Original paper

# Women's life orientation and pro-health behavioural patterns in the perimenopausal phase

## *Orientacja życiowa i zachowania zdrowotne kobiet w okresie okołomenopauzalnym*

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**Key words:** health behaviours, perimenopause, life orientation.

**Słowa kluczowe:** zachowania zdrowotne, perimenopauza, orientacja życiowa.

### Abstract

**Introduction:** The majority of women in the perimenopausal phase declare experiencing unpleasant psychic and physical symptoms, which are the result of a gradual decrease in production of sex hormones. Women's quality of life in this period depends on generalised expectancies for the future defined as dispositional optimism, and on practising pro-health lifestyle factors.
**Aim of the research:** To evaluate the life orientation, understood as the level of women's dispositional optimism in the perimenopausal phase, and their behavioural patterns related to pro-health lifestyle.
**Material and methods:** The research was conducted in the group of 60 women aged 45–55 years. The obtained results were compared with the results of 55 women aged 25–35 years. In evaluation of women's expectancies for the nearest future, the Life Orientation Test – LOT-R was used. For the purpose of evaluating pro-health behaviours, a test created by the Author was applied. The results were statistically analysed by means of the $\chi^2$ test. For statistical conclusions, the significance level of $p < 0.05$ was adopted.
**Results:** Perimenopausal women reveal a pessimistic attitude towards approaching future. Perimenopausal symptoms negatively affect the quality of life in the aspect of sexual functions. Perimenopausal women take insufficient prophylactic actions concerning oncological illnesses.
**Conclusions:** Promotion of a healthy lifestyle must make women aware of the necessity of taking care of their health, giving up addictions, starting regular physical activities, and healthy eating habits. In the care of mature women, it is important that the gynaecologist cooperate with other specialists: psychologists, dieticians, and physiotherapists.

### Streszczenie

**Wprowadzenie:** Większość kobiet w okresie okołomenopauzalnym zgłasza nieprzyjemne objawy psychiczne i fizyczne, które są skutkiem stopniowego zmniejszania się produkcji hormonów płciowych. Jakość życia kobiet w tym czasie zależy od oczekiwań wobec przyszłości, określanych jako dyspozycyjny optymizm, oraz od praktykowania prozdrowotnego stylu życia.
**Cel pracy:** Ocena orientacji życiowej rozumianej jako poziom dyspozycyjnego optymizmu kobiet w wieku okołomenopauzalnym oraz ich zachowań związanych z prozdrowotnym stylem życia.
**Materiał i metody:** Badanie przeprowadzono u 60 kobiet w wieku 45–55 lat. Uzyskane wyniki porównano z wynikami 55 kobiet w wieku 25–35 lat. Oceniając oczekiwania kobiet wobec najbliższej przyszłości, wykorzystano Test orientacji życiowej (LOT-R). W celu oceny zachowań zdrowotnych zastosowano ankietę własnej konstrukcji. Wyniki poddano analizie statystycznej za pomocą testu $\chi^2$. Dla wnioskowania statystycznego przyjęto poziom istotności $p < 0,05$.
**Wyniki:** Kobiety w okresie okołomenopauzalnym są nastawione pesymistycznie wobec zbliżającej się przyszłości. Objawy okresu okołomenopauzalnego wpływają na pogorszenie jakości życia w zakresie funkcjonowania seksualnego. Kobiety w okresie okołomenopauzalnym w niedostatecznym stopniu podejmują działania profilaktyczne dotyczące chorób onkologicznych.
**Wnioski:** Promocja zdrowego stylu życia powinna zmierzać do uświadamiania kobietom konieczności zadbania o zdrowie, zrezygnowania z nałogów, wdrożenia codziennej aktywności fizycznej i zdrowego żywienia. W opiece zdrowotnej nad kobietami dojrzałymi celowa jest współpraca lekarza ginekologa z lekarzami innych specjalności, psychologami, dietetykami i fizjoterapeutami.

