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Depression in Women Aged 75–89 – Predisposing Factors and Preventive Measures

Depresja u kobiet w wieku 75–89 – czynniki ryzyka i czynniki zapobiegawcze

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Abstract

Background. There are analyses showing the relationship between low and irregular physical activity and the risk of more frequent occurrences of depression symptoms in the future. There are studies that do not prove the connection between those two dependencies.

Objectives. The aim of this study was to find the relationship between physical activity before menopause and the occurrence of depression in senium.

Material and Methods. The study was comprised of 200 randomly selected women, aged 75–89 years, who were treated in the local department of general surgery and oncology from January to June 2009. The study used a 15-point Geriatric Depression Scale which is an integral part of the EASY care (Polish version 1999–2002) questionnaire to assess emotional efficiency, and the Questionnaire Survey for Research on Physical Activity in Older People which contains 8 questions. The results were statistically analyzed using a Student's test and basic probabilities calculations.

Results. The probability of depression in women aged 75–89 is 0.8. Increased physical activity in pre-menopausal women neither affects the level of depression, nor prevents it ($p < 0.1$). Depression was more common in people living alone, in which case the probability is 0.85. Postmenopausal women enjoy a beneficial impact on physical activity in the following areas: previous activity ($p < 0.001$), family support ($p < 0.0001$), GP support ($p < 0.001$), and television education ($p < 0.001$).

Conclusions. Depression among elderly women is very common. In this study, depression was found in 80% of senior women. There is a relationship between depression and physical activity. Increased physical activity in pre-menopausal women neither affects the level of depression, nor prevents it. There was no correlation between age, weight, education, place of residence and depression. Depression was more common in people living alone (Adv Clin Exp Med 2012, 21, 1, 00–00).

Key words: depression, postmenopausal women, physical activity.

Streszczenie

Wprowadzenie. Analiza piśmiennictwa wskazuje na istnienie związku między małą i nieregularną aktywnością fizyczną a zwiększonym ryzykiem wystąpienia objawów depresji w późniejszym wieku. Inne badania nie potwierdzają takiej zależności.

Cel pracy. Określenie zależności między występowaniem depresji w okresie senium a aktywnością fizyczną u tych kobiet przed menopauzą.

Materiał i metody. Badaniem objęto 200 losowo wybranych kobiet w wieku 75–89 lat leczonych na oddziale chirurgii ogólnej i onkologicznej od stycznia do czerwca 2009 roku. W badaniu wykorzystano 15-punktową Geriatryczną Skalę Oceny Depresji stanowiącą część kwestionariusza Easy care (w wersji polskiej 1999–2002, <http://jarlacz.republika.pl/orpsych170.htm>). Dodatkowo zamieszczono pytania dotyczące wagi ciała, wieku, stanu cywilnego, wykształcenia. Wyniki opracowano z użyciem testu Studenta.

Wyniki. Prawdopodobieństwo wystąpienia depresji u kobiet w wieku 75–89 lat wynosi 0,8. Większa aktywność fizyczna u tych kobiet w wieku przedmenopauzalnym nie wpływa ani na poziom depresji, ani na zapobieganie jej

wystąpienia ($p < 0,1$). Depresja występuje częściej u kobiet mieszkających samotnie, wtedy prawdopodobieństwo jej wystąpienia wynosi 0,85. Nieoceniony wpływ na aktywność fizyczną w wieku pomenopauzalnym mają: nawyki co do aktywności wyniesione z wcześniejszych lat ($p < 0,001$), wsparcie rodziny ($p < 0,0001$), wsparcie lekarza podstawowej opieki zdrowotnej ($p < 0,001$) i telewizyjne programy edukacyjne ($p < 0,001$). Większa aktywność fizyczna w wieku 75–89 lat występuje u osób bez depresji ($p < 0,0001$).

