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Consequences of Psychological Aspects: From Jordanian Heart Failure Patients' Beliefs

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Abstract

Introduction: Psychological aspects are common in patients with heart failure (HF). Psychological aspects have negative consequences in patients with HF.

Objective: This study was conducted to gain a deeper understanding of the consequences of psychological aspects in Jordanian patients with HF.

Methods: This study is a qualitative study conducted with the participation of 24 patients with HF. Data were collected using semi-structured interviews.

Results: The main theme of the findings can be expressed as "Consequences of psychological aspects of HF." The following four sub-themes emerged from the data: social isolation, disturbance of feelings, being non-compliant, and growing burden on the health care system.

Conclusion: The findings revealed the need for informing healthcare providers about the negative consequences of psychological aspects and develop clinical guidelines to evaluate psychological aspects to support these patients.

Keywords

psychological aspects, heart failure, consequences, Jordan

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Introduction

Heart failure (HF) is viewed as a significant clinical and public health problem worldwide (Roger, 2021). According to the reviewed literature, there are approximately 64 million persons globally who have HF (Savarese et al., 2022). In addition, in the United States of America (USA), the prevalence of HF is approximately 6.9 million in 2020 and it is anticipated that by 2030, the prevalence rate of HF will increase to about 8.5 million people (Urbich et al., 2020).

The prevalence of HF in Jordan, a developing Arabic country, is around 100,000; the estimated incidence is about 8,251 yearly (Jordanian Ministry of Health (JMH), 2017). Patients with HF commonly experience psychological aspects such as depression and anxiety, which are associated with negative outcomes such as decreased adherence to treatment, poor function, increased hospitalization, and mortality (Celano et al., 2018). The prevalence of psychological aspects in patients with HF is approximately 20%–30% (Sbolli et al., 2020). In China, X Lin's meta-analysis study reported that the prevalence of depression is 43% in patients with HF (Lin et al., 2020). In Africa, the prevalence of

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depression and anxiety among patients suffering from HF is 52% and 53%, respectively (Tsabedze et al., 2021). The high prevalence of psychological aspects in patients with HF is associated with increased mortality, increased length of hospital stay, and also increased costs imposed on the family and the healthcare system (Gathright et al., 2017; Gulea et al., 2021; Kewcharoen et al., 2020; Patel et al., 2020). Depressive HF patients impose approximately 30% more costs on the healthcare system (Moradi et al., 2022). Previous studies showed that psychological aspects are considered a risk factor for rehospitalization in patients with HF (Ahmedani et al., 2015; Alhurani et al., 2015; Freedland et al., 2016; Ma, 2019; Patel et al., 2020). A study conducted by Patel and colleagues (2020) found that depression was associated with a higher risk of all-cause rehospitalization within 30 days and 90 days due to many symptoms of depression, such as fatigue, social isolation, and lack of motivation (Patel et al., 2020). Additionally, several previous studies found that the psychological aspects of patients with HF have been associated with poor self-care maintenance, self-care management, and confidence (Biddle et al., 2020; Chang et al., 2017; Chuang et al., 2019; Freedland et al., 2021; Liljeroos et al., 2020; Jaafar et al., 2019; Mueller-Tasch et al., 2018; Tegegn et al., 2021; Tovar et al., 2015). Many prior studies showed that the psychological aspects are associated with poor quality of life (An et al., 2022; Alemoush et al., 2021; Abu Sumaqa & Hayajneh, 2022; Hyarat et al., 2019; Moradi et al., 2020; Uchmanowicz & Gobbens, 2015; van den Berge et al., 2022). Few qualitative studies have addressed the consequence of psychological distress in patients with HF. In Jordan, psychological aspects such as depression and anxiety have been found as a growing problem over the past years, as was found in studies conducted by AbuRuz (2018), and Alemoush et al., (2021) with percentages of 65%, 62%, and 47.3%, 56.7%, respectively. These studies demonstrated the seriousness and magnitude of the psychological aspects of patients with HF in Jordan, despite the advancement in the medical care of patients with HF. However, all of the previously mentioned studies were quantitative research and were conducted based on tools and determined information extracted from the results of previous studies which were conducted in the Western context. Therefore, in this study, we aimed to explore the consequences of psychological aspects from Jordanian HF patients' perspective.

