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The connection between chronic diseases and self-image and self-esteem

Bojana Filej[1,2], Boštjan Žvanut[3], Boris Miha Kaučič[2,4]*

[1]University of Novo mesto Faculty of Health Sciences, Novo Mesto, Slovenia, [2]Alma Mater Europaea - ECM, Maribor, Slovenia, [3]Faculty of Health Sciences, University of Primorska, Izola, Slovenia, [4]College of Nursing in Celje, Celje, Slovenia

ABSTRACT

Introduction: With aging, the incidence of chronic diseases among elderly increases, as about 88% of them have at least one chronic disease, with 50% having at least two. The presence of these diseases influences their self-image and self-esteem. This study aimed to identify the effects of chronic diseases on self-esteem and self-image in the group of elderly people.

Methods: A quantitative research design using a structured questionnaire was employed, where Rosenberg questionnaire with an adapted measurement scale was used for evaluating self-esteem, while Marsh's adjusted Multidimensional Self-Concept Scale was used for evaluating self-image.

Results: The survey involved 51 respondents: 25.5% were male, and 74.5% were female, and the average age of the respondents was 77.0 years. 60.8% of them reported high blood pressure, 31.4% rheumatism, 25.5% osteoporosis, and 23.5% diabetes. "Rheumatism" was statistically significantly associated with two elements of self-esteem: The "athletic self-esteem" and "inclusion," whereas the claim for self-assessment "I can do things as good the majority of other people" was associated to the incidence of "diabetes."

Conclusions: The results of our study indicate that rheumatism, as a most common chronic disease among this population, has a significant impact on some elements of self-image and self-esteem. Further research should focus on the concepts of self-esteem and self-image of this population.

Key words: Rheumatism; diabetes; self-image; self-esteem; elderly

*Corresponding author: Boris Miha Kaučič, College of Nursing in Celje, Mariborska cesta 7, 3000 Celje, and Alma Mater Europaea – ECM, Slovenska ulica 17, 2000 Maribor, Slovenia.
E-mail: miha.kaucic@vzsce.si, miha.kaucic@almamater.si

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INTRODUCTION

Chronic diseases are not curable; they are life-long processes, which are progressing at different speed until the death (1). Due to the increased life expectancy, as much as 88% of the elderly are going to live with at least one chronic disease (2). The projections even show that, until the year 2020, around 50% of

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the population is going to have at least one chronic disease, with almost a half of them having two or more chronic diseases (3). Women are going to live longer with a chronic disease, as their life expectancy is longer (2). In Slovenia, the share of people with a chronic disease is increasing and amounts to 63% of people aged 65–74 years, whereas, among people aged 75–84, this share is more prominent and amounts to 65% (4).

Gabrovec and Zaletel (5) stated that chronic diseases represent the most significant disease burden in Europe and are responsible for 86% of deaths. They also stated that patients with several diseases tend to live less long, are hospitalized more often, have worse quality of life, and use more medication, compared to those with just one chronic disease. When the comorbidity of several chronic diseases is present, it comes to the interaction of different factors, symptoms, and ways of treatment (3). To be able to ensure a higher level of quality of life despite the presence of chronic disease, a change in lifestyle is necessary (6).

Chronic diseases can represent a risk factor for a low self-image, which changes according to the type of disease (7). For the elderly, a decrease in their physical and social self-image is common, and the self-image in the old age is strongly influenced by the medical condition, as the diseases have a negative impact on self-image, whereas health and well-being have a positive impact on it (8).

Self-image is a set of concepts and perceptions that people have about themselves; it is about an individual's experience of oneself (9). It is a dynamic structure, composed of several dimensions that can change (10) concurrently with an individual's aging and maturation (11). It is a global construct, composed of global evaluations of oneself (7). Each person can have several self-images, such as social, academic, physical, and emotional self-image. Self-image is formed in different areas and is influenced by our childhood experiences, our successes, failures, and attitude that our surroundings show toward us. Anyone with a bad self-image is critical toward oneself, is insecure, and does not trust in own abilities (12).

