

# The Well-Being of Relatives of Patients with Atrial Fibrillation: A Critical Incident Technique Analysis

Helena Ekblad<sup>\*,1</sup>, Dan Malm<sup>1,2</sup>, Bengt Fridlund<sup>1</sup>, Lisa Conlon<sup>1</sup> and Helén Rönning<sup>1</sup>

<sup>1</sup>School of Health Sciences, Jönköping University, Jönköping, Sweden

<sup>2</sup>Department of Internal Medicine, County Hospital Ryhov, Jönköping, Sweden

**Abstract:** *Background:* The well-being of relatives of patients having chronic heart diseases (CHD) has been found to be negatively affected by the patient's condition. Studies examining relatives of patients with atrial fibrillation (AF) indicate that their well-being may be affected in a similar manner, but further research is needed.

*Aim:* To explore and describe critical incidents in which relatives of patients experience how AF affects their well-being and what actions they take to handle these situations.

*Design and method:* An explorative, descriptive design based on the critical incident technique (CIT) was used. Interviews were conducted with 19 relatives (14 women and five men) of patients hospitalised in southern Sweden due to acute symptoms of the AF.

*Results:* The well-being of relatives was found to be affected by their worries (patient-related health), as well as the sacrificing of their own needs (self-related health). In handling their own well-being, these relatives adjusted to and supported the patient (practical involvement), along with adjusting their own feelings and responding to the mood of the patients (emotional involvement).

*Conclusion:* The well-being of relatives of patients with AF was affected depending on the patients' well-being. In their attempt to handle their own well-being, the relatives adjusted to and supported the patients. Further research is needed in order to evaluate the effects of support to relatives and patients respectively and together.

**Keywords:** Atrial fibrillation, coronary heart disease, health, nursing, qualitative analysis, relatives.

## INTRODUCTION

Well-being is a broad concept defined in terms of an individual's physical, mental, social and environmental aspects [1]. Each aspect interacts and has different levels of importance for the individual. Changes in well-being can be reflected in the alteration of behaviour or the performance of a task or activity [1]. The concept of well-being has been described either as subjective satisfaction that is expressed by the person asked, or measured by health related quality of life. It has been shown that the well-being in patients with chronic heart disease (CHD) also affects their relatives well-being and vice versa [2-7]. Relatives who are supporting by adjusting to, and promoting the patient's condition, have a positive impact on the patient's well-being [7], self-care and medical outcomes into rehospitalisation and mortality [2, 4, 7]. Conversely, it has been found that the psychological well-being in relatives of patients with CHD, is similar to the affected psychological well-being in patients with CHD [3, 5, 6].

Atrial fibrillation (AF) is the most common chronic cardiac arrhythmia's with prevalence's of >1% in individuals

over the age of 60 years, and >8% among individuals over the age of 80 years [8-11]. AF is associated with advanced morbidity due to predictable and unpredictable symptoms and risks such as thromboembolism [12]. Symptoms experienced by the patients have been expressed as life-complicating due to worry, uncertainty and limitations in daily life [13-17]. Patients with AF also have described feelings of being unsupported in their concerns of their well-being by health-care professionals [15]. In summary the well-being of patients with AF, and also patients with other CHD and their relatives are affected [3, 5, 17] but little is known about the consequences to relatives of patients with AF.

Bohnen *et al.* and Coleman *et al.* describe the experiences of relatives to patients having AF [18, 19]. In the study by Bohnen *et al.* [18], participants in a symposium regarding the living with AF, were asked how their lives were influenced. This study identified similar perceived affects in well-being in patients and relatives [18]. In the study by Coleman *et al.* [19], participants were unpaid caregivers to patients with AF undergoing anticoagulant therapy, and who were followed up in hospital care. This study identified that the greatest burden to caregivers occurred due to interruptions of their daily activities [19]. In relatives of patients living with arrhythmias who are treated by medication, implantable cardioverter defibrillator (ICD) or by pacemaker, their psychological well-being has been shown to be highly impaired in

\*Address correspondence to this author at the School of Health Sciences, Jönköping University, P.O. Box 1026, SE-551 11 Jönköping, Sweden; Tel: + 46 (0)36 10 10 56; Fax: +46 36 10 11 80; E-mail: [helena.ekblad@hhj.hj.se](mailto:helena.ekblad@hhj.hj.se)

comparison to the healthy study samples [20, 21]. These studies indicate that AF not only affects the patient, but also the relatives. As AF has now become noted as a health scourge [8-10, 18-21], a deeper knowledge is needed as to how relatives of patients with symptoms of AF are affected. Therefore, the aim of this study was to explore and describe critical incidents in which relatives of patients experience how AF affects their well-being and what actions they take to handle these situations.