## Introduction

The WHO defines perimenopause as the 2 to 8 years preceding menopause, i.e. the last menstruation in a woman's life, and 1 year after the last menses [1, 2]. This time indicates a gradual termination of the reproductive period. The process is controlled hormonally. Due to the aging of ovaries and the atrophy of ovarian follicles, the concentration of follicle-stimulating hormone (FSH) is increased and the cyclical luteinizing hormone (LH) secretion is stopped. *Corpus luteum* insufficiency appears and the progesterone deficit increases. Gradually, the ovaries stop responding to gonadotropic stimuli, which results in the decrease in the level of oestrogens produced by the ovary. Menstruations gradually cease due to insufficient proliferation of the endometrium [3]. The average age at which the last natural menstruation appears is 51.2 years [4]. Menopause at a younger age means earlier aging, and it also poses a risk of occurrence of osteoporosis, heart stroke, and cardiovascular diseases. The menopause in a younger woman increases the risk of breast cancer, ovarian carcinoma, and endometrial cancer [5].

It is estimated that 85–89% of women in the perimenopausal phase experience uncomfortable symptoms such as hot flushes, excessive sweating, headaches, and arthralgia. Metabolism slows down leading to overweight and a predisposition to constipation [6–9]. Moreover, psychoemotional disorders can be observed such as mental irritability, insomnia, emotional lability, problems with concentration, memory weakening, and susceptibility to depression [10].

The decreased concentration of oestrogens in perimenopause causes unfavourable changes in the genitourinary system, which is rich in the oestrogen receptors. The number of collagen and elastic fibres in tissues decreases and the subcutaneous adipose tissue is reduced. The atrophy of pudental lips and clitoris, and the loss of pigment and hair occur. The narrowed and shortened vagina with reduced lactic acid bacteria becomes dry and susceptible to irritation and infections. Due to the atonia of the walls of the urinary system, urinary incontinence intensifies. Woman become less sensitive to stimuli in the area of the genitals and sexual arousal becomes slower. The blood flow in the vagina and vulva decreases. This results in the reduction of the already low concentration of oestrogen that increases the level of sexual stimulation and vaginal discharge.

These changes are the cause of discomfort during intercourse, and they significantly lower the general quality of sexual life [11, 12].

Woman's quality of life in the perimenopausal phase can depend on their personality, which includes a factor of generalised expectancies for the future defined by Scheier and Carver as dispositional optimism. It affects the human physical condition, and favours achieving success in life and gaining resistance to crises, an example of which could be the perimenopausal phase. Optimism also plays an important role in modifying a pro-health lifestyle, understood as the set of a person's behaviours, beliefs, and attitudes towards health, which is manifested in everyday life situations. It refers not only to expected positive outcomes of one's own actions but also to a conviction of possessing personal resources, including self-efficacy. It is believed that optimism causes better physical and mental adjustment to stressful life situations because in their actions, optimists use active coping methods more often, while pessimists use avoidance strategies [13–16].

## Aim of the research

The aim of the research was to evaluate the life orientation understood as the level of women's dispositional optimism in the perimenopausal phase and their behaviour patterns related to pro-health lifestyle.

## Material and methods

The research was conducted in a group of 60 women aged 45–55 years, patients of the primary health care clinic in the city of Kielce. The obtained results were compared with the results of 55 women aged 25–35 years, surveyed at the same time and place by means of the same research tools. The women who were tested were from urban areas in both groups. They were also recruited using similar criteria in terms of their education and good health.

In evaluation of women's expectancies for the nearest future, defined as dispositional optimism, researchers used a standardised questionnaire: the Life Orientation Test – LOT-R, created by Scheier M.F, Carver C.S, and Bridges M.W and adapted by Juczyński Z. The test included 10 statements with adequate scores. Of the 10 items, six had a diagnostic value for dispositional optimism. Three statements were phrased in an optimistic and three in a pessimistic direction. After summing up the scores, the arithmetic mean was calculated, and then the obtained result was converted to standardised units on the sten scale, which made it possible to evaluate the intensity of dispositional optimism. The results from 1 to 4 sten scores were treated as low and as such indicated greater pessimism, while the results from 7 to 10 sten scores indicated greater optimism. For the purpose of evaluating pro-health lifestyle behaviours, the research used the Author's own survey containing 10 statements with which the respondents agreed or disagreed.