Self-esteem mirrors a critical judgment about the value of oneself. It is a combination of how other people perceive us and of how we perceive their judgments (13). It represents the gap between the actual (present) and ideal image of oneself (14). The more successful and well-known a person is in their environment, the higher is their self-esteem (15). Self-esteem is the ability to cope with life's challenges, whereby the sense of anxiety decreases, and general well-being increases (16). Men and women have different perspectives on self-esteem, which is in men associated with physical appearance, whereas in women it is associated with social behavior (15). It has also been documented that individuals with higher self-esteem achieve better health and well-being than those with lower self-esteem. A decrease in self-esteem can cause a number of health problems, such as depression, anxiety, apathy, and a sense of loneliness (14,15). Pinquart (7) stated that the level of self-esteem differs according to the type of disease, whereas Halit (15) documented the important connection between self-esteem and depression among 50 respondents aged 60 years and above, who lived in homes for the elderly.

Since the data on this topic are scarce in the literature, we aimed to evaluate how chronic diseases among elderly population influence their self-image and self-esteem. We raised two research questions: What is the influence of chronic diseases on self-esteem and how particular chronic diseases influence elements of self-image?

METHODS

This study is designed as a non-experimental, quantitative research, with a structured questionnaire.

Instrument description

The questionnaire consisted of three sets of questions. The first set of the questionnaire consisted of the claims from the adjusted version of the questionnaire "multidimensional self-concept scale" for measuring self-image, by Bracken (17). First, two people translated the questionnaire separately, then compared the translation, and compiled the final version. The final version was adjusted to the older people and consisted of 115 claims. The second set of the questionnaire consisted of 10 claims, used for measuring self-esteem by Rosenberg (18). We modified the measuring scale of the latter questionnaire in

a way that we unified it with the first set of the questionnaire. The respondents have assessed the level of agreement with the claims in both sets of the questionnaire by the five-level Likert scale (1 - I strongly disagree, 2 - I partially disagree, 3 - I neither agree nor disagree, 4 - I partially agree, and 5 - I strongly agree). The last, third set of the questionnaire, involved the questions on demographic data such as gender, age, and level of education.

Population sample

The initial sample included 159 respondents. We excluded 22 incompletely filled-in questionnaires, and all the participants age <65 years. All of the participants gave the informed consent to participate and completed the questionnaire on their own. The final sample, therefore, involved 51 respondents. There were 25.5% males and 74.5% females. The average age of the respondents was 77.0 years (SD 6.2 years). 37.3% of the respondents had primary education, 25.5% secondary (high school), 13.7% higher education or above, whereas 13.7% of the respondents did not finish primary education, and one of the respondents did not answer the question about education.

Research procedures and data processing

The survey was conducted from September 1, 2015, to October 31, 2015, in the broader area of Maribor.

First, we analyzed each claim for measuring self-image, and then, we combined claims according to Batican (19) into 12 groups, which describe physical, intellectual, conditional, artistic, autonomous, holistic, family, moral and social self-image, goals, close relationships, and inclusion. The groups formed in this way were named as the elements of self-image perception and analyzed.

Statistical analysis

We used Microsoft Excel 2010 and IBM SPSS 20.0 to carry out the univariate data analysis (the calculation of frequencies, relative frequencies, average values, and standard deviation), bivariate data analysis (Mann–Whitney test and Spearman correlation coefficient), and multivariate data analysis (analysis of internal compliance).

RESULTS

There were 60.8% of the respondents with high blood pressure, 31.4% with rheumatism, 25.5% with osteoporosis, and 23.5% with diabetes. These diseases were followed by asthma (13.7%), cancer (9.8%), chronic obstructive pulmonary disease (7.8%), depression/anxiety (5.9%), and stroke (3.9%). Only 7.8% of the respondents consider themselves healthy, whereas 27.5% reported other diseases or conditions (e.g., the presence of a chronic wound, motor impairments, neuromuscular disorder, and visual impairment).

There was only weak correlation between the "conditional self-image" and the number of identified diseases (r = –0.461, p = 0.001) (Table 1). The other elements of self-image such as "artistic," "autonomous," and "family self-image" statistically significantly (p < 0.05) correlate with a number of identified diseases but due to the value of the Spearman correlation coefficient belong to the very weak correlations (the value of the coefficient is namely below 0.3).

