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Sebahat Atalıkoğlu Başkan
*Nursing Department, Faculty of Health Sciences, Erzincan Binali Yıldırım University, Erzincan 24000, Turkey*, atalikoglu_sebahat@hotmail.com

Sevinç Kose Tuncer
*Nursing Department, Faculty of Health Sciences, Erzincan Binali Yıldırım University, Erzincan 24000, Turkey*, svnckose1024@hotmail.com

Demet Güneş
*Nursing Department, Faculty of Health Sciences, Erzincan Binali Yıldırım University, Erzincan 24000, Turkey*

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# Evaluation of Self-Confidence in Women with Chronic Disease

Sebahat Atalıkoğlu Başkan*, Sevinç Kose Tuncer, Demet Güneş

Nursing Department, Faculty of Health Sciences, Erzincan Binali Yıldırım University, Erzincan 24000, Turkey

**Abstract**

**Background**: Self-confidence, which is an important emotional need in women, affects women's quality of life. This research was conducted to evaluate the self-confidence of women with chronic diseases.

**Methods**: This study was conducted at the internal medicine clinic of Erzincan Mengücek Gazi Training and Research Hospital in Turkey between August 2019 and June 2020. The sample consisted of 339 female patients with chronic diseases who agreed to participate in this study. Data were collected through face-to-face interviews using information form and the Women's Self-Confidence Scale.

**Results**: The mean total score of the participants was 136.40 ± 24.92. Scores on the self-confidence scale significantly differed in accordance with the women's age, body mass index, educational status, type of family, place of residence, number of children, self-care, history of smoking, allocation of time-to-herself, activity, perceived health status, presence of chronic obstructive pulmonary disease and other chronic diseases, and information received about the disease ($p < 0.05$).

**Conclusions**: Women with chronic diseases had a moderate level of self-esteem. Self-confidence is a person's belief that they will perform a particular activity successfully and feel valued. People with high self-confidence are likely to be compatible with themselves through accumulating positive thoughts and feelings about themselves. Therefore, increasing the self-confidence of women with chronic diseases is important.

**Keywords:** chronic disease, self-confidence, women

## INTRODUCTION

Chronic diseases may disrupt an individual's health, psychological, and social life and require long-term treatment and care.[1] As the incidence and prevalence of chronic diseases increase in an aging population, understanding preventive health services, development of diagnosis and treatment methods with technological advancements, and prolonging life expectancy becomes important. The World Health Organization defines chronic diseases as "prolonged and slowly progressing diseases" and chronic conditions as "health problems that require care for several years or decades."[2] Chronic diseases, also known as non-communicable diseases, include cardiovascular diseases (heart attack and stroke), cancers, chronic respiratory diseases (chronic obstructive pulmonary disease (COPD) and asthma), and diabetes.[3] Changes in lifestyle, such as reduced physical activity and changes in eating habits, have increased the prevalence of chronic diseases.[4,5] Approximately two-thirds of the 56 million deaths worldwide are due to non-communicable diseases, such as cardiovascular diseases, cancer, and chronic airway disease. In Turkey, 88% of the deaths in 2017 were due to chronic diseases. Deaths due to chronic diseases are estimated to increase to 52 million in 2030.[6]

Chronic diseases may negatively affect physical, social, and mental health.[1] People with chronic diseases experience problems, such as restricted daily life activities, relationship roles and body image changes, ineffective coping, death anxiety, and decreased self-confidence.[7] In a study conducted on chronic diseases, it is stated that patients' physical activity is low, and their quality of life is negatively affected.[8] Decreased self-confidence and other problems may also affect an individual's adaptation to diseases.[7] Self-confidence is a belief, rather than being an individual characteristic, that an individual will successfully perform daily life activities.[9] Given that individuals are in constant communication with each other in their work and daily lives, the thoughts of individuals regarding trust and self-confidence should not be ignored.[10] Self-confidence, a fundamental element of human psychology, especially in females, is an important emotional requirement. The lack of self-confidence causes problems, such as adverse effects on the quality of life, feelings of worthlessness, and reduced self-esteem. These problems pose obstacles to the management of chronic diseases in individuals.[11,12] Therefore, activities that support the development of self-confidence in individuals with chronic diseases in treatment plans and ensuring that they adapt to these plans are important.

***Corresponding author:**
Sebahat Atalıkoğlu Başkan
Nursing Department, Faculty of Health Sciences, Erzincan Binali Yıldırım University, Erzincan, Turkeyy
E-mail: atalikoglu_sebahat@hotmail.com

The increase in chronic disease rates constitutes an important public health problem, especially in women's health. The effects of the social determinants of health, such as gender, race, ethnicity, socioeconomic factors, and access to health services, on women's health differ from those of men. The prevalence of COPD among women has been equal to that among men since 2008 due to increased tobacco usage among women. Given that the prevalence of obesity among patients with diabetes is higher in women than in men and blood pressure control is low in women, diseases, such as cardiovascular and stroke, may cause complications in women.[13] In women with breast cancer, cancer diagnosis, treatment, and metastasis can cause anxiety about the future, depression, anger, disappointment, self-change, fear of losing femininity, and decreased self-confidence. In addition, changes in physical appearance, limitations in daily activities and roles, and the inability to accept the disease may cause changes in patients' self-confidence.[14] This research was conducted to evaluate women's self-confidence with chronic diseases.

