

## Research Article

# Knowledge and Perception of Female Health Care Professionals on the Importance of Physiotherapy in Ante-Natal and Post-Natal Care

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**Abstract**

**Objectives:** This study assessed the knowledge and perception of female health care professionals on the importance of physiotherapy in ante-natal and post-natal care in a government tertiary health institution.

**Methods:** The cross-sectional study recruited 80 female health care professionals from a government tertiary institution in South-west, Nigeria. Data were obtained on demographic and maternal characteristics, knowledge and perception of female health care professionals on importance of physiotherapy in ante-natal and post-natal care.

**Results:** 86.57% of participants engaged in physical activities during pregnancy with 77.59% of them participating in walking form of exercises. Low back pain (74.20%), muscle cramps (48.39%), swelling and oedema of the foot (37.10%) were the most common musculoskeletal symptoms experienced by the pregnant women. 95% of respondents had adequate knowledge of physiotherapy, 82.5% perceived physiotherapy to be about exercises, while 12.5% perceived physiotherapy to be about hot packs. 90% agreed that low back pain and waist pain are the most common musculoskeletal conditions associated with pregnancy that are treated by physiotherapist, while 80% of respondent agreed to the relevance of physiotherapy in both antenatal and postnatal care, 83.8% agreed that physiotherapy should be incorporated into ante natal care education.

**Conclusion:** A majority of the female health care professionals in Nigerian tertiary health institutions demonstrated adequate knowledge about physiotherapy and proper perception about the roles and relevance of physiotherapy services during antenatal and postnatal periods of pregnancy.

**INTRODUCTION**

Antenatal care is a type of preventive healthcare, with the goal of providing regular check-ups that allow doctors or midwives to treat and prevent potential health problems throughout the course of the pregnancy while promoting healthy lifestyles that benefit both mother and child [1]. Postpartum period or postnatal period is the period beginning immediately after the birth of a child and extending for about six weeks. The World Health Organization (WHO) describes the postnatal period as the most critical and yet the most neglected phase in the lives of mothers and babies with most deaths occurring during the postnatal period [2].

Pregnancy is usually associated with multiple physical changes that are characterised with alteration in the body's centre of mass, increase in pressure on vital internal organs, and increase in body weight. These changes often leads to back pain, pelvic pain and urinary incontinence. Stuge et al., reported that

over two thirds of pregnant women experience back pain, one fifth experience pelvic pain and over 40% experience urinary incontinence in their first pregnancy, half of those who experience urinary incontinence remaining incontinent at 8 weeks post-partum while one third experience a new onset of incontinence after childbirth [3].

Evidences from literatures had shown that exercise training programs designed and delivered by physiotherapists (Physical Therapists) can relieve lower back pain, pelvic pain and urinary incontinence in pregnant women [4-7]. It is therefore, within the scope of practice of a physiotherapist to properly assess, treat and educate pregnant women in effective and safe exercises that have been shown to decrease back pain, pelvic pain and urinary incontinence throughout their pregnancy and post-partum period [8].

Although sufficient evidence [9,10] exists in international literature with regards to the role of physiotherapy (Physical

Therapy) in the antenatal and postnatal period however, very little is documented in Nigeria. Furthermore, there seems to be divergent view and reactions among healthcare provider in some health institutions in Nigeria on the relevance of physiotherapist in both antenatal and postnatal care. This study was therefore designed to investigate the knowledge and perception of female health care professionals on the importance of physiotherapy in ante-natal and post-natal care in a government tertiary health institution.

**MATERIAL AND METHODS**

Only eighty female healthcare professionals who consented to participate in this study were consecutively recruited into this cross-sectional survey. The respondents were recruited from Federal Medical Centre, Owo, Ondo-state, South-West, Nigeria. Female physiotherapists were excluded from the study. Ethical approval for this study was obtained from the Health Research Ethic Committee of Federal Medical Centre, Owo, Ondo-state, Nigeria. Informed consent of all participants were sought and obtained after the rationale behind the study has been explained to them.

