



## The benefits of physical activity and exercise during pregnancy

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Date of Submission: 28-04-2024

Date of Acceptance: 08-05-2024

### SUMMARY

**Introduction:** Physical activity and exercise play a key role in maintaining health and well-being during pregnancy. Regular physical activity can have a positive effect on the physical and psychological health of pregnant women, as well as on the development of their babies. Regular physical activity can prepare the expectant mother's body to meet the physical demands of child birth itself. This includes improving endurance, muscle strength and flexibility, which can aid in the birthing process.

**Objective:** To investigate the benefits of physical activity and exercise during pregnancy, including their potential to improve the physical and mental health of pregnant women, as well as to support the well-being of the baby and facilitate the process of child birth and recovery.

**Materials and methods:** To conduct the research, a structured survey, created specifically for the purposes of our study, is used. The survey included a number of questions aimed at pregnant women and those who have already given birth, with the aim of measuring their levels of physical activity, preferred types of exercise and perceived positive effects.

**Conclusions:** The general picture of the result corresponds to the presented preferences and positive effects of physical activity on the health and well-being of pregnant and parturient women. However, there are also several individual differences in responses that may reflect the diversity in women's experiences and needs during this period.

**Keywords:** physical activity, pregnancy, benefits, exercise

### I. INTRODUCTION

Physical activity and exercise play a key role in maintaining health and well-being during pregnancy. Regular physical activity can have a positive effect on the physical and psychological health of pregnant women, as well as on the development of their babies. However, despite the availability of scientific evidence, questions still exist regarding the optimal types of exercise, intensity, and frequency of exercise during

pregnancy. Regular physical activity can prepare the expectant mother's body to meet the physical demands of child birth itself. This includes improving endurance, muscle strength and flexibility, which can aid in the birthing process. Physical activity during pregnancy can help improve sleep quality, which is especially important because many pregnant women experience sleep problems due to discomfort and other factors.

Regular physical activity can help maintain a healthy weight during pregnancy. This can reduce the risk of developing complications such as diabetes and high blood pressure. Exercise can help improve blood circulation, which is important for the health of mother and baby. They can also increase energy and vitality during pregnancy. Although in the past it was believed that pregnancy required rest and limited physical activity, modern scientific research supports the idea that regular moderate to vigorous physical activity can be beneficial and even recommended for pregnant women. Physical activity during pregnancy is associated with a number of benefits for both the mother and the developing fetus.

One of the main benefits of physical activity during pregnancy is the improvement of the mother's physical condition and health. Research such as that done by Clapp III. (2000), showed that women who exercised regularly during pregnancy had better cardiovascular function and endurance, and were less likely to gain excess weight. Also, physical activity can improve a pregnant woman's mental well-being by reducing stress and anxiety, as demonstrated in research by Perales (2015). Exercise during pregnancy can reduce the risk of developing gestational diabetes and other serious diseases. Research by Hesketh (2016) shows that pregnant women who exercise regularly are less likely to develop gestational diabetes compared to those who lead a sedentary lifestyle. Preparing for birth is also an aspect where physical activity can be beneficial. Strength training exercises, as well as those that promote flexibility and breathing technique, can prepare a pregnant woman's body for the physical exertion of labor. Research has shown that pregnant women



who exercised regularly had less labor effort and used less pain medication during labor, as reported in the work of Magro-Malosso (2017).

**Objective:** To investigate the benefits of physical activity and exercise during pregnancy, including their potential to improve the physical and mental health of pregnant women, as well as to support the well-being of the baby and facilitate the process of child birth and recovery. Develop and implement educational program targeting pregnant women to increase their awareness and motivation to engage in regular physical activity.

**Materials and methods** A structured survey created specifically for the purposes of our study is used to conduct the research. The survey included a number of questions aimed at pregnant women and those who have already given birth, with the aim of measuring their levels of physical activity, preferred types of exercise and perceived positive effects. The survey was conducted by sending the survey online to the target audience through social

media platforms and email. Participants had the opportunity to complete the survey anonymously and freely. The collected data were analyzed using statistical software including SPSS to extract key statistical indicators and visualize the results.