## METHODS

Approval was obtained from the ethics committee with a date of 07/08/2019 and a number of 08/13. Written permission was obtained from the hospital where this study was conducted. The principles of informed consent, privilege and confidentiality, and the Helsinki Declaration for good clinical practice were fulfilled during data collection for this study. Written informed consent was obtained from the patients participating in the study.

This study was conducted at the internal medicine clinic of a university hospital in Turkey between August 2019 and June 2020 to determine the self-confidence of women with chronic diseases. This hospital was selected because of its large bed capacity in the province where the research was conducted.

The population of this study consisted of women who were treated as inpatients at the hospital's internal medicine clinic during the abovementioned period. The sample of this study comprised 339 female patients who were over 18 years of age, agreed to participate in the study, and had chronic diseases (including comorbid diseases) and were selected from individuals who had been treated as inpatients at the internal medicine clinic since the onset of the study. Participants who were diagnosed with psychiatric disorders and had communication barriers were excluded. The research sample consisted only of people above the age of 18 because participants under 18 years of age in the research require parental consent. Questionnaires were given to the patients by the researcher and filled out by the patients. Only patients with lower literacy were asked the survey questions and subsequently marked by the researcher—the strength of the work *G* was calculated using the Power-3.1.9.2 program. The analysis was applied to 339 people and revealed that the effect size was 0.70710 at $\alpha = 0.05$ level and that the post hoc power of the study was 1.00. The minimum required power value for post hoc analysis was 0.67. In this case, the power was at an acceptable level, and the number of data was sufficient.

The researchers collected data using the face-to-face interview technique, descriptive information form, and the Women's Self-Confidence Scale (WSCS) in-patient rooms. The descriptive data form included age, body mass index (BMI), education and employment status, marital and income status, type of family, place of residence, number of children, practice of self-care, social support, smoking, allocation of time to oneself, performance of regular activities, perceived health status, and questions about chronic illness. The researchers created the questions to investigate whether the specified sociodemographic data would affect self-confidence. The patients verbally replied to questions regarding sociodemographic data.

The scale was developed by Erguntop and Satmis.[9] It is a five-point Likert-type scale comprising 38 items and five subdimensions: satisfaction, social relationships, internal self-confidence, appearance, and performance. In the scale, only items 7, 8, 13, 14, 22, 23, 30, and 31 were scored in reverse. The lowest and highest scores obtained from the scale are 38 and 190, respectively. Given the absence of a cut-off point indicating low or high self-confidence for the scale, evaluation was performed on the basis of whether the mean score was low or high. The same was true for subdimensions. The satisfaction subdimension consists of items for determining a woman's satisfaction with being a woman or her role as a woman. The social relationship subdimension contains items that evaluate women's adaptation to social environments, friendships, and how women feel when communicating with the opposite sex or in social environments. The intrinsic self-confidence subdimension consists of items such as "I trust myself," "I can express myself comfortably," and "I feel inadequate in many aspects." The appearance subdimension consists of items determining how satisfied women are with their appearance. The performance subdimension consists of items such as "I think my capacity is higher than most women," "I can reach my goals," and "I can solve my problems in my own way." The satisfaction, social relationship, inner self-confidence, appearance, and performance, subdimensions had Cronbach's alpha value of 0.77, 0.89, 0.94, 0.78, and 0.98 respectively. The total scale had Cronbach's alpha values of 0.97. In this study, satisfaction, social relations, internal self-confidence, appearance performance subdimensions had Cronbach's alpha value of 0.68, 0.76, 0.84, 0.47, and 0.88. The total scale Cronbach's alpha value was 0.97.

Data were analyzed using SPSS for Windows 25 package. Data analysis was performed to determine frequencies, percentages, minimum and maximum values, mean, and standard deviations. The Mann–Whitney U-test, the Kruskal–Wallis test, independent samples t-test, and ANOVA were used for data analysis. For advanced analysis, the least significant difference test was performed when variances were homogenous, and the Dunnet C test was performed in cases where the data were not homogenous. Here, $p < 0.05$ was considered statistically significant.

## RESULTS

Most of the participants in this study were 65 or older, overweight, married, primary school graduates, and unemployed. Most participants stated that they had medium-level income, that their family type is nuclear, and that they live in city centers. Nearly half of the participants did not engage in regular activities (sports, reading, social activities, or listening to music) and had one or three children; the majority of the participants can do their own personal care, receive social support, do not smoke and have no free time. The majority of the participants rated their perceived health status as moderate.