The presence of rheumatism was statistically significantly related to "conditional self-image" (Mann–Whitney U-test = 168.5; p = 0.023), "artistic self-image" (U-test = 122; p = 0.012), and the element of self-image called "inclusion" (Mann–Whitney U-test = 143; p = 0.043). The respondents

TABLE 1. Correlation between self-image elements and age/number of identified diseases

Self-image elements	Age		Number of identify diseases	
	r	*p*	*r*	*p*
Physical self-image	−0.206	0.146	−0.341	0.014
Intellectual self-image	0.008	0.957	−0.217	0.127
Conditional self-image	0.196	0.169	−0.461	0.001
Artistic self-image	−0.004	0.976	−0.281	0.046
Autonomous self-image	−0.232	0.101	−0.291	0.038
Holistic self-image	−0.120	0.402	−0.130	0.362
Goals	−0.170	0.234	−0.152	0.287
Family self-image	−0.045	0.752	−0.279	0.047
Moral attitude	0.081	0.572	0.057	0.691
Social self-image	−0.197	0.167	−0.242	0.087
Close relationships	−0.163	0.252	−0.242	0.087
Inclusion	−0.288	0.041	−0.293	0.037

Legend: *r* - Spearman correlation coefficient value, *P* - Statistical significance

with rheumatism have assessed the statements that relate to the above-mentioned elements of self-image less well (Figures 1-3). Other diseases were not statistically significantly linked to the respective elements of self-image.

The presence of a particular disease negatively influenced the scores related to self-esteem (Figures 4-6). The results of the Mann–Whitney U-test (U = 158; $P = 0.046$) show that the presence of rheumatism is statistically significantly associated with the responses to the claim "I can do things as good as the majority of other people" (Figure 4). The presence of diabetes is as significantly connected to the above-mentioned claim, which was tested by Mann–Whitney U-test (U = 118.5; $p = 0.013$). Similarly, the diabetes was significantly related to the claim "I am worth as much as the other people" (Figure 6), which was tested by Mann–Whitney U-test (U = 122; $p = 0.012$). Other diseases were not statistically significantly related to any of the claims analyzing self-esteem.

DISCUSSION

With our research, we aimed to analyze the influence of chronic diseases on self-image and self-esteem of the elderly.

The results of our research have shown that the majority of the respondents have high blood

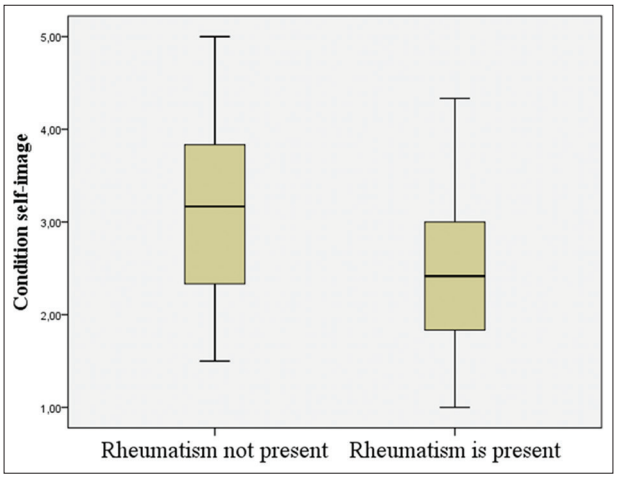

FIGURE 1. The influence of rheumatism on self-image.

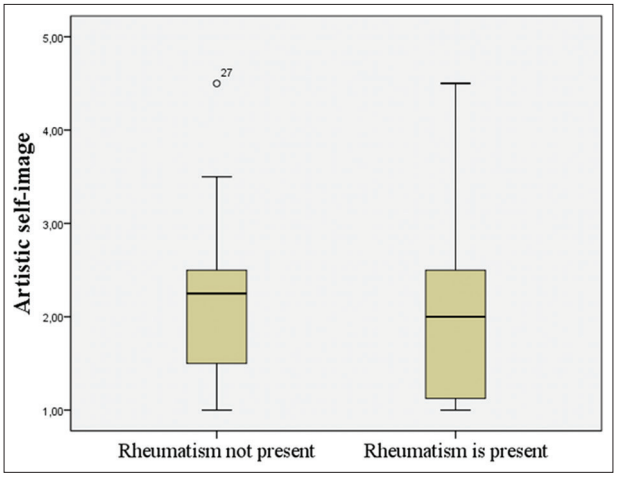

FIGURE 2. The influence of rheumatism on artistic self-image.