## II. DISCUSSION:

This report presents the results of a study that aimed to investigate the impact of physical activity on pregnancy and the post partum period. It involved pregnant women (n=125) and women in labor (n=64) who shared their experiences, perceptions and preferences on the topic.

Looking at the respondents' answers, we analyzed the distribution of their physical activity levels, which helped us gain a better understanding of their previous physical fitness. This aspect is essential for our study, as it provides us with information about the physical activity profile of pregnant women before the onset of their pregnancy. (Fig.1).

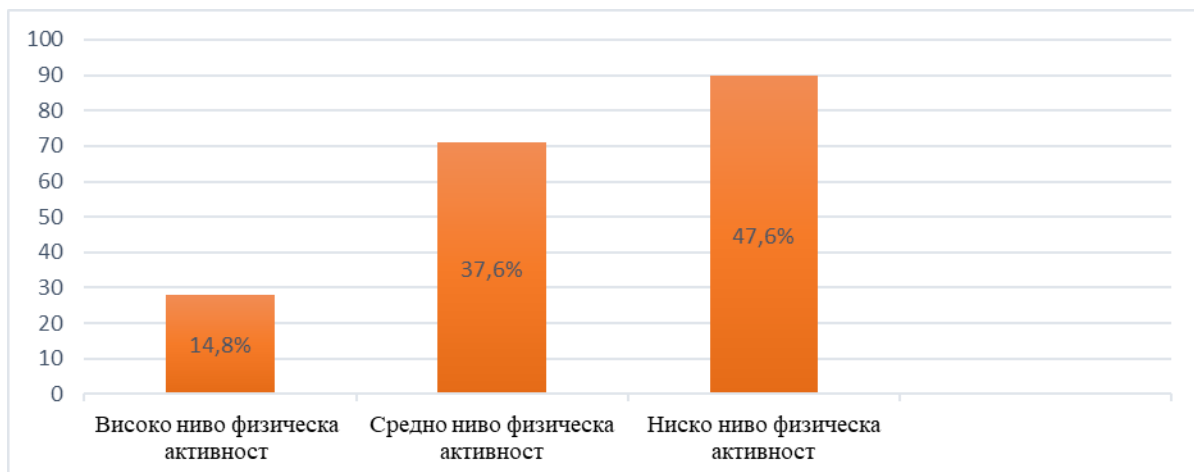


Fig.1. Level of physical activity among respondents.

The high number of responses with a low level of physical activity (47.6%) may reflect the fact that a large percentage of respondents had a less active life style before pregnancy. This can be for a variety of reasons, including a lack of time, motivation or interest in physical activity, or simply a lack of awareness of the importance of regular, moderate activity. The smaller number indicating a high level of physical activity (14.8%) may reflect the smaller number of respondents who maintained an active lifestyle before pregnancy. However, this number may also reflect the true level of physical activity of those women who were engaged in vigorous sports activities or regular exercise before pregnancy. A significant proportion of respondents indicated an average level of physical activity

(37.6%) This result may reflect the widerange of women with different levels of physical activity before pregnancy. This could include women who were regularly active, but not at an intense level, as well as those who had a lower level of activity, but not completely inactive.

These responses provide important information about the physical activity profile of pregnant women before the onset of pregnancy and may be useful for developing strategies to support and promote a healthy lifestyle during pregnancy. The preferences for types of exercise that pregnant women perform during pregnancy are indicated in (Fig.2).