Table 1 shows the participants' scores on the WSCS and its subscales and Table 2 shows that the mean general and other subscale scores of the WSCS scale, excluding the satisfaction subscale, showed statistically significant differences in accordance with age, educational status, place of residence, number of children, and ability to perform personal care ($p < 0.05$). Further analysis revealed that the 19–39 and 40–64 age groups, those who graduated from high school, those living in the city, those with at most three children, and those who could care for their personal care had high mean self-confidence scores.

No statistically significant difference between the mean scores of the WSCS and its subscales was found in accordance with marital status ($p > 0.05$). The WSCS scores, except for the performance subscale scores, did not differ in terms of the participant's employment status ($p > 0.05$). No significant difference was detected in scores on the total WSCS and subscales, except for the satisfaction subscale score regarding income and social support ($p > 0.05$). BMI and family type resulted in statistically significant differences in the scores for the total WSCS and internal self-confidence and appearance subscales ($p < 0.05$). The scores on other subscales were not different ($p > 0.05$). Advanced analyses revealed that the mean confidence score was high in subjects with nuclear families.

Smoking and performing regular activities resulted in significantly different mean scores on the WSCS and its subscales, except for the satisfaction and appearance subscales ($p < 0.05$). Participants who smoked and performed exercises regularly had higher mean WSCS scores than those who did not. The examination of time allocation revealed significant differences in the scores on the total WSCS and the other subscales, except for the appearance and performance subscales. Those who allocated themselves a few days a week had high self-confidence scores. Regarding perceived health status, significant differences were found in the total WSCS and subscale scores ($p < 0.05$). Women with moderate or good perceived health status had higher self-confidence scores than those with poor perceived health.

Table 3 shows that 66.4% of the participants had hypertension, 6.8% had COPD, 11.5% had chronic renal failure, 13.3% had other chronic diseases (epilepsy, Parkinson's, heart failure, and asthma), and 50.1% had diabetes. In this study, 89.1% of the participants with chronic diseases stated that they complied with the treatment, the majority (69.3%) underwent regular health checks, and 50.7% received training from health professionals for their disease.

In consideration of the presence of COPD, the total WSCS and subscale scores were significant except for the satisfaction, social relations, and appearance subscale scores ($p < 0.05$). Those who did not have COPD had high mean self-confidence scores. When the presence of diabetes was examined, the scores on the total WSCS and subscales, except for the appearance subscale, were not significantly different ($p > 0.05$).

In the presence of hypertension and CKD, the total WSCS and the subscale scores were not statistically significantly different ($p > 0.05$). In the presence of other chronic diseases (epilepsy, Parkinson's disease, heart failure, and asthma), the total WSCS and the subscale scores were not statistically significantly different ($p > 0.05$). In terms of treatment adherence and regular follow-up visits, the total WSCS and the subscale scores, except for the satisfaction subscale scores, were statistically significantly different ($p > 0.05$). In terms of obtaining information about the disease, the total WSCS and the subscale scores, except for the satisfaction subscale scores, were statistically significantly different. Participants with high education levels had high self-confidence scores.

**TABLE 1.** Mean scores of the participants on WSCS and its subscales

| WSCS Subscales | Min–Max | Mean ± SD |
|---|---|---|
| Satisfaction | 2–10 | 7.81 ± 2.12 |
| Social | 8–35 | 25.06 ± 5.57 |
| Internal Self-Confidence | 11–55 | 39.52 ± 8.18 |
| Appearance | 4–20 | 13.91 ± 3.17 |
| Performance | 14–70 | 50.08 ± 10.61 |
| Total WSCS | 42–190 | 136.40 ± 24.92 |

**TABLE 1.** Distribution of the mean and standard deviation (Mean ± SD) total WSCS and subscale scores in accordance with demographic characteristics