Wnioski. Depresja u starszych kobiet jest bardzo częsta. W grupie badanej depresja występuje u 80% kobiet. Istnieje związek między depresją a obecną aktywnością fizyczną. Zwiększona aktywność fizyczna w wieku przedmenopauzalnym nie wpływa na poziom depresji ani nie zapobiega jej wystąpieniu w wieku późniejszym. Nie ma związku między wiekiem, masą ciała, poziomem wykształcenia, miejscem zamieszkania a depresją. Depresja jest częstsza u kobiet mieszkających samotnie (*Adv Clin Exp Med* 2012, 21, 1, 00–00).

Słowa kluczowe: depresja, menopauza, aktywność fizyczna.

In recent years, a growing interest in the relationship between depression and physical activity has been noticed. Scientific studies show a link between lack of physical activity and depression [1–3]. Despite differences in research methods, it has been proven that a lower level of physical activity is associated with a higher incidence of depression symptoms [4]. There are analyses showing the relationship between low and irregular physical activity and a risk of more frequent occurrences of depression symptoms in the future [5–7]. There are studies that do not prove the connection between those two dependencies [8, 9].

Longer life does not always mean a life spent in well-being and good health. A relationship between lower mental well-being and state of mind and daily functioning has been found, which if left untreated in the elderly may result in decreased quality of life [10]. Promoting mental well-being in the elderly is now an important factor in healthy and active aging as well as mental illness prevention [11, 12].

The following factors affect the relationship between mental health and physical activity: socio-demographic factors (e.g. social class [7], the level of income [13], marital status [7]), health (e.g. chronic diseases [13]), lifestyle (smoking [2], BMI [14]), social contact (social support and social relationships [2, 14]) and stress (previous experience [14]).

Previously self-reported mental health problems are the greatest predictor of disorders that may arise in the future [15, 16].

The relationship between physical activity and mental health may be affected by age, gender and type of activity. Data from studies on the elderly shows a gradual decrease in the beneficial effects of physical activity on psychological well-being and depression with age [17]. The results of these studies do not distinguish between the genders [17, 18] although prospective studies of adults of both genders show the impact of physical activity and mental health of women and men [5, 19, 20]. One retrospective study of older adults shows an inverse relationship between light physical exercise (e.g. walking) and depression in women but

not in men, and an inverse relationship between intense exercise in men but not in women [21].

Some researchers have found a stronger influence of walking on well-being in later middle age than in younger years [22].

People suffering from depression are less willing to participate in physical activity than people without any signs of depression [23]. Older people behave similarly [24]. Symptoms of depression resulting from fatigue and a reduction in leisure activities may affect physical activity and the activity of daily living [25]. The authors have provided a documented impact of movement to improve physical fitness [26], cognitive function [27] and prevention of falls [28]. Several studies have shown a dose-response relationship between physical activity and poor mental health, but none of the researchers focused on older adults. In these studies on young and middle-aged adults, the authors identified five dose-response relationships reducing the risk of depression by means of physical exercise: from 1 to 7h / week, 20 minutes – 1 hour / week and 20–30 minutes two or three times a week [29]. Other studies have shown that the implementation of appropriate, moderate physical activity more than 150 minutes / week resulted in a reduction of the risk of a weakening of mental health in middle-aged women who lead a sedentary lifestyle [30].

The aim of this study was to determine the relationship between the occurrence of depression and physical activity in elderly women.

Material and Methods

The study was comprised of 200 randomly selected women, aged 75–89 years, who were treated in the local department of general surgery and oncology from January to June 2009. The study used a 15-point Geriatric Depression Scale which is an integral part of the EASY care (Polish version 1999–2002) questionnaire to assess emotional efficiency and the Questionnaire Survey for Research on Physical Activity in Older People which contains

8 questions (Geriatric depression scale – short version – <http://www.stanford.edu/~yesavage/GDS.html>). In addition, it contains questions about age, weight, education, place of residence and marital status and hormonal therapy. The results were statistically analyzed using a Student's test and basic probabilities calculations.