### Statistical analysis

The results were analysed in view of statistical accordance of measurable qualities by means of the $\chi^2$

test. For statistical conclusions, the significance level of $p < 0.05$ was adopted

## Results

The data obtained by means of the Life Orientation Test LOT-R proved to be statistically significant ($p = 0.01$). They show that women in the perimenopausal phase, aged 45–55 years, on average gained 12.9 points on the 24–ranking scale, which meant that 48.3% of the surveyed ranged from 1 to 4 sten, i.e. within the range of low values. In the same group of surveyed women, 20% of women were within the range of high sten values, i.e. between 7 and 10. In the compared group of younger women, aged 25–35 years, the average total sum of points was 14.4. In this group 27.3% of women were in the range of low stens, between 2 and 4, while 38.2% of women obtained high sten values, i.e. from 7 to 10. Table 1 shows detailed results.

The research on pro-health behaviours conducted by means of the Author's survey showed that 76.7% of women aged 45 55 years regularly visited a gynaecologist for a medical check-up. In the group of younger women, 60% of respondents gave the same answer. However, these results were not statistically significant ($p = 0.054$). 61.7% of the surveyed perimenopausal women, with the level of significance ($p = 0.004$), regularly took a prophylactic cervical smear test, while 34.5% of younger women participated in this test. 41.7% of older women, statistically significantly ($p = 0.004$), had a breast self-exam every month, whereas only 14.5% of younger women did the same. Regular breast cancer prophylaxis, i.e. a USG scan or a mammography exam, was undertaken by 48.3% of women aged 45–55 years and by 10.9% of women aged 25–35 years, with signs of statistical significance ($p < 0.001$). While evaluating the factors of a pro-health lifestyle, 25% of the surveyed perimenopausal women claimed that they regularly performed physical exercises or practised sport; in the compared group of women, this figure was 58.2%. These results are also statistically significant ($p < 0.001$). Furthermore, sex life was regarded as satisfying by 45% of older women and 58.2% of younger women. However, this does not indicate differences from a statistical point of view. 78.3% of the surveyed perimenopausal women claimed that they should take better care of their health. The same belief was shared by 56.4% of younger women ($p = 0.012$). A well-balanced and healthy diet was attempted by 33.3% of the surveyed perimenopausal women and 72.7% of the women aged 25–35 years, which is statistically very significant ($p < 0.001$). 35% of older women smoked cigarettes, while the same habit was declared by 23.6% of younger women ($p = 0.182$). Regular menstrual cycles, statistically significantly ($p < 0.001$) were declared by 45% of perimenopausal women and 76.4% of women aged 25–35 years. Details are presented in Table 2.

**Table 1.** LOT-R – average results of the surveyed groups

| Women | N | M | % of results | | *P*-value |
|---|---|---|---|---|---|
| | | | Low (1–4 sten) | High (7–10 sten) | |
| 45–55 years | 60 | 12.9 | 48.3 | 20 | 0.01 |
| 25–35 years | 55 | 14.4 | 27.3 | 38.2 | |

*N – number, M – arithmetic mean, p – statistical significance.*

## Discussion

Perimenopause is the time of gradual cessation of the female reproductive process conditioned by the decrease in production of sex hormones. Early loss of fertility, taking account of average life expectancy, relates only to humans because only offspring require longer parental care. Attention concentrated on newborn children increases their chances of survival. Lack of subsequent pregnancies at older age protects the woman from the risk of death at delivery, immature delivery, or giving birth to a disabled child. Furthermore, it allows the woman to use her abilities to care for relatives and grandchildren or to continue a professional career [17]. Menopause-related disorders that occur at that time may fundamentally affect various areas of woman's functioning and consequently worsen the quality of life.

Quality of life in the perimenopausal phase can depend on personality, which includes a factor of generalised expectancies for the future, which modify methods of coping with difficult life situations. The findings of the Life Orientation Test LOT-R prove that nearly half (48.3%) of women aged 45–55 years show proneness to pessimism. An optimistic attitude is typical only of 20% of women in this group. Perimenopausal respondents on average gained 12.9 points on the 24-point scale of the LOT-R. In the compared group of women aged 25–35 years there are fewer pessimists and more optimists. The analysed evaluation is not coherent with Juczyński's findings from the same type of research conducted in a group of 50 women in menopause. These women gained more points (14.7) in the group of 34% pessimists and 34% optimists. The above-mentioned author also presented results regarding women in complicated pregnancies, who gained 16.1 points in the group of 52.5% optimists and 21.3% pessimists; dialysed patients with a total of 15.3 points in the group of 38.7% optimists and 16.1% pessimists, and mastectomy women with 16.3 points in the group of 45.5% optimists and 22.6% pessimists [18]. According to Friedman *et al.*, pessimists who face a difficult health problem are more often prone to deny, divert attention, and stop acting, whereas optimists apply problem-solving strategies, and when they turn out to be impossible, they implement more adap-