| Features of the participants | N (%) | Satisfaction | Social relationship | Internal confidence | Appearance | Performance | WSCS total |
|---|---|---|---|---|---|---|---|
| **Age** | | | | | | | |
| 19–39 | 31 (9.1) | 8.09 ± 2.34 | 27.03 ± 5.64 | 42.48 ± 7.70 | 14.41 ± 3.62 | 53.88 ± 10.17 | 145.87 ± 23.62 |
| 40–64 | 132 (38.9) | 8.00 ± 2.02 | 26.78 ± 5.19 | 42.23 ± 6.82 | 14.55 ± 3.17 | 53.46 ± 9.33 | 145.05 ± 21.60 |
| 65–85 | 176 (51.9) | 7.61 ± 2.15 | 23.42 ± 5.36 | 36.97 ± 8.41 | 13.34 ± 2.99 | 46.88 ± 10.64 | 128.24 ± 24.81 |
| *p* | | 0.210 | **0.000**[a] | **0.000**[a] | **0.002**[a] | **0.000**[a] | **0.000** |
| **BMI** | | | | | | | |
| Underweight | 7 (2.1) | 7.57 ± 2.07 | 21.14 ± 6.51 | 30.28 ± 11.05 | 12.42 ± 3.10 | 41.71 ± 12.44 | 113.14 ± 30.85 |
| Normal weight | 102 (30.1) | 7.58 ± 2.21 | 24.20 ± 5.14 | 37.58 ± 7.84 | 13.21 ± 3.01 | 48.81 ± 10.90 | 131.41 ± 23.91 |
| Overweight | 139 (41.0) | 7.74 ± 2.13 | 25.71 ± 5.49 | 40.56 ± 8.21 | 14.17 ± 3.26 | 50.48 ± 10.81 | 138.69 ± 25.41 |
| Obese | 67 (19.8) | 8.38 ± 1.85 | 25.38 ± 5.95 | 41.01 ± 6.93 | 14.25 ± 3.04 | 51.86 ± 8.55 | 140.91 ± 21.02 |
| Morbid obese | 24 (7.1) | 7.66 ± 2.31 | 25.12 ± 5.57 | 40.29 ± 9.15 | 14.79 ± 3.27 | 50.66 ± 11.96 | 138.54 ± 29.25 |
| *p* | | 0.133 | 0.790 | **0.003**[b] | **0.039**[b] | 0.180 | **0.013**[b] |
| **Education status** | | | | | | | |
| Illiterate | 122 (36.0) | 7.73 ± 2.13 | 23.23 ± 5.21 | 37.42 ± 7.62 | 13.40 ± 2.77 | 47.28 ± 9.04 | 129.09 ± 21.79 |
| Literate | 49 (14.5) | 7.44 ± 2.44 | 25.02 ± 5.51 | 38.91 ± 9.35 | 13.61 ± 3.67 | 49.28 ± 11.93 | 134.28 ± 29.58 |
| Primary school | 137 (40.4) | 8.04 ± 1.93 | 25.91 ± 5.36 | 40.54 ± 7.84 | 14.43 ± 3.19 | 51.14 ± 11.07 | 140.07 ± 24.14 |
| High school | 20 (5.9) | 7.90 ± 1.86 | 30.20 ± 5.12 | 46.55 ± 6.64 | 15.10 ± 3.30 | 58.50 ± 7.77 | 158.25 ± 20.96 |
| University | 11 (3.2) | 7.27 ± 3.00 | 25.54 ± 5.53 | 40.18 ± 7.25 | 12.18 ± 2.99 | 56.18 ± 7.52 | 141.36 ± 21.09 |
| *p* | | 0.414 | **0.000**[a] | **0.000**[a] | **0.010**[a] | **0.000**[a] | **0.000**[a] |
| **Marital Status** | | | | | | | |
| Married | 280 (82.6) | 7.86 ± 2.05 | 25.16 ± 5.53 | 39.78 ± 8.09 | 13.99 ± 3.16 | 50.16 ± 10.62 | 136.97 ± 24.81 |
| Single | 59 (17.4) | 7.57 ± 2.41 | 24.59 ± 5.77 | 38.32 ± 8.59 | 13.50 ± 3.20 | 49.69 ± 40.68 | 133.69 ± 25.48 |
| *p* | | 0.596 | 0.406 | 0.133 | 0.133 | 0.696 | 0.271 |
| **Employment status** | | | | | | | |
| Employed | 22 (6.5) | 7.00 ± 2.28 | 25.18 ± 5.50 | 40.81 ± 7.22 | 14.86 ± 2.99 | 52.81 ± 9.28 | 140.68 ± 22.10 |
| Unemployed | 298 (87.9) | 7.89 ± 2.06 | 25.20 ± 5.61 | 39.64 ± 8.28 | 13.90 ± 3.20 | 50.23 ± 10.63 | 136.87 ± 25.14 |
| Retired | 19 (5.6) | 7.42 ± 2.71 | 22.73 ± 7.71 | 36.21 ± 7.29 | 12.94 ± 2.59 | 44.63 ± 10.41 | 123.94 ± 21.68 |
| *p* | | 0.113 | 0.174 | 0.155 | 0.155 | **0.038**[a] | 0.063 |
| **Income status** | | | | | | | |
| More than expenses | 106 (31.3) | 7.25 ± 2.39 | 24.53 ± 5.81 | 38.43 ± 9.07 | 13.84 ± 3.15 | 49.41 ± 10.66 | 133.49 ± 25.91 |
| Equals expense | 219 (64.6) | 8.10 ± 1.95 | 25.35 ± 5.47 | 39.97 ± 7.27 | 13.88 ± 3.19 | 50.31 ± 10.70 | 137.62 ± 24.65 |
| Less than expenses | 14 (4.1) | 7.57 ± 1.60 | 24.50 ± 5.36 | 40.78 ± 7.84 | 14.85 ± 3.05 | 51.57 ± 9.24 | 139.28 ± 20.83 |
| *p* | | **0.003**[a] | 0.435 | 0.237 | 0.522 | 0.672 | 0.340 |
| **Family type** | | | | | | | |
| Nuclear family | 216 (63.7) | 7.85 ± 2.12 | 25.53 ± 5.43 | 40.31 ± 7.85 | 14.20 ± 3.25 | 50.91 ± 10.10 | 138.82 ± 24.14 |
| Extended family | 97 (28.6) | 7.76 ± 2.07 | 24.18 ± 5.57 | 38.50 ± 8.05 | 13.59 ± 2.92 | 48.85 ± 11.23 | 132.90 ± 24.78 |
| Separated family | 26 (7.7) | 7.65 ± 2.38 | 23.38 ± 6.42 | 36.84 ± 10.48 | 12.65 ± 3.12 | 47.76 ± 11.99 | 129.30 ± 29.57 |
| *p* | | 0.866 | 0.114 | **0.043**[a] | **0.032**[a] | 0.145 | **0.048**[a] |

