04 - EFECTS OF THE PRATICE OF PHYSICAL EXERCISES FOR PREGNANT WOMEN AND CONCEPTUS: DURING AND AFTER THE GESTATIONAL PERIOD

ANA CAROLINE ALBANO DE RESENDE;
MARIA APARECIDA VENÂNCIO
PONTIFÍCIA UNIVERSIDADE CATÓLICA DE MINAS GERAIS, BH, MG, BRAZIL.
carolalbanobh@hotmail.com

doi: 10.16887/85.a2.4

INTRODUCTION

Until the mid-20th century, the practice of physical exercises during the gestational period was advocated by the fact endure the idea of possible negative effects for pregnant women and their fetus during practice, which endures to the present day to the population and to health professionals involved. Aiming at obtaining knowledge about the performance of physical exercises during and after the gestational period, and with the proposal for the creation of a review article were reviewed two doctoral theses and a dissertation for the preparation of reviews that compusessem this article. The biggest order with the elaboration of this study is to provide readers and target audience (pregnant women) information about the effects of the practice of physical exercises, during and post the gestational period for the mother and fetus. Still, we intend to inform you which exercises could be performed by pregnant women as well as its duration and intensity, associating the practice thereof as allies in preventing diseases from this delicate period of a woman's life, such as gestational diabetes, hypertension, weight control, among others. It is assumed that the realization of physical exercises during the gestational period biological and physiological benefits for mother and fetus even in the postpartum period, and that physical exercises supervised by physical education professional or by a multidisciplinary team of health care professionals as physical education professionals, physiotherapists, doctors, psychologists, nurses, among others can cause severe damage such as fetal death. The present study has the purpose of aggregating knowledge in healthcare specifically in relation to the performance of physical education professional with pregnant women, since they belong to the professional audience formed. Studies concerning the effects of the practice of physical exercises during pregnancy are scarce, necessitating a greater number of searches on the subject for awareness of the population not exalting physical practices during the period cited. There's still the purpose of reflection on the public health policies aimed at health promotion, gestational which are obsolete because they did not offer sufficient information with regard to the practice of physical exercises during pregnancy and in some cases the incentive not to practice from medical guidance in prenatal follow-up period. After effects will be discussed for pregnant woman and fetus from the practices of physical exercises during and after the gestational period.

I- PHYSICAL EXERCISES DURING PREGNANCY

According to Ribeiro (2011), the number of pregnant women practitioners of physical activities in Brazil grew significantly, which promoted a demand for studies to qualify the types of activities that can be performed, intensity and frequency of same, and possible benefits gained from the practice for the fetus and the pregnant woman. Before the exposed, are included as participants in the survey, pregnant women with age between 18 and 45 years, more than 28 weeks gestational age, users of the unified health system (SUS) in Campinas, SP. on the type of physical activities that can be performed with the sample group, the same follow recommendations of the American College of Obstetricians and Gynecologists (ACOG) that cited by the author prescribes:

> "[...] The exercises should be low impact, moderate intensity, frequency, regular, preferably three times a week. Should be avoided impulse movements, the push-ups and excessive extensions of joints because the lower stiffness ligaments means an increased susceptibility to trauma. The supine position is not recommended after the first trimester of pregnancy and sedentary women should gradually increase the activities ". (RIBEIRO, 2011, p. 26)

Still should be considered the absolute contraindications that according to this same author to quote ACOG, are:

> "[...] Significant heart disease, restrictive lung disease, incompetence, isthmus-cervical, multiple gestation of risk for preterm labor, persistent bleeding in the second or third quarter of gestation, placenta previa, preterm labor during the current pregnancy, premature rupture of the membrane, pre-eclampsia and other diseases with vascular repercussion already installed. (vásculopatiasecondaryto diabetes, lupus, chronichypertension, etc.) ". (RIBEIRO, 2011, p. 27)

It was as a result of the study that the most activity performed by pregnant women was walking, it is assumed that choice due the same financial conditions refer to a minimum wage, however other activities could be carried out, such as swimming, stretching, yoga, water aerobics and pedaling on stationary bike. About the benefits gained from the regular practice of physical exercises described above, Ribeiro, (2011) by quoting Christian Association of Ymca (YMCA) et. Al. says:

> "[...] The walk is considered an aerobic activity, which helps significantly in weight control and maintenance of conditioning, in addition to reducing the risk of gestational diabetes, condition that affects 5% of pregnant women. The activation of large muscle groups provides better utilization of glucose and increases simultaneously the insulin sensitivity, considered the practice ideal for pregnant women, recommended mainly women who were sedentary before the "gestation. (RIBEIRO, 2011, p. 28)

See also with the practice of physical exercises a biological and physiological improvement that contributes to better well-being during gestational period, as fighting from pregnancy discomforts, headaches, constipation, fatigue, edema of the extremities, due to the activation of large muscle groups that jointly develop vasoconstriction assisting the venous return, the labor due to strengthening of muscles and muscle tone, the rapid physiological normalization after the baby is born, combating stress due release of hormones during physical activities, control of blood glucose, improves the mood and finally the benefit

more observed was the psychological, that according to the research of Ribeiro (2011), helped pregnant women in maintaining a high ego positive construction of your body composition since pregnancy rates period understands bodily changes. Even with the benefits mentioned, most pregnant women involved in the survey prefer to rest during pregnancy to perform physical activities, one of the factors that contributes to this reality is the lack of prescription for physical exercises, which motivates pregnant women. Still, there is the issue of there being no suitably qualified professionals or informed for the monitoring of pregnant women, there is a need for an interdisciplinary work of physical education professionals, physiotherapists, nutritionists and doctors for better performance, including possible prevention gestational pathologies and maintenance of a healthy state for the pregnant woman and the fetus. However, as to perform physical exercises during pregnancy, it can be said that the same can minimize the nuisances coming from that phase, however, there is need for more research on the subject according to Ribeiro (2011). It is also important to the implementation of health programmes by the Ministry of health, of the population awareness about the necessity of realization of physical exercises during gestational period, the qualification or improvement of health professionals involved in this type of program, because the success of this work it is essential that specific strategies are adopted, thus avoiding miscarriages, premature births, complications in labor, aggravation of existing conditions such as back pain, loss of amniotic fluid, and reduction of fetal movements, among others. The search results are restricted due to the sample group which leaves the results with little relevance when compared with all the pregnant women from Brazil using the SUS, however, the veracity of this research is not questioned, because all the directions of this study were based on requirements of major institutions of worldwide recognition, such as YMCA and ACOG.

II - BLOOD PERFUSION DURING PHYSICAL EXERCISES IN PREGNANT WOMEN

Melo (2012) in his thesis open discussion for risk factors such as possible pathologies that will be described below, which affect the health of the fetus during gestational development and in particular for damage biological conditions and physiological for life of the individual. Dialoguing with the author and with knowledge gained from reading the doctoral thesis presented by Carmen Segovia Ribeiro in Campinas, São Paulo, Brazil in the year 2011, which discusses the topic: knowledge, attitude and practice of physical exercises during pregnancy, it is possible to affirm that the regular practice of physical exercise monitored by skilled professional promote healthy pregnancy and prevention of possible pathologies being those, gestational diabetes, obesity, hypertension, sorted by Ribeiro (2011) as the most resulting from this phase of the life of the woman and second Melo (2012) repeated to occur during the adult life of the fetus. Melo (2012) when performing animal studies shows that smaller amounts of nutrients to the fetus from lag in diet or by minor fetal blood flow through the uterine arteries placenta in a long period of time, are responsible for promoting cardiovascular pathologies in the conceptus. For better understanding of subject Melo (2012) CITES:

> ” [...] Fetal growth depends, therefore, not just maternal nutrition, but also the capacity of the placenta to pass the nutrients in sufficient quantity to the fetus. The normal placental development, in turn, depends on the maternal organism adaptations, and directly linked to their functional capacity. During pregnancy, many changes in maternal body are needed to ensure the supply of nutrients to the fetus. One of these changes refers to the blood flow through the uterine arteries, which varies between 40 ml/min in non-pregnant women to 400 ml/min at the end of gestation. " (MANU, 2012, p. 25)

Reaffirming the thought above, and dialoguing with the author, it is considered in normal pregnancies peripheral arterial resistance decreased, i.e. the compartments uterine arterial vasodilation are capable of providing higher blood perfusion, however it can occur otherwise, as the case of peripheral arterial resistance be increased by promoting in magazines uterine arterial vasoconstriction, decreasing fetal nutrition implying restrictions on fetal growth, or even as suggested by the author while conducting physical activities due to increased peripheral arterial resistance, possible frames of fetal hypoxemia (low oxygen content) that are in temporary or transitional, both of which lead to Encephalic malformation among other consequences. The results of the survey Melo (2012) describes:

> “ [...] The average day hike was 68 in Group A and 46 in B, with all the pregnant women serving more than 85% of the workout with fitness improvement in evaluation in the 28th week, being observed average VO2max: 27.3 ± 4.3 (A), 28 ± 3.3 (B) and 25.5 ± 3.8 (C), p = 0.03. No difference was observed between the groups in the basal characteristics. The average birth weight was 3279 ± ever in Group A, in B and 477g ± 3285 3378 ± 593g in C (p = 0.53), without influence on the percentage of small and large for gestational age. Not observed association between exercise and other variables investigated (preeclampsia, fetal weight evolution, pressure levels and the uterine arteries PI, Middle cerebral and umbilical). The average FCF decreased during the walk (Home: 137 bpm; mat: 102 bpm and recovery: 140 bpm, p < 0.001), with 78% of fetuses with bradycardia. The improvement in physical conditioning was considered protective effect and the increase in maternal weight, risk factor for bradycardia. " (MANU, 2012, p. 16-17)

From this reading is possible to consider that the hike of moderate level held three times a week, so driven by a professional qualified physical education brings benefits for pregnant women such as better physical conditioning, reducing the cases of gestational diabetes, better posture, among others. On the other hand, does not bring significant benefits to the fetus, and when the practice of physical activity is held irregularly without proper guidelines described above can lead to damage to the fetus during the gestational period and after that period with pathologies that can endure throughout his adult life, such as heart problems and brain impairments. Still, for the projection of the author's research, if necessary more research of the subject matter for future distinct comparisons the same obtained in this study.

III - PHYSICAL EXERCISES FOR PREGNANT WOMEN AS PALLIATION IN CONTROL OF BLOOD PRESSURE

Initiating the discussion of the theme, Martins (2012), defends the practice of physical exercises as beneficial, in biological, psychological and social spheres, the author of the dissertation describes that, physical activity is responsible for the promotion of health, serving as a palliative in control/treatment of pathologies, in particular the control of high blood pressure, or serving as effective means to non-adherence to pathologies, being that these diseases are those that affect physical activity and sedentary individuals cited previously, held regularly and monitored daily or periodically by a healthcare professional, and study with emphasis on the practice of hiking performed three times per week, lasting 30 minutes accompanied by health professionals. In the social scope, the author of the dissertation draws attention with regard to exercise citizenship, on the assumption that the individual who seeks ways to perform physical activity, search improvements, stating that thought the author of the dissertation,

to quote one set of authors, describes:

> [...] "The actions of health education are related to the exercise of citizenship in the quest for better living conditions and health of the population, in order to awaken behaviors, values and attitudes between individuals as a way to stimulate the process of reflection on how to fetch information about behaviors, values, beliefs and attitudes in relation to the risk factors for hypertensionwith a view to planning of educational programme for the population under study. " (MARTINS, 2012, p. 56)

To dialogue with this author the further reading of the doctoral thesis presented by Adriana Suely de Oliveira Melo, in the year 2012, Campinas, with the following theme:Effect of physical exercise during pregnancy on the fetus-placental blood flow and fetal growth: "randomised controlled Trial", where the author states that while conducting physical activities in an organism considered healthy, blood perfusion is directed to the active muscles involved in the activity, and thus compromise the blood nutrition for the fetus held via uterine arteries, alarming to negative effects arising from the practice of physical exercisesas possible solution to such an effect described above, the author of the thesis discusses in his study the physiological changes that occur in the uterine arteries allowing minor arterial peripheral resistance and hence greater blood flow to the end of the pregnancy to the fetus, dialoguing with this knowledge the author of the dissertation in their studies to cite one set of authors presents another saline solution for such a situation problem and describes:

> " [...] The main hemodynamic response of physical exercise is the selective redistribution of blood to the muscles in activities, with reduced esplâncnicos bodies and potentially to the uterus and fetus. The increase in cardiac output during pregnancy means that the increased blood flow to muscle in exercise can occur without reducing the flow to the fetus. The cardiac output/V02 (systemic metabolic demand) is not affected by pregnancy. These responses are mediated by mainly endocrine mechanisms. " (MARTINS, 2012, p. 16)