## METHOD

### Study Design and Method Description

The study used an explorative and descriptive design with a qualitative method analysis conducted according to the critical incident technique (CIT) [22]. The objective of utilising this method was to obtain observations of human behaviour in defined situations, which are collected aimed to provide findings focused on solutions to practical problems [22-24]. A critical incident is a major situation of great importance to the participants involved. The activity investigated has a well-defined purpose and the participants are asked to provide descriptions of situations, either positive or negative, that they perceive as significant to the aim of the study [22, 23].

### Relatives

The inclusion criterion was that the participant had to be a relative of a patient with AF hospitalised due to acute symptoms at a county hospital in southern Sweden [16]. The relatives included had to speak and understand Swedish, and had to be  $\geq 18$  years of age. Relatives had to feel that they had experienced a situation where their well-being had been affected in relation to the patient's AF. The relatives were found among patients with AF which had participated in an earlier study [16]. Relatives were asked to participate in the study by a nurse in a cardiac care department during the patients' hospitalisation. A total of 19 relatives were included (Table 1). Of the 19, 16 were partners living together with the patient and the remaining three were: a mother, a son, and a daughter-in-law. The median age was 66 years (30-82 years), 14 were female and five male, with 10 having elementary school as their highest educational level. The time between the patients' diagnosis and the interview had median of 6 years (1 month-32 years) (Table 1).

### Procedure and Interviewing

Within two weeks after the patients hospitalisation [16], the first researcher (HE) made contact with the relatives to make an appointment for an interview. Semi-structured

**Table 1. Characteristics of relatives (N=19) and patients with atrial fibrillation.**

Relative	Relative	Relative	Relative	Relative	Patient	Patient
Number, Sex	Age, in Years	Educational Level	Civil Status	Number of Situations	Type of Atrial Fibrillation	Duration of Time Since Diagnosis in Years
N01, female	73	1	1	1	Permanent	14
N02, male	65	2	1	4	Permanent	<1
N03, female	78	1	1	10	Intermittent/persisting	9
N04, male	39	3	1	11	Intermittent/persisting	17
N05, female	37	3	1	9	Intermittent/persisting	17
N06, male	67	1	1	4	Intermittent/persisting	2
N07, female	82	1	2	2	Intermittent/persisting	5
N08, female	64	1	1	13	Intermittent/persisting	1
N09, female	62	2	1	5	Intermittent/persisting	<1
N10, female	75	1	1	4	Intermittent/persisting	32
N11, female	66	3	1	4	Intermittent/persisting	9
N12, male	64	2	1	5	Intermittent/persisting	<1
N13, female	58	1	1	15	Intermittent/persisting	10
N14, male	66	1	1	7	Intermittent/persisting	16
N15, female	59	2	1	7	Intermittent/persisting	4
N16, female	74	1	1	6	Permanent	<1
N17, female	30	2	1	20	Intermittent/persisting	6
N18, female	77	3	1	6	Intermittent/persisting	23
N19, female	70	1	1	3	Permanent	4

Educational level; 1= elementary school, 2=high school, 3=university.  
Civil status; 1= living with a partner, 2= living alone.

interviews were conducted by the first researcher during September 2009 and June 2010, with the majority of the interviews taking place in the participants' home. This was the participant's place of choice. The interviews were based on three open-ended questions constructed by the researchers. All researchers had extensive clinical and methodological experience. The following questions were asked: 'Describe a situation related to the patient's AF which affected your well-being', 'How were these situations handled', and 'Clarify the consequences of the situation' [22, 23]. These questions were supplemented with follow-up questions, if needed. To ensure concordance, the three initial open-ended questions were tested in two pilot interviews, where a selection of relatives was based on their sex, age and the patients' duration of AF (N01, N02; see Table 1). These pilot interviews highlighted that there were no adjustments required, and were subsequently included in the study. The interviews were recorded digitally, lasting between 15-63 minutes. All

of the interviews were transcribed verbatim by the first researcher.

