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Knowledge, Attitude and Practices of Pregnant Women Regarding Physical Activity in Turbat, Kech

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ARTICLE DETAILS	ABSTRACT
<p>History: Received: May 27, 2022 Accepted: December 19, 2022</p>	<p>Physical activity during pregnancy provides significant physical and psychological well beings. But still, pregnant women are reluctant to perform physical activity. Therefore, this study was conducted to determine the knowledge, attitude, and practice regarding physical activity (PA) among pregnant women of Turbat, Kech, Pakistan. A survey was conducted using a structured questionnaire on 110 pregnant women from antenatal clinics of the Teaching hospital in Kech, Pakistan. Chi-square was used to show the relationship between different socio-demographic variables and knowledge, attitude, and practice regarding physical activity. The result found that the education of the women was positively correlated with the knowledge of physical activity during pregnancy. The attitude of the women regarding physical activity was also positively correlated with the weight of women. Whereas the practices of the women about physical activity were positively correlated with age, the number of children, and the number of pregnancies.</p> <p>© 2021 The Authors, Published by WUM. This is an Open Access Article under the Creative Common Attribution Non-Commercial 4.0 (Font=Arial, Size 9pt, Bold, Justified)</p>
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1. Introduction

The motherhood stage is a time of transformation for women. It is a time when several changes take place in her body, mind, and soul. Across the world, different cultures consider this period as an essential time and have a tradition of providing rest, nourishment, and support to the new mother so that she can execute her new role. For example, in the customs of Japan, new Japanese mothers take rest for three weeks in bed in their parents' house. Furthermore, the Omungu tradition in Nigeria gives special support to mothers in their post-partum period and grants parents should provide the first shower to the new child. While in Latin America La Cuarentena tradition new mothers are asked to take rest for four weeks and refrain from sex and all types of strenuous physical activity. Moreover, our national practice is also the same i.e. our media and adults drive substantial attention to rest and abandon any activity in pregnancy that might cause strong harm to pregnant mothers which suggested that there is a dearth of healthy practices during pregnancy.

Pregnancy brings numerous noticeable changes apart from enlarged breasts and abdomen. There are lots of internal unnoticeable changes which are hormonal changes, tissues, muscle,

and other changes. To regulate these changes and to control extra weight physical activity is an essential tool. physical activity indeed causes the release of the endorphin hormone that is responsible for pleasure which causes optimistic changes and enables women to cope with these bodily changes. Therefore, physical activity is considered fundamental during the birth of a child.

Globally, physical activity has become the most important phenomenon on all platforms. Every individual is advised to spare some time for regular physical activity (Lawlor & Chaturvedi, 2006). Physical activity or exercise can be viewed as an antidote to the health challenges of populations (Okafor & Goon, 2022). A careless attitude towards physical activity has indeed given birth to innumerable diseases. However, the prevalence of physical activity is very low at every age of life, particularly among women. According to a national survey, sixty percent of women reported that they are sedentary during pregnancy. But this percentage upsurges as we move to low-income countries. Due to the presence of a traditional pattern in our society women are often discouraged to perform any physical activity during pregnancy. Nonetheless, some research declares that information about physical activity is. Evidence suggests that is essential to promote regular physical activity among women during their pregnancy.

Di Paolo et al., (2018) discussed in their book about pregnancy fitness and explain that pregnancy is the most exciting, challenging period and full of expectations and preparations. It is a time that gives rise to new life. Therefore, pregnancy is a crucial component in any women's life. It requires special care, support, and attention for women. During this period numerous psychological and physiological changes occur in every women's life. It is believed that pregnant women should avoid any type of activity or exercise. Exercise and physical activity are the terms used interchangeably but the two terms are different in the way that exercise is planned, structured and repetitive body movement. Whereas physical activity is considered to be any bodily movement caused by skeletal muscles which produce any energy expenditure. Exercise is also a subset of physical activity that is planned, repetitive and structured. Physical activity can be characterized into three modes which are; occupational household, transport, and leisure time physical activities i.e. housework, walking or dancing, etc. (Miles, 2007). However, there is not much difference between these two terms and many guidelines have been used for one or the other terms.