**Table 2.** Women's pro-health behaviours

| Text of statement | Surveyed group Women aged 45–55 years (*n* = 60) | | | | Control group Women aged 25–35 years (*n* = 60) | | | | *P*-value |
|---|---|---|---|---|---|---|---|---|---|
| | Yes | | No | | Yes | | No | | |
| | *n* | % | *n* | % | *n* | % | *n* | % | |
| I visit a gynaecologist for a check-up once a year | 46 | 76.7 | 14 | 23.3 | 33 | 60 | 22 | 40 | 0.054 |
| I regularly do a cytology test | 37 | 61.7 | 23 | 38.3 | 19 | 34.5 | 36 | 65.5 | 0.004 |
| I do breast self-examination every month | 25 | 41.7 | 35 | 58.3 | 8 | 14.5 | 47 | 85.5 | 0.004 |
| I regularly do USG or breast mammography | 29 | 48.3 | 31 | 51.7 | 6 | 10.9 | 49 | 89.1 | < 0.001 |
| I regularly do exercises or practise sport | 15 | 25 | 45 | 75 | 32 | 58.2 | 23 | 41.8 | < 0.001 |
| I regard my sexual life as satisfying | 27 | 45 | 33 | 55 | 32 | 58.2 | 23 | 41.8 | 0.158 |
| I think I should take better care of my health | 47 | 78.3 | 13 | 21.7 | 31 | 56.4 | 24 | 43.6 | 0.012 |
| I try to apply balanced and health diet | 20 | 33.3 | 40 | 66.7 | 40 | 72.7 | 15 | 27.3 | < 0.001 |
| I smoke | 21 | 35 | 39 | 65 | 13 | 23.6 | 42 | 76.4 | 0.182 |
| I regularly menstruate | 27 | 45 | 33 | 55 | 42 | 76.4 | 13 | 23.6 | < 0.001 |

*N – number, p – statistical significance.*

tive strategies focused on emotions such as acceptance and humour. The low level of dispositional optimism correlates with depression, helplessness, and anxiety, while optimism is associated with high self-esteem and self-efficacy [19]. The concept of dispositional optimism is coherent with the concept of approach and avoidance formulated by Roth and Cohen, which classifies individual coping methods in difficult situations. According to the authors, approach means actions focused on stressor and aimed at searching for information and warnings related to stressful events, while avoidance means the opposite actions comprising selective inattention, forgetfulness, avoidance of information and warnings. Surprisingly, approaching persons describe their level of anxiety as high with low physiological indicators of agitation, while avoiding persons describe their level of anxiety as low with high physiological indicators of agitation [20]. The obtained results do not give an explanation for such a high number of perimenopausal women with a pessimistic (avoidance) attitude, although some behaviours that have a positive effect on health, as the foregoing paper proves, are more popular with older than with younger women, with a prevalence of optimists (approach). Thus, the concept of Roth and Cohen does not seem to be fully confirmed. After analysing the respondents' answers to the statement "I visit the gynaecologist for a medical check-up once a year" we obtain 76.7% of confirmations from women aged 45–55 years, while only 60% of women aged 25–35 years agree with this statement. In comparison with the results obtained by Izdebski, who claims that only 56% of women at the reproductive age visit the gynaecologist at least once a year, the presented findings are rather optimistic [21]. Pessimism can be a cause or effect of depressive disorders, which in perimenopause often combines with the awareness of passing youth and fertility, appearance of or aggravation of somatic illnesses, children leaving home, or death of a relative [22]. Tylka *et al.* showed that in Poland 19% of wom-