### Data Analysis

Data analysis was commenced by the first researcher by thoroughly reading through the interviews several times in order to become familiar with the content. Situations affecting the relatives' well-being according to the aim, were delimited and subjected to structural analysis in their character and content [23]. For example, a critical incident could be a situation where a relative experienced anxiety regarding the patients' symptoms. A total of 128 situations were initially identified and subsequently sorted. Comparisons between experience as well as between actions were made in order to find similarities and differences. Situations were further categorised by experiences into 18 subcategories (Table 2) and by actions into 17 subcategories (Table 3). In order to de-

**Table 2. Summary of the subcategories, categories and main areas in the experience of situations affecting well-being in relatives of patients with atrial fibrillation (N=19).**

Citation	Subcategory	Category	Main Area
"If he takes Warfarin he can have a stroke. I know you can because I work with people sick from a stroke" (N13).	To experience anxiety about the patient's medical treatment (n = 19)	Worrying for the patient	Patient-related health
"Despite you know you believe it is life-threatening" (N17).	To experience anxiety about the patient's symptom (n = 16)		
"One time I got to see her grab the snow shovel out here ... I thought that she would absolutely not do well" (N12).	To experience anxiety from physical exertion by the patient (n = 16)		
"Yes...how must it damage the heart while going on like this .."(N03).	To experience anxiety in remaining or recurrent symptom in the patient (n = 12)		
"After an attack, I can wake up scared that he may not breathe" (N17).	To experience anxiety after symptom in the patient (n = 11)		
"The fibrillation could produce thrombosis and damage the heart, so I feel so uneasy" (N09).	To experience anxiety about the risk of complication in the patient (n = 10)		
"I know so little, and then she doesn't tell everything. I don't want us to risk anything" (N12).	To experience a lack of knowledge about the patient's symptom (n = 21)	Sharing the patient's worry	
"It is hard to keep her courage up" (N04).	To experience myself as supportive for the patient (n = 11)		
"It is nice that the health services understand that all of this is more than only a problem with the heart" (N08).	To experience external support for the patient and myself (n = 8)		
"Typically...not now again, and I feel like I just get so tired from it .. We want to have a normal life" (N17).	To experience frustration of own situation (n = 24)	Sacrificing own needs	Self-related health
"Mentally we know that it is a psychological barrier. He avoids all situations that can be linked to heart beat occurring" (N17).	To experience frustration over the patient's behaviour (n = 19)		
"I do not want him to be influenced by my thoughts" (N11).	To experience a lack of space of own feelings (n = 11)		
"It is a feeling that I always have to be strong" (N17).	To experience despair when the patient cannot manage to perform an activity (n = 7)		
"When she lives with us affecting both family and working life" (N04).	To experience a lack of space of own rest (n = 6)		
"I have a bad conscience because I think it's nice to go off to work" (N08).	To experience a lack of space of own time (n = 6)		
"When it is hard for her it will be hard for me" (N06).	To experience compassion for the patient (n = 26)	Sympathizing with the patient	
"It's okay to give up a sexual life. It is more important that he will be alive" (N08).	To experience uncertainty about activity with the patient (n = 15)		
"How do you dare and not let it limit life?" (N17).	To experience uncertainty about the patient's future condition (n = 8)		

Number in parentheses in subcategories indicates the number of critical situations.

**Table 3.** Summary of the subcategories, categories and main areas regarding actions taken by the relatives of patients with atrial fibrillation (N=19) in order to handle situations affecting their well-being.