**TABLE 1.** Continued

| Features of the participants | N (%) | Satisfaction | Social relationship | Internal confidence | Appearance | Performance | WSCS total |
|---|---|---|---|---|---|---|---|
| **Place of Residence** | | | | | | | |
| Village | 82 (24.2) | 7.62 ± 2.01 | 23.51 ± 4.87 | 37.60 ± 7.52 | 13.06 ± 2.79 | 47.30 ± 9.95 | 129.10 ± 21.91 |
| Town | 77 (22.7) | 7.58 ± 2.27 | 23.84 ± 5.46 | 37.62 ± 8.59 | 13.55 ± 3.02 | 48.51 ± 10.88 | 131.12 ± 26.23 |
| City | 180 (53.1) | 8.00 ± 2.10 | 26.28 ± 5.66 | 41.21 ± 7.97 | 14.45 ± 3.30 | 52.02 ± 10.46 | 141.97 ± 24.41 |
| *p* | | 0.229 | **0.000**[a] | **0.000**[a] | **0.002**[a] | **0.001**[a] | **0.000**[a] |
| **Number of children** | | | | | | | |
| 1–3 | 150 (44.2) | 7.94 ± 2.03 | 25.92 ± 5.61 | 40.66 ± 8.45 | 14.22 ± 3.54 | 51.48 ± 10.95 | 140.22 ± 26.20 |
| 4–6 | 129 (38.1) | 7.72 ± 2.16 | 24.19 ± 5.29 | 38.01 ± 8.07 | 13.74 ± 2.86 | 48.33 ± 10.13 | 132.00 ± 23.62 |
| 7–12 | 23 (6.8) | 7.69 ± 2.26 | 23.08 ± 6.14 | 38.13 ± 7.87 | 12.39 ± 2.38 | 47.95 ± 10.88 | 129.26 ± 25.26 |
| *p* | | 0.655 | **0.009**[a] | **0.022**[a] | **0.033**[a] | **0.033**[a] | **0.010**[a] |
| **Able to make personal care** | | | | | | | |
| Yes | 211 (62.2) | 7.93 ± 2.15 | 26.54 ± 5.31 | 42.02 ± 7.59 | 14.46 ± 3.15 | 52.12 ± 10.47 | 143.09 ± 24.03 |
| No | 62 (18.3) | 7.37 ± 2.08 | 22.51 ± 4.93 | 34.79 ± 8.40 | 13.12 ± 2.84 | 47.08 ± 10.91 | 124.88 ± 24.25 |
| Partially | 66 (19.5) | 7.83 ± 2.03 | 22.72 ± 5.35 | 35.98 ± 6.46 | 12.87 ± 3.17 | 46.37 ± 9.15 | 125.80 ± 20.63 |
| *p* | | 0.181 | **0.000**[a] | **0.000**[a] | **0.000**[a] | **0.000**[a] | **0.000**[a] |
| **Social support** | | | | | | | |
| Yes | 290 (85.5) | 7.96 ± 2.06 | 25.15 ± 5.50 | 39.82 ± 7.96 | 13.93 ± 3.11 | 50.34 ± 10.49 | 137.22 ± 24.37 |
| No | 24 (7.1) | 6.5 ± 2.24 | 25.33 ± 6.59 | 38.08 ± 10.56 | 13.79 ± 3.86 | 48.16 ± 12.94 | 131.87 ± 32.53 |
