



PREGNANCY AND WELLBEING

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ABSTRACT

Introduction: The United Nations' annual report on the World Wellbeing Index reveals that recreational programs for pregnant women are growing at a faster rate than fitness-based physical activities. The Wellbeing Index is gaining popularity as it reflects the wellness lifestyle and satisfaction with life standards of nations. **Methods:** We performed an analysis of gender-specific innovative program during pregnancy. Our original gymnastics program for pregnant women has a hardening effect that improves the immune system's health for both Mather and foetus. The "Nesheva" program is specifically designed for each trimester of pregnancy, and the recreational activity is directed towards the relevant body zones. **Results:** The program content, developed by the author, is backed by scientific evidence and provides a personalised daily and weekly schedule. **Discussion:** Our original gymnastics complex for pregnant women is an effective preventive measure for ensuring the health of both the mother and the growing baby inside her womb. The "Nesheva" program promotes overall health and contributes to a balanced wellness lifestyle, benefiting the Wellbeing of both the mother and the baby. **Conclusion:** Pregnant women are encouraged to incorporate recreational activities into their daily routines or leisure time as a source of health during all stages of pregnancy. By investing in individual health, the "Nesheva" program is a valuable tool that increases the level of Wellbeing for pregnant women.

Key words: Pregnant women, "Nesheva" program, Wellness lifestyle, health for both Mather and foetus

INTRODUCTION

According to the annual report by the United Nations on the World Wellbeing Index, there is a noticeable growth in recreational programs for pregnant women compared to fitness-based physical activities (1-6). The Wellbeing Index is becoming increasingly popular as it reflects the lifestyle and satisfaction standards of nations (7, 8). A comprehensive analysis of literature sources reveals the differentiated and holistic nature of the benefits associated with recreational motor activities for pregnant women (9). It is crucial to educate women and enhance the competence of professionals to promote Wellbeing in Pregnancy and maximise the advantages (10-12). Aerobic-oriented wellness programs have been found to positively activate cardiorespiratory activities

in the body (13-15). Experimental data strongly indicate that moderate recreational motor activity plays a vital role in maintaining good health during normal pregnancy, leading to easier and problem-free childbirth (16). Engaging in regular exercise and adopting a wellness lifestyle during pregnancy not only benefits the health of the foetus and mother but also helps maintain balanced weight and mental well-being (17). Research has demonstrated significant mood and mobility benefits, improved performance, enhanced focus, tone, and vitality, all of which are important for pregnant women and directly impact the foetus (18). Consequently, physical exertion during pregnancy leads to notable changes in the cardiorespiratory system, which are associated with the physiological adaptations occurring during this period (19, 20). This complexity of beneficial impact on the mother's and foetus's bodies forms well-being during this important period of a woman's life.

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METHODS

We performed an analysis of gender-specific innovative program during pregnancy. Our original gymnastics program for pregnant women has a hardening effect that improves the immune system's health for both Mather and foetus. The "Nesheva" program is specifically designed for each trimester of pregnancy, and the recreational activity is directed towards the relevant body zones. During the summer of 2022 and 2023, a research study was carried out involving 71 women with normal pregnancy, averaging 27 years of age. The study strictly followed the ethical standards outlined in the Bulgarian "Ethics in Science" guidelines, and all participants willingly provided written informed consent. To analyse the data, SPSS version 25 was utilised, and descriptive statistics such as mean and standard deviation were employed. A two-way repeated measure analysis was performed to evaluate the impact of the Nesheva Wellness practice on heart rate (HR) and the body temperature during lessons, both prior to and following the practice sessions.

RESULTS

The program "*Nesheva*" is backed by scientific evidence and provides a personalised daily and weekly schedule. The developed by the author content highlights the idea that the complexity of the positive effects on the mother's and foetus's bodies contributes to the overall well-being experienced during this crucial period in a woman's life. By explaining the essential terms, we analyse the logistic of this sentence:

Complexity: The term "complexity" refers to the intricate nature or combination of various factors involved in the beneficial impact. It suggests that multiple elements are at play,

indicating that the effects are not straightforward but rather multifaceted.

Beneficial Impact: This refers to the positive influence or effects that are being discussed. It implies that whatever factors or processes are involved have a favourable outcome on both the mother and the foetus.

Mother's and Foetus's Bodies: This phrase emphasizes that the beneficial impact is directed towards both the mother's body and the developing foetus. It underscores the interconnectedness and interdependence of the two during this specific period.

Forms Well-being: The phrase "forms well-being" suggests that the combination of factors mentioned earlier contributes to the establishment or creation of a state of well-being. It implies that the positive effects lead to a sense of physical and emotional wellness or wholeness for the mother.

Important Period of a Woman's Life: This highlights the significance of the timeframe being discussed, indicating that it holds particular importance for a woman. It suggests that this period is crucial in terms of physical and emotional changes and experiences.

In summary, the sentence suggests that the intricate and positive effects on both the mother's and fetus's bodies during a crucial period contribute to the overall well-being experienced by a woman. It emphasizes the complexity of these effects and their importance in shaping the woman's state of well-being during this specific time in her life. We found that there is almost no difference in body temperature before and after low-intensity exercise (36.5°C – 36.7°C).