Results

In this study, depression was found in 80% of senior women. None of them used hormonal replacement therapy. 39% of patients declared having only primary education, 32% vocational, 25% secondary and 4% higher. The rural population constituted 40% and urban 60%. Unmarried persons constituted 70% of patients and 30% were those who were in relationships. 85% of the women live alone. Analyzing the results of the 15-point Geriatric Depression Scale, there was no depression in 20% of the patients (0–6 pts.), and depression with increasing intensity (values from 6–15 pts.) in 80% of patients. 40% of patients were slightly overweight and 30% of patients were substantially overweight. Analysis of the results of the Questionnaire Survey for Research on Physical Activity in Older People showed that 52% of patients had led a very active lifestyle in the past, 30% had led an active lifestyle, 10% had led a moderately active lifestyle and 8% had had no physical activity. 38% of the patients had been employed. 35% of the women had worked in a standing position, 45% of the women had worked in a sitting position and 20% had worked in standing and sitting positions. 56% of patients ate a healthy diet in the subjective assessment. 24% of patients had very often spent their free time actively, 52% often, 10% rarely and 14% of patients had spent their free time passively. Currently, 35% of patients spend their free time actively, 65% passively. 35% of patients typically travel on foot, 14% ride a bike, 43% use public transport and 8% go by car. 56% of patients are involved in daily physical activity, 24% several times a week, rare activity is reported by 10% and very rare by 10%. 6% of the patients jog, 40% swim, 16% ride a bike, 25% walk and the other women are not involved in any physical activity. Increased physical activity in women before menopause neither affects the level of depression, nor prevents it ($p < 0.1$). Depression was more common in people living alone, in which case the probability is 0.85. Postmenopausal women enjoy a beneficial impact on physical activity in the following areas: previous activity ($p < 0.001$), family support ($p < 0.0001$), GP support ($p < 0.001$), and television education ($p < 0.001$). Physical activ-

ity was greater among women previously used to practicing sport (mainly swimming 33% and walking 31%). 51% of women with depression live in cities and 49% in the countryside.

Discussion

In this study, depression was found in 80% of elderly women. According to another study, the average frequency of major depression is 1.8%, 9.8% of minor depression, and any depressive disorders – 13.8% [31]. There was no correlation between age, weight, education or place of residence and depression. Depression was more common in people living alone. 40% and 30% of the patients were overweight and obese, respectively. This may result from poor eating habits and lack of physical exercise. Half of the patients declared that they had led an active lifestyle in the past. More than half of all women lead active lifestyles. Patients worked mainly in the sitting position. 56% of patients maintained a healthy diet. Few women spent their leisure time passively in the past while the majority of patients now spend free time passively. Most patients use public transport. Most of the patients are involved in daily physical activity. The most common types of physical activity were swimming and walking. There was no correlation between age, place of residence or education and physical activity. Unmarried persons presented lower levels of physical activity. The subjectively assessed physical activity level was generally low. The link between the occurrence of depression and deficiency of physical activity was confirmed [1, 23]. Current authors research also confirms this phenomenon. It was observed that physical exercise (walking and swimming) in women neither reduces depression nor prevents it. Current authors own results show that patients with depression are less interested in physical activity. The results are consistent with the reports of other authors [24, 25].

There is a need to compare the population using hormonal replacement therapy with non-users of the same age (senium) and also pre-menopausal physical activity. This would provide complete results.

The authors concluded that depression among elderly women is very common. In this study, depression was found in 80% of senior women. There is a relationship between depression and (current) physical activity. Increased physical activity in women before menopause neither affects the level of depression nor prevents it. There was no correlation between age, weight, education or place of residence and depression. Depression was more

common in people living alone, with a probability of 0.85. Patients with depression are less interested in physical activity. Physical activity in postmeno-

pausal women enjoys the beneficial impact of: previous activity, the support of family and their GP, and television education.

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