Rahl, R. (2010) elaborated in his book about physical activity and health guidelines that physical activity is necessary to prepare women for a major transition i.e. birth. Women generally do not involve themselves in such activity during pregnancy and the working mothers usually drive to their offices and sit there most of the day whereas, non-working mothers due to their traditional culture rest during pregnancy duration and refrain from any activity that involves any type of bodily movement. Birthing is not a process of lying down in one place for a longer period but it is an active and dynamic process. The baby moves in and out of the pelvis in the case of greater upright mothers. Movement and fitness activities provide strength for changes that occur in pregnancy and ultimately provide fitness to mothers for births.

Motherhood, labor, and birth involve physical and psychological challenges. Mothers should move and exercise techniques that prepare them for such challenges. Mothers during pregnancy should sit less and move more. They should find reasons to keep their bodies moving. When active women become pregnant, they can keep themselves physically fit even

during their pregnancy. During this duration, laboring and even giving birth becomes easy for them. Jackson et al., (2004) discussed in their book "physical activity for health and fitness", discussed that fitness and physical movement plays an integral role in pregnancy as it not only helps in pregnancy and labor but also help mothers in better births and recover promptly. Pregnant women must learn about struggles and submit themselves for better outcomes because giving birth is demanding. Physical activity helps pregnant women to be soft, free from anger, and cope with any type of fear and anxiety, as it gives them strength, courage, body, mind, and soul concentration to prepare themselves for labor and childbirth. Hence, awareness of the body is essential and requires training in activity for smooth recovery.

It is undeniable that giving birth needed a lot of energy and effort consuming stage of women stages of women's life. Here we need to focus on the specific guidelines or recommendation that keeps the body fit and prepare it for labor. The Royal American College of Obstetricians and Gynecologists (ACOG) and Center for Disease Control and Prevention (CDC) suggested that those women who are free from any complication during pregnancy are required to exercise more than 30 minutes of moderate physical activity for at least three days a week (Artal & Otoole, 2003). It is a fact that to prevent women and provide safe activity it is mentioned that they should do moderate physical activity. It means pregnant mothers who are involving themselves in this activity are just preparing their bodies for new life by decreasing overall body weight. Pregnant mother needs to accept this challenge and grip themselves for this change by involving in these guidelines.

Physical Activity (PA) is any voluntary movement produced by skeletal muscle contractions that require energy (Melzer et al., 2012). Exercise is a physical activity that is planned, structured and repetitive for conditioning the body (Pascoe et al., 2020). Regular participation in physical activity improves the overall general health and fitness of pregnant women (Harrison et al., 2016). The maternity period is a vital part of the reproductive life of women with many physical and biological changes in the body during pre-post pregnancy (Konlan et al., 2018). Physical activity amongst pregnant women improves posture and decreases discomforts such as backaches and fatigue (Rodrigues et al., 2011). During pregnancy, physical and biological changes cause hormonal imbalances which lead to anxiety and stress among pregnant women (Talge et al., 2007). However, physical activity during pregnancy rather improves mood (Cai et al., 2022), self-esteem (Ribeiro et al., 2022), anxiety (Abubakar, 2021), and depressive disorders (Kołomańska, Zurawski & Mazur-Bialy, 2019). Liu et al. suggested exercises usually prescribed for pregnant women include water aerobics, running, brisk walking, yoga, Kegel and breathing exercises. Exercises such as brisk walking, stationary cycling and swimming improve both cardiovascular and muscular systems and have been recommended for pregnant women (Liu et al., 2011; Córdoba-Caro et al., 2021). Additionally, special antenatal yoga and pilates designed for expectant mothers reduce stress, improve flexibility, and encourage stretching and focused breathing (Bisson et al., 2015).