Before the exposed, complementing idea of biological enhancements to the body of the pregnant woman, when specifying duration, intensity and type of exercise to be performed, the author outlines benefits, linking high blood pressure control and practice of physical exercises to quote one set of authors:

> "[...] Aerobic training with hypertensive subjects reduces systolic/diastolic on average – 6.9/ -4.9 mmHg, but the magnitude of this reduction is influenced by the characteristics of the training. Generally speaking, there is still a shortage of data on this subject, but existing ones suggest that the increased hypotensive effect is promoted by light intensity and exercises with weekly volume high, what can be achieved with longer duration sessions and/or higher frequency weekly. So for aerobic training with hypertension, should consist of at least 30 min sessions., performed with a minimum weekly frequency of 3 times and with light intensity (40 to 60% of VO2max). For best results, the weekly volume should be increased, extending the length to 50 to 60 min. and/or weekly frequency to 5 sessions/week. This program must be tailored to individuals, taking into account other pathologies associated with hypertension and the biological characteristic of each patient. "(MARTINS, 2012, p. 54)

Aiming at abetter understanding of the results from his research the author presents the following two tables: (MARTINS, 2012, p. 57)

Quadro 2 - Pressão Arterial Média (PAM) antes da caminhada. Fortaleza-CE, 2012.

Encontros Gestantes	1º	2º	3º	4º	5º	6º	7º	8º	9º	10º
1	80	80	73	70	63	73	77	77	77	77
2	90	80	80	80	77	73	80	80	80	77
3	103	97	93	93	110	103	103	100	100	93
4	90	77	73	73	73	73	73	73	73	73
5	103	97	93	97	87	83	73	87	93	93
6	80	73	80	77	73	70	77	70	70	70
7	83	83	83	73	80	80	80	80	87	80
8	90	73	70	80	80	80	80	83	80	87
9	90	90	90	90	80	80	83	83	80	80
10	93	93	93	90	83	83	83	90	83	83

Legenda: PAM: (PAS + 2PAD)/3

Prochaska, Norcross e Diclemente (1994) asseguram que as pessoas que conseguem finalizar o processo de transformação nunca mais abandonam o seu novo hábito e querem sempre continuar sentindo os benefícios alcançados. Esse processo passa a ser extremamente fácil e natural.

Quadro 3 - Pressão Arterial Média (PAM) após 30 minutos de repouso da caminhada. Fortaleza-CE, 2012.

Encontros/ Gestantes	1º	2º	3º	4º	5º	6º	7º	8º	9º	10º
1	73	87	73	73	63	70	73	77	77	77
2	90	87	80	87	77	70	80	73	77	77
3	97	93	93	93	107	103	100	100	93	93
4	80	77	80	73	73	73	73	73	73	73
5	97	87	93	90	83	80	80	87	90	93
6	80	80	80	70	70	70	77	70	70	70
7	83	83	83	73	80	73	80	80	80	80
8	80	80	80	80	80	80	80	80	80	80
9	90	80	83	83	80	80	83	73	73	80
10	93	90	90	90	83	83	83	80	80	80

Legenda: PAM: (PAS + 2PAD)/3

Still with regard to the results obtained with the search, Martins (2012) says:

> "[...] According to table 2 and 3 generally, we note that there has been a gradual reduction of mean Arterial pressure (map) 1 among pregnant women, after the realization of the program of walking. By comparing of PAM, before and after the practice of hiking, we note that pregnant women, with the exception of the G1,

> they obtained shorter average PAM. In the last encounter, pregnant women had PAM values below which began the Trek program. When we observe the Figure 1 and 2 we noticed the oscillation of the PAM of pregnant women in each encounter before the practice of walking and after 30 minutes of the walk home, respectively. Note that during the meetings the value of PAM all pregnant women was smaller in relation to that they began the Trek program. "(MARTINS, 2012, p. 54)