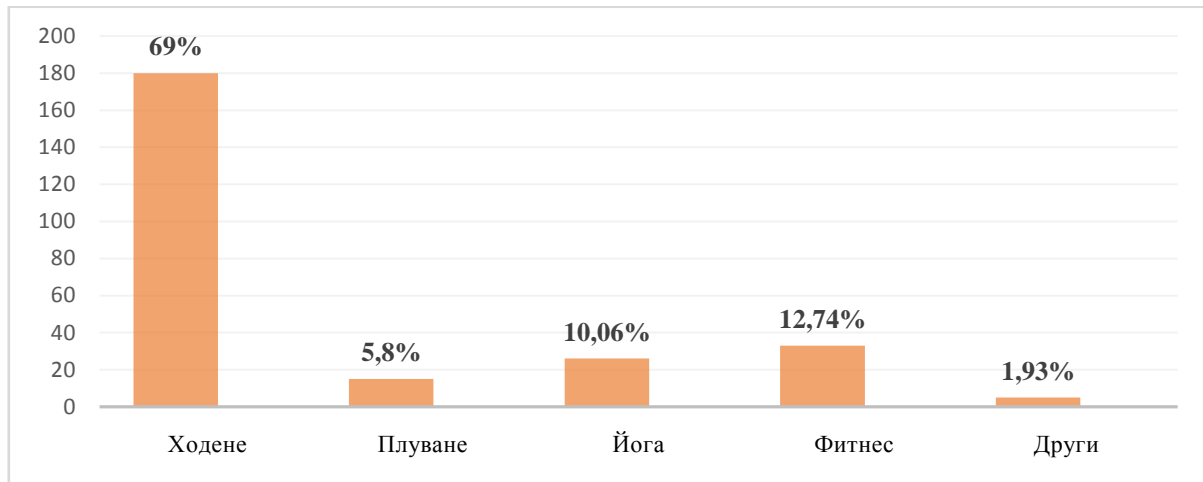


Fig. 2. The preferences of pregnant women for types of exercise

By looking at the answers, we can build an idea of what types of physical activity are most popular and how pregnant women choose to maintain their health and physical well-being.

Walking has been identified as one of the most accessible and effective forms of physical activity during pregnancy, with over 69% of participants in our study indicating their preference for this form of exercise. This is important because walking can be easily adapted to the individual needs and physical capabilities of the pregnant woman without putting too much stress on the joints.

Although only 5.8% of the study participants indicated swimming as a preferred form of physical activity during pregnancy, it is important to note that this exercise still represents significant value for certain groups of pregnant women. The aquatic environment in which swimming takes place offers unique benefits that cannot be found in other forms of physical activity. The water provides a light support action and reduces the load on the joints, making this exercise ideal for maintaining physical activity without allowing the appearance of additional loads or risks of injury.

Although the percentage of preference for swimming is lower compared to the other types of exercise mentioned in the study, it is important to emphasize that this does not diminish the importance of this type of physical activity during pregnancy. However, even if a small number of participants chose swimming, its benefits and its importance for specific groups of pregnant women should not be underestimated.

Despite the fact that only 10.06% of participants in our study indicated yoga as a preferred form of physical activity during

pregnancy, it is important to note that this practice still has significant benefits for pregnant women.

Yoga is known for its beneficial effects on both physical and mental health. During pregnancy, the practice of yoga can help the body's growing flexibility, which is essential for pregnant women as the body undergoes significant changes. Yoga-specific exercises can help maintain muscle and joint flexibility, which can have a positive impact during the birthing process. Additionally, yoga can strengthen the body's muscles, which can help prepare for labor. The strength exercises included in a yoga practice can prepare a pregnant woman's muscles for the physical stress associated with child birth. Yoga also has a positive effect on the mental health of pregnant women.

Practicing yoga can reduce stress and anxiety levels that often occur during pregnancy. It can help a pregnant woman cope more effectively with the emotional challenges of pregnancy and improve the quality of her sleep, which is essential for her overall well-being.

Only 12.74% of the participants in our study indicated fitness training as a preferred form of physical activity during pregnancy. This shows that although fitness training is a diverse group of exercises, it is not as widely accepted among pregnant women.

