and specialists in the field of sport and physical activity during pregnancy (Gleeson and Pauls, 1988).

It is important to discuss the importance of health prevention through physical activity and the direct link to improving the quality of life and the health status of practitioners. There are multiple scientific evidence for effective psychological relaxing effect of exercise programs combined with SPA & Wellness & Thalasso packages improving the quality of life when applying in everyday life (Dimitrova, 2012a, 2012b).

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INTRODUCTION

The developed Program „Gymnastics with psycho prophylaxis for women with normal pregnancy“ within a scientific project № 234/30.05.2011 at NSA „V. Levski“, Bulgaria is not only up-to-date, but it has a significant social importance. The activities that are part of the program (Nesheva (Нешева), 2014) are held twice a week. A single activity is 60 minutes. It comprises two modules: „Gymnastics“ (40 min.) and „psychological treatment“ (2x10 min.). During the activities is being performed functional control.

The overall analysis of the literature on the benefits of the physical activity and the adapted programs for pregnant women indicates that the data is not only differentiated in terms of specific organs, systems and functions, but it is also of a complex nature.

RESULTS AND DISCUSSION

Education of women plays important role in increasing the benefits (Petersen, & Brownson, 2005) as well as increased competence of physiotherapists, midwives and specialists in the field of sport and physical activity during pregnancy (Gleeson and Pauls, 1988).

It is important to discuss the problem of the importance of the health prevention through physical activity and the direct link to improving the quality of life and the health status of practitioners. There are multiple scientific evidence for effective psychological relaxing effect of exercise programs combined with SPA & Wellness & Thalasso packages improving the quality of life when applying in everyday life (Dimitrova (Димитрова), 2012a, 2012b).

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on the mood, strength and endurance, it increases the capability, affects the alertness and vitality that are necessary for every pregnant woman. In this regard, the influence of the exercises on the pregnant woman body leads to significant changes in the cardiorespiratory system, occurring in connection with pregnancy.

It has been found out that there is almost no difference in the body temperature (36.5 °C - 36.7 °C) before and after an exercise of a low intensity and when the intensity is at about 70% of the maximum heart rate, the pregnant women are not endangered of hyperthermia (Larsson & Lindqvist, 2005).

Implementation of selected exercise and gymnastic complexes (Vasileva (Василева), 1959; Gavriiski (Гаврийски), Stefanova (Стефанова), Kiselkova (Киселкова), & Bichev (Бичев), 2005; Lebedev (Лебедев), 1962) provides support and further enhance the overall tone of the body, strengthens the overall skeletal muscle and increases the mobility of the hip joints. The activation of the major muscle groups during the activities leads to improved utilization of glucose by simultaneously increasing insulin sensitivity (Hartmann & Bung, 1999).

According to Zhavoronkov and Kaplan (1956) pregnant trainees undergo less stretching of the muscles, tissues and skin in the abdominal area than untrained (according to Epifonov (Епифанов), 1987). Furthermore, children of trained women develop less obstetric complications and diseases than children of untrained women.

Epifonov (Епифанов), (1987) points out that through various exercise programs working muscles can favorably affect blood vessels and the dynamics of the blood, thereby reducing stagnant phenomena in the legs and increasing the overall performance.

Intrauterine fetal development in the untrained is slowed compared with trained pregnant. Scientists believe that if women during pregnancy are engaged in gymnastics and yoga they will not have toxemia (Babbar, Parks-Savage & Chauhan, 2012; Kirkby and Birmingham, 1996).

Bung, Huch, R., & Huch, A., (1991) found no changes in fetal heart rate after sub maximal workloads of a pregnant - a professional athlete.

Yagunov (1956) observed a reduction in the average duration of labor in pregnant women athletes compared with non athletes (according to Vasilevьa (Василева), 1959). Survey results of Babbar, Parks-Savage, & Chauhan (2012), show that the risk of preterm birth for the pregnant women that are involved in physical activity is lower, sport not only improves their quality of life but they are under less stress, have normal sleep duration (Borodulin, Evenson, Wen, Herring, & Benson, 2008), the discomfort is reduced and the pregnant are less obese in comparison to the non-practitioners.

