

Trend of Exercise and believes about it in women's that referred to health center of Iran University

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Abstract: Back ground: The best time for doing health behavior for promoting quality of life is in pregnancy and postpartum. One of the health behaviors that have multi dimensional advantage is exercise. **Material and method:** The aim of this study was to determine the Trend of mother's physical exercise in before ,during pregnancy, postpartum and believes about it ,this was a Retrospective longitudinal of study ,for this study 225 were enrolled by continuous sampling. **Result:** The most important exercise in before,during pregnancy and postpartum was walking., the result of Repeated mature test show that trend of exercise before pregnancy to 3 months after that was decreased. The main advantages of behavioral belief during pregnancy and post partum were that exercise: make the sense of happiness and enjoying 94/7%,94/2% The main behavioral disadvantages during pregnancy and post partum were that exercise :make the fatigue 68%,49/9% the courage person influences during pregnancy and postpartum were physician 91/6%,88/9%. The control beliefs obstructing exercise during pregnancy were Fear of harming to baby and 3month after post partum were don't receipt any consultant about exercise 80% **Conclusion:** this study show that the trend of physical activity was regressed from the period before pregnancy to 3 month after that so it suggested that professional care with attention to theory of planned behavior in ward of prenatal care, vaccination, family planning, try to advance exercise between women during pregnancy and postpartum period.

Key word: Physical exercise, Pregnancy, Trend

INTRODUCTION

Currently A lack of physical activity and life style are a major public health problem in all of the world .exercise most be noticed as a essential part of daily living. 1

Longitudinal studies indicate that components of physical fitness are relatively transitory, with low to modest correlations between physical activity and measures of physical fitness in childhood and adolescence and in adulthood 2 In health center of shahid beheshti conducted a study on nearly 386 pregnant women, and they found that almost 61% had physical exercise, walking had the most prevalence during pregnancy. For many women, exercising during their pregnancy was decreased even in women that were active before pregnancy 3. Currently 30% of women had exercise during pregnancy that 7-5% were during pregnancy. 4 According to the America College of Obstetricians and Gynecologists (ACOG) 5 and the American College of Sports Medicine (ACSM) 6, pregnant women without obstetric or medical problems are encouraged to engage in at least 30 minutes of moderate exercise a day (i.e., avoiding exercises with risk of abdominal trauma). Recently despite benefit of exercise during pregnancy this wasn't prevalent in Iran. The main cause of this was lack of knowledge that itself from lack of accurate education by health care professional. Negative attitude and inaccurate believes are produced by insufficient training of health care educator. 7 An important element for promoting health-related physical activity is applying theoretical models that can explain the

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multidimensional determinants of exercise participation. 8Despite the number of psychological theories available, no consensus exists regarding which is the best model for studying exercise behavior. However, one conceptual framework that has been successfully applied to exercise behavior is the theory of planned behavior (TPB). 9 The TPB is a belief-based social cognitive theory that was developed as a revision to the (Fishbein & Ajzen, 1975). The TPB posits that people's expectations According to the model, there are three types of beliefs First, behavioral beliefs are determined by an individual's perceived positive and negative consequences of a behavior, and they form his or her attitude toward the behavior. For example, a woman may believe that exercise will improve her health, but it is also time consuming. Second, normative beliefs are formed by a person's perception that important others think he or she should engage in a behavior, and they provide the structure for subjective norm (courage person). For example, if a woman believes that her spouse wants her to exercise, and she values her spouse's opinion, her subjective norm for exercise will be higher. Third, control beliefs are Developed from people's evaluation of whether behavior adoption will be difficult or easy and the more obstacles that they anticipate for adopting behavior. (e.g., lack Of child care or lack of time), 10

It provides health care professionals with a practical identify the salient behavioral, normative, and control for increasing motivation and facilitating exercise during pregnancy and post partum. The aim of this study was to determine the Trend of mother's physical exercise before ,during pregnancy , postpartum, and beliefs about it.

MATERIALS AND METHOD

Participants were 225 Postpartum women within 6month of a child's birth that referred to 4 selected health center of Iran university in west of Tehran. These women haven't any contraindication for doing exercise. Data collected by questionnaire that has 3 section .first sections was demographic characteristic .secondary section

Women's exercise activity. This questionnaire include of The Leisure-Time Exercise Questionnaire that designed by Godin in 1986 that is a valid and reliable measure of exercise behavior 11 and with attention of exercise list in ministry of women's sport was used .Leisure time questionnaire assessed the frequency of strenuous, moderate, and mild exercise done for at least 15 minutes during a typical week. A total exercise index (in weekly metabolic equivalents) is calculated by weighing the frequency of intensity and summing them for a total score with the following formula:

3 (mild) _ 5 (moderate) _ 9 (strenuous).