| Sometimes | 25 (7.4) | 7.36 ± 2.23 | 23.68 ± 5.41 | 37.52 ± 8.09 | 13.72 ± 3.24 | 48.92 ± 9.80 | 131.20 ± 22.83 |
| *p* | | **0.002**[B] | 0.367 | 0.329 | 0.723 | 0.509 | 0.280 |
| **Smoking** | | | | | | | |
| Yes | 34 (10.0) | 7.17 ± 2.49 | 26.85 ± 6.82 | 44.29 ± 7.92 | 14.14 ± 3.65 | 54.20 ± 11.21 | 146.67 ± 26.07 |
| No | 305 (90.0) | 7.88 ± 2.07 | 24.86 ± 5.39 | 38.99 ± 8.05 | 13.88 ± 3.12 | 49.62 ± 10.46 | 135.25 ± 24.57 |
| *p* | | 0.065 | **0.048**[c] | **0.000**[c] | 0.649 | **0.017**[c] | **0.011**[c] |
| **Time allocation for herself** | | | | | | | |
| Never | 109 (32.2) | 7.46 ± 2.10 | 24.31 ± 5.55 | 37.78 ± 8.72 | 13.87 ± 3.10 | 49.24 ± 11.21 | 132.68 ± 26.22 |
| A few times a month | 59 (17.4) | 7.98 ± 2.00 | 24.45±5.22 | 39.35 ± 7.37 | 13.62 ± 2.91 | 49.77 ± 8.69 | 135.20 ± 19.75 |
| Once a week | 72 (21.2) | 7.61 ± 2.03 | 24.90 ± 5.43 | 39.76 ± 6.75 | 13.63 ± 3.24 | 48.87 ± 8.46 | 134.79 ± 21.50 |
| A few times a week | 99 (29.2) | 8.24 ± 2.22 | 26.36 ± 5.75 | 41.37 ± 8.68 | 14.32 ± 3.34 | 52.07 ± 12.15 | 142.37 ± 27.64 |
| *p* | | **0.046**[a] | **0.043**[a] | **0.018**[a] | 0.444 | 0.163 | **0.035**[a] |
| **Performing activities** | | | | | | | |
| Yes | 91 (26.8) | 7.89 ± 2.15 | 27.01 ± 5.42 | 42.34 ± 7.37 | 14.19 ± 3.61 | 53.56 ± 10.57 | 145.00 ± 23.38 |
| No | 248 (73.2) | 7.78 ± 2.11 | 24.34 ± 5.47 | 38.49 ± 8.24 | 13.80 ± 2.99 | 48.81 ± 10.36 | 133.24 ± 24.77 |
| *p* | | 0.691 | **0.000**[c] | **0.000**[c] | 0.315 | **0.000**[c] | **0.000**[c] |
| **Perceived status of health** | | | | | | | |
| Bad | 130 (38.3) | 7.09 ± 2.51 | 23.56 ± 5.84 | 37.67 ± 9.19 | 13.51 ± 3.25 | 47.61 ± 11.32 | 129.46 ± 26.89 |
| Worse | 154 (45.4) | 8.04 ± 1.72 | 25.65 ± 5.21 | 40.35 ± 7.46 | 13.94 ± 3.01 | 51.21 ± 10.25 | 139.21 ± 23.32 |
| Good | 55 (6.3) | 8.87 ± 1.45 | 26.94 ± 5.11 | 41.58 ± 6.75 | 14.76 ± 3.31 | 52.76 ± 8.72 | 144.92 ± 20.17 |
| *p* | | **0.000**[a] | **0.000**[a] | **0.003**[a] | **0.049**[a] | **0.002**[a] | **0.000**[a] |