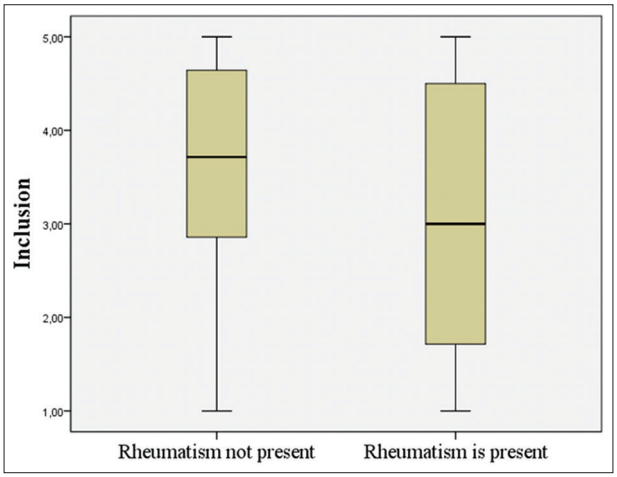

FIGURE 3. The influence of rheumatism on inclusion.

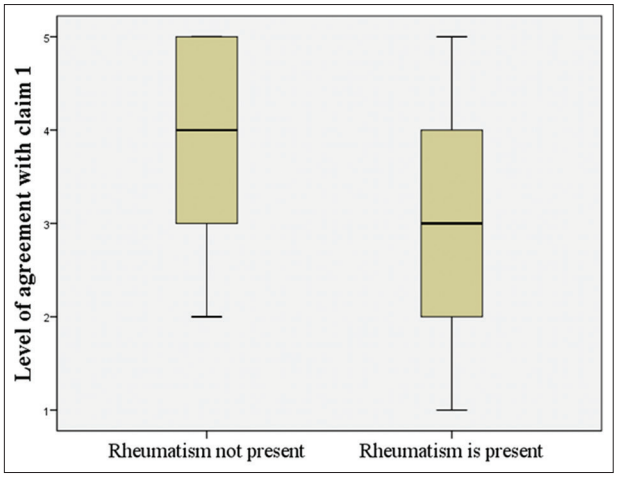

FIGURE 4. The influence of rheumatism on level of agreement with claim 1. Legend: Claim 1 - I am able to do things as good as the majority of people.

pressure, followed by rheumatism, osteoporosis, and diabetes. The results are in accordance with the study by Filej et al. (20), in which of 100 respondents aged 65 years and above, 58% had a high blood pressure, while 31% had rheumatism, whereas Touhy et al. (2) stated that the most common chronic diseases among people aged 65 years and above are arthritis and high blood pressure. They also stated that the presence or absence of certain chronic disease is less important than its influence on the functioning of the individual. The influence can represent a small inconvenience or a significant obstacle that affects daily life activities. High blood pressure, as stated by Potočnik and Lorber (21), can lead to heart attack, stroke, heart failure, kidney failure, and other medical problems and lowers the quality of life.

A number of research shows that the presence of the disease influences the self-image and the self-respect of the elderly (15,16,20,22-25) and that a reduction in self-esteem can cause the emergence of numerous problems, such as depression, anxiety, and a sense of loneliness (14). Living with chronic diseases can be stressful and can have a negative impact on an individual's self-esteem (26).

In our study, we have well researched the influence of the number of the present chronic diseases of each

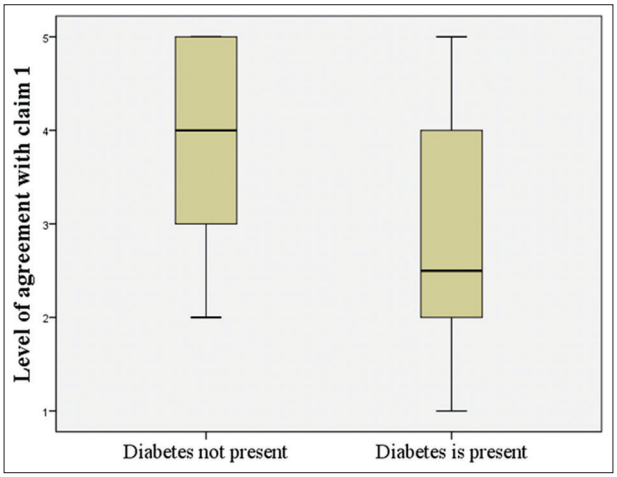

FIGURE 5. The influence of diabetes on level of agreement with claim 1. Legend: Claim 1 - I am able to do things as good as the majority of people.