Participants completed this measure with

References to their pre pregnancy, pregnancy (first half and second half), and postpartum mild, moderate and strenuous exercise behavior. total score of each part was compared with them. Validity of this questionnaire are assessed by content validity that research committee of school nursing and midwifery determined it. Data was analyzed with spss software, descriptive statistic, repeated measure test, Friedman test and T-test.

Third section was women's exercise belief .this questionnaire was designed from Down study that elicited from 47TPB studies that had conducted an elicitation study, spanning 22 yr (range: 1980–2002). Down sorting participant's responses into sets(with the same underlying belief),this questions was main question of third section of questionnaire that tabulated and categorized by belief type (behavioral, normative, or control) for pregnancy and postpartum that measured by likert scale from 1-7(1:strongly dis agree, disagree ,little disagree, Neither agree nor disagree, little agree, agree. strongly agree).behavioral belief questions include of behavioral advantage Improve mood, Increase stamina, more energy, energy for family, Fitness and Improve appearance(body image), Weight Control, lose weight, Assists at labor and delivery, Relieves stress and promote relaxation, Promote quality of life ,Improve cardio vascular system, Increase concentration

Increase self esteem, Decrease disease symptom, Improve sleep quality, Increase appetite, Improve daily functioning, Improve social life Pleasure, fun .enjoyment .get outside for fresh air behavioral disadvantage Physical discomfort, pain, injury, Psychological problem, stress, Tiredness and fatigue, Waste of time, consuming time, Preterm labor Normative believes Courage person questions include of spouse, children, parents, grandparents, Other family member, Other family member,

Physician, Midwives, Health professional, coach, boss, coworker, teacher, other exercise, other pregnant women, Mosque official, Media TV, internet, radio ,magazine control believes questions Poor health, weakness, Lacking time, Inconvenience gaining weight, Responsibility of life

Breast feeding, care giver for other, Fear of injury baby, Bad weather, Lacking motivation, Laziness. feeling lazy, Physical limitation, Pain and soreness, depression, Lack of access to facilities, Have work

RESULT AND DISSCUTION

Participants were 225 postpartum women during 6 months following the birth of a baby (mean age = 26/7±4/9 years; SD = 4.37; age range = 19 – 40 years) ,mean of gravidity 1/57±0/75 ,mean of parity 1/48±0/66, 20% of women’s have work, 54/7% had natural vaginal delivery. Women had done 19 exercise activity pre pregnancy that walking had the most frequency 73/3%. 62/2 % from women that had walking, played more than three time in a week. In the first half of pregnancy, women had done 16 exercise activities that walking, aerobic and Individual dancing had the most frequency, In the second half of pregnancy, women had done 9exercise activities that walking, Individual dancing and aerobic. Also in the three month after post partum walking, Individual dancing and aerobic had the most frequency. the result of Repeated mature 0/00 test show that trend of exercise before pregnancy to 3 months after that was decreased. table 1

Table1: frequency of exercise intensity, before, during pregnancy and 3months after post partum

Stage	Pre pregnancy		First Half of pregnancy		Second half of pregnancy		3month after post partum		total	
	percent	frequency	percent	frequency	percent	frequency	percent	frequency	percent	frequency
inactivity	32/9	74	52	117	Jul-70	159	Jun-79	179	100	225
Moderate exercise	51/6	116	Apr-44	100	28-Sep	65	18-Feb	41	100	225
Mild exercise	14/7	33	3-Jun	8	Apr-00	1	2-Feb	5	100	225
Strenuous exercise	0/9	2	0	0	0	0	0	0	100	225
mean±Sd	02/40±8/39		2/23±16/21		12/15±03/12		02/19±05/10			
p-value	0/00									
Repeated measure test										

Exercise activity that had done from before, during and after pregnancy WAS 14. Friedman test result show that all of them exception of Taekwondo had a decreasing trend. table 2

