

THE STUDY ON THE QUALITY OF LIFE OF WOMEN IN THE POSTPARTUM PERIOD

Horia CROITORU ¹, Virgil ENE-VOICULESCU ^{2*}, Carmen ENE-VOICULESCU

¹ Navigation and Maritime and River Transport Department, Faculty of Navigation and Naval Management, Mircea cel Batran Naval Academy, 900218 Constanta, Romania

² Naval Tactics and Armament Department, Faculty of Marine Engineering, Mircea cel Batran Naval Academy, 900218 Constanta, Romania

³ Department of Physical Education, Sports and Physical Therapy, Faculty of Physical Education and Sport, Ovidius University of Constanta, 900470 Constanta, Romania

* Corresponding author: virgil.ene@anmb.ro

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Abstract: *At the national level, the statistical data related to the natural increase highlight the fact that Romania is in an alarming process of population decline, which will cause a decrease of up to 17.8% by the year 2050. This population decline will also manifest itself in other countries such as Bulgaria, Croatia, Poland, Estonia, Slovakia while in developed countries such as Austria, Belgium, France, Switzerland, Italy and the United Kingdom of Great Britain statistical data indicate a population growth based on the higher standard of living that determines an increasing number of births but also on the fact that these countries attract every year waves of young immigrants who settle down and want to start families in countries that are much more developed than the ones they come from.*

Thus we can affirm the fact that an objective evaluation of the entire process that is the basis of the natural increase of the population is necessary, namely the process of conception, the prepartum and postpartum period.

The purpose of the research undertaken is primarily to evaluate the quality of life of women in the postpartum period, at the same time as understanding and knowing the phenomenon of practicing physical exercises aimed at improving the quality of life of young mothers, as well as determining the links between the quality of life perceived by women in the postpartum period and their desire to getting back to your pre-pregnancy physical shape and even wanting to have a second or third pregnancy.

Key words: *postpartum, natural enhancement, quality of life*

Introduction

Birth is the zero second from which a new life begins, but at the same time it represents another second given to the hope of perpetuating the human species and continuing its development. The moment of birth is always unique for each mother-to-be, but at the same time similar to all other births in the feelings, experiences and emotions felt, but also in the unknown in which the mother-to-be is about to step.

Starting from the moment of conception to the moment of birth, and then until the recovery of all the physical and mental capacities before pregnancy, profound changes occur that can leave their mark in a significant way, and can even remain irreversible. Throughout history, there have been several methods of amelioration primarily of the effects felt during birth and less of the changes occurring from conception, to birth and especially after birth.

That's why the changes that appeared in the prepartum and postpartum period determined a series of increasingly detailed studies and increased attention to the effects of these physical and mental transformations on future mothers. Studies have led to the emergence

of well-documented protocols aimed at monitoring pregnancy from a holistic perspective that includes physiological, psychological, somatic and motor parameters.

Pregnancy is made up of all the phenomena that occur between the moment of fertilization and the moment of birth. During the manifestations of these phenomena, the woman carries one or more embryos, also called fetuses, in her uterus. During a pregnancy there can be several pregnancies (e.g. twins or triplets).

Pregnancy is grouped into 3 trimesters starting from the moment of fertilization and birth takes place under normal physiological conditions 38 weeks from this moment. Following the gynecological examination, pregnancy can be diagnosed 8 weeks after its installation or earlier by measuring the chorionic gonadotrophic hormone (HCG) present in the blood plasma.

The purpose of the research

The present study aims to evaluate the quality of life of women in the postpartum period; determining the level of knowledge of the phenomenon of practicing physical exercise in the postpartum period; determining the links between the quality of life perceived by the pregnant woman in the prepartum period and the manifestation of the desire to return to the pre-pregnancy physical form in the postpartum period.

The analysis of the data obtained from the application of the quality of life assessment questionnaire on a sample of 50 women represented a preliminary exploratory research on the whole phenomenon of practicing physical exercise in the postpartum period.

This research will provide us with the preliminary data and may open our horizon to a more thorough research that will include both the study of the quality of life and the way of implementing physical exercise programs in the postpartum period.

Research objectives

- Determining the effects of sedentary in the postpartum period
- Identifying the causes that determine the appearance of sedentary in the postpartum period
- Analysis of factors that can improve the quality of life of women who practiced physical exercise in the postpartum period

Research tasks

To achieve the research objectives, the following tasks are foreseen:

- a) the study of the specialized bibliography;
- b) developing and applying the questionnaire to the sample of investigated subjects;
- c) collection and centralization of data obtained following the application of the questionnaire;
- d) statistical analysis and interpretation of the results of the data obtained following the application of the questionnaire.

Research hypothesis

1. The quality of life of pregnant women can be improved by practicing physical exercise in the postpartum period.

2. The frequency of weekly physical activities can be ameliorated (improved or increased) by creating a climate that favors rest and recovery of effort capacities of postpartum women.