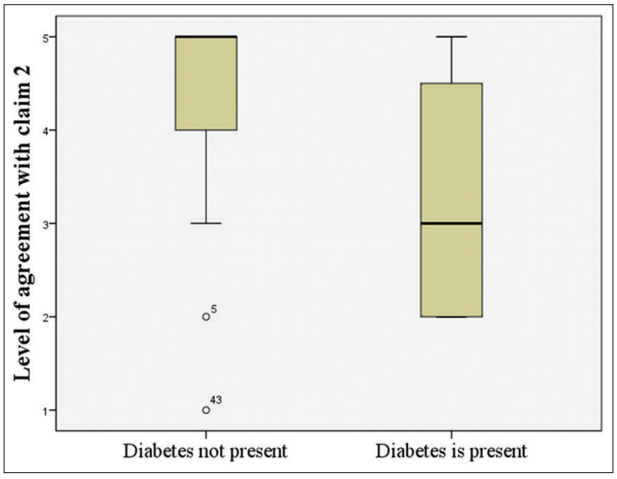

FIGURE 6. The influence of diabetes on level of agreement with claim 2. Legend: Claim 2 - I am worth as much as the other people.

respondent on each element of the self-image and discovered that the number of diseases affects only one element of the self-image that is the so-called "conditional self-image" (Table 1).

We studied the impact of the most common diseases reported by the respondents, such as high blood pressure, rheumatism, osteoporosis, and diabetes on the particular elements of self-image. Our results indicate that osteoporosis and high blood pressure do not influence the self-image, which was also confirmed by Lima et al. (27). We have, however, found that rheumatism influences three elements of self-image, namely the "conditional self-image," "artistic self-image," and "inclusion." Carrol et al. (28) found, in a study of 125 women with diabetes, the connection between dissatisfaction with one's self-image and a lower level of self-esteem. Vlachioti et al. (29), however, not found such connection and also did not find the influence of diabetes on physical activity.

Hashimoto et al. (25) studied the physical activity of the elderly with rheumatoid arthritis and found that the majority of the patients were physically inactive, which prevented their inclusion. Similarly, also Palmer and El Miedany noted (23) that the patients are, because of the presence of pain as a consequence of rheumatism,

limited in their movement, are tired, and may experience problems with their self-image and self-esteem. Murphy et al. (30) stated that the average physical activities of patients with osteoarthritis are significantly worse than those in the control group of healthy people, which was also found by Hashimoto et al. (25). Nikolič et al. (31) studied 98 patients with rheumatoid arthritis and found that the most common problems faced by them are painful and swollen joints, morning stiffness, reduced mobility, and the reduced ability to perform daily activities, together with fatigue, which can lead to anxiety and depression. Murray (32) also stated that the older adults with rheumatism are more likely to report depressive symptoms and consequently lower levels of self-esteem. He also noted a direct connection between the functional ability and self-esteem. De Guzman et al. (22) stated that the degenerative changes in the elderly, which are also caused by rheumatism, influence self-esteem. A higher level of physical health and self-esteem is present in the elderly, who live with their families, as was found by Sok and Yuna (33) among 280 respondents. Among chronic diseases, rheumatoid arthritis is a disease that lowers the quality of life the most (34). Riviera-Hernandez (35) noted that people with a low level of self-esteem follow dietary recommendations less.

We have not found any descriptions of the influence of rheumatism on "artistic self-image" as an element of self-image anywhere in literature; therefore, this interconnection requires further study.

Rheumatism influences self-esteem, and it is related to the claim "I can do things as good as the majority of other people" (Figure 4). Diabetes was also related to this claim (Figure 5). The latter is also statistically significantly related to the claim "I am worth as much as the other people" (Figure 6).

Our research has some limitations due to a small number of the respondents and geographical limitations. One of the limitations is also a non-adequate comparison of other research results with ours. In our research, we studied the influence of particular diseases on various elements of self-image and on respective claims for assessing the level of self-esteem. The results of other researches, however, relate to studying the influence of the diseases on the overall self-image and self-esteem. Therefore, the generalization of the results in the entire population of older people is not possible. Irrespective of this fact, the present study pointed out the possible influence of chronic diseases on self-image and self-esteem in this population and represents a basis for further research in this field.

CONCLUSION

Increase in life expectancy increases the number of chronic diseases that individuals may have. This represents a significant burden for the health-care system and reduces the quality of life of older people. The quality of life also depends on the assessment of one's own self-image and self-esteem. The presence of rheumatism in older people influences particular elements of self-esteem and self-image. The presence of high blood pressure and osteoporosis, however, was not significantly linked to the elements of self-image. We found that rheumatism has the influence on the artistic self-image; however, we could not find a suitable explanation for this connection and this area should further be investigated.

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