However, women's beliefs regarding physical activity should be understood as it is vital to design strategies to overcome different barriers regarding physical activity in pregnancy. These barriers are common to almost all women who need to overcome them through regular physical activity (Krans & Chang, 2011). There are numerous barriers to physical activity we have divided them into two distinct types of barriers that serve as a hurdle in physical activity performance which includes intrapersonal and interpersonal barriers (Evenson, Moos, Carrier & Siega-Riz, 2009). The intrapersonal barrier regarding physical activity includes lack of knowledge of guidelines for physical activity, insufficient time inadequate motivation morning sickness, uneasiness due to an increase in body size, interrupted sleep, tiredness or

lesser energy, shortness of breath, musculoskeletal problems such as back pain or sourness as major obstacles to physical activity (Downs et al., 2012). Also, concern that physical activity can harm the baby whereas, interpersonal barriers include lack of social support from the family, spouse, friends, and neighborhoods in presence of bad weather, cultural norms, and beliefs as major interpersonal obstacles in the performance of physical activity make women unenthusiastic in performing physical activity. Therefore, prenatal programs should be developed to prepare women for any complications in physical activity. This will assist women to stay focused on their goal healthy lifestyle. If women develop the skill to overcome these barriers it will ease them to indulge in regular physical activity.

Women remain physically active during pregnancy for several reasons. It is a desire to have a healthy baby and a fear of losing a baby. Physical activeness in pregnancy requires strong commitment for mothers. This commitment will arise if there is a particular purpose for it. Throughout pregnancy, the flow of physical activity may fall or rise. This flow is depended upon the motivational level. For mothers and fetuses, pregnancy act is a trigger for embarrassment in adopting healthy behavior. There are two types of motivating factors intrinsic and extrinsic factors. Intrinsic factors include support and encouragement for spouses, friends, and family.

2. Literature Review

Ribeiro and Milanez, (2011) found that the knowledge about the physical activities of Brazilian women was reasonable and their attitude towards physical activity was also favorable. However, a few women exercised during the pregnancy as justified reasons given by them were the lack of time, feeling exhausted and uncomfortable in this duration.

Sujindra, et.al. (2015) explored that knowledge regarding the exercise of women during pregnancy was less than average and a satisfactory attitude regarding the exercise was found. Lack of education was considered to be the prime reason behind the poor knowledge regarding exercise during pregnancy. A small number of women were practicing exercise during pregnancy. Lack of awareness about the pros and cons of exercise during pregnancy was the main reason for fewer practices.

Alharbi et al., (2019) found that women had favorable knowledge regarding antenatal exercise. The majority of the respondent i.e. 80% were aware of physiotherapy, 44% of them had enough knowledge of the benefits of antenatal exercise and 24% assumed that physiotherapy is mainly concerned with exercise. Poor attitude regarding antenatal physiotherapy was found in the patients and 48% showed positive attitude only. Whereas 58% of the respondents perceived that pregnancy complications are minimized through antenatal exercises and this ensures safe delivery. Mbada, et.al. (2104) found that a large number of Nigerian women showed insufficient knowledge regarding antenatal exercises. However, a positive attitude towards exercise was observed and an understanding of the pros and contraindications of antenatal practices meaningfully influenced the attitudes towards practices in pregnancy.

Janakiraman, et.al. (2020) found low levels of knowledge regarding antenatal exercise but the attitude of the women was very favorable reading the practices. Good practices of brisk walking, relaxation, and breathing exercise were most practiced ANEx, while pelvic floor and yoga were the least practiced by the women. Increasing post-natal recovery and vaginal bleeding were supposed to be beneficial and contraindications of ANEx. Many

of them thought that ANEx doesn't outfit Ethiopian culture. Knowledge, attitude, and practice of ANEx among pregnant women are meaningfully linked with higher education, government employees, pre-pregnancy exercise, and being counseled on ANEx before.

Evenson et. al. (2004) in their study on leisure-time physical activity among pregnant women in the US examined that leisure-time physical activity was more performed in higher-educated women than lower-educated women. Similarly, leisure time physical activity was found more in young women between the ages 18-24 and 25-34 years than 35-44 years and more in those who are healthy than those with poor health such as race, ethnicity, employment, marital status and number of children does not affect the level of physical activity.

Evenson K. R. and Bradley C. B. (2010) discussed beliefs about exercise and physical activity among pregnant women. In their study, the wide majority of participants believed that women can continue exercise during pregnancy. However, few women accepted that they can continue exercise even when tired or exhausted. While the majority of them preferred regular exercise over irregular exercise during pregnancy. Besides, it was also noticed that women who are a novice and had never done exercise can also begin their exercise during pregnancy as it improves labor, delivery, and fetus health.