Research methods

1. The specialized bibliographic study method

In order to know the scientific foundations of the evolution of the mother's body and the fetus, as well as the physiological changes that occur, both in the prepartum and postpartum period, we followed the level of spread of the phenomenon of physical exercise, in different areas of the globe where significant data could be identified from a scientific point of view.

2. The survey method by questionnaire

It represents a complex technique of sociological research that involves several stages. Questionnaire opinion research is defined as a very good means of explaining human behaviors and identifying the factors that determine these behaviors (Miftode, 1995, p. 245).

3. Exploratory research method

This method has as its main purpose the development of new relevant hypotheses in order to continue the investigations and is based on obtaining answers to questions such as: What? Who? How much? Where? And to obtain these answers, the application of surveys or questionnaires is recommended.

4. Content analysis

This is a research technique aimed at collecting and structuring information in a format that can facilitate researchers to identify possible interferences in information collected from multiple individuals. Content analysis is used in most of the social sciences and is an ongoing topic of debate between quantitative analysis adherents and qualitative analysis adherents. Content analysis is interpreted as "a technique aimed at describing, with optimal objectivity, precision and generality, what is said about a given subject, in a given place, at a given time" (Lasswell, 1965, pp. 40-52).

5. Statistical analysis method

Statistical analysis involves the use of some calculation methods or some strings of statistical data with the aim of testing certain qualities (ACOG, 2020), establishing the existence of some relationships, determining the types of relationships or the significance of the relationships between the studied data.

Research subjects

The research subjects are represented by 50 women in the postpartum period to whom a questionnaire was applied to determine the quality of life in the postpartum period immediately after birth and 6 months after this moment, the level of knowledge regarding the practice of physical activities in this period as well as all the anatomical and physiological changes felt.

Research tools

The questionnaires used were aimed at determining the following aspects:

- the quality of life from the point of view of the prepartum period;

- the subjects' perception of the postpartum period through the lens of health problems during pregnancy (Harms, 2005);
- the level of daily physical activity during pregnancy and the prenatal period (Comes & Popescu-Spineni, 2005);
- addictions manifested during pregnancy and in the period immediately following birth;

Discussions and Postpartum results

Assumption: Health status differs significantly for pregnant women who exercised during the postpartum period compared to those who also exercised during the following 6 months

H0: $\mu_1 = \mu_2$

H1: $\mu_1 \neq \mu_2$

The null hypothesis H0 is rejected because $t_{\text{calculated}} > t_{\text{tabular}}$, also confirmed by the value of $p < \alpha = 0.05$

$t_{\text{Stat}} 2.077 > t_{\text{Critical one-tail}} 1.66$ $P(T \leq t)$ one-tail 0.02 < 0.05

$t_{\text{Stat}} 2.077 > t_{\text{Critical two-tail}} 1.98$ $P(T \leq t)$ two-tail 0.04 < 0.05

The probability that the difference between the 2 means is not significantly different is very small because $p < 0.05$. So our assumption is correct.

Table 1. *Statistical significance – postpartum and 6 months after birth*

t-Test: Two-Sample Assuming Unequal Variances		
	<i>Postpartum</i>	<i>6luni</i>
Mean	4,564487	3,684615
Variance	4,023203	4,948014
Observations	50	50
Hypothesized Mean Difference	0	
Df	97	
t Stat	2,077202	
P(T<=t) one-tail	0,020213	
t Critical one-tail	1,660715	
P(T<=t) two-tail	0,040426	
t Critical two-tail	1,984723	

Table 2. *The correlation coefficient between the variables that evaluate the condition of pregnant women in the postpartum period*

	Birth	Complications	Ponder	Health	Condsitions	Muscular joint pains	Stress	Rest	Discorder	Physical exercises	Family support	Agreement
Birth	1,00											
Complications	-0,21	1,00										
Ponder	-0,46	0,36	1,00									
Health	0,54	-0,33	-0,78	1,00								
Conditions	-0,44	0,19	0,50	-0,50	1,00							
Muscular joint pains	-0,28	0,22	0,57	-0,53	0,15	1,00						
Stress	0,34	-0,27	-0,50	-0,57	-0,40	-0,32	1,00					
Rest	0,11	-0,06	-0,45	0,44	-0,32	-0,14	0,48	1,00				
Discorder	-0,13	0,01	0,14	-0,18	0,25	0,07	0,02	-0,12	1,00			
Physical exercises	0,23	-0,38	-0,43	0,35	-0,06	-0,30	0,38	0,32	-0,06	1,00		
Family support	0,19	-0,22	-0,40	0,33	-0,09	-0,28	0,35	0,35	-0,09	0,95	1,00	
Agreement	-0,82	0,24	0,49	-0,56	0,43	0,30	-0,38	-0,14	0,22	-0,27	-0,28	1,00

Correlation:

- green: strong positive or negative correlation;
- yellow: average positive or negative correlation;
- red: weak positive or negative correlation.