Table 1. Correlation coefficients between the body indicator after the practice of Wellness program

Indicators	Oxygen	Temp1	Temp2	Room Temp	Pulse	Emotion status	Physical status
Oxygen	1						
Temp1	0,79	1					
Temp2	0,69	0,95	1				
Room Temp	-0,68	-0,27	-0,09	1			
Pulse	-0,39	0,27	0,26	-0,63	1		
Emotion st.	0,83	0,77	0,56	0,11	0,23	1	
Physical st.	0,89	-0,13	-0,18	-0,33	0,82	0,72	1

The recorded values of body temperature during exercises at 70% of maximum heart rate do not pose a risk of hyperthermia for pregnant women. The body temperature values remain stable. By implementing selected recreational exercises combined in a Wellness complex for women with normal pregnancies, we have determined that it provides maintenance and sustainable improvement of the overall body tone.

The leading , Advanced researchers from the Bulgarian sports physiology field conclude in publications that physical activity in pregnant women comprehensively strengthens skeletal muscles and increases mobility in the hip joints. The engagement of a significant muscle group

during wellness activities results in enhanced glucose utilisation and increased insulin sensitivity concurrently. Our study was longitudinal and based on our doctoral thesis. When comparing the data between exercising and non-exercising pregnant women, we observed a difference in muscle tone, tissues, and skin elasticity in the abdominal stretching area. Furthermore, the children of exercising mothers, as observed later, develop fewer obstetric complications or illnesses compared to the children of non-exercising mothers. Motor capabilities such as flexibility, motor coordination, balance stability, and limbs strength are improved as presented below (Table 2):

Table 2. Registered changes after regular application of Wellness motor activity in women with normal pregnancy

CHANGES REGISTERED FOR MOTOR CAPABILITIES			
FLEXIBILITY	MOTOR COORDINATION	BALANCE SUSTAINABILITY	STRENGTH ON LIMBS
<ul style="list-style-type: none"> When applying isometric exercises (stretching), HR and RRs increase, but vascular resistance decreases. The results show that gymnastics for pregnant women from the Program has a stabilising effect on flexibility quality. 	<ul style="list-style-type: none"> Decreased motor coordination is observed during pregnancy. The program leads to an improvement in this quality through a combination of visual-motor biofeedback, applying exercises with gradually increasing complexity of execution. 	<ul style="list-style-type: none"> It has been found that during early pregnancy, orthostatic balance is preserved in the first trimester, but during the second and third trimesters, physiological changes decrease orthostatic stability and the centre of gravity shifts. The program contributes to improving balance. 	<ul style="list-style-type: none"> The use of various equipment (dumbbells, resistance bands, balls, etc.) helps increase the strength of the upper and lower extremities, which is necessary for the round-the-clock care of the baby.

The "Nesheva" Wellness program activates the working muscles, which positively influences the functioning of blood vessels through the dynamics of circulation. This important process successfully contributes to reducing stasis in the lower extremities, eliminating swelling in the ankles and calves, while improving functionality. In non-exercising pregnant women, the intrauterine development of the fetus is delayed compared to exercising women.

DISCUSSION

Our original gymnastics complex for pregnant women is an effective preventive measure for ensuring the health of both the mother and the growing baby inside her womb. The "Nesheva" program promotes overall health and contributes to a balanced wellness lifestyle, benefiting the Wellbeing of both the mother and the baby. Our results have proven that during a normal pregnancy, Wellness exercise complexes should not exceed 40-45 minutes for women between the ages of 20 to 42. Practicing on a weekly schedule is most effective with dual loading at an intensity of 60% HRmax. The

results show a lower number of caesarean sections (CS) among pregnant women who participated in 45-minute sessions. We also found that for former or active pregnant athletes, the duration can be extended to 60 minutes per day. In these specific cases, practicing 2-3 times a week is possible. Analyses indicate that untrained pregnant women without any medical contraindications can participate in recreational physical activity programs. These recommendations are aimed at preventing certain adverse conditions associated with pregnancy, such as diabetes. The American College of Sports Medicine and the Centers for Disease Control and Prevention, along with the American Heart Association's Exercise and Cardiac Rehabilitation Committee, accept and support the recommendations for Wellness activity and public health among individuals aged 18 and above, including pregnant women. The U.S. health authorities recommend that all healthy pregnant women engage in 30 minutes of suitable physical activity every day.

CONCLUSION

In conclusion, it can be said that:

1. Pregnant women are encouraged to incorporate recreational activities into their daily routines or leisure time as a source of health during all stages of pregnancy. By investing in individual health, the "Nesheva" program is a valuable tool that increases the level of Wellbeing for pregnant women.
2. We have established two leading indicators: awareness, which proves to be an essential component for the conscious recognition of the need for involvement in Wellness activity programs before, during, and after pregnancy.
3. The data obtained from original experiments demonstrate the second important indicator - significant social benefits from comprehensive care to achieve well-being for pregnant women.

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