Watson et. al. (2016) in their qualitative study using semi-structured interviews explored that majority of participants believed that physical activity is beneficial but they are reluctant to perform physical activity and to change their behavior for physical activity. The barrier which hindered them to practice include; tiredness, morning sickness, uneasiness due to increased body size, interrupted sleep, shortage of time, and unavailability of knowledge by the health physician. However, some pregnant women seek advice from friends or family which is often unauthentic that turns out to complicate their pregnancy. Thus, there is a dye need for appropriate education on physical activity by culture.

Ali Rabia (et. al.) (2018) in their study found out the experiences of Pakistani women during pregnancy. It was noted that working mothers both private and public sector agreed that they have good health facilities for physical activity. Moreover, it was noticed that the majority of husbands provide support and additional care. While some of the women expressed that due to the harsh behavior of their colleagues, they are reluctant to perform physical activity.

De Wit, et.al. (2015) examined the relationship between mental health (depressed mood) with physical activity in different nations including Austria, Belgium, Ireland, Poland, Spain, and the Netherlands. The finding showed that depressed mood (poor mental health) is the major obstacle to physical activity that can further complicate the pregnancy.

Cioffi et. al. (2010) in their qualitative descriptive study directed face-to-face interviews of 19 women to inquire about the meaning of physical activity, its benefit, and motivating and hindering factors. Women expressed that physical activity helps in weight reduction, relieves stress, lessens complications, and maintains body image. Besides, the unavailability of time and physical discomfort (nausea, hardening of breasts, sore knees, uterus pressure, and backache) are perceived as the main barrier. While, improvement in the health of the baby, and encouragement from the partner and physician serve as a motivating factors.

Ibrahim et. al. (2014) performed a cross-sectional study on the knowledge attitude and practice of pregnant women attending and not attending ANC clinics. They proved that

women who attend antenatal clinics were more aware of the knowledge and benefits of physical activity in contrast to those women who didn't attend. Their finding showed a great emphasis on cutting down the education gap by organizing training programs.

3. Objectives of the Study

- To identify the knowledge of the physical activity of pregnant women
- To assess the attitude of pregnant females about physical activities during pregnancy
- To examine the practice of physical activity of pregnant women

4. Research Methodology

The present research is studied through a quantitative approach and the type of study was explanatory. However, this has been studied on the principle of social survey research. The universe for the present study was selected Teaching Hospital Turbat, Kech and the target population were those women who were pregnant women in the outpatient clinic of Teaching Hospital, Kech. However, the researcher did not get the list of the total population but took the outpatients of the maternity center for weeks which were calculated as 110. The researcher then used a convenience sampling technique for the data collection. And the tool for the data collection was a questionnaire containing different questions of open-ended, close-ended, and matrix questions. After the data collection, the data were analyzed statistically through the test of chi-square test of independence.

5. Results

The findings of the present research depict that majority of the respondents i.e. 47.2% ages were 30 years or more, 36.4% were 26-30 years and 16.4% were 22 -25 years. As per the qualification, a large number of respondents i.e.38.2% were having college or university education, 27.2% of the respondents were postgraduates, and the rest of them were having school education or none. The monthly family income of the respondents portrays that 44.5% of monthly family income was 40K and above, 25.5% of monthly family income ranged from 30.1K to 40K and 30.0% cumulatively has less than 30K as the monthly income in their family. The majority of the respondent i.e. 59.1% had extended families and 40.9% had nuclear families. The majority of the respondents i.e. 40.9% had their first pregnancy, 37.3% had their second pregnancy, 12.7% had their third pregnancy and 9.1% had their fourth pregnancy. According to the number of children, 40.9% had no children, 26.4% had 2 children, 17.3% had 1 child and 15.4% had 3 children. A large number of respondents i.e. 74.5% did not lose any pregnancy, 17.3% had a miscarriage in their pregnancies, 3.6% had an abortion and stillbirth equally and 1.0% reported a dead child in their pregnancy. 63.6% had their gestational week as 15-20 weeks and 36.4 % had their gestational weeks as 10-15 weeks.

