of patients and their partners after hospital discharge following acute myocardial infarction (AMI)</td>
<td>Qualitative Interviews Content analysis n=15 couples</td>
<td>Some patients described their partner as not supportive – loss of influence and responsibilities; being on probation; overreaction on the part of the partner. Striving to find solutions – taking over patients’ responsibilities in various ways. Seeking normality and longing for everyday life. Innocent comments or genuine questions might be heard as controlling or critical. Patients recognise their partners’ good intentions, but wish to retain their autonomy. Partners’ reminders may risk crossing the line from partner behaviour to parental behaviour.</td>
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<td>Goldsmith et al., 2006</td>
<td>What task, identity, and relational meanings do patients and partners attribute to talking about lifestyle changes.</td>
<td>Qualitative Interviews Grounded theory n=25 patients; 16 partners</td>
<td>For most patients, their dependence on others was reinforced by the over-protectiveness and hyper-vigilance by their partners. Patients deliberately limited their levels of physical activity in order to avoid receiving a shock from the device. Not to disturb the spouse with the CAD — they had to be careful about what they did and said. They did not let them go out themselves because they worried about a new MI or angina attack. The participants whose spouses had undergone angioplasty (PCTA) or bypass surgery (CABS) felt that their role had changes after their spouses CAD. Joint activities diminished. Couples needed some time to regain balance in their life. Problems with sexual life.</td>
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<tr>
<td>Lukkarinen et al., 2003</td>
<td>What kind of experiences of everyday life do spouses of coronary artery disease (CAD) patients have?</td>
<td>Qualitative Written experiences from participants Content analysis n=146 partners</td>
<td>For most patients, their dependence on others was reinforced by the over-protectiveness and hyper-vigilance by their partners. Patients deliberately limited their levels of physical activity in order to avoid receiving a shock from the device. Not to disturb the spouse with the CAD — they had to be careful about what they did and said. They did not let them go out themselves because they worried about a new MI or angina attack. The participants whose spouses had undergone angioplasty (PCTA) or bypass surgery (CABS) felt that their role had changes after their spouses CAD. Joint activities diminished. Couples needed some time to regain balance in their life. Problems with sexual life.</td>
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<td>Luttik et al., 2007 [33]</td>
<td>Exploring the explicit experiences of partners of heart failure (HF) patients and on specific factors that influence caregiver well-being and quality of life (QoL)</td>
<td>Qualitative Interview Content analysis n=13 partners</td>
<td>Some couple regained a new balance after some time, while some couples still were trying to adapt to the limitations brought about by HF. Partners were often confronted with new tasks and had to take over other household tasks. Also, changes in daily joint activities. Feelings of solidarity between the patient and partner, such as taking on the same diet. Some partners mentioned a decrease in sex life.</td>
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<td>Mahrer-Imhof et al., 2007 [34]</td>
<td>(1) Describe meanings that couples mutually assign to and practises they develop after the onset of cardiac disease; (2) to understand the impact of the illness on the couple's relationship in everyday life.</td>
<td>Qualitative Interviews Phenomenological approach n=24 couples</td>
<td>Discovering new meaning and reconnecting with each other. More healthy practises and new routines into their lives. They tried to confine the impact of the illness and to adapt their relationship to the new situation. It brought them closer together — new possibilities; increased dialogue; listening to each other more.</td>
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<td>Mosack et al., 2009 [35]</td>
<td>Examine trends in sexual concerns after MI and to identify patterns of sexual concerns in early, middle, and later recovery periods.</td>
<td>Qualitative Qualitative secondary analysis of three previous studies. Analysis of narrative comments. Thematic content analysis Total sample: 302 patients</td>
<td>Apprehension, anxiety and fear about resuming sexual activity recurred in many participant comments. Most commonly, participants were concerned that cardiac symptoms or another MI might occur during sexual activity. Sexual dysfunction was noted in all three time periods of early, middle, and later recovery after MI. In the present study. Partners had considerable apprehension and fear about resuming sexual activity. Patients reported that their partners were “afraid of losing them for good”, a reflection that fear of another MI was always present. The frequency of sexual activity after MI is often less than before the MI. Patients’ psychosocial adjustment to illness was worse when spouses were more anxious or depressed than patients.</td>
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<td>Moser et al., 2004 [36]</td>
<td>To compare emotional response and perception of control of patients and their spouses in response to myocardial infarction; to examine the relationship between spouses’ emotional distress and patients’ emotional distress and psychosocial adjustment to the cardiac event</td>
<td>Quantitative Questionnaires Multiple affect adjective checklist; Control attitudes scale; Spanier dyadic adjustment scale Descriptive and ANOVA analysis n=417 patient–spouse pairs</td>
<td>Both male–patient couples and female–patient couples reported positive relationship changes following CHF. Male and female patients both reported high levels of personal distress, but still reported high levels of satisfaction with their marital relationship.</td>
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<td>Rohrbaugh et al., 2002 [37]</td>
<td>Investigate levels and correlates of distress among married congestive heart failure (CHF) patients and their spouses</td>
<td>Mixed method Interviews Questionnaires: Hopkins symptom checklist-25; The six-item marital satisfaction scale; Goldberg’s 20-item marker; Descriptive and ANOVA analysis n=181 couples</td>