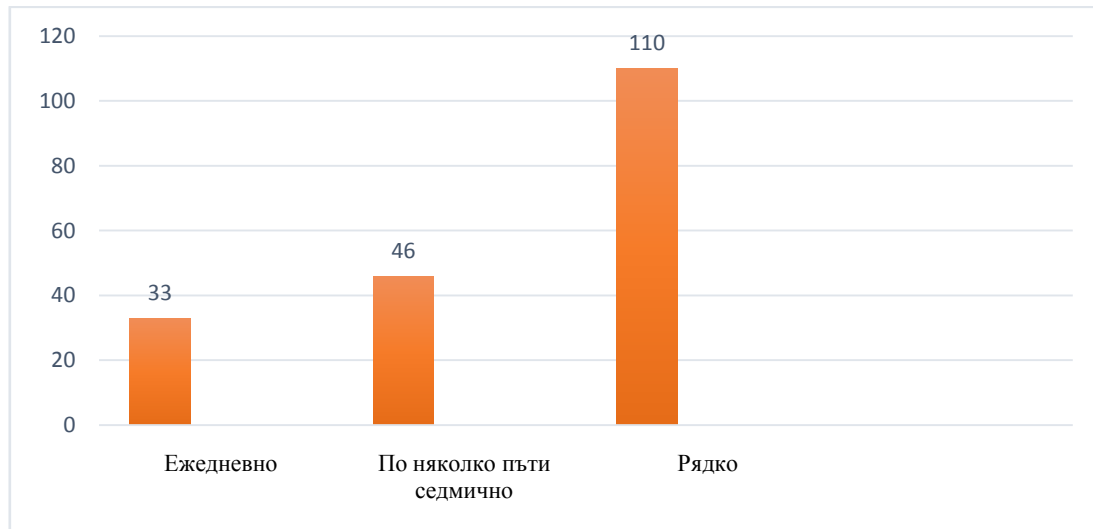
It is important to note that the categorical answer "other" indicates that there are other types of exercise that pregnant women prefer to perform during pregnancy, but these are not specified in the given statistics. Only 1.93% of participants scored this response, which may indicate that these other types of exercise are rarer or less popular among the pregnant women in our study. It is interesting to investigate the identification of these "other" types of exercise and to explore what their specific



characteristics and benefits are for pregnant women.

Each of these types of exercise has its advantages and can be selected depending on the individual needs, preferences and limitations of the

pregnant woman. It is important to choose an exercise that is safe and meets the physical and psychological needs of the woman during pregnancy (Fig.3).



**Fig.3. Frequency of physical activity of pregnant women**

This question is essential for understanding the usual physical activity practices of pregnant women and how often they prefer to exercise during this period. By looking at the responses, we can build an idea of how often pregnant women typically engage in exercise and what their overall activity level is during this period. There is a group of pregnant women who prefer to exercise daily (n=33). This may be related to their desire for regular physical activity and maintaining a healthy lifestyle during pregnancy. Exercise can include different types of activity, such as walking, swimming, yoga or fitness training.

The majority of pregnant women prefer to exercise several times a week (n=46). This can be the optimal balance between staying inactive and providing the body with the rest it needs during pregnancy. Exercises can be varied and adapted to individual preferences and needs.

Although infrequent exercises (n=110) may not be as common, a significant number of responses reflect this approach. This can be for a variety of reasons, including lack of motivation, fatigue, health problems, or other factors. For some pregnant women, especially those with complicated or high-risk pregnancies, regular physical activity may not be possible or recommended.

Overall, this analysis provides information on how pregnant women typically engage in physical activity during pregnancy and their preferences for exercise frequency. It is important to keep in mind that every pregnant woman is different and it is important to exercise in moderation and according to individual needs and limitations (Fig.4).