The result of original scientific research shows that there are potential benefits in terms of weight control, maternal fitness through exercise, which lead to significant long-term benefits for woman’s overall health and that of the fetus (Brown, 2002; Davies, 2003; Dumas, Reid, Wolfe, Griffin, & Mcgrath, 1995).

Insufficiently has been studied the participation of pregnant women in groups for physical exercises in the prenatal period that used to lead a sedentary lifestyle before the pregnancy (Yeо Cisewski, Lock, & Marron, 2010). According to Yeо et al. (2010) trained women before pregnancy adapt more quickly and take training loads more easily than those who led a sedentary lifestyle.

Gouveia et al. (2007) believe that pregnant women who exercised with moderate physical activity had an improved blood flow to the placenta, which has a positive effect not only on the woman herself but on fetal development and mothers who are physically active during pregnancy breastfeed longer.

The morphological features as well as the weight gain during pregnancy can significantly increase the load on the joints - up to 100% during exercise. Due to these changes caution is required when performing exercises with vertical impact strength (Wang & Apgar, 1998). Although there is no clear evidence that the injuries are more common during pregnancy, prescribing exercises within this period should be approached carefully and competence (Artal & O’Toole, 2003; Gavriski (Гаврийски) et al., 2005). During pregnancy extreme sports are not to be performed as well as jerky movements and turbulence that can cause termination of the pregnancy due to uterus contractions (Wojtyla, Kapka-Skrypczak, Paprzycki, Skrypczak, & Bilinski, 2012).

Recommended are sports such as gymnastics, water aerobics yoga and others. Exercise is the most accessible and unpretentious form of training that can be performed anywhere at anytime. According to Davies (2003) and Mottola (2009) with its wide range of exercises it is universal by having a complex effect on the pregnant (www.nsa-nesheva.com).

Water aerobics (Parker and Smith, 2003) is not harmful to the mother’s and the baby’s health. Recommended are moderate exercises 2-3 times a week, which help for the prevention and treatment of back or waist pain (Panteleeva (Пантелейева), 1985).

Other authors point out that pregnant women living at an altitude of over 1,600 m have an increased hemoglobin concentration in the blood. In such cases, physicians are skeptic about exercising during pregnancy (Entin & Coffin, 2004).

Studies have showed that the heart rate (HR) at rest of hypertensive pregnant women is higher compared to healthy pregnant women. In applying the isometric exercises (stretching), the authors share the opinion that HR of the pregnant is being increased, also the systolic and diastolic blood pressure increases, but the vascular resistance is being (Nisell, Hjemdahl, Linde, & Lunell, 1985).

For lowering blood pressure (RR) are recommended combined effects of breathing exercises, walking freely and elements of autogenic training, which lead to
improved hemodynamic functions of the body (Mantalova (Манталова), 1999).

In normal pregnancy are recommended exercises with aerobic nature of a healthy lifestyle (Davies et al., 2003a; Davies et al., 2003b). Not recommended exercises fast retraction, sharply raising the hands and suddenly stop motion (Hadjipetrova (Хаджипетрова), 2000).

According to Emonts, Thoumsin, & Foidart (2001) and a pregnancy research exercise and sport are recommended, but women should be aware of the potential dangers and contraindications.

General health of women should be examined before prescribing an exercise program ACOG (2002). In general, all activities undertaken must be safe (ACOG, 2002; American College of and Gynecologists, 2003). Obstetricians and gynecologists of Canada and the American College of Obstetricians and Gynecologists recommend physical activity for all healthy pregnant women (Entin & Coffin, 2004).