<td>Partner anxiety often resulted in overprotectiveness of the patient with an ICD. Patients reminded partners that “they were not an invalid”. Most partners admitted to being attentive towards the patient’s needs. Most patients felt fear and anxiety that the ICD would fire off during sex. Still, it did not affect the enjoyment of sex, though participants approached sexual activities more cautiously or changed patterns of sexual frequency.</td>
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<td>Steinke et al., 2005 [38]</td>
<td>Explore the experiences of patients and partners with return to sexual activity post-ICD implantation.</td>
<td>Qualitative Interviews Qualitative descriptive study n=12 patients; 4 partners</td>
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<td>Stewart et al., 2000</td>
<td>Describe the stressors, coping strategies and social support experienced by survivors and spouses</td>
<td>Qualitative Weekly diaries from participants Thematic content analysis n=14 couples</td>
<td>The need to modify normal activities and tasks around the house was fertile ground for conflict between spouses and survivors. A key stressor for survivors was overprotectiveness by spouses. Survivors’ fear of death and inability to function during sexual intercourse generated apprehension and anxiety. Dietary concerns (modifiable lifestyle changes) were a major source of stress for spouses. Several survivors felt a lack of understanding from their spouses.</td>
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<td>Stewart et al., 2001</td>
<td>To design, implement, and evaluate the effect of a support group intervention, involving peer and professional supporters, for persons with first-time MI and their spouse or partner.</td>
<td>Qualitative Participant diaries; field notes and interviews n=14 couples</td>
<td>The partner relationship suffered from lack of communication, understanding and acceptance.</td>
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<td>Svedlund et al., 2000</td>
<td>Illuminate the meaning of the lived experiences after an acute myocardial infarction and of being a partner to an afflicted woman, as narrated during the rehabilitation period by the women and their partners.</td>
<td>Qualitative Narrative interviews Phenomenological-hermeneutic approach n=9 patients; 9 partners</td>
<td>Both patients and partners withheld their feelings regarding the illness. There was a need to adapt to the illness and situation, and to strive for a normal life.</td>
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<tr>
<td>Svedlund et al., 2004</td>
<td>Illuminate the meaning of lived experiences in daily life after an AMI, as narrated by afflicted women and their partners.</td>
<td>Qualitative Narrative interviews Phenomenological-hermeneutic approach n=9 patients; 9 partners</td>
<td>Afflicted women sometimes felt over-protected by their partner. Patients felt over-protected in having to disclose what they had done during the day. Patients did not discuss their experiences for fear of worrying them. Partners refrained from discussing the illness much because it could cause emotional distress. Spouses took more responsibility of the housework. Striving for normalisation—a belief that things would improve in the future. Couples also became closer to each other than earlier.</td>
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<td>Wang et al., 2007</td>
<td>Explore Chinese patients’ and partners’ experiences during early convalescence from a first heart attack.</td>
<td>Qualitative Focus groups Phenomenological approach n=17 couples</td>
<td>Patients reported being over-protected by their partner—not allowed to perform activities, even those within their capability. Patients’ emotional reactions were difficult and stressful for the partner. The heart attack resulted in shifting of roles and responsibilities between partners, as well as lifestyle changes. The MI had a positive impact on the marital relationship bringing them closer together.</td>
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<td>Webster et al., 2002</td>
<td>Explore the experiences and needs of Gujarati Hindu patients and their partners in the first month after an MI.</td>
<td>Qualitative Interviews Content analysis n=35 patients</td>
<td>There was little evidence of individuals or families having discussed plans for the future and questions referring to goals and hopes. Many had not left the house at the time of the interview. Experienced limited ability for activity or exercise. Couples did not appear to be presenting themselves as a unit tackling the implications of the MI together.</td>
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<td>Westlake et al., 1999</td>
<td>Explore sexual relations and informational needs in patients with advanced heart failure and their spouses/partners</td>
<td>Quantitative Questionnaires: Informational needs (investigator-developed instrument); Psychosocial adjustment to illness scale Descriptive and correlational analysis n=63 couples</td>
<td>Both patients and partners identified decreased frequency in sexual activities as the most common problem (about 30% of the patients/partners reported that sexual activity had ceased). About 60% of the patients reported slight or constant problems with sexual performance; 60% of the patients reported slight or marked loss of interest in sexual activities; for spouses this figure was 44%.</td>
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partners seemed to experience communication deficiency concerning emotions within their relationship following the event [40–42]. One study reported that the couples did not discuss the disease at all, nor did they handle the implications of the MI together [44]. Partners experienced it stressful and difficult in dealing with the patient’s emotional turmoil [26,39,43] and withheld their feelings as not to upset or disturb the patient [28,32,41,42]. However, partners that disengaged from the patient as a consequence of high emotional expression caused further anxiety in the patient [26]. Further, partners of ICD patients withheld feelings as they believed that the sharing of strong emotions might cause the ICD to trigger [28]. Withholding feelings and emotions was also evident in patients who did not want to cause anxiety in their partners, or to appear as a whining person [41,42]. Sometimes, though, couples withheld their emotions since they did not know how to talk about the experience and death with each other [28].