A self-administered questionnaire was used to assess the knowledge and perception of female health care professionals on the importance of physiotherapy in ante-natal and post-natal care. The questionnaire sought information on the socio-demographic characteristics of participants, the physical activity level, knowledge and perception of the participants.

Descriptive statistics of mean and standard deviation, percentage and frequency distribution were used to summarize data. Results were presented in tables and pie chart.

**RESULTS**

Eighty female healthcare professionals participated in this study. The mean age of respondents was 38.32 ± 6.85 years. The socio-demographic characteristics of respondents are presented in Table (1). The result shows that majority of the respondents are nurses (68.8%) Figure 1. A larger proportion of the respondents (n: 67, 83.8%) are married out of which (n: 13, 19.4%) are pregnant while the study was on.

Respondents' participation in physical activities and musculoskeletal symptoms during pregnancy are presented in Table (2). A majority of the respondents (n: 58, 86.57%) who had been pregnant before engaged in physical activities during pregnancy with greater number of them participating in walking form of exercises (n: 45, 77.59%). Larger proportion of respondents (n: 46, 74.20%) who had been pregnant before experienced low back pain during pregnancy, 30 (48.39%) experienced muscle cramps, 23 (37.10%) had swelling and oedema of the foot, 20 (32.26 %) experienced muscle spasm, 17 (27.42%) experienced numbness, 18 (29.03%) experienced tingling sensation, while only 12 (19.35%) experienced urinary incontinence.

Table 3 shows the knowledge and perception of respondents on role of physiotherapy in both antenatal and postnatal care. Most of the respondents (n: 76, 95%) had adequate knowledge of physiotherapy, however, 66 (82.5%) of the respondents perceived physiotherapy to be about exercises, 19 (23.8%) to be

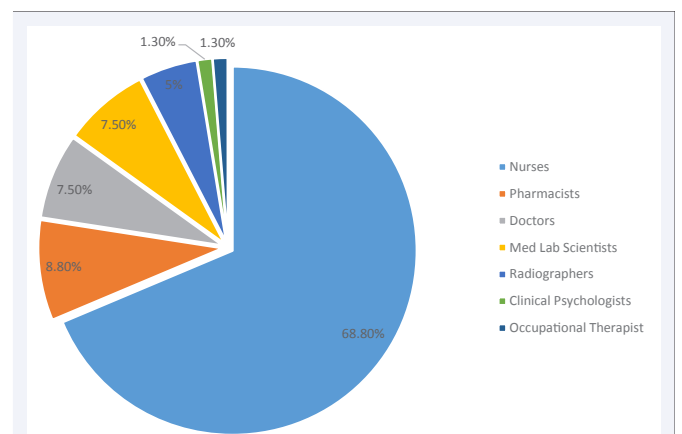
about massages, 11 (13.8%) perceived physiotherapy to be about electrical stimulation and 10 (12.5%) perceived physiotherapy to be about hot packs. Moreover, 64 of respondents(80%) agreed to the relevance of physiotherapy in both antenatal and postnatal care, 67 (83.8%) agreed that physiotherapy should be incorporated into ante natal care education while 72 of respondents (90%) agreed that low back pain and waist pain are the most common musculoskeletal conditions associated with pregnancy treated by physiotherapist.

**DISCUSSION**

This study assessed the knowledge and perception of female health care professionals on the importance of physiotherapy in ante-natal and post-natal care in a government tertiary health institution. The age range of participants in this study was 24-55

**Table 1:** Socio-demographic characteristics of female healthcare professionals (n= 80).

Variables	n	%
<b>Occupation</b>		
Doctors	6	7.5
Nurses	55	68.8
Pharmacists	7	8.8
Radiographers	4	5.0
Medical laboratory Scientist	6	7.5
Clinical Psychologist	1	1.3
Occupational Therapist	1	1.3
<b>Marital status</b>		
Married	67	83.75
Single	13	16.3
Divorced/separated	0	0
<b>Have you been Pregnancy before?</b>		
Yes	67	83.75
No	13	16.3
<b>Gravidity</b>		
1	14	17.5
2	18	22.5
3	22	27.5
4	10	12.5
>4	3	3.8
<b>Current pregnancy Status (n=67)</b>		
Yes 'am pregnant	13	19.4
No 'am not pregnant	54	80.6