Table 2: Compare of exercise activity before, during and after of pregnancy in women that referred to health center in the west of Tehran

exercise	Pre pregnancy		First Half of pregnancy		Second half of x of pregnancy		3month after post partum		p-value Friedman coefficient
	Sd	mean	Sd	mean	Sd	mean	Sd	mean	
walking	75/2	3-Apr	3-Feb	3-Feb	15/3	2-Jun	14/2	1-Feb	00/0
Warm-up	2-Mar	67/1	2-Apr	17/1	2	76/0	67/1	56/0	001/0
yoga	98/0	18/0	71/0	093/0	47/0	004/0	46/0	031/0	00/0
Individual dancing	2-Feb	2-May	1-Mar	1-Jan	85/0	Apr-00	1-Mar	May-00	00/0
jogging	76/1	84/0	1-Jan	23/0	57/0	062/0	18/1	23/0	00/0
badminton	54/0	Jan-00	22/0	026/0	0	0	46/0	031/0	00/0
cycling	1-Jun	44/0	Feb-00	013/0	0	0	69/0	084/0	00/0
volleyball	68/0	13/0	25/0	026/0	0	0	23/0	022/0	00/0
Light	52/1	71/0	1-Jun	Mar-00	28/0	031/0	52/0	057/0	019/0
swimming									
Group dancing	36/0	075/0	44/0	062/0	43/0	049/0	42/0	044/0	00/0
running	99/0	28	34/0	004/0	0	0	066/0	044/0	26/0
Taekwondo	28/0	026/0	Feb-00	013/0	0	0	Feb-00	013/0	00/0
Hard swimming	19/1	35/0	77/0	Dec-00	34/0	004/0	28/0	026/0	007/0
others	51/0	057/0	46/0	031/0	46/0	031/0	46/0	031/0	

Some of the Exercise had done before pregnancy e.g. shutting, tennis, basketball, long way cycling

Exercise believes:

The behavioral advantages during pregnancy were that exercise: make the sense of happiness and enjoying 94/7%. king and Taylor so told that exercise make the sense of happiness and enjoying that 12, it is important reason for doing exercise Pearson test indicated that exercise activities are related with behavioral advantages, disadvantage, normative and obstructing of exercise. p=(0/00 table 3

Table 3: Assessment of relation between believes and exercise activity during pregnancy in women

p-value	Pearson relation	Score of exercise activity
Total score of believes		
00/0	3/0	advantage
00/0	2/0	disadvantage
003/0	1/0	normative
00/0	3/0-	control

The behavioral disadvantages during pregnancy were that exercise: make the fatigue 68%. For exercising during pregnancy, the salient normative influences were physician 91/6%. midwifery 84/4%. Despite the most influences of physician. research show that only 62% of women had a consultant from physician. 13

The control beliefs obstructing exercise during pregnancy were Fear of harming to baby 80%.

The behavioral advantages in post partum were that exercise: make the sense of happiness and enjoying 94/2%.

The behavioral disadvantages in postpartum were that exercise: make the fatigue 49/9%. For exercising in postpartum the salient normative influences were physician 88/9% .midwifery 82/2%. The control beliefs obstructing exercise in postpartum were don't receipt any consultant about exercise 80%. With Pearson test indicating that exercise activities are related with behavioral advantages $p = (0/005$, control $p = (0/00$ table 4

Table 4: Assessment of relation between believes and exercise activity in 3 months after postpartum in women

p-value	Pearson relation	Score of exercise activity
Total score of believes		
005/0	1/0	advantage
12/0	1/0-	disadvantage
7/0	02/0	normative
00/0	3/0	control

Discussion:

Pregnancy induces a tremendous amount of physical and psychological stress on a woman's body including changes in weight, posture, diet, and cardiovascular and gastrointestinal functioning. 14 Despite these demands, exercise during pregnancy and postpartum is a beneficial and recommended activity for alleviating negative physical and psychological symptoms. 15 The findings from our study indicated that trend of exercise before pregnancy to 3 months after that was decreased. Furthermore exercise activities are related with behavioral advantages, disadvantage, normative and obstructing of exercise. We recommend that researchers and health care professionals use women's beliefs about exercise as the framework for designing their intervention programs in an attempt to increase women's pregnancy and postpartum exercise behavior. In this research physician and midwifery was the most persons that have influences in women's. We recommend that these persons have educational class for consulting about inaccurate believes and confirmed to advantage of exercise with women during pregnancy and postpartum.

Conclusion:

The most important exercise in before, during pregnancy and postpartum was walking. the result of Repeated mature test show that trend of exercise before pregnancy to 3 months after that was decreased. One conceptual framework that has been successfully applied to exercise behavior is the theory of planned behavior According to the model, there are three types of believes, behavioral believes, courage person, control believes, this theory could promote exercise doing during pregnancy and post partum.

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