Method

A phenomenological design was used to explore the experiences of patients with HF related to the consequences of psychological aspects. The study was conducted in the cardiac outpatient clinics at three public hospitals in Jordan. Ethical approval was gained from the Research Ethics Committee at the nursing faculty at the University of Jordan and all hospitals where data collection was performed. Purposive sampling of 24 patients with HF was used. The sample included all adult Jordanian patients diagnosed with HF. Before the interviews, participants signed a consent form after an explanation of the purposes and the procedure of the study. Semi-structured interviews were held in the cardiac outpatient clinics. During the interviews, we used interview guides that were developed by the researchers and began with the broad research question—"Tell me about the consequences of the psychological aspects you faced?" and participants were asked permission to tape record the interviews. Interviews with patients lasted between 50 and 85 min, during the period from August 2022 to November 2022. In this study, data collection continued until data saturation was achieved. Interviews were recorded and transcribed. Data analysis was done using the field notes that were obtained during the discussion. Interviews were transcribed, translated into English, and analyzed by using the NVivo 7 program. After transcription of all interviews, author Yasmeen Abu Sumaqa carried out a qualitative data analysis by data coding, defining categories, clustering, and extracting the themes, which was then reviewed for validity by an independent rater.

Findings

Our sample ultimately comprised 27 participants with HF from the north, middle, and south of Jordan. The age of the participants ranged from 58 to 80 years. The educational level ranged from those who had elementary school level to baccalaureate level. Analysis revealed the main theme from the interviews to be "Consequences of psychological aspects of HF."

Social Isolation

One issue discussed during the interviews was the influence of psychological aspects on the social aspect of participants which resulted in withdrawal from interpersonal relationships. Many participants struggled with social isolation resulting from their psychological aspects related to the side effect of the diuretic which increased urination and they struggled with difficulties planning toilet breaks when out of the house which makes them anxious:

> I need to go to the bathroom frequently because I take the diuretic, and when I go shopping or social events, this frequent urination makes me feel uncomfortable and anxious so I prefer to stay home. (Ahmad)

Other participants said that they struggled with anxiety, frustration, and sadness due to the physical limitations of HF, and these negative feelings led to social isolation:

Although I receive many invitations to attend social events for my relatives and friends, I cannot attend because I am sad and frustrated due to tiredness and shortness of breath, therefore I feel like a prisoner in my home, and when I feel stressed and bad I can't stand either myself or my wife, I sit too much in front of the television and don't go out enough. (Ismail)

Some participants stated that social isolation related to relationships and leisure activities outside the family lead to negative emotions among them:

I have friends, last week my friend invited me to her farm but I can't go with her because I'm stressed and angry due to my tiredness, and walking is more and more difficult for me, really I was in a bad mood. (Laila)

Disturbance of Feelings

Participants emphasized that they experienced many psychological changes after being patients suffering from HF. Most of these changes were mainly manifested in the development of turbulence of feelings including many internal negative feelings. Many participants stated that they have feelings of negative emotions such as anxiety, sadness, fear, anger, guilt, helplessness, and loss after HF due to limitations in physical capabilities:

I felt more nervous than usual, such as stress, sadness, and burden. . .. I felt nervous, suddenly realizing that my heart has a serious disease because my wife also died because of a heart attack. I am just very anxious, when I am in bed at night I think about her, resulting in sleepless nights. (Adnan)

Participants mentioned another issue, the difficulty in controlling their emotions and feelings in many situations, mainly during dealing with friends and families:

I can't stand myself and people, I couldn't take a single word from anyone and I am annoyed by everything around me and I feel there is like a rock on my chest, and when I get stressed and very nervous I stop talking with everyone, I don't accept to see any anyone, not even calls. (Ahmad)

Some participants expressed resignation with their chronic condition:

You have to be rest! If you get angry or if you cry, it's the same. Your blood pressure goes up. Life is this: if you blame or cry all day you don't gain anything. (Eftekar)

Other participants mentioned that the complications of disease were another source of fear, sadness, and frustration that was illustrated mainly by educated participants:

I read about the complications of the disease this makes me sad and anxiety because I fear leaving family……sometimes the knowledge affects you. (Ali)

Being Non-compliant

Another challenge was the reducing participants' motivation and mental energy which made them for being non-compliant with treatment, and this appeared as a major barrier to self-care among many participants:

IF I get very stressed, sometimes I ignore some medication. (Reem)

It was apparent in participants' accounts that they did not adhere to their medications and did not perform self-care activities due to hopelessness:

I noticed sometimes that I didn't make meaningful recovery and some of my drugs make me tired and therefore, I get a bad mood. Then, I didn't take my drugs to this day. (Odai)

It was apparent through interview texts that some participants avoided their negative feelings, by choosing to be non-compliant related to changing unhealthy habits such as cigarette smoking, high fat, and salt and they try to ignore HF-related information and issues of daily care:

I used to eat high-salt and high-fat foods since my youth and when I know that I should limit my intake of high-salt food and the taste will become awful, so I feel stress and anger ……so, no way! I eat whatever I want! (Asala)

When I face problems related to my disease, I feel anxious so I always try to forget it by smoking…. I knew that I had a problem with my heart, sometimes when I get stressed I hate to go to the clinic for treatment because knowing meaner worry, but I just want to escape from it. (Mahmood)

It was apparent in the interviews, that some participants have negative feelings such as sadness and anxiety about being a burden to their family leading them to be non-compliant with their treatment:

Sometimes my drug makes me drowsy so I ask help from my wife to help me this makes me stressed and angry and therefore, sometimes I discontinue this drug. (Ahlam)

The Growing Burden on the Healthcare System

One issue discussed during the interviews was the growing burden on the healthcare system due to the effect of negative emotions on the deterioration of HF symptoms.