**Figure 1** Distribution of the participant's occupation.

**Table 2:** Physical activities of female healthcare professionals during pregnancy (n= 67).

Variables	n	%
<b>Do you perform exercises during pregnancy?</b>		
Yes	58	86.57
No	9	13.43
<b>Types of exercises performed during pregnancy(n=58)</b>		
<b>Stretching/Strengthening</b>		
Yes	20	34.48
No	38	65.52
<b>Walking/Jogging</b>		
Yes	45	77.59
No	13	22.41
<b>Bicycling</b>		
Yes	0	0
No	58	100
<b>Aerobics</b>		
Yes	1	1.72
No	57	98.28
<b>Have you experienced musculoskeletal discomfort during pregnancy? (n=67)</b>		
Yes	62	92.54
No	5	7.46
<b>Which have you experienced during pregnancy? (n=62)</b>		
<b>Low back pain</b>		
Yes	46	74.20
No	16	25.80
<b>Oedema</b>		
Yes	23	37.10
No	39	62.90
<b>Tingling sensation</b>		
Yes	18	29.03
No	44	70.97
<b>Muscle spasm</b>		
Yes	20	32.26
No	42	67.74
<b>Muscle cramps</b>		
Yes	30	48.39
No	32	51.61
<b>Numbness</b>		
Yes	17	27.42
No	45	72.58
<b>Urinary Incontinence</b>		
Yes	12	19.35
No	50	80.65
<b>Were you referred for Physiotherapy?</b>		
Yes	14	22.60
No	48	77.40
<b>Were you satisfied with physiotherapy Services received? (n=14)</b>		
Satisfied	13	92.86
Unsatisfied	1	7.14

years, this falls within the age of working population in Nigeria [11].

Nurses formed majority (68.8%) of the female healthcare professionals that participated in this study, this is similar to the findings of previous studies [12,13]. A larger proportion (83.75%) of the respondents had been pregnant before, this implies that, majority of female health care providers in this

study are in their child-bearing ages as seen in recent studies [14-16]. Furthermore, most of the participants (83.8%) have had 3 deliveries and this is in agreement with a study by World Health Organization in 2017 stating Africa as one of the continents with large household sizes of over 5 [2].

This study shows that a larger proportion (86.57%) of the respondents performed exercises during pregnancy; this is similar to the findings of Mudd et al., that reported 88% of participants performed exercises during pregnancy [17]. Furthermore, walking exercise was the most common form of exercises performed by the respondents during pregnancy; this finding is supported by the findings of Al-Tannir et al, [18].

Most of the respondents (74.20%) experienced low back pain as the major pregnancy- related musculoskeletal symptoms. This is similar to the results from previous studies that shows low back pain to be the most common pregnancy-related musculoskeletal problems [19,20]. Only 22.6% of women with pregnancy-related musculoskeletal symptoms were referred for physiotherapy by their obstetrician while the remaining 77.4% were never referred for Physiotherapy. The implication of the result seems to be that majority of the obstetricians did not see reasons to refer their patients to physiotherapy in spite of their musculoskeletal symptoms. This is at variance to the findings of Odunaiya et al., that reported high rate of referrals for physiotherapists among obstetricians and gynaecologists in general and state hospitals [21]. However, 92.86% of the respondents that were referred for physiotherapy were satisfied with the outcome of physiotherapy services received. This is in agreement with the findings of Hush et al., and Tennakoon and deZoysa in previous studies [22,23].

Majority of the women (95%) in this study had adequate knowledge of physiotherapy, this is in agreement with previous studies where majority of the participants have a good knowledge about physiotherapy [24,25]. Similarly, 82.5% of the respondents perceived Physiotherapy to be about exercises, this is in line with a study by Prati and Li where 93% of the population recognized physiotherapy interventions to be mainly physical exercises [26].