American College of Obstetricians and Gynecologists (ACOG, 2002) recommends the pregnant women to be engaged in physical activity of moderate intensity (the length of which is at least 30 minutes) on most days of the week, especially in the second quarter.

Recommended are aerobic loads, which may include large muscle groups with long rhythmic shortenings (Artal & O’Toole, 2003). With respect to the number of sessions per week should be taken into consideration that the exercise practice more than five times weekly during the third trimester of pregnancy correlates with low birth weight (Campbell & Mottola, 2001).

Insufficient sport activity often worsens women’s health during pregnancy, leads to difficult labor and complicates the postnatal period (Kozlova (Козлова) & Riabuhina (Рябухина), 1990). The authors are of the opinion that during a normal pregnancy, practicing gymnastics should not be more that 40-45 minutes, for former athletes may be up to 60 minutes a day, at least 2-3 times a week.

These guidelines are directed to the prevention of certain undesirable conditions associated with pregnancy, such as preeclampsia or diabetes (Wadsworth, 2007).

The American College of Sports Medicine and the Centers for Disease Control and Prevention, the Committee on exercise and cardiac rehabilitation of the American Heart Association (AHA) accept and support the recommendations related to physical activity and public health of the population that is over 17 years old including pregnant. U.S. health authorities recommend to all healthy pregnant women 30 minutes appropriate physical activity a day (Pedersen, Nielsen, & Damm, 2007).

The opinion and the published above experimental data of different authors are indisputable that exercising is an essential tool in terms of health prevention and good health maintenance of the pregnant women, whose

<table>
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<tr>
<th>PHYSICAL ACTIVITY BENEFITS</th>
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<tr>
<td>1) Trained pregnant women experience less tension in the muscles, tissues and skin in the abdominal area than untrained.</td>
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<td>2) Develop less obstetric complications.</td>
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<td>3) Children are less obese and suffer less from diseases.</td>
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<tr>
<td>4) Favorable effects the blood vessels and the blood dynamics, improves blood circulation and respiratory function. Improves blood flow to the placenta, improves tone and elasticity of the pelvic uterine wall.</td>
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<tr>
<td>5) Increases overall performance, enhances the overall tone, strengthens the skeletal muscles and increases the mobility of the hip joints.</td>
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<td>6) Increases the intrauterine development of the fetus.</td>
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<td>7) Athletes have no toxemia and the risk of gestational diabetes is reduced.</td>
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<td>8) Facilitates childbirth and the postnatal period, reducing the birth average length.</td>
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<td>9) Reduces the number of cesarean.</td>
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<td>10) Reduces the incidence of premature births.</td>
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<td>11) Trained pregnant have more rapid adaptation that the untrained ones.</td>
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<td>12) Breastfeeding period is longer.</td>
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<td>13) Positive effect on the static and dynamic balance.</td>
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<td>14) Adjusts the weight, eliminates the back pain and the pain in the sacral-lumbar region as well as the leg cramps.</td>
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<td>15) Stimulates the metabolism.</td>
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<td>16) Improves the function of the cardiovascular system.</td>
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<td>17) Music dance stimulates physiological processes, not only the engine but also in the vegetative sphere. Music affects the behavior of the fetus.</td>
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The comprehensive review of the literature studied in terms of the changes and influence of the various means, requires the performance of professionally selected exercises for reduction of the abdominal pressure, maintenance and improvement of the overall body tone, strengthening the skeletal muscles (back, abdominal, pelvic, upper and lower limbs muscles) as well as improving the balance and flexibility. Physical characteristics set out below (table 2) such as flexibility, motor coordination, equilibrium stability and strength of the upper limbs are improved (Nesheva (Несева), 2014).

**CONCLUSION**

In conclusion it can be said that two major factors have been found out: education, which appears to be an essential component of making women aware of the necessity of participation in physical activity programs and the physical activity factors before the pregnancy period. The database resulting from experimental research results imply serious social benefits as an aspect of comprehensive care for the pregnant woman.

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