



Guest Editor: Prof. Doris SF Yu

Self-care among older Chinese people with chronic heart failure: the roles of cognitive and psychosocial characteristics

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Chronic heart failure (CHF) is a complex clinical syndrome resulting from inefficient myocardial pumping, and is characterised by a typical progressively deteriorating trajectory punctuated by serious episodes of acute disease decompensation.^[1] High prevalence of hospital admission has been reported.^[2] However, around 40% of hospital admissions was avoidable if patients demonstrate consistent self-care.^[3,4]

Research in the last decade identified various barriers at the patient-, provider- and system-level for effective self-care.^[5] Among these barriers, those at the patient-level are most complicated. Apart from lacking of knowledge and resources, cognitive and psychosocial factors such as illness perception, mood status, self-esteem, sense of control, etc., also influence ones' self-care decision making process and behaviors. Previous research mainly adopted quantitative approach to understand the nature and the strengths of associations between patient-level factors and self-care,^[6,7] least in-depth exploration has been done to reveal the complexity about how and why these factors shape self-care.

The qualitative study was to explore how cognitive and psychosocial characteristics of the HF patients affect their self-care. Cognitive characteristics referred but not limited to health beliefs and knowledge whereas psychosocial characteristics referred to self-confidence, self-esteem, mood status, social support, satisfaction with professional care, etc.

A purposive sample of 30 HF patients was recruited from the cardiology out-patient clinics of a regional hospital in Hong Kong. Eligible participants were: (1) diagnosed by a cardiologist as having HF for at least six months; (2) with New York Heart Association (NYHA) Class II–IV symptoms; (3) Chinese ethnicity, and (4) able to communicate. Sample variation in socio-demographic and clinical profiles

was maximized. A sample size of 30 was recommended as being able to reach data saturation.^[8]

Ethics approval was obtained from the concerned ethics committee. By record review and symptom assessment, the research assistant identified and invited eligible patients to participate in an individual interview in the patients' home in their preferred time. An interview guide (Table 1) was used to guide the semi-structure interview. The research assistant conducted all the interviews, with each lasted from around 45–60 min. With the participants' consent, the interviews were audio-taped and transcribed verbatim to facilitate coding. The two authors then analyzed the data using content analysis methods.^[9] Cross-participant analysis was undertaken to compare and contrast between the datasets. Data credibility was maintained by audiotape recording all interviews, proofreading the transcribed verbatim, conducting an audit trail, and periodic debriefing with the research team.^[9]

A total of 30 patients were interviewed with 17 of them were male (age, 77.2 ± 5.6 years). About 93% of them were at NYHA Class II and III. The mean duration of being diagnosed with HF was around 3.5 ± 1.7 years. By using content analysis, three major categories were identified to illustrate how cognitive and psychosocial characteristics of the participants influence their self-care.

The first category was cognitive characteristics which predispose effective self-care. It describes how patients' self-care knowledge and awareness to cues to action influenced self-care. For self-care knowledge, the majority of the patients knew that HF management required lifestyle modification, self-monitoring and medication compliance. However, lack of knowledge about how to execute such self-care predisposes to poor disease management. In particular, patients had poor understanding on how to calculate the total fluid intake and determine the sodium content in diet. Mis-

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Table 1. Interview questions and probes.

Interview questions	Probes
Please tell me how well you understand your HF condition.	
What are you doing to manage your CHF condition?	Medication management; Lifestyle modification; Symptom monitoring and responses
How well have you been able to manage your CHF? Please explain.	Medication management; Lifestyle modification; Symptom monitoring and responses
How did your mood status affect the way you manage CHF? Why?	Anxiety, depressed mood Worry
How would you decide to follow the advice from health care professionals in managing HF? Why?	Beliefs on health and illness; Concordance with individual preference; Perceived relevance to disease management,
Under what circumstances that you would become more enthusiastic to manage your CHF condition? Why?	Mood status, Social support, Social relationship Confidence on oneself
Under what circumstances that you tend to give up or less keen to manage your CHF condition? Why?	Mood status, Social support, Social relationship Confidence on oneself
How would you comment on your confidence to manage CHF? What makes you said that?	
How would you describe yourself as a person? How this would affect the way you live with CHF?	Self-esteem, social roles