Citation	Subcategory	Category	Main Area
<i>"If I think that there is something going on, then I peep a little extra" (N03).</i>	To manage a substantial risk of impairment in patient's symptoms (n = 10)	Adjusting to the patient's condition	Practical involvement
<i>"... and we do not plan so much then. For this fibrillation has come back a little bit.. so it's clear that it affects and like I said concerning planning.. eh" (N15).</i>	To manage the unpredictability of patient's symptoms (n = 9)		
<i>"You become lazier. Turns on the TV instead" (N14).</i>	To manage impaired physical strength of the patient (n = 8)		
<i>"I ask him to call in to the hospital before it gets too late in the evening" (N08).</i>	To manage demands on availability (n= 8)		
<i>"I'll take her to the hospital when I hear that it is off sync" (N14).</i>	To manage patient's need of contact with healthcare facilitates (n=15)	Providing support to the patient	
<i>"I am listening to and counting her heartbeat" (N14).</i>	To manage the patient's symptom together (n = 18)		
<i>"I get to take time off from my job when she doesn't dare to be by herself at home" (N04).</i>	To stay by the patient's side (n=11)		
<i>"We must accept that we cannot travel" (N15).</i>	To ensure patient's close proximity to the healthcare facilitates (n=11)		
<i>"I asked the doctor if it is dangerous for her to exert herself" (N02).</i>	To obtain knowledge of the patient's symptom (n = 10)		
<i>"I am generally worried and afraid that he will die" (N19).</i>	To act with feeling regarding the patient's symptom (n = 21)	Adjusting to own feelings	Emotional involvement
<i>"I say that we are going to the hospital, and he argues against it" (N09).</i>	To manage his/her own anxiety by asking the patient to contact the healthcare facilitates (n = 13)		
<i>"I get angry at myself and think that I have to pull myself together" (N17).</i>	To manage his/her own anxiety about impairment in the patient's symptom (n = 13)		
<i>"I said, 'Is that necessary to climb upon the roof?'" (N16).</i>	To manage his/her own anxiety about physical exertion of the patient (n = 12)		
<i>"It is lately that I've been thinking more, when it has come more often" (N08).</i>	To manage uncertainty about the future (n = 11)		
<i>"I get irritated, but I do not show it" (N14).</i>	To manage the patient's behaviour when the patient is upset (n = 17)	Responding to the patient's mood	
<i>"I ask when he gets home if he has managed to dance and if he felt anything" (N08).</i>	To manage uncertainty about appropriate activity with the patient (n = 15)		
<i>"I did it instead when seeing his worry before exertion" (N17).</i>	To manage with patient's anxiety about physical exertion (n = 8)		

Number in parentheses in subcategories indicates the number of critical situations.

scribe the general character, the subcategories in experience and actions (Tables 2 and 3) were then divided into four categories respectively. Finally, two main areas emerged in experience and action respectively (Tables 2 and 3) describing the overall content in the data [23]. The researchers collaborated during the analysis process until a negotiated consensus was reached [25].

### Ethics

The study followed the principles outlined in the Declaration of Helsinki [26] with permission obtained from the Regional Committee for Human Research, Linköping University, Sweden (Dnr: M8-09). After permission from patients, the relatives were asked about their willingness to participate. Verbal and written information was provided

concerning the aim of the study, data confidential handling and voluntary participation. Relatives were informed that withdrawing, at any time, would not result in any consequences for future care regarding the patients or themselves [26].

### RESULTS

The well-being of relatives was affected by their worries (patient-related health; Table 2. experience), and the sacrificing of their own needs (self-related health; Table 2. experience). In order to handle their own well-being, relatives adjusted to and supported the patient (practical involvement; Table 3. actions), and adjusted their own feelings and responded to the mood of the patient (emotional involvement; Table 3. actions).

## EXPERIENCE

### Patient-Related Health

This main area identified described how relatives experienced their well-being affected by the patient's health, such as, being worried for the patient, but also as sharing the patients worry (Table 2). The worry for the patient was related to their symptoms, the risks of AF or its treatment, and a fear for the patient's life when endangered by AF. The experience of the relatives was that, by sharing the patient's worry, they may become a source of security and support to the patient. Support from a social perspective and the health care facility meant a sense of security and care for the relative.

#### *Worrying for the Patient*

Relatives experienced anxiety regarding the patient's medical treatment and its risks, especially related to anticoagulant therapy. Another source of anxiety for relatives was the risk of complications of AF, such as risks of stroke or sudden death. There was also anxiety regarding remaining or recurrent symptom, such as worry about the progression of the AF, or that ongoing AF may damage the heart. Both the patient's long-term symptoms, for example impaired physical strength and acute cardiac or breathing symptoms gave relatives anxiety as experienced as a threat to the patient's life. The time after symptoms had resolved was also described as a period when relatives experienced more uncertainty and intense anxiety for the patients. Relatives experienced varying levels of anxiety regarding the physical exertion of the patients, based on beliefs that exertion could further damage the heart. This worry became more extensive if symptoms previously experienced by the patient during exertion.