4.3. Sexual concerns

Sexual concerns following cardiac disease were explicitly reported in the context of MI [35], patients with ICD [38], and patients suffering from heart failure [45]. Remaining studies [32,33,39] focused on patients’ and partners’ experiences in general following the event, where sexual life was one issue. One of the identified studies employed a quantitative design [45], the remaining five utilised a qualitative methodology. Evident in all studies were that most couples experienced implications concerning their sexual life following cardiac disease, though in various degrees. Whilst some couples reported modest interference in terms of no limitations or no concerns on resuming sexual activity [32,35], other couples reported more prolonged effects [35,45]. 30% of heart failure patients reported that sexual activity had ceased, and 60% reported constant or slight problems with sexual intercourse [45]. For patients with MI, sexual concerns and sexual dysfunction were evident up to 6 months following the event [35]. Fear of resuming sexual activities was evident [35,38,39], and primarily based on apprehension of triggering another MI/angina attack [35] or causing a shock from the ICD [38]. The frequency of sexual activity diminished following the disease [33,35,45], where sexual dysfunction was reported as a direct consequence of cardiac disease and medication [35,45].

4.4. Changes in domestic roles

Changes in daily life and shifting of domestic roles within the partner relationship following cardiac disease were identified in the context of MI [29,32,34,36,39,42,43], patients with ICD [28,31], and patients suffering from heart failure [33]. Ten of the studies employed a qualitative methodology, whereas two [36] utilised a quantitative approach. Following the event of being afflicted with cardiac disease, most couples experienced a shift in roles and responsibilities within their partner relationship [28,29,32,33,39,42,43], where spouses had to take on additional tasks or do tasks for the patient. Spouses felt guilty if patients performed household work that could possibly cause physical stress [32]. Dealing with patient’s household tasks and chores that were previously shared caused frustration and anxiety in spouses [28,32,39] as it limited their lives while they had to give up on other things. In ICD patients, driving restrictions made the spouse have to give up things in order to perform driving duties, which caused resentment and resentment in some patients [31].

