The effect of activities of daily living on the self-care agency of patients in a cardiovascular surgery clinic

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Cardiovascular diseases are the leading cause of death globally, and nurses have a crucial role in informing cardiovascular disease patients about their diseases. The aim of the present study was to identify the effect of activities of daily living on the self-care agency of patients in a cardiovascular surgery clinic. This descriptive study was conducted between June 2014 and January 2015 with 180 patients hospitalized in the cardiovascular surgery clinic of a university hospital in the province of Erzincan in the Eastern region of Turkey. The data of the study were gathered using a descriptive form designed by the authors, Katz index of activities of daily living scale (ADLS), Lawton-Brody instrumental activities of daily living scale (IADLS), and self-care agency scale (SCAS). The data were processed using computer software and assessed using percentages, means, t test for independent groups, one-way analysis of variance, and correlation analysis tests. It was found that 50.6% of the patients were ≥65 years, 66.1% were male, 46.1% perceived their health status as moderate, and 35.6% had previously had heart attacks. The patients' mean ADLS score was 16.39 ± 2.30, their mean IADLS score was 19.23 ± 4.16, and their mean SCAS score was 92.11 ± 18.81. The patients' education level and perceived health were found to affect their mean SCAS scores. In addition, there was a positive correlation between the patients' ADLS and IADLS scores and their SCAS score. It was also noted that patients were more independent on the ADL and IADL, and that their self-care agency was higher. (J Vasc Nurs 2017;35:78-85)

INTRODUCTION

Developments in the 20th century such as advanced educational and income levels, changes in eating habits, and control over infectious diseases have resulted in increased life expectancy. Although longer lifespans are a positive development, they result in an increased incidence of noninfectious chronic diseases as well. Among those noninfectious chronic diseases, cardiovascular diseases rank first in the cause of death.[1]

It is estimated that cardiovascular diseases will be the number 1 cause of death worldwide in the long run. In 2012, 46.2% of deaths (17.5 million) from noninfectious chronic diseases worldwide were caused by cardiovascular diseases. In addition, it is estimated that deaths caused by cardiovascular diseases will rise to 22.2 million by 2030 (Global Status Report on Noncommunicable Diseases 2014). Death figures compiled by the Turkish Statistical Institute indicate that the rate of total deaths from heart disease has been increasing. Heart diseases rank first in all causes of death, ranging from 40% in 1989, 45% in 1993, and 40% in 2009 to 40.4% in 2014.[1] These diseases lead to dependence in patients' activities of daily living and affect their self-care behaviors negatively.

Activities of daily living include activities that accompany complex living functions, such as maintaining a secure environment, personal cleansing, and dressing. Each activity has different dimensions.[2] Some studies conducted with people with different chronic diseases have indicated that most of the patients were independent in both maintaining activities of daily living and performing instrumental activities of daily living,[3–5] whereas others have reported that the patients were semidependent or dependent in those activities.[6–8] Patients who find it difficult to perform activities of daily living may have difficulties performing self-care activities as well.

Self-care is the individual's fulfillment of the tasks necessary for protecting their lives, health, and wellbeing individually and on their own.[9] The aim of self-care, which is a universal term that means to maintain and promote health, is to enable individuals to take full responsibility for their own health.[10,11] Self-care is also defined as activities initiated and realized by individuals on their own to maintain life, health, and wellbeing; these behaviors are learned by personal curiosity, education, and experience.[12,13]

Studies of patients with heart failure, which is a cardiovascular disease, have reported that the patients experienced difficulties in performing activities of daily living; had economic, sexual, and psychosocial problems; and encountered problems particularly in their professional lives and in their relationships with family and friends. Heart failure may produce both individual and socioeconomic problems by causing frequent hospitalization and loss of labor.[14–16] Patients in such circumstances become dependent in their activities of daily living, which further impairs their self-care agency.

Nurses who provide care to patients with cardiovascular diseases should perform multiple assessments of their activities of daily living and self-care agency, such as health perception and coping status, eating, metabolic status and elimination, exercise, sleep, rest, role perception, sexuality, stress status, and religious and cultural values, so that they can support patients in taking all the responsibilities about their own health and self-care.[17] Negative developments in their activities of daily living and self-care behaviors are often seen in heart disease patients after surgery. By making use of their counseling and training roles, nurses can encourage cardiac patients to perform activities of daily living independently and thus help produce positive developments in their self-care activities. As such, the present study was conducted to identify the effect of activities of daily living on the self-care agency of patients in a cardiovascular surgery clinic.