Most of the respondents (80%) in this study agreed to the relevance of physiotherapy in both antenatal and postnatal care, similarly, 83.8% of the respondents agreed that physiotherapy should be incorporated into both antenatal and postnatal care for the management of pregnancy related low back pain, urinary incontinence and post pregnancy weight gain. These findings are consistent with previous reports by Pennick and Young, Wang et al., and Symons and Hausenblas [6,19,27].

## CONCLUSION

A majority of the female health care professionals in Nigerian tertiary health institutions demonstrated adequate knowledge about physiotherapy and proper perception about the roles and relevance of physiotherapy services during antenatal and postnatal periods of pregnancy. However, the level of referrals of pregnant women with pregnancy-related musculoskeletal symptoms for physiotherapy among obstetricians and gynaecologists is still very low.

**Table 3:** Knowledge and Perception about Physiotherapy services in antenatal and post-natal care (N=80).

Variables	n	%	
Knowledge about Physiotherapy			
Adequate	76	95.0	
Inadequate	4	5.0	
Perception of Physiotherapy			
Exercises	66	82.5	
Electrical stimulation	11	13.8	
Hot packs	10	12.8	
Massage	19	23.8	
Source of Knowledge of Physiotherapy			
Hospital/Clinic	67	83.8	
Social Media	4	5.0	
Friends	5	3.8	
Others	2	2.5	
	<b>Agree</b>	<b>Disagree</b>	<b>Undecided</b>
Physiotherapy during pregnancy is beneficial.	61 (76.3%)	5 (6.3%)	12 (17.4%)
Physiotherapy after pregnancy is beneficial.	67 (83.8%)	3 (3.8%)	10 (12.4%)
Physiotherapists' role is crucial during ante-natal and postnatal care	64 (80.0%)	7 (8.8%)	9 (11.2%)
Physiotherapists are better trained to give education on the prevention and management of low back pain and waist pain during pregnancy.	67 (83.8%)	4 (5.1%)	9 (11.1%)
Physiotherapists should be incorporated in ante-natal care education.	67 (83.8%)	3 (3.8%)	10 (12.4%)
Low back pain and waist pain are the most common musculoskeletal conditions that are associated with pregnancy.	72 (90.0%)	3 (3.8%)	5 (6.2%)
Advising patients on Physiotherapy during pregnancy is not a major part of ante-natal care.	24 (30.0%)	38 (47.6%)	18 (22.4%)
Pre-eclampsia is a condition managed by Physiotherapists	11 (13.8%)	44 (55.0%)	25 (36.5%)