Bold values: Results are significant if $p < 0.05$

[a]One-way analysis of variance (ANOVA); [b] Kruskal wallis test

**TABLE 2.** Distribution of total WSCS and subscale scores in accordance with the chronic disease characteristics of the participants (Mean SD)

| Features of the participants | N (%) | Satisfaction | Social relations | Internal self-confidence | Appearance | Performance | WSCS total |
|---|---|---|---|---|---|---|---|
| **COPD** | | | | | | | |
| Yes | 23 (6.8) | 7.56 ± 2.35 | 23.26 ± 5.42 | 34.60 ± 8.22 | 13.34 ± 3.58 | 43.91 ± 11.22 | 122.69 ± 26.15 |
| No | 316 (93.2) | 7.83 ± 2.10 | 25.19 ± 5.57 | 39.88 ± 8.08 | 13.95 ± 3.14 | 50.53 ± 10.44 | 137.39 ± 24.57 |
| *p* | | 0.608 | 0.099 | **0.004**[a] | 0.466 | **0.005**[a] | **0.011**[a] |
| **Hypertension** | | | | | | | |
| Yes | 225 (66.4) | 7.80 ± 2.09 | 25.10 ± 5.42 | 39.35 ± 8.00 | 14.06 ± 3.07 | 49.91 ± 10.29 | 136.23 ± 24.16 |
| No | 114 (33.6) | 7.84 ± 2.19 | 24.98 ± 5.89 | 39.86 ± 8.56 | 13.61 ± 3.34 | 50.42 ± 11.26 | 136.73 ± 26.46 |
| *p* | | 0.720 | 0.991 | 0.455 | 0.283 | 0.699 | 0.735 |
| **Diabetes** | | | | | | | |
| Yes | 170 (50.1) | 7.55 ± 2.28 | 24.54 ± 5.60 | 39.48 ± 8.16 | 13.51 ± 3.08 | 50.05 ± 10.43 | 135.16 ± 24.69 |
| No | 169 (49.9) | 8.07 ± 1.92 | 25.57 ± 5.51 | 39.56 ± 8.24 | 14.30 ± 3.21 | 50.11 ± 10.83 | 137.64 ± 25.16 |
| *p* | | 0.062 | 0.110 | 0.961 | **0.020**[a] | 0.961 | 0.540 |
| **CKD** | | | | | | | |
| Yes | 39 (11.5) | 8.12 ± 1.48 | 25.43 ± 4.98 | 38.79 ± 7.22 | 14.00 ± 3.20 | 48.02 ± 9.95 | 134.38 ± 22.15 |
| No | 300 (88.5) | 7.77 ± 2.19 | 25.01 ± 5.65 | 39.62 ± 8.31 | 13.90 ± 3.17 | 50.35 ± 10.68 | 136.66 ± 25.28 |
| *p* | | 0.194 | 0.657 | 0.553 | 0.853 | 0.198 | 0.592 |
| **Other chronic diseases** | | | | | | | |
| Yes | 45 (13.3) | 7.80 ± 1.94 | 23.93 ± 5.91 | 36.64 ± 9.58 | 13.48 ± 3.21 | 47.75 ± 11.94 | 129.62 ± 28.12 |
| No | 294 (86.7) | 7.81 ± 2.15 | 25.23 ± 5.51 | 39.96 ± 7.88 | 13.97 ± 3.16 | 50.44 ± 10.37 | 137.43 ± 24.28 |
| *p* | | 0.962 | 0.145 | **0.031**[b] | 0.338 | 0.114 | 0.050 |
| **Treatment adherence** | | | | | | | |
| Yes | 302 (89.1) | 7.99 ± 1.94 | 25.14 ± 5.33 | 39.59 ± 7.88 | 13.97 ± 3.10 | 49.99 ± 10.36 | 136.69 ± 23.95 |
| No | 37 (10.9) | 6.37 ± 2.91 | 24.40 ± 7.30 | 38.94 ± 10.48 | 13.43 ± 3.72 | 50.83 ± 12.62 | 134.00 ± 32.03 |
| *p* | | **0.001**[a] | 0.833 | 0.984 | 0.503 | 0.437 | 0.986 |
| **Regular health checks** | | | | | | | |
| Yes | 235 (69.3) | 7.99 ± 2.00 | 25.34 ± 5.39 | 39.79 ± 8.42 | 14.10 ± 3.23 | 50.28 ± 10.91 | 137.51 ± 25.62 |
| No | 104 (30.7) | 7.41 ± 2.33 | 24.42 ± 5.94 | 38.93 ± 7.63 | 13.48 ± 3.00 | 49.62 ± 9.95 | 133.87 ± 23.18 |
| *p* | | **0.030**[c] | 0.161 | 0.374 | 0.097 | 0.596 | 0.215 |
| **Education status regarding the disease** | | | | | | | |
| | 172 (50.7) | 7.81 ± 2.11 | 25.95 ± 5.40 | 40.64 ± 7.89 | 14.36 ± 3.29 | 51.33 ± 10.22 | 140.11 ± 24.34 |
| No | 167 (49.3) | 7.81 ± 2.13 | 24.13 ± 5.61 | 38.37 ± 8.35 | 13.44 ± 2.97 | 48.80 ± 10.88 | 132.57 ± 25.01 |
| *p* | | 0.963 | **0.003**[a] | **0.005**[a] | **0.008**[a] | **0.014**[a] | **0.004**[a] |

Bold values: Results are significant if $p < 0.05$

[a]Mann–Whitney U-test [b] Independent samples t-test.

## DISCUSSION

Individuals with chronic diseases experience many negative emotions as they cope with disease symptoms, treatment limitations, and concerns about the future. These emotions may affect their physical, psychological, and social health. Self-confidence, an effective cognitive–emotional tool for creating psychological well-being, is an important concept for the quality of life of individuals with chronic diseases.[5] The mean self-confidence score of women with chronic diseases was 136.40 ± 24.92, indicating moderate self-confidence. The lowest and highest scores that can be obtained on the scale were 38 and 190, respectively. Given the lack of a cut-off point indicating low or high self-confidence on the scale, evaluation was performed in accordance with the value of the mean score (low or high). The mean self-confidence score of women in this study was consistent with that in previous research.[15] Self-esteem, a concept related to self-confidence, is defined as the degree to which an individual considers herself capable and valuable.[9] People with high self-esteem feel self-confident, have positive feelings about themselves, believe in their competence, and adapt to different situations.[16] A study on women with breast cancer demonstrated that most women have high self-esteem and self-confidence.[14,17] Another work demonstrated that the female gender was positively related to self-confidence.[18]

This study found that self-confidence decreased with increasing age, and the self-confidence levels of the 65–85-year-old group were higher than those of other age groups. Similar results were also found in previous studies.[19] As women with chronic diseases age, their physical, psychological, and cognitive functions decline. As a result, their self-esteem decreases due to the change in their productivity and roles in life.