The participants in the study highlighted that the intense emotional responses including fear, stress, and anxiety to the onset of shortness of breath lead to exacerbated symptoms that need rehospitalization of participants:

When I get stressed and angry, the feeling of shortness of breath increases and I feel the fluids in my ankle increase…. my body becomes tired so I go to the emergency department for treatment. (Salman)

Other participants mentioned that the negative feelings about hospitalization make them ignore some aspects of symptoms that need admission, and this leads later to deterioration of health that needs rehospitalization of participants:

When I think I need to admit hospital, I feel stress and anxiety because I hate the feeling of suffocation in the crowded room so sometimes I feel my health become worse and I had shortness of breath but I decide to tolerate it without treatment and I delay going to the emergency department but eventually I admit to the hospital due to deterioration my health for several times. (Hamda)

Some participants stated that due to their negative feelings such as stress, sadness, frustration, and hopelessness, sometimes they didn't adhere to their medication, and eventually, they were admitted to the hospital many times:

I take my medications on time, eat healthy food and I follow the physician's instructions but sometimes I feel tired makes me frustrated and angry..... I have a bad mood so I don't adhere to medication for three days sometimes. (Ibrahim)

Discussion

HF is a progressive and disabling condition characterized by shortness of breath, fatigue, and edema that significantly affects patients' daily lives. Consequently, psychological distress is common in patients with HF which resulted in reduced quality of life. Therefore, to get a more profound understanding of this phenomenon, this study highlights the HF patients' experiences with the consequences of psychological aspects they experience. One of the consequences of psychological aspects is reduced opportunities to participate in social life, leading to a decrease the social interaction, loneliness, social isolation, and absence of social support to continue with their daily life activities. The vast majority of participants in the study stated that social isolation which includes withdrawal from social interactions and relationships with family or friends was a consequence of psychological aspects resulting from physical limitations, the side effect of diuretics, tiredness, shortness of breath, and self-image. The results of this study showed that one of the most important limitations was the side effect of diuretics particularly increased urination which causes negative feelings for them resulting in social isolation. This might be explained as a lack of toilets in public areas and the patients being embarrassed to ask for them, particularly the females, this caused frustration and anxiety which lead to preferring staying at home. These results are consistent with the results of many previous studies which found that psychological results from the limitations imposed by HF (Barnett & Gotlib, 1988; Brown et al., 2011; Elmer & Stadtfeld, 2020; Elmer et al., 2017; Segrin, 2000; Wenzel & Kashdan, 2008). These results are consistent with a previously published research paper that assessed the factors associated with perceived social isolation in patients with HF in Greece and found that psychological distress was associated with social isolation in patients with HF (Polikandrioti, 2022). Similarly, other studies' findings showed that individuals with depressive symptoms might elicit rejection from others. This might be attributed to the negative mood of patients in their interactions and they might receive less reinforcement from the social environment, which leads to a feeling of discomfort in social interactions and reduced social participation (Brown et al., 2011; Coyne, 1976; Joiner & Katz, 1999; Libet & Lewinsohn, 1973). The change from being a healthy person to being a severely ill individual was considered emotionally challenging. HF is itself a potent stressor, progressively worsening functional limitations, including frequent symptom exacerbations, complexities of effective disease self-care management, and hospitalizations resulting in various negative fillings. This might be attributed to the fact that mental health is influenced by changes in lifestyle over time. The findings showed that exposure to psychological aspects related to HF resulted in the disturbance of feelings and various emotions among most participants because they experienced many psychological changes such as anxiety, sadness, fear, anger, guilt, helplessness, and loss after being patients suffering from HF as a long-term disease. This might be attributed to the feeling of being threatened and fear of being able to perform their roles in family, society, and work. Congruent with the current study findings, several studies also documented that patients suffering from HF experienced intense negative emotions such as disturbance of feelings due to the HF progresses (Europe & Tyni-Lenné, 2004; Pihl et al., 2011; LeMaire et al., 2012; Paukert et al., 2009). The findings of the current study were also supported by Checa et al. (2020) who found that there are various negative emotional experiences related to living with HF. Additionally, the sudden shift in their life situation had a major influence on their emotions as an unexpected change that transformed their life completely. And this is consistent with the findings of many previous studies (Abshire et al., 2015; Annema et al., 2009; Celano et al., 2018; Endrighi et al., 2019; Hiriscau & Bodolea, 2019; Jeon et al., 2010; Sevilla-Cazes et al., 2018). Some participants reported fear of complications of the disease and they stated that thinking in HF