#### *Sharing the Patient's Worry*

A lack of knowledge about AF was experienced as complicating the relative's ability to be involved in the situation. Lack of knowledge was also experienced as leading to feelings of being uncomfortable, for example; feelings of anxiety and not having control of the situation. Relatives perceived themselves as a resource for the patient and providing support when the patient did not feel well. Their experience of external support was as someone to rely on when needed.

### Self-Related Health

This main area identified described how the relatives' well-being was affected by the health of the patient. They experienced this as sacrificing their own needs and feeling sympathy for the patient (Table 2). The relatives perceived limitations in their life and in their relationship to the patient. They felt they were sacrificing their own needs because of the worry about the patient, thereby prioritizing the patient's health. By experienced demands from both themselves and the patient to become stable and that they need to be available to support, if needed. The relatives also experienced sympathy for the patient based on worry and compassion, which was described in terms as difficulty for relatives to feel well unless the patients felt well.

### *Sacrificing their Own Needs*

Relatives experienced lack of space for their own feelings. This included the impact of not expressed feelings and opinions, but in the same time having concerns in supporting the patient. To hold back emotions in order to support the patient's health led to frustration over their own situation. They experienced these feelings in regards to psychological consequences of AF, such as the patient's worry led patients to behaviour that relatives found was too fixed or sensitive to their body or the symptoms. The experience of despair when the patient could not perform activities, for example; walking, meant relatives felt reduced in the ability to perform their activities or perceived that they had to take over responsibilities for activities the patients used to perform. Relatives who had small children in their family also experienced a lack of space for rest. When relatives perceived a lack of space for their own time, they felt guilty about their own needs.

#### *Sympathizing with the Patient*

When relatives recognised that the patient's health was affected by symptoms or psychological consequences of AF, they also became affected. This insight led relatives to feel bad themselves due to compassion for the patient. They also experienced uncertainty about appropriate activity with the patient into fears of worsening the symptoms. This uncertainty led to feelings related to relatives refraining from everyday activities, and also more intimate activities. Uncertainty about the future included concerns about further impairment in the patient's condition and the experience of the worsening in AF as difficult to prevent and predict.

## ACTIONS

### Practical Involvement

This main area identified described what actions relatives took to handle their well-being by practical involvement (Table 3). Aiming to promote and achieve their individual well-being, relatives adjusted to the patient's actual condition and provided them with support. In order to support patients, relatives became cautious and reflective before commencing activities and further adjusted these activities to the patient's condition. Through actions of providing support to the patients, relatives participated in the situation by caring for them. They acted by assisting the patient and ensuring security in being aware that nothing would risk the patient's health.

#### *Adjusting to the Patient's Condition*

To manage the substantial risk of impairment in the patient's health, relatives observed the patient's behaviour and moods, enabling them to adjust to the situation. To manage the unpredictability of a patient's symptom, relatives became cautious, often refraining from their own activities in order not to provoke the patient's health. When attempting to manage impaired physical strength of the patient, relatives adapted activities to meet the patient's condition or gave a 'helping hand'. In order to manage the demands and requirements of patients, relatives also

included actions to manage their own worry in the particular situation.

### ***Providing Support to the Patient***

When contact with the healthcare facilitates was needed, relatives participated by discussing how the situation should or could be handled with the patient. Sometimes the relatives took over the full responsibility for the action needed, for example; seeking medical assistance. When relatives participated in managing patient's symptoms, this often involved assessing the patient's symptoms and discussing how this situation should be handled. During these situations, relatives described that they wanted to stay with the patient, be available and participate, in what was happening such as; being ready to take the position of practically helping the patient to organize and manage the situation. Relatives also ensured that the patient were in close proximity to a health care facility with access as safe and quickly being made, if needed. Relatives obtained knowledge of the patient's symptoms in order to be able to handle any worsening of the symptoms or to prevent the provocation of it.