Table 1: Characteristics of the Respondents: N=110

Response Options	Frequency	Percentage
Age of the Respondents		
22-25	18	16.4
26-30	40	36.4
30+	52	47.2
Qualification		

No Formal Education	11	10.0
Primary	10	9.1
SSC/High School	17	15.5
College/University	42	38.2
Post Graduate	30	27.2
Income of the Family		
Less than 20K	14	12.7
20.1K to 30K	19	17.3
30.1K to 40K	28	25.5
40K and above	49	44.5
Type of Family		
Nuclear	45	40.9
Extended	65	59.1
Number of Pregnancies		
1 st Pregnancy	45	40.9
2 nd Pregnancy	41	37.3
3 rd Pregnancy	14	12.7
4 th Pregnancy	10	9.1
Number of Children		
0	45	40.9
1	19	17.3
2	29	26.4
3	17	15.4
Loss of Pregnancy		
No	82	74.5
Abortion	4	3.6
Miscarriage	19	17.3
Still Birth	4	3.6
Dead Birth	1	1.0
Gestational week		
10-15 weeks	40	36.4
15-20 weeks	70	63.6
Knowledge of Pregnant women regarding physical activity		
High-Level Knowledge	84	76.4
Low Level of Knowledge	26	23.6
The attitude of Pregnant women regarding physical activity		
High Level	21	19.1
Moderate level	43	39.1
Low level	46	41.8
The practice of Pregnant Women Regarding Physical Activity		
High level	41	37.3
Low Level	69	62.7

As per the knowledge regarding physical activity, 76.4% of the respondents had a high level of knowledge and 23.6 % of the participants had a low level of knowledge about physical activity. Whereas the majority of the pregnant women i.e. 41.8% attitude regarding physical activity was low, 39.1% of the pregnant women's attitude regarding physical activity was moderate and 19.1% of the participants demonstrated a high level of attitude towards physical

activity. And a large number of pregnant women i.e. 62.7% adopted a low level of practice regarding physical activity and 37.3% adopted a high level of practice regarding physical activity.

Conclusion and Discussion

Table 2 shows that there is a relation between the knowledge and education of pregnant women. The calculated value of chi-square which is 12.0 is higher than its table value which is 9.49 with a degree of freedom of 4 and a level of significance is 0.05. So, the null hypothesis is rejected and the alternate hypothesis is accepted. Therefore, a relationship exists between the knowledge and education of pregnant women. 0.017 phi value shows the significant relationship between the variables. The researchers observed from the field that the women who had higher education were having more knowledge regarding physical activity or exercises during pregnancy. Siyad, et.al (2022) research supports the finding that education is positively correlated with the knowledge of physical activities of pregnant women.

Table 2: Contingency Table Showing Relationship between Knowledge and Education of Pregnant Women

Education	Knowledge		Total
	High	Low	
Informal	5 (2.60)	6 (8.40)	11
Primary	5 (2.36)	5 (7.64)	10
Secondary	6 (4.02)	11 (13.0)	17
College/University	5 (9.93)	37 (32.1)	42
Post-Graduate	5 (7.09)	25 (22.9)	30
Total	24	86	110

Table 3 shows that there is a relationship between the attitude and weight of pregnant women. The calculated value of chi-square which is 9.64 is higher than its table value which is 9.49 with a degree of freedom of 4 and a level of significance is 0.05. So, the null hypothesis is rejected and the alternate hypothesis is accepted. Therefore, a relationship exists between the attitude and weight of pregnant women. 0.047 phi value shows the significant relationship between the variables. The researchers observed from the field that the women with less weight were more prone towards physical activity whereas the weighted women were less likely in favor of physical activity during pregnancy. Thus, it is obvious that weight is one of the most important factors of physical exercise during pregnancy.

Table 3: Contingency Table Showing Relationship between Attitude & Weight of Pregnant Women

Weight	The attitude of Pregnant Women			Total
	High	Moderate	Low	
50-55	5 (8.78)	15 (18.0)	26 (19.2)	46
56-60	6 (6.11)	14 (12.5)	12 (13.4)	32
61-65	10 (6.11)	14 (12.5)	8 (13.4)	32
Total	21	43	46	110

Table 4 shows that there is a relation between practice and the number of children of pregnant women. The calculated value of chi-square which is 7.89 is higher than its table value which

is 9.49 with a degree of freedom of 3 and a level of significance is 0.05. So, the null hypothesis is rejected and the alternate hypothesis is accepted. Therefore, a relationship exists between practice and the number of children of pregnant women. 0.048 phi value shows the significant relationship between the variables. The researchers' observation verified the result of the test that women with fewer number children were found more in physical activities as compared to those women who were having more children. Whereas Evenson, et.al (2004) found that the number of children does not affect the physical activities of pregnant women.