In the post-partum period, there are pregnant women whose state of health is affected (Butler et al., 2006) presenting muscle/joint pain and stress (average negative correlation between health-joint/muscle pain = -0,53, health-stress= -0,57). The longer the period after birth during which the pregnant woman has the doctor's agreement to practice physical exercise, the worse the health status (average negative correlation between health-agreement = -0,56, (Bø et al., 2016), expectations-agreement=-0,54, weighted agreement=0,49). The average positive correlation between health and expectations (0,53) denotes that good health is also associated with higher expectations regarding post-partum physical exercise (reshaping/ losing weight/

toning/ regaining exercise capacity). The better the pregnant woman's health, the better she rests (average positive health-rest correlation=0.44). The lower her weight, the better she rests (average negative weight-rest correlation=-0.45). (Table 2). In the post-partum period, a strong negative correlation is observed between weight status and health (-0.82). Overall, excess fat affects health. A positive average correlation is observed between weight status and conditions (0.5) muscle/joint pain (0.57).

Excess fat is associated with various conditions (hypertension, hemorrhoids, gestational diabetes, hypothyroidism, hypercholesterolemia, constipation, biliary disorders, increased uric acid). A negative average correlation is observed between weight status and Stress (-0.5) and expectations (-0.62). Overweight pregnant women are less stressed and have lower expectations regarding post-partum exercise (reshaping/weight loss/toning/regaining exercise capacity).

Table 3. *The correlation coefficient between the variables that evaluate the condition of pregnant women 6 months after delivery*

	Ponder	Health	Muscular joint pains	Stress	Rest	Physical exercises	No sessions	Orga-nized	Recomendation	Interval	Effort capacity	Thanks	Enhancements
Ponder	1,00												
Health	-0,66	1,00											
Muscular joint pains	0,68	0,66	1,00										
Stress	-0,48	0,75	-0,62	1,00									
Rest	-0,69	0,64	-0,56	0,52	1,00								
Physical exercises	-0,77	0,66	-0,62	0,47	0,61	1,00							
No sessions	-0,77	0,61	-0,64	0,41	0,62	0,91	1,00						
Organized	-0,65	0,49	-0,60	0,33	0,49	0,67	0,71	1,00					
Recomendation	-0,43	0,37	-0,56	0,36	0,45	0,50	0,47	0,64	1,00				
Interval	-0,35	0,29	-0,25	0,15	0,37	0,65	0,64	0,40	0,30	1,00			
Effort capacity	-0,73	0,67	-0,53	0,48	0,49	0,79	0,72	0,70	0,40	0,35	1,00		
Thanks	-0,72	0,40	-0,55	0,33	0,52	0,44	0,51	0,58	0,42	0,17	0,54	1,00	
Enhancements	-0,73	0,46	-0,58	0,42	0,52	0,49	0,51	0,46	0,33	0,23	0,49	0,70	1,00

Practicing physical exercise in an organized setting, with a greater number of sessions in the first 6 months (Caterina et al., 2017), increases the mother's exercise capacity (strong positive correlation between exercise capacity and physical exercise 6 months =0.79, no. of sessions=0.72, organized =0.7) and confirms hypothesis no. 2 of the preliminary investigation.

Mothers satisfied with their current physical shape consider future improvements in body homeostasis, such as weight/muscle toning/mobility/aerobic capacity) - (strong positive correlation between satisfaction and improvements=0.7).

At 6 months after birth (Davies & Artal, 2019), health status correlates positively with rest (health – rest =0.64), with physical exercise practice, health – ex-physics =0.66), number of physical exercise sessions (0.61) and effort capacity (0.67). The healthier the mother, the higher these values. There is also a strong positive correlation between health-stress=0.75, which could be explained as follows: even if the mother is healthy, she experiences a high level of stress in the first months after birth.

Mothers who are more rested exercise more frequently in the first 6 months, are satisfied with the results obtained and consider future improvements in weight, muscle tone, mobility and aerobic capacity - (average positive correlation between rest and exercise 6 months=0.6, rest-no sessions=0.62, rest-satisfied=0.52, rest-improvements=0.52).

The high weight level reduces the effort capacity (Evenson et al., 2013), the mother's degree of satisfaction regarding the current state of health and future improvements (strong negative correlation between weight-effort capacity=-0.73, weight-satisfaction=-0.72 weight-improvements=- 0.73).

Muscle and joint pains are present regardless of health status, stress, rest, physical exercise, number of sessions, organized setting, etc. in the first months after birth (Dipietro et al., 2019).

Conclusions

In the post-partum period, there are pregnant women whose state of health is affected, presenting muscle/joint pain and stress (average negative correlation between health-joint/muscle pain =-0.53, health-stress=-0.57). The mean positive correlation between health and expectations (0.53) denotes that good health is also associated with higher expectations regarding postpartum exercise (reshaping/weight loss/toning/regaining exercise capacity). The better the pregnant woman's health, the better she rests (average positive health-rest correlation=0.44).

Mothers who are more rested exercise more frequently in the first 6 months after birth, are satisfied with their results, and anticipate future improvements in weight, muscle tone, mobility, and aerobic capacity - (mean positive correlation between rest – physical exercises 6months=0.6, rest-number of sessions=0.62, rest-satisfied=0.52, rest-improvements=0.52).

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