METHODS

Study design, sample, and setting

This descriptive study was conducted between June 2014 and January 2015 with postoperative patients (the patients underwent open heart bypass, aortic valve, mitral valve, ascending aortic aneurism, varicosity, embolectomy, fistula, or fem-pop bypass surgery) in the cardiovascular surgery clinic of Mengücek Gazi Training and Research Hospital in the province of Erzincan in the Eastern region of Turkey. No sampling was conducted; 180 patients who volunteered to participate, were self-sufficient, had no disability and/or communication problems, were in the postoperative period, and were considered to be independent or semi-independent in maintaining activities of daily living were recruited for the study.

Instruments

The following instruments were used:

Descriptive form. The form, which was designed by the authors after conducting a comprehensive review of the relevant literature, included 13 questions about sociodemographic characteristics and diseases. The sociodemographic characteristics included seven variables: age, sex, education, marital status, employment status, income status, and partners. The disease variables were composed of six statements: duration of the disease; whether the patient had previously had a heart attack (status of previous heart attacks); whether the patient had another disease other than heart attack (presence of other chronic diseases); status of health perception; status of regular medicine use; and whether the patient had someone to help when needed (presence of someone to help when needed).

Katz index of activities of daily living scale. The scale, which was developed by Katz et al, measures the degree of dependence in such self-care activities as feeding, dressing, bathing, transferring, continence, and toileting.[18] If individuals perform their activities of daily living independently, they receive a score of 3 points; if they perform their activities of daily living with assistance, they receive a score 2 points; and if they cannot perform their activities of daily living at all, they receive a score 1 point. A score of 0–6 points on the Activities of Daily Living Scale (ADLS) indicates dependence; a score of 7–12 points indicates semi-dependence; and a score of 13–18 points

indicates independence.[18,19] In the present study, the ADLS Cronbach alpha value was found to be 0.81.

Lawton-Brody instrumental activities of daily living scale. The Lawton-Brody instrumental activities of daily living scale (IADLS) consists of such instrumental activities of daily living as ability to use a telephone, food preparation, shopping, housekeeping, laundry, mode of transportation, responsibility for own medications, and ability to handle finances. If individuals perform their instrumental activities of daily living independently, they receive a score of 3 points; if they perform their instrumental activities of daily living with assistance, they receive a score of 2 points; and if they cannot perform their instrumental activities of daily living at all, they receive a score of 1 point. A score of 0–8 points on the IADLS indicates dependence; a score of 9–16 points indicates semi-dependence; and a score of 17–24 points indicates independence.[18,19] In the present study, the IADLS Cronbach alpha value was found to be 0.83.

Self-care agency scale. The self-care agency scale (SCAS), which is used to measure an individual's ability to perform self-care, or self-care agency, was designed by Kearney and Fleischer in 1979.[20] The scale was adapted by Nahçıvan for adolescents in Turkish society in 1993.[21] Each item in the scale is rated from 0 to 4. A score of 0 points is given to the response "It does not defines me at all"; a score of 1 point is given to "It hardly defines me"; a score of 2 points is given to "I have no idea"; a score of 3 points is given to "It defines me a little"; and a score of 4 points is given to "It defines me." In the Turkish version of the scale, eight items (the third, sixth, ninth, 13th, 19th, 22nd, 26th, and 31st items) are negatively assessed and are reverse scored. The scale, with 35 items, focuses on the status of one's self-care activities and self-assessment. The highest possible score on the scale is 140; a high score indicates that the individual is independent and competent in performing self-care.[20,21] A score near 0 indicates a low self-care agency score and a score near 140 indicates a high self-care agency score. Nahcivan stated that the Cronbach alpha value was 0.89.[21] In the present study, the Cronbach alpha value was found to be 0.86.

Statistical analysis

Assessment of the data obtained from the study was conducted with the Statistical Package for Social Sciences (SPSS) 15.0 package program using statistical analyses. Descriptive statistics were demonstrated as numbers, percentages, and arithmetic means. A Shapiro–Wilk analysis was conducted to determine whether the data followed a normal distribution, and it was found that the data followed a normal distribution. Therefore, parametric analyses were performed. *t* test, ANOVA, and correlation analysis tests were conducted for the independent groups. The accepted level of significance for all analyses was $P < .05$.

Ethical considerations

Approval to undertake this study was obtained from the Ethics Committee of Erzincan University, and official permission was obtained from hospital management. Before the study was initiated, the participants were informed of the aim, duration, and implementation phases of the study, and their oral informed consent was obtained (principle of informed consent). It was also explained that their participation was voluntary.