### **Emotional Involvement**

This main area identified described what actions relatives took to handle their well-being by emotional involvement (Table 3). Aiming to promote and achieve their individual well-being, relatives responded to the situation by adjusting their own feelings and treating the patient's mood. In order to have control over the situation, and the desire to deliver caring behaviour, relatives had to firstly deal with the situation and then adjust their own feelings of worry, uncertainty and demands in responding to the patient's mood. Through these actions, the relatives were aware of both their own health and the health of the patient, and also of their relationship.

### ***Adjusting to Own Feelings***

The relatives had to develop their ability to deal with their individual feelings in the situation. They had to handle feelings of their own worry and sadness toward the patient's symptoms and also, at the same time with patient's psychological consequences of the condition. Relatives managed their anxiety by asking the patients to contact health care facility in situations where the patient already had decided to prolong making contact. The relatives also had to manage their own anxiety about impairment from the patient's symptoms by holding back their own feelings for the benefit of the patient's feelings. Another way in which to manage their own anxiety if the patient was performing physically exerting actions, relatives considered themselves to be able to give a helping hand or just observe and be able to act, if necessary. This anxiety was based on the assumption that physical activity worsened the symptoms or could be unhealthy or dangerous when having a heart condition. Managing the uncertainty about the future included ongoing concern for the patient's health, with concern that the condition could be fatal in the long term concern it could lead to sudden death.

### ***Responding to the Patient's Mood***

In order to manage the patient's behaviour, relatives had to handle the patient's feelings. When a patient was upset,

relatives were available as support with conversational assistance or acted by attempting to avoid conflict. Relatives managed the patient's anxiety by being supportive to patients in daring perform appropriate activities. This support could be verbal communication or assisting activities to be undertaken by the patient.

## **DISCUSSION**

### **Results Discussion**

Relatives are affected by patient-related health and self-related health issues. In the relative's experience, they were influenced by worry, sacrificing their needs and feeling sympathy for the patient. In their actions, they were involved both practically and emotionally, for instance, providing support and adjustment to the patient's condition and their own feelings. It was a way in which they felt they could support patient's health and a way that relatives promoted and achieved their own well-being.

Through the experience of AF, the worry for the patient's health, together with the unpredictability of it, seemed to be of major concern. Relatives perceived that it was difficult to assess the severity of the AF, and it was not uncommon that relatives had fear for the patient's life because of symptoms, or a progression of symptoms. These descriptions are also well-known in relatives of patients with other CHD conditions [21, 27-29]. Worries were also expressed about medical treatment, especially in regards to the use of anticoagulation therapy with concerns of the potential side effects such as haemorrhages. Previous studies [19] have shown that with having anticoagulation therapy, caregiver burden occurs in relatives of patients with AF, and also to the patients having resistance to this particular treatment [30]. Our results showed that through the witnessing of patient's worries, as well as being cautious and uncertain about various forms of activities, relatives expressed concerns and compassion regarding the psychological consequences that AF causes for patients. In order to prevent the worsening in a patient's health, relatives refrained from certain activities or pointed out caution to the patient before engaging in any activities. The relatives also became an observer of the patient's behaviour.

These experiences of worry, compassion and actions of continually being aware of the patient's health, became distressful for the relative. It was described as a difficult commitment, both practically and emotionally. Relatives highlighted major emotional and practical situations as hard to handle and to respond to in order to protect and support the patients in a way not affecting their relationship, but also as a perception of a marginalisation of their own well-being. This experience appears comparable with those described in relatives of patients experiencing other CHD conditions [21, 27, 28]. Relatives in our study also experienced that when the patients involved them in the decisions making, they described it as positive. To handle the situation together (relatives and patients) gave a feeling of strength, which also had been described by relatives of patients having other CHD conditions as beneficial [31-33]. Conversely, compared to patients with AF [16], relatives in this study do not have the mandate to finally resolve the situation. Their worries centred on if the patient chose to stay at home when feeling un-

well. In these situations, when the relatives had to adjust to the patient's feelings or decisions, they experienced reduced respect of their own space in the relationship, and fared badly in holding back feelings and needs. This also caused emotional distress. Previously, it has been said that CHD can lead to distancing, alienation and a strain in the relationship of relatives and patients [21, 34, 35], and from the patient's view overprotective behaviour or anxiety in relatives impaired their health [6, 36, 37]. Patients who have AF have expressed their condition as causing difficulties for their relatives [14, 15]. This insight make these patients feeling badly about how their relatives are affected.