occupied their minds. This is in line with a study that found that participants showed fear of worsening symptoms, death, and role limitation (Gowani et al., 2017). Other participants expressed negative feelings for their family and friends. This might be attributed to the feeling of a limitation by everyone around them because they needed extra attention. This was congruent with Mahoney-Davies et al. (2017) who found that patients suffering from HF experience a range of emotional and psychological distress about their life circumstances or physical limitations, thoughts about the future, or feeling like a burden to their family and friends (Mahoney-Davies et al., 2017). Many participants reported that psychological aspects might make them non-compliant with treatment which reduces their self-care. This might be attributed to psychological aspects such as depression and anxiety might affect patients' ability to learn, identify worsening symptoms, and make decisions on how to deal with symptoms, and might decrease patients' motivation to participate in self-care activities (Bauer et al., 2012; Riegel et al., 2009). This was in line with the findings of Patrick et al. (2022) who found that lower anxiety and depression were associated with an increase in self-care management. It was also found that patients with psychological distress are lower levels of self-care maintenance due to impaired motivation, and cognitive dysfunction and they perceived more barriers to taking medications, fewer benefits to medications, and following diet than non-depressed patients (Alosco et al., 2014; Bauer et al., 2012; Jonkman et al., 2016; van der Wal et al., 2006). Chang et al. (2017) found that depressive symptoms directly reduced self-care behaviors among patients suffering from HF by decreasing self-care confidence (Chang et al., 2017). Some participants stated that due to their psychological distress, they did not adhere to their medications and diet. The present study results were consistent with Shamsi et al. (2020) who found that affective temperaments such as depression anxiety and anger were associated with low medication adherence. Moreover, the results of this study were consistent with that of Park and Oh (2021) who have found that psychological distress in patients with HF was associated with reduced adherence to a healthy diet. This might be explained as patients suffering from psychological distress have low motivation for treatment as well as the depressive mood is associated with feelings of hopelessness, worthlessness, and pessimistic thoughts (Shamsi et al., 2020; Tang et al., 2014). It was apparent in some participants' accounts that their smoking as a coping mechanism when they have psychological distress was taken in a free manner without the influence of others. Patel and colleagues (2020) found that depression may affect medication adherence with decreased physical activity and increased use of tobacco in patients with HF. Finally, the results of the current study found that many participants stated that they were readmitted to hospitals several times due to their psychological distress because their psychological distress might reduce their self-care such as non-adhering to their medication, and diet. However, some participants stated that despite their perceived good adherence, there are worsening symptoms and functional status resulting in rehospitalizations, which is inconsistent with Ma (2019) who found that psychological distress is considered a risk factor for rehospitalization in patients with HF. In addition, Thyagaturu and colleagues (2018) found that depression is a similar risk factor for 30-day readmissions in patients with HF with preserved and reduced ejection fraction.

Implications for Practice

The findings of this study demonstrated how healthcare organizations must comprehend the consequences of psychological distress in patients with HF.

Furthermore, it is particularly critical that nurses offer or strengthen resources to manage the risk factors of the consequences of psychological distress in patients with HF. Developing and implementing guidelines for diagnosis, referral system, and management of psychological distress of patients with HF. Policymakers, nurse administrators, and nurses should focus more on assessing the levels of depression, and anxiety of patients by using screening tools when providing a comprehensive treatment that might have a positive impact on patient's psychological status, health, and well-being. They should encourage more workshops, seminars, conferences, and training programs focusing on the psychological distress of patients including assessing management. Healthcare providers should assess the patient's psychological needs when providing care for them and utilize professional and appropriate communication skills in treating these patients.

Conclusion

The consequences of psychological in patients with HF distress are a serious issue that needs to be considered. This study sheds light on the negative consequences of psychological distress on patients that may affect the social aspect, feelings, compliance with treatment, and health care system. The inclusion of routine assessment and management of anxiety and depression in HF protocols is highly recommended. Further research is needed to examine the coping mechanisms which might alleviate the psychological distress of patients with HF.

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Author Contributions

YA, SH, FH, TT, MA, NA, AS: conceptualization, data collection, formal analysis, methodology, writing original draft, and

supervision. SH, YA, AM, TT, AS, FH, AR, IA: data collection, formal analysis, validation, review. TT, MA, AR: writing review and editing. SH, YA, IA: investigation, review, and editing. All authors read and approved the final manuscript.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Statement

Our study was approved by the Institutional review board (IRB) of the school of nursing in the University of Jordan of Nursing at the University of Jordan (approval no. 2022\147\121). All patients provided written informed consent prior to enrollment in the study. This study conforms with the principles outlined in the Declaration of Helsinki.

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