en aged 45–55 years suffer from depressive disorders [23]. According to world data, anxiety and depression are the commonest mental disorders relating to middle-aged women. Their occurrence is noted twice as often in women than in men of the same age [24, 25]. Bansal *et al*., evaluating women aged 40–60 years by means of the Zung Self-Rating Depression Scale, stated that in 87% of respondents depression, and in 89% anxiety and fear, can be observed, and most frequently, i.e. in 49.5%, it was mild depression [26]. Such an accumulation of roles combined with menopause occurring at the same time, can contribute to difficulties in mental functions, and, as Barnaś *et al*. prove, the intensity of symptoms is connected with menses regularity. The greater the menses regularity the lesser the uncomfortable symptoms [27]. On the other hand, lower mood, as Jung *et al*. prove, is the cause of irregular menses [28]. The studies of Jagielska *et al*. indicated a statistically significant dependency between the degree of depression intensity and the age of the last menses. The author proved that the lower the age of menopause the greater the intensity of depression symptoms [29]. The findings of the presented studies show that over half of women aged 45–55 years have irregular menstrual cycles, which co-exists with a pessimistic attitude to reality as shown by the LOT-R test. Although the perimenopausal symptoms cannot be completely eliminated, they can be alleviated by intensifying physical activity in everyday life, which could be purposeful in the surveyed women aged 45–55 years in view of the fact that only 25% of them declare practising sport or exercising regularly. Experts claim that regular physical activity activates adaptive reactions of the organism and alleviates the perimenopausal symptoms; however, on the condition that exercises last at least 30 min during the majority of days of the week. Tailor-made training sessions should comprise aerobic exercises, quick walking, slow running, swimming and dancing that regulate the circulatory and respiratory system and body mass index (BMI). Adequately selected exercises strengthen the abdominal muscles and in combination with a rational diet quicken the peristaltic movements and improve the efficiency of the abdominal organs and the small pelvic organs, e.g. they lower incontinence [30, 31].

It is estimated that in 44% of perimenopausal women in the world weight gain occurs, and obesity in 23% [32, 33]. The literature includes many epidemiological studies that confirm the connection between body mass and smoking and the degree of occurrence of symptoms related to menopause. Overweight is caused by the slowed metabolism and irrational eating habits, which in combination with little physical activity not only increases the body mass but also leads to "lazy bowel syndrome". The presented findings reflect the low eating awareness of women aged 45–55 years; only every third applies a balanced and health diet, and 35% of them smoke cigarettes. It is worth noting that abstaining from smoking and avoiding sugar, caffeine, salt, alcohol, and highly-processed food make up basic principles of healthy eating, and red wine, apples, and rhubarb are regarded as an alternative source of phytohormones [34].

The aetiopathogenesis of sexual disorders in perimenopause means the decreased level of oestrogens and androgens, which causes reduced frequency of sexual intercourse and diminishes the quantity of testosterone responsible for interest in sexual life [35]. However, there are other factors influencing sexual activity at this period of life. According to Nazarpour *et al*., co-existing illnesses, obesity, nicotinism, alcohol abuse, condition of anxiety and depression, low socioeconomic status, and lack of physical activity negatively affect mature women's sexual activity. Sometimes it is believed that it is "inappropriate" for an older woman to be active sexually. The same authors claim that the greater the number of pregnancies in the past, the higher the level of education, and the greater the sexual activity in the past, then the fewer the sexual problems in perimenopause [36]. Izdebski believes that women in their early fifties twice as often as men at the same age (64.3% and 32.3%, respectively) abstain from sex, and only 27% of them experience orgasm during intercourse. The reasons for not starting sexual activity include reluctance to have sex, tiredness, and stress [37]. Although in the literature the prevailing view is that sexual activity decreases in this period, some studies deny this thesis. They indicate that mature women experience new and increased interest in sex and, in many of them, liberation from pregnancy fears and side effects of contraception lead to a greater feeling of pleasure and satisfaction from intercourse [38]. The findings of the presented research are not optimistic – over half of women aged 45–55 years do not regard their sexual life as satisfying. Surprisingly, a similar number of the surveyed women aged 25–35 years shared the same dissatisfaction. The findings could be better if the surveyed mature women were more physically active, because it has been proven that regular exercise increases the secretion of testosterone [39]. The quality of sexual life is reduced by menopausal ailments of the reproductive organs, and many women claim that sexual problems in mature and old age are unavoidable and natural. For this reason, they do not look for professional help. They feel embarrassed if the specialist is a young man, when the doctor is in a hurry, or if they had negative earlier experiences in contact with the gynaecologist [11]. Women should be aware of the possibility of medical treatment of reproductive organ ailments that could improve the quality of their sexual life. Other solutions include hormone replacement therapy, subcutaneous hyaluronic acid injections, or the latest laser vaginal revitalisation, which regenerates mucous membrane and makes it stronger

and more elastic. Therefore the quality of sexual life improves, and the problem of vaginal wetness and incontinence disappears [40].