4.5. Adjustment to illness

Issues relating to couples’ adaptation and adjustment to the illness were in the context of MI [29,32,34,36,39,41–44], in the context of heart failure patients [33,37], and the context of arrhythmia [31]. Ten of the studies employed a qualitative methodology, one utilised a mixed method [37], whilst one employed descriptive statistics [36]. Upon returning home from the hospital, several changes took place for the couple. New healthy practices, diets, and routines had to be incorporated into their life [33,34]. Partners had to live their life and choose a diet according to the patient’s needs [32,39], which for some partners was a major source of stress [39], but for others it contributed to a feeling of solidarity between patient and spouse [33]. Joint activities and hobbies within the partner relationship diminished as they had to live more calmly [32,33,41], and patients deliberately limited their levels of physical activities in order to not trigger ICD [31]. Some MI patients admitted to not having left their home since hospital discharge following the MI [44]. Moreover, couples sought for normalisation like having a good night’s sleep and trying to lead a normal life [29,41,42], as well as in adapting to the new situation and regaining balance in their lives [32,34]. Couples longed for everyday life [29] and had strong beliefs of improvement in the future [34,42]. Even though most couples experienced great distress following being afflicted with cardiac disease they reported that the disease had brought them closer together [34,42,43] and made some couples discover new meaning and reconnect with each other [34]. In a study on heart failure patients, both male patient and female patient couples reported positive relationship changes following being afflicted with CHF [37]. In a study on spousal anxiety it was found that patients’ adjustment to the illness was worse when spouses were more anxious or depressed [36]. However, some couples tended to withdraw from each other, whilst other couples were reported to not have discussed plans for the future, nor had they discussed any goals and hopes [44].

5. Discussion

This paper is the first systematic literature review with the aim of identifying how the partner relationship is affected following cardiac disease. A computerised literature search yielded twenty studies that met inclusion criteria and passed quality assessment. The review found that patients experienced overprotection, and that both patients and partners experienced communication deficiency. These two phenomena may be conceptualised as supportive or coping functions within the partner.
relationship. Three spousal support styles have been distinguished in the context of chronic illness and heart disease: protective buffering, overprotection, and active management [46]. Overprotection refers to a supportive notion within the partner relationship, and occurs when partners are overhelping or restricting the patient in performing activities. Overprotection has been described as a multidimensional construct in which an individual can feel overprotected in various ways, such as emotionally or practically [47]. Within this review, overprotective behaviour from partners towards patients was evident, both in the context of performing activities as well as concerning lifestyle changes. This behaviour left patients with feelings of frustration and resentment, which previously has been reported in the context of dyads suffering from cardiac disease [48,49]. It is found that patients who had suffered from MI, and perceived overprotective behaviour on behalf of their spouses, reported higher levels of anxiety and depression three months post MI [50]. Even though overprotective behaviour refers to a partner behaving in an intrusive and restrictive manner, some patients in this review understood their spouses’ good intentions. This points to the difference in overprotective behaviour and solicitous behaviour [47], in which partners do not wish to be overprotective, though as they are confronted with their own anxiety and fear, their support becomes a “double-edged sword” [51]. This may then conclude that partners engage in an overprotective behaviour, not as to upset or further distress the patient, but rather as a means to deal and cope with their own emotional turmoil. Further, it points towards the difficulties partners encounter regarding their wish of providing support as well as accepting the patient’s needs and limitations. Protective buffering refers to the alignment of withholding concerns or worries with the intention of avoiding disagreement. Communication deficiency and the withholding of feelings were evident in the review, as both patient and partners did not want to upset or cause further distress or anxiety in the other. Earlier research [49,52] found that protective buffering impacts negatively on partner distress and decreases patient self-efficacy. Similar results were reported by Bennett and Connell [26], in which partners that disengaged as a consequence of the patient’s emotional turmoil led to an increase in anxiety in patients.

Previous studies have described sexual function and satisfaction as essential parts of subjective well-being and individual identity [53–55], whereas sexual dysfunction and dissatisfaction have been reported to have a negative effect on overall quality of life and well-being [56] as well as grounds for poor quality of partnership [10,54,57]. This review, though, found no explicit evidence that diminished sexual activity impacted negatively on the partner relationship, only that the disease limited the couples’ sexual activity and sexual frequency. However, as sexuality not only concerns the specific act of intercourse, but includes individual notions of psychological, environmental, and physical aspects [58], the impact on the partner relationship may be more implicit in nature. As cardiac patients pose a greater risk of anxiety and depression following the event [59–61], general depressive symptoms, such as anxiety, lowered self-esteem and fatigue may contribute to less sexual intimacy and thereby inflict negatively on the partner relationship. Moreover, as the partner of a chronically ill person may adopt a role more posed as a carer rather than an intimate lover, it might pose a negative effect on sexual intimacy [4]. Additionally, patients and partners experienced fear and apprehension in resuming sexual activity, which is further supported by D’Ardenne [4], in which sexuality following a chronic condition is affected in areas related to fear (psychological) and dysfunction (physical). However, avoidance and fear of resuming sexual activity is primarily based on misconceptions of ability or safety of performing sexually [13]. The risk of suffering from ischemia during sexual intercourse is modest, and considered to be equivalent to mild-to-moderate performance of daily activities [62]. Following a cardiac event, couples have reported a wish to resume their physical intimacy [63], but experience a lack of information from health care personnel regarding sexual function and coexistence following being afflicted with a cardiac disease [64,65]. However, most couples in this review were found to resume sexual activities, though there was a gradual return over time followed with less frequency of sexual activities.