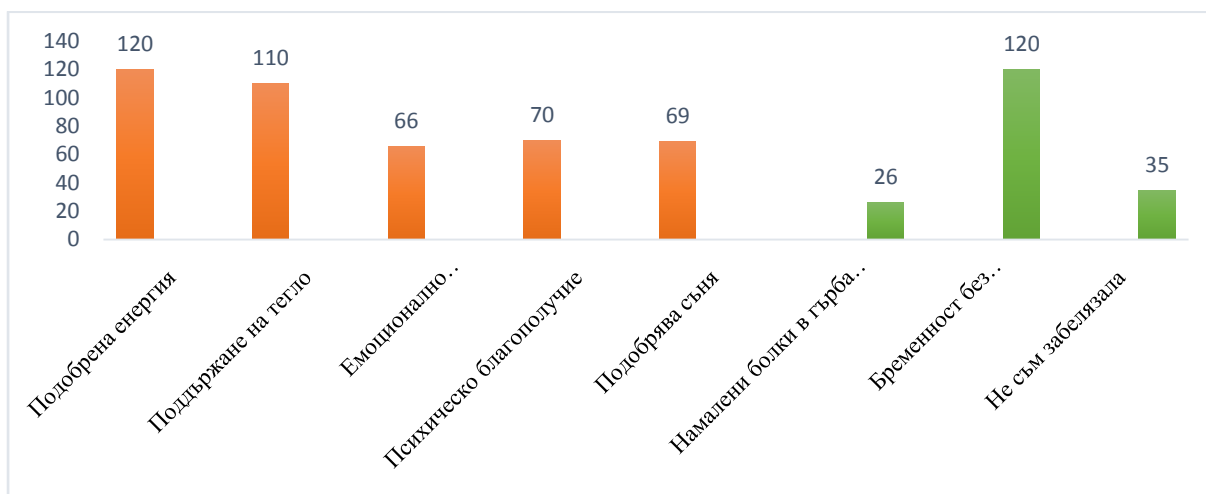


Fig. 4. Influence of physical activity during pregnancy

This question reflects the importance of physical activity during pregnancy and how it can have a positive effect on various aspects of the health and well-being of pregnant women. By looking at the answers, we can extract valuable information about how physical activity can affect different aspects of pregnant women's lives. A significant number of pregnant women notice increased energy when exercising (n-120). This can be especially important as pregnancy can often lead to fatigue and exhaustion. Maintaining a healthy weight during pregnancy is essential for the health of the mother and the developing baby (n-110). Physical activity can help control weight and prevent excess weight gain during pregnancy.

Physical activity can have a positive effect on the emotional (n-66) and mental well-being of pregnant women (n-70) by helping to reduce the stress, anxiety and depression that can often occur during pregnancy. Physical activity may help improve sleep quality during pregnancy (n-69). Regular moderate activity can help regulate sleep and reduce sleep problems such as in somnia or interrupted sleep. Physical activity can help maintain strong muscles in the lower back and back, which can reduce the risk of pain and discomfort in the seareas that are common during pregnancy(n-26).

Many respondents noted that regular physical activity contributed to their pregnancies being complication-free (n-120). This may be related to the positive effects of physical activity on maternal and infant health.

### III. CONCLUSIONS

1. Based on the responses, it is observed that most of the respondents (71%) responded that they maintained an average level of physical activity

before the on set of pregnancy, while 28% responded that they maintained a high level of activity.

2. The variety of preferred types of exercise shows that pregnant women are inclined towards different forms of physical activity, such as walking (36%), fitness training (29%), yoga (21%) and others. This diverse approach can benefit their health and well-being.

3. Almost half of the respondents (46%) perform exercises several times a week, which emphasizes the importance of regular physical activity during pregnancy. This can help keep a woman healthy and in shape and prepare her body for child birth.

4. The general image of the results corresponds to the presented preferences and positive effects of physical activity on the health and well-being of pregnant women and women in labor. However, there are also several individual differences in responses that may reflect the diversity in women's experiences and needs during this period.

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