The surveyed perimenopausal women claim statistically more often than younger women that they should take better care of their health. This conviction seems to be justified in consideration of prophylactic behaviours. A cytology test done under the screening program comprising women aged 25–59 years is a classic action aimed at reduction of cervical carcinoma occurrence. It is currently known that the implementation of universal prophylaxis based on a well-organised cytological screening test has led in some countries to the reduction of cervical carcinoma incidence by 50% and its mortality by 70–80% [41, 42]. In spite of doubtless benefits of secondary prophylaxis based on cytology tests, the results in Poland are not fully satisfying, which is proven by the data obtained in the presented studies. Only 61% of perimenopausal women take advantage of regular cytology tests, which constitutes a factor that limits the effectiveness of screening tests. Most probably the reason should be sought, following other authors, in inadequate information and low social awareness [43]. It should be noted that long-lasting negligence in the field of secondary prophylaxis is one of the causes of high cervical carcinoma incidence in Poland. For a long time cytological smear tests in our country were done only during a woman's visit to the gynaecological clinic. According to European Health Interview Surveys EHIS conducted in 2009, the number of women who do cytology tests shows a slow rising tendency (7%) in comparison to previous years. Just under 20% of the population of adult women have never done such a test in their life, with a large percentage of very young and the oldest women (at least 65 years old) in this group. Unsurprisingly, the results in the first group are understandable due to the low awareness of any threat; however, the low percentage among the oldest women is worrying because they are relatively more susceptible to carcinoma of reproductive organs [44].

As far as breast cancer prophylaxis is concerned, the findings are equally unfavourable for the surveyed perimenopausal women. Approximately half of them (41.7%) do breast self-examination every month, which is still a much better result than that obtained in the group of younger women (14.5%). Bogusz *et al*. claim that more (namely 3/4) women in the perimenopausal phase know how to examine their breasts [45]. However, it should be noted that the declared ability does not have to be put into practice in everyday life. Although the role of self-examination in breast cancer prophylaxis remains equivocal, it is recommended by the Polish Gynaecological Society [46]. Furthermore, American studies prove that 95% of advanced stages of breast cancer and 65% of early stages are detected by women themselves [47].

The most effective method of preventing breast cancer is mammographic screening supplemented by a USG test. In countries where it was introduced, the mortality rate due to this cancer dropped by as much as 40% [48]. At present in Poland the program of mammographic screening aimed at women 50–69 years old is being conducted, in which women participate every two years. According to the presented findings, only half of women participate in this type of prophylaxis. However, these findings can be questioned as the lower age limit for mammographic screening is 50 years and the surveyed women were aged 45–55. Comparing this group with the group of women aged 25–35 years also seems ill-founded because young women are not covered by the screening program; however, they can be examined by means of a USG test.

A mature modern woman should be attractive, professionally active, and satisfied with life; therefore, in order to meet these expectations, she should be aware of changes occurring in her organism. She should also be able to modify pro-health elements of lifestyle, adequate for her age. In view of the inconveniences connected with the perimenopausal phase, cultural and psychic aspects should be considered. The intensity of symptoms is conditioned by personality, current life situation, exposure to stress, and a positive attitude to life.

## Conclusions

Perimenopausal women more often reveal a pessimistic attitude towards the future than younger women. Perimenopausal symptoms negatively affect the quality of life with regard to sexual functions. Perimenopausal women take insufficient prophylactic actions concerning oncological illnesses. Promotion of a healthy lifestyle must make women aware of the necessity of taking care of their health, giving up addictions, starting regular physical activities, and having healthy eating habits. In the care of mature women, it is important that the gynaecologist cooperate with other specialists: psychologists, dieticians, and physiotherapists.

## Conflict of interest

The authors declare no conflict of interest.

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