Table 4: Contingency Table Showing Relationship between Practices and Number of Children of Pregnant Women

Number of Children	Practices of Pregnant Women		Total
	High	Low	
0	35 (28.2)	10 (16.8)	45
1	9 (11.9)	10 (7.08)	19
2	15 (18.2)	14 (10.8)	29
3	10 (10.7)	7 (6.34)	17
Total	69	41	110

Table 5 shows that there is a relation between practices and the ages of pregnant women. The calculated value of chi-square which is 6.33 is higher than its table value which is 9.49 with a degree of freedom of 2 and a level of significance is 0.05. So, the null hypothesis is rejected and the alternate hypothesis is accepted. Therefore, a relationship exists between practices and the ages of pregnant women. 0.042 phi value shows the significant relationship between the variables. The researchers' observation from the field justified the result of the survey that age is one of the most important factors for the practice of physical exercise during pregnancy. This finding is also supported by the Evenson, et. al. (2004) study that young women were found to be practicing rather than elder aged women.

Table 5: Contingency Table Showing Relationship between Practices and Age of Pregnant Women

Age	Practices of Pregnant Women		Total
	High	Low	
20-25	13 (11.9)	6 (7.08)	19
26-30	19 (25.1)	21 (14.9)	40
30 and above	37 (32.0)	14 (19.0)	51
Total	69	41	110

Table 6 shows that there is a relation between practices and the number of pregnancies by pregnant women. The calculated value of chi-square which is 8.48 is higher than its table value which is 9.49 with a degree of freedom of 3 and a level of significance is 0.05. So, the null hypothesis is rejected and the alternate hypothesis is accepted. Therefore, a relationship exists between practices and the number of pregnancies of pregnant women. 0.037 phi value shows the significant relationship between the variables. The observations of the researchers from the field verify that number of pregnancies and practicing of the exercise are very much correlated with each other. Because researchers observed the women with first or second pregnancies were more active in practicing rather than those who were having more pregnancies.

Table 6: Contingency Table Showing Relationship between Practices and Number of pregnancies of Pregnant Women

Number of times Pregnant	Practices of Pregnant Women		Total
	High	Low	
1	35 (28.2)	10 (16.8)	45
2	20 (25.7)	21 (15.3)	41
3	9 (8.78)	5 (5.22)	14
4	5 (6.27)	5 (3.73)	10
Total	69	41	110

Table 7 shows that there is no relation between attitude and nature of families of pregnancies of pregnant women. The calculated value of chi-square which is 2.83 is higher than its table value which is 9.49 with a degree of freedom of 2 and a level of significance is 0.05. So, the null hypothesis is accepted and the alternate hypothesis is rejected. Therefore, a relationship does not exist between the attitude and nature of families of pregnancies of pregnant women. 0.243 phi value shows the significant relationship between the variables.

Table 7: Contingency Table Showing Relationship between Attitude & Nature of Family of Pregnant Women

Nature of Family	The attitude of Pregnant Women			Total
	High	Moderate	Low	
Nuclear	12 (8.59)	16 (17.6)	17 (18.8)	45
Joint	9 (12.4)	27 (25.4)	29 (27.2)	65
Total	21	43	46	110

To sum up, this study aimed to determine the knowledge, attitude, and practice regarding physical activity during pregnancy. The result of the study depicts that women's knowledge about physical activity is quite adequate and their attitude is also positive. Whereas it is found that few women practiced physical activity during pregnancy. The role of socio-demographic variables and their relationship with knowledge, attitude, and practice was also checked statistically. The result found that the education of the women was positively correlated with the knowledge of physical activity during pregnancy. The attitude of the women regarding physical activity was also positively correlated with the weight of women. Whereas the practices of the women about physical activity were positively correlated with age, several children, and the number of pregnancies.

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