A relationship was found between the BMI of the participants and self-confidence and the self-confidence of women with first-degree obesity. The results were consistent with the findings obtained in a previous work that reported that obese individuals have high self-confidence.[15] A relationship was found between educational status and self-confidence, given that high school graduates had high average self-confidence scores. Previous studies have discovered that self-confidence increases with academic level.[20] A high educational level enables an individual to develop methods for coping with stressors, take an active role in disease management, have a high socioeconomic status, and have a positive view of life. These characteristics are thought to lead to an increase in self-confidence.

A relationship was found between the place of residence and self-confidence, and those residing in cities had high average self-confidence scores. This finding was consistent with previous results.[15,21,22] Women living in cities have opportunities to participate in social activities, such as exhibitions and courses that affect their development, and have easy access to institutions that provide health services. These opportunities have a positive effect on their self-esteem. A relationship was observed between family type and self-confidence. Specifically, women with nuclear families had a high mean self-confidence score.

Similar to previous studies, a relationship was observed between smoking and women's self-esteem; with women who smoke have high self-confidence.[15,23] In contrast to the present work, previous research found that individuals with low self-esteem tend to smoke.[24] Smokers may have high self-esteem because they think that they manage their distress and emotions by smoking.

The health status perceived by the participants and their self-confidence were related. Those who perceived their health as good had high mean self-confidence scores. Other studies also showed that in women, perceived health status had a positive effect on self-esteem.[25,26] A study on nursing students, the majority of whom were female, found that perceived health status affected self-confidence and that individuals with a high perceived health status had high self-confidence.[27]

The participants' ability to allocate time to themselves and perform regular activities was related to their self-confidence. The mean self-confidence score of those who allocated time to themselves for a few days a week and performed regular activities was high. These findings were similar to previous results, which showed that those who conducted regular activities had significantly high mean self-confidence scores.[15] The participation of individuals in physical activities and self-confidence are positively related, and in female students, low physical activity levels negatively affected self-confidence.[28] Many studies have found that students who frequently participated in social activities had significantly higher self-confidence levels than those who did not[21,22] Previous research has emphasized that social and emotional development can be individuals' primary motivation source.[29] Women who devote time to themselves and regularly engage in activities experience positive effects on their self-esteem because they feel good, think positively, have an improved ability to cope with stress, manage chronic diseases, and are at peace with their bodies. In addition, individuals with low self-esteem may fail to maintain or establish social relationships because they may not be likely to seek social activities.

The presence of COPD was related to the self-confidence of the participants. Specifically, women with COPD had low self-confidence scores. Shortness of breath, which is very common in patients with COPD, was the most important symptom restricting the individual's performance status and daily life activities. Physiological

and psychological symptoms may cause distancing from society, social isolation, fatigue, malaise, and lack of self-confidence.[30] A study found that individuals with COPD who used coping strategies for their disease had high self-confidence.[31] Using oxygen for a long time, limitations on daily life activities, high hospitalization frequencies, not using coping mechanisms, social interaction, and decreased quality of life may cause the individual's self-confidence loss.

The findings showed that the training status of the participants about their chronic illness was related to their self-confidence. Participants who received training had high self-confidence. Individuals with chronic diseases had a negative view of their self and social identity due to long-term hospitalization, treatment and dependence on various drugs or devices, reductions in their ability to control the period they live in and the future, psychiatric comorbidities, decreased social relationships, and physical losses due to diseases.[32] These conditions decrease the self-confidence of individuals. Among health professionals, nurses contribute to the adaptation of patients to their new conditions, the protection of the self-esteem of individuals, and the development of self-confidence by educating individuals with chronic diseases on disease adaptation, hospitalization, and treatment and methods for coping with stress.

This study has the following limitations: It was conducted in a single center, and its sample consisted only of women with limited sociodemographic characteristics and an unequal number of chronic diseases. Multicentered research includes both genders in the sample group, has many samples, and takes sociodemographic characteristics comprehensively.

## CONCLUSIONS

The findings of this work showed that chronically ill women had moderate self-esteem. Their age, BMI, educational status, type of family, place of residence, number of children, ability to perform self-care, smoking, devoting time to themselves, doing activities, perceived health status, having COPD and other chronic diseases, and being educated about their disease affected their level of self-confidence. As health professionals, nurses are recommended to plan the nursing process by evaluating the self-confidence of healthy/sick women, establishing self-confidence-building methods and healthy communication, and increasing the frequency of providing social support systems and training to increase the self-confidence level of women. Such an approach will help healthcare institutions give importance not only to medical treatment but also to psychosocial support programs so that individuals can take responsibility for developing positive attitudes and behaviors toward their health and self-confidence.

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## CONFLICT OF INTEREST

None declared.

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