Furthermore, result indicates that the experiences of relatives of patients with AF appear to be comparable to the experiences of patients with AF [15, 16]. Relatives' experiences seem to be expressed in a similar manner to relatives of patients with other CHD in regards to worry, uncertainty and by assessing the physical health of the patient as life-threatening [27-29]. Relatives in other CHD also described their need for adjustment, responsibilities and their new role in comparable words [21, 29, 31-34]. The risk of caregiver burden has been highlighted in other CHD patients [37], where distress and depression have been found to be associated with the role of relatives. This is especially identified as difficulties in responding to a patient's behaviour and by having little control regarding the outcomes for the patient [38, 39]. These aspects may also be applied to the relatives of patients with AF.

Results indicate that being a relative is described as being a strength and resource to the patient. It is also been shown to be experienced as a feeling of alienation regarding knowledge and the experience of vulnerability. Relatives in this study expressed being in need of support and security concerning aspects of their own well-being. These experiences and consequences are, on the whole, still not recognized by healthcare professionals. Healthcare professionals should support both relatives and patients to deal with their anxiety and provide them with resources to better cope with AF. By mutually affecting each other, the well-being of relatives and patients cannot be isolated from each other. Therefore it is also necessary that relatives and patients become integrated in healthcare facilities together. There are interventions in CHD indicating that education and psychosocial support to relatives and patients led to an increased level of perceived control and satisfaction with life for both parties [40, 41]. This should also be instigated for patients with AF and their relatives.

### Methods Discussion

In a qualitative study, researchers consider whether stability can be ensured throughout the research process regarding applicability, concordance, security and accuracy [42]. Regarding applicability [42], the chosen method utilised was CIT, because its credibility aimed at providing findings which are focused on solutions to practical problems. For this study, this was seen as beneficial when identifying experiences and actions taken in situations affecting well-being [22]. Conducting interviews was chosen as the method for data collection in order to gain a deeper understanding of the well-being of relatives. This allowed the relatives to elaborate their thoughts in detailed follow-up questions. Further-

more, in regards to applicability and CIT [22, 42], the selection of participants was identified by being a relative to a strategic sample of patients in an earlier study [16]. A limitation of the study could be that all data were collected from one hospital and from relatives of patients in need of acute cardiac care, being hospitalised due to acute symptoms related to AF. Another limitation could be that the sample consisted of predominantly women. A sample previously shown to be more vulnerable as caregivers than for male caregivers [5]. Regarding concordance, two pilot interviews were performed. These interviews were conformed consolidated adequately by the questions in that they were understandable and distinct with the aim [42]. If precision of the aim exists, a total of 100 situations are enough in the analysis, of why our data comprising 128 situations is quite sufficient to achieve so called saturation [22-24]. All of these searchers had experience of providing care to patients with AF from a cardiac care nursing context. By being attentive, reflecting together and not taking any findings for granted, the researchers were conscious of the risk of their pre-understandings. These pre-understandings, as well as reflecting on the questions, minimised the risk of misunderstanding during the interviews and analysis phases. In regards to security, data collection was strengthened by the fact that the first researcher conducted all of the interviews, but also by detailed prescription of analysis and categorisation. Security was also ensured by the data being processed repeatedly and thoroughly discussed until a consensus by all of the researchers was reached [25]. In regards to accuracy, CIT categorisation has been criticised for being both a subjective and difficult process [22, 23], and without doubt data can be categorised in more than one way. However, to enhance accuracy, it is possible to refer back and reflect to the transcribed situations.

### CONCLUSION AND IMPLICATIONS

This study has provided an insight into how AF affects the well-being of relatives through substantial worry and compassion for the patient. In an attempt to maintain and restore their individual well-being, relatives are required to adjust to, and support the patients by both practical and emotional involvement. By worrying and adjusting, they may lose integrity in the prioritisation of the patient's well-being. This study highlights that relatives and patients are in need of being viewed together not as an individual entity. Through knowledge regarding AF in acute and long-term situations, both relatives and patients must be prepared for problems that could take place in the home. In order to offer appropriate support, further research is needed in order to propose evidence-based care and draw up guidelines for both patients and relatives.

### CONFLICT OF INTEREST

The researchers confirm that this article content has no conflict of interest.

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