From this study, it is possible to consider that the practice of moderate level hike held three times a week, lasting 30 minutes, so driven by a physical education professional, qualified back benefits for pregnant women such as, reduction in blood pressure levels, better physical conditioning, reducing the cases of gestational diabetes, better posture, among others. The search results are restricted due to the sample group which leaves the results with little relevance when compared with all the pregnant women from Brazil using SUS, emphasizing the need for major accomplishments of research on the subject in question. There is a problem in the implementation of health programmes by the Ministry of health, of the population awareness about the necessity of realization of physical exercises during gestational period, whereas there is a need for qualified health professionals for such, and emphasized the importance of that type of study conducted by the author of the dissertation contributed to the dissemination of knowledge on the subject addressed, in the population of the community related to the study of the author, since the author cites that pregnant women involved in the program have become multiplying agents research along the (pregnant that satisfied with benefits arising from the practice of physical activities, convinced family members or friends to participate in the realization of physical activity) and which still, promoting this kind of posture in the units responsible for the attendances of SUScan promote sports practices as a means of promoting health, thus contributing to the reduction in the use of drugs that in the long run can result in physiological changes, and for various public, elderly, pregnant patients with diabetes, high blood pressure among other pathologies, contributing significantly to the maintenance of a healthy lifestyle.

IV - FINAL CONSIDERATIONS

From these bibliographical reviews on the topic it is possible to consider that the practice of physical activities during gestational period are most beneficial for mother to the fetus, but should make specific constraints of every pregnant woman in the Act of practice for non-negative results susceptibilities for both the fetus and the pregnant woman. Government intervention is required in respect of the promotion of public policies of health with an emphasis of spreading this information to pregnant women, since health centres health plan to the SUS, how much the prenatal accompaniments. There is still a need for more targeted research to the effects of physical activity during pregnancy.

REFERENCES

MARTINS, Aline Barbosa Teixeira. Exercise for pregnant women: An educational technology for the control of blood pressure.Fortaleza, Ceará,UNIVERSITY of FORTALEZA, UNIFOR, 2012.

MCARDLE, Katch, W. W. Katch. Exercise physiology. Energy, nutrition and human performance.7th Edition. Rio de Janeiro, Guanabara Koogan, 2011.

MELO,Adriana Suely de Oliveira.Effect of physical exercise during pregnancy on the fetus-placental blood flow and fetal growth: "randomised controlled trial". Campinas, São Paulo, UNIVERSIDADE ESTADUAL DE CAMPINAS, Faculdade de Ciências Médicas, Unicamp, 2012.

RIBEIRO, Carmen. Silva. Port. Knowledge, attitude and practice of physical exercises in pregnancy.Campinas, São Paulo, UNIVERSIDADE ESTADUAL DE CAMPINAS, Unicamp, Faculdade de Ciências Médicas .2011.

Rua suíça, nº 69, casa d, bairro industrial
Contagem, Minas Gerais, cep.: 32230-150

EFECTS OF THE PRATICE OF PHYSICAL EXERCISES FOR PREGNANT WOMEN AND CONCEPTUS: DURING AND AFTER THE GESTATIONAL PERIOD

ABSTRACT

From the proposal for preparation of a scientific paper, was made the choice of methodological literature review in order to reflect on the recommendation as to whether physical activities during the gestational period, and thus subsidizing the activities of some health professionals who have trained as pregnant after target audience. Wondered what activities could be carried out by pregnant women as well as duration and intensity, as would be the fetus-placental blood flow during physical activities and physical activities carried out in the gestational period could serve as palliative means the control of pathologies from the gestational period, such as hypertension, gestational diabetes, weight control among others. Response was obtained that the activity more indicated for pregnant women is the walk of moderate level, lasting for 30 minutes with the frequency of 3 times per week. As for the biological and physiological benefits observed in the majority of pregnant women studied and research participants who remained until the end of the same, improving recovery in the post-partum period for pregnant women, improved efficiency in the labor, weight reduction in the case of pregnant women who were overweight, hypertension and elevated ego control due to maintenance of body composition.

KEYWORDS: Physical activity, pregnant women, public health policies.