CHF: chronic heart failure; HF: heart failure.

conceptions were common and they regarded low sodium food as equivalent to low salt intake. They mentioned the use of fish sauces as salt substitute and erroneously believed that the salt content in food could be risen off by water. Lacking of knowledge about the rationales for implementing self-care also led to more errors in disease management. For example, the patients thought that the prescribed fluid restriction was important to control the body weight. They purposefully drank more water before meal in order to reduce dietary intake for better weight control. As for awareness to bodily cues, effective self-care depends on whether the participants were aware of the early symptoms of disease deterioration such as increased shortness of breath, chest discomfort, edema and fatigue. Participants who correctly interpreted those symptoms reacted more promptly by adjusting their activity level and fluid intake according to the symptom severity and keep monitoring the bodily response to the self-care actions. On the other hand, patients

who were less conscious about such bodily changes demonstrated least control over the disease. They perceived that HF symptom exacerbation was inevitable and hospital admission was the only resolving method.

The second category is psychological influences of self-care. This category refers to the roles of psychological status in influencing self-care among the participants. In particular, participants who reported a negative perception of self (including low self-care confidence and self-esteem) demonstrated poorer self care. On the other hand, those who reported high level of psychological distress resulting from perceived threats associated with HF placed more effort to prevent disease exacerbation.

For self-care confidence, it was usually compromised by the challenges in coping with HF. In particular, patients reported a lack of confidence to monitor their own fluid status, as they could not read the bath scales or band down to palpate for the ankle edema. The medication regime was complicated by poly-pharmacy. The difficulty in performing the diuretic-titration according to the symptom level also increased their reluctance to follow the regimen. Besides, their feeling of powerlessness to manage the dyspnea attack rendered them to seek immediate hospital admission without carrying out any compensatory self-care actions. On the other hand, for those participants who presented with higher confidence to manage HF, they were eager to try out alternatives (e.g., using pill boxes to manage the medications, going to the community elderly center to measure body weight) to address the challenges in performing self-care. Their successful experience in controlling the symptoms has, in turn, encouraged them to better integrate self-care to everyday life.

Self-esteem represents another aspect that perception of self which influenced self-care among HF patients. Physical dependence was identified as the key characteristic which impairs their self-esteem. They reported that activity intolerance and fatigue resulting from HF had greatly limited their independency. The patients reported the sense of uselessness and described themselves as a burden to the family members. Their perception about nothing could be done to improve the disease decreased their motivation to participate in self-care. What they did was just to tolerate the symptoms without causing additional problems to their family members. On the other hand, patients who perceived themselves as competent to follow doctors' advice and manage the medications were proud of their own functional abilities at an advanced age. Such sense of competence renders them to be more engaging in self-care.

Another psychological characteristic which influences

self-care is psychological distress resulting from perceived health threats and symptom experience. The health threat was mainly resulted from the previous experience of cardiac decompensation, during which high level of dyspnea and other distressing symptoms aroused negative emotion such as anxiety and frustration to the patients. Such negative emotional experience, instead of hindering self-care, rendered patients to be more conscious about how to prevent disease deterioration. They were very keen to incorporate dietary modification, fluid restriction and medication regimen into everyday life. They commented that it was very worthwhile to tradeoff between lifestyle restrictions with the dreadful experience of symptom attack.

The last category is the influence from social environment. It describes the contextual characteristics which directly enabled effective self-care among CHF patients. These characteristics include social support from family and neighbor as well as support from health care professionals.