Also evident in the review were changes in domestic roles within the partner relationship. When a couple is afflicted with a cardiac disease much attention falls upon the ill patient, both during the acute in-hospital phase and upon returning home. This implicates that the healthy partner has to assume a greater responsibility at home, where chores that previously had been carried out in collaboration or by the patient alone now rests on the partner. Though this review did not consider any gender differences on recovery, female MI patients have been reported to assume household tasks to a greater extent than their male counterparts, and further that male patients to a greater extent involve their partners in their recovery [66]. Even though partners would feel frustrated and anxious about taking on additional tasks or performing tasks for the patients, they also felt guilty if the patient did perform tasks that potentially could cause physical stress. Apart from the domestic roles, partners often assume a caregiving role, diluting the role as an intimate lover into a role as a carer. Further, partners experience a social disruption in having to give up other things; an occurrence that points towards the contradictory feelings that spouses encounter, and further enlightens that partners are as much at risk of psychological distress as the patient following a cardiac event [5,8]. Apart from the shifts in domestic roles, couples had to incorporate new diets and routines into their lives, which for some was a stressful event, but for others it contributed to a feeling of solidarity. Accordingly, patients’ successful recovery may be aligned to the efforts from the partner and the couple’s ability to work together [49]. Even though the cardiac event posed great distress for the couples, they still felt closer to each other and had hopes and a positive outlook for the future.
5.1. Methodological considerations

According to Sandelowski [67], the outcomes from a systematic review are highly subjective as they reflect the perspectives and preferences, as well as the posed research questions of the authors. However, the systematic procedure itself is objective in the sense that the steps are communicable and therefore repeatable. Further, due to vagaries in searches, search engines, and information databases, similar search strategies will not yield identical results, even if searches are conducted during the same time period [68]. A review becomes systematic if it adheres to a protocol [67] and the researchers know what they are doing, as well as why they are doing it. Following the reflections of Sandelowski and Barroso [68], the search results presented in this review should therefore be viewed in the context of guidance of the process, not a definite search result for each combination. Performing quality assessment of potential articles was made with the purpose of further validating the result. Whilst this is argued to leave out research from reviews [69], quality assessment aims at preventing poor-quality research to distort the final result [70]. When analysing the findings in a systematic review, different analysis designs are available, such as meta-analysis or meta-synthesis. Employing a meta-analysis requires a great deal from the individual studies, such as that the sample populations and instruments used should be of equivalent character. Moreover, qualitative studies are left out since they cannot be incorporated within the meta-analysis. A meta-synthesis on the other hand is more approachable when systematically reviewing qualitative evidence. As this review incorporated both qualitative and quantitative evidence, neither was deemed relevant or applicable. Instead, an approach combining qualitative and quantitative evidence was utilised following the recommendations of Whittemore and Knaff [20].

6. Conclusions

Even though couples who become afflicted with cardiac disease face several changes and challenges, they conform and adjust their relationship to the new situation. The main findings point towards how the couple experiences the situation and how these experiences consume multiple aspects of their lives—from physical issues such as sexual concerns, to psychological issues such as withholding feelings and not communicating, to social issues such as changes in domestic roles and responsibilities. As the results agree with previous studies on close relationships and chronic illness, it further supports the fact that cardiac disease is a chronic illness that has a profound effect on afflicted couples. Further, the results point to the dearth of research within cardiac diseases, especially concerning arrhythmia and heart failure, but also on the lack of research on ethnic minorities. From a clinical standpoint the review highlights the importance for health-care personnel to prepare and inform couples on how the partner relationship is affected following cardiac disease.

Acknowledgments

We acknowledge the Medical Research Council of Southeast Sweden for financial support and Maria Hedman for valuable linguistic review of the final version.

References

[1] WHO. Cardiovascular Diseases. 2007; Fact Sheet No 317.