EFFETS DE LA PRATIQUE D'EXERCICES PHYSIQUES POUR LES FEMMES ENCEINTES ET LE FOETUS : PENDANT ET APRÈS LA PÉRIODE DE GESTATION

RÉSUMÉ

De la proposition de rédaction d'un document scientifique, a fait le choix de la revue de la littérature méthodologique afin de réfléchir sur la recommandation quant à savoir si les activités physiques au cours de la période de gestation et donc de subventionner les activités de certains professionnels de la santé ayant une formation comme enceinte après public cible. . Je me demandais quelles activités pourraientêtre exécutées par les femmes enceintesainsi que de duréeet d'intensité, commeceseraitle débitsan guinplacentaire-foetu saucours desactivités physiques et desactivités physiques effectuées danslapériode de gestation pourraient servir de soins palliatifs : lecontrô ledes pathologies de lapériode de gestation, tels que l'hypertension, lediabèt egestationnel, contrôledupoids entre autres. Réponse a été obtenue que l'activité plus indiquée pour les femmes enceintes est la promenade de niveau modéré, une durée de 30 minutes avec la fréquence de 3 fois par semaine. Quant aux avantages biologiques et physiologiques observés dans la plupart des femmes enceintes étudiées et les participants à la recherche qui avaient continué jusqu'à la fin de la même chose, amélioration de la récupération dans la période suivant l'accouchement pour les femmes enceintes, amélioration de l'efficacité dans le travail, la réduction de poids dans le cas des

femmes enceintes qui avaient une surcharge pondérale, hypertension et ego élevée contrôlent en raison du maintien de la composition corporelle.

MOTS-CLÉS: L'activité physique, les femmesenceintes, les politiques de santé publique.

EFECTOS DE LA PRÁCTICA DE EJERCICIOS FÍSICOS PARA MUJERES EMBARAZADAS Y CONCEPTUS: DURANTE Y DESPUÉS DEL PERÍODO GESTACIONAL

RESUMEN

De la propuesta para la preparación de un artículo científico, se hizo la elección de la revisión de la literatura metodológica para reflexionar sobre la recomendación en cuanto a si las actividades físicas durante el período gestacional y subsidiando así las actividades de algunos profesionales de la salud que se han entrenado como embarazada después de público objetivo. Se preguntó qué actividades podrían llevarse a cabo por mujeres embarazadas, así como la duración y la intensidad, como sería la circulación feto-placentaria durante actividades físicas y actividades físicas realizadas en el período gestacional podrían servir como paliativo significa el control de las patologías del período gestacional, tales como hipertensión, diabetes gestacional, control de peso, entre otros. Respuesta se obtuvo que la actividad más indicada para las mujeres embarazadas es la caminata de nivel moderado, durante 30 minutos con la frecuencia de 3 veces por semana. En cuanto a las ventajas biológicas y fisiológicas observadas en la mayoría de las mujeres embarazadas estudiadas y participantes en la investigación que se quedaron hasta el final de la misma, mejorar la recuperación en el período post parto para las mujeres embarazadas, mayor eficiencia en el trabajo, reducción de peso en el caso de las mujeres embarazadas que tenían sobrepeso, hipertensión y ego elevado controlan debido al mantenimiento de la composición corporal.

PALABRAS CLAVE: La actividad física, mujeresembarazadas, las políticas de salud pública.

EFEITOS DA PRÁTICA DE EXERCÍCIOS FÍSICOS PARA GESTANTES E CONCEPTOS: DURANTE E PÓS O PERÍODO GESTACIONAL.

RESUMO

A partir da proposta de elaboração de um artigo científico, foi feita a escolha metodológica de revisão bibliográfica com vistas a refletir sobre a preconização a respeito de se realizar atividades físicas durante o período gestacional, podendo assim subsidiar a atuação de alguns profissionais da saúde que tem após formados as gestantes como público alvo. Questionou-se sobre quais atividades poderiam ser realizadas pelas gestantes bem como duração e intensidade, como ficaria o fluxo sanguíneo feto-placentário durante a realização das atividades físicas e ainda como as atividades físicas realizadas no período gestacional poderiam servir de meio paliativo ao controle de patologias provenientes do período gestacional, tais como hipertensão, diabetes gestacional, controle de peso dentre outros. Obteve-se como resposta que a atividade mais indicada para gestantes é a caminhada de nível moderado, com duração de 30 minutos com a frequência de 3 vezes por semana. Quanto aos benefícios biológicos e fisiológicos observou-se na maioria das gestantes participantes das pesquisas estudadas e que permaneceram até o final da mesma, melhora da recuperação no período pós-parto para a gestante, melhor eficiência no trabalho de parto, redução de peso no caso de gestantes que estavam acima do peso, controle da hipertensão e ego elevado devido a manutenção da composição corporal.

PALAVRAS-CHAVE: Atividade física, gestantes, políticas públicas de saúde.