Social support from families and neighbor was found to have contradictory influences on self-care. On one hand, tangible support from family members and neighbor offered the patients with great assistance in managing the medications, monitoring blood pressure, and seeking medical care during disease exacerbation. Encouragement and reassurance from family members was also important to enhance the patients' mood status. Nevertheless, a good family support can also be a disabling factor of self-care under the influence of cultural values including collectivism, reciprocity and familism. Patients who had good family support expressed more concern about causing worry or inconvenience to their family members. This led to inaction when they first developed symptom exacerbation during the night time. They also denied the need to take a low salt diet in order to prevent disturbing the dining menu of the families.

Support from health care professionals was crucial to enable effective self-care. For those who had been referred to the community nurses and nutritionist, they commented that such services were effective to help them to tailor the health information to their individualized situation (e.g., environment, resources, and preference). They had better understanding on how to manage the disease. On the other hand, for those who just received regular follow-up from the specialist clinic, they did not satisfy with the health care services, as the consultation time was too short for them to seek clarification on disease management. They also need to wait for a long time (around four months) for the next medical consultation. They emphasized that they had no idea about how to implement the prescribed lifestyle modification and symptom monitoring.

This is the first study to conduct an in-depth exploration

on how and why cognitive and psychosocial characteristics affecting self-care of HF patients. Self-care has been described as a naturalistic decision-making process enabling an individual to engage in activities to maintain the health, detect early symptoms of disease deterioration and respond promptly and appropriately.^[10]

Findings of this study indicated that this self-care decision-making process is shaped by a complex interplay of cognitive and psychosocial characteristics. This result echoes with the findings of a meta-synthesis of qualitative study in which self-care knowledge, symptom interpretation, psychological distress, family and professional support were identified as factors influencing self-care.^[11] Our study adds new perspectives to explain such relationships and also highlights the role of perception of self and cultural values in shaping self-care. In line with this, several implications on service development have to be noted.

Firstly, our study indicated that a clear understanding of the relationship between HF and the symptom manifestation as well as the rationales behind the lifestyle recommendation is important to prevent misconception and erroneously self-care behaviors. Interactive teaching with picture illustration would be effective to enhance the patients' understanding.^[12] This is especially true, as previous studies have consistently indicated that HF patients perceived the physicians' self-care instructions differently and resulted in unable to apply the self-care action in daily life.^[13,14] Our findings also indicated that effective self-care requires patients to exercise higher cognitive function in correctly attribute the bodily cues to HF symptoms. Incorporating case scenarios to allow patients to practice symptom interpretation has been found to be effective in developing this higher cognitive skill.^[12]

Secondly, promoting effective self-care needs to address the psychological needs of HF patients. In consistent with previous studies,^[15,16] we found that patients with high level of self-care confidence were eager to try out different methods to overcome the physical and cognitive barriers to manage the complicated treatment regimen and disease monitoring. Besides, maintaining their self-esteem is important to secure their motivation and commitment to maintain health and respond to disease deterioration. All these imply intervention to improve self-care of HF patients need to address their individualized needs, with efforts being placed on addressing their psychological barriers to self-care implementation. Using an empowerment-based approach which focuses on developing patients' competence in self-care behaviors through building their resources for goal attainment would be an appropriate approach to enhance their self-efficacy. Health care professional also needs to

mobilize the family support for the patients. Besides, helping the patients to identify meaning in life may also be effective to enhance their self-concept and encourage more active engagement in self-care.^[17]

Thirdly, this study also identified the role of cultural values in shaping the self-care of HF patients. Chinese society is dominated by the cultural values of familism and collectivism. Familism refers to strong feelings of belonging, responsibility and concern for one's family with self-sacrificing,^[18] whereas collectivism emphasises the benefits and needs of the collectives rather than those of individuals.^[19] On one hand, such cultural values may explain the high level of family support. On the other hand, HF patients with such cultural orientation would be more hesitant to seek help from family members. This is because they place family interests on top of their own health needs. Assessing family environment in promoting self-care among HF patients need to go beyond social support to family dynamic. Involving family members in self-care education also empowers them to take up a more active role in disease management.

In conclusion, this study provided detailed information to delineate how and why cognitive and psychosocial factors shape the self-care among HF patients. The findings provide insights on developing more thorough strategies to address their self-care needs.

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