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## REFERENCES

- Schmitt J.W. Prenatal Care Fact Sheet. On Women's Health. U.S Department of Health and Human Services. 2009; 6.
- World Health Organization. WHO Recommendations on Postnatal care of the Mother and Newborn. World Health Organization. 2014.
- Stuge B, Hilde G, Vøllestad N. Physical Therapy for Pregnancy-Related Low Back and Pelvic Pain: A systematic review. *Acta Obstetrica et Gynecologica Scand.* 2003; 82: 983-990.
- Mørkved S, Bø K, Schei B, Salvesen KÅ. Pelvic floor muscle training during Pregnancy to Prevent Urinary Incontinence: A Single-blind Randomized Controlled Trial. *Obstet Gynecol.* 2003; 101: 313-319.
- Mørkved S, Salvesen KÅ, Schei B, Lydersen S, Bø K. Does Group Training during Pregnancy Prevent Lumbopelvic Pain? A Randomized Clinical Trial. *Acta Obstet Gynecol Scand.* 2007; 86: 276-282.
- Pennick VE, Young G. Interventions for Preventing and Treating Pelvic and Back Pain in Pregnancy. *Cochrane Database of Systematic Reviews.* 2007; 2: CD001139.
- Britnell SJ, Cole JV, Isherwood L, Stan MM, Britnell N, Burgi S, Watson L. Canadian Physiotherapy Association; Society of Obstetricians and Gynaecologists of Canada. Postural Health in Women: the role of physiotherapy. *J Obstet Gynaecol.* 2005; 27: 493-510.
- Nordahl KM, Petersen C, Jeffreys RM. Fit to Deliver: An Innovative Prenatal and Postpartum Fitness Program. Hartley & Marks Publishers. 2005.
- Sarfraz M, Islami D, Hameed U, Hasan D S, Ahmad F. Role of physical Therapy in antenatal care as perceived by the clients-a cross sectional survey on pregnant females attending antenatal OPD. *Pakistan Journal of Medicine and Dentistry.* 2013; 1: 34-46.
- Nayak R, Paes L, Gupta C, Kumar VK, Narayan A, Thunga S, Mithra PP. Knowledge, Perception and Attitude of Pregnant Women towards the Role of Physical Therapy in Ante-natal Care- A Cross Sectional Study. *Online Journal of Health Allied Sciences.* 2015; 14: 4-6.
- The Nigerian National Bureau of Statistics. Unemployment/ Underemployment Report, June Report, 2017; 1-3.
- Akhigbe AO, Oamuemu VO. Knowledge, Attitudes and Practice of Breast Cancer Screening among Female Health Workers in a Nigerian Urban City. *Biomed Central cancer.* 2009; 9: 203.
- Ibrahim NA, Odusanya OO. Knowledge of Risk Factors, Beliefs and Practices of Female Healthcare Professionals towards Breast Cancer in a Tertiary Institution in Lagos, Nigeria. *BioMed Central cancer.* 2009; 9: 76.
- Afzali A, Voorhees AV, Schwartzman S, Ecoffet C, Pisenti L, Stark J, Abraham B. P089 Perceptions regarding Use of Anti-Tumor Necrosis Factor Treatment for Women of Childbearing Age Among Healthcare Professionals. *Inflammatory Bowel Diseases,* 2018; 24: S32-S32.
- Amanuel H, Morojele N, London L. The Health and Social Impacts of Easy Access to Alcohol and Exposure to Alcohol Advertisements among Women of Childbearing Age in Urban and Rural South Africa. *Journal of studies on Alcohol and Drugs.* 2018; 79: 302-308.
- Leli C, Mencacci A, Latino MA, Clerici P, Rassu M, Perito S, Morazzoni C, et al. Prevalence of cervical colonization by *Ureaplasma parvum*, *Ureaplasma urealyticum*, *Mycoplasma hominis* and *Mycoplasma genitalium* in childbearing age women by a commercially available multiplex real-time PCR: An Italian observational multicentre study. *J Microbiol Immunol Infect.* 2018; 51: 220-225.

17. Mudd LM, Nechuta S, Pivarnik JM, Paneth N. Factors associated with women's perceptions of physical activity safety during pregnancy. *Preventive Medicine*. 2009; 49: 194-199.
18. Al-Tannir MA, Kobrosly SY, Elbakri NK, Abu-Shaheen AK. Prevalence and Predictors of Physical Exercise among Nurses: A cross-sectional study. *Saudi Med J*. 2017; 38: 209.
19. Wang SM, Dezinno P, Maranets I, Berman MR, Caldwell-Andrews AA, Kain ZN. Low Back Pain during Pregnancy: Prevalence, Risk Factors, and Outcomes. *Obstet Gynaecol*. 2004; 104: 65-70.
20. Liddle SD, Pennick V. Interventions for Preventing and Treating Low-Back and Pelvic Pain during Pregnancy. *The Cochrane Library*. 2015.
21. Odunaiya NA, Ilesanmi T, Fawole AO, Oguntibeju OO. Attitude and Practices of Obstetricians and Gynecologists towards Involvement of Physiotherapists in Management of Obstetric and Gynecologic Conditions. *Int J Womens Health*. 2013; 5: 109.
22. Hush JM, Yung V, Mackey M, Adams R, Wand BM, Nelson R, Beattie P. Patient Satisfaction with Musculoskeletal Physiotherapy Care in Australia: An International Comparison. *J Man Manip*. 2012; 20: 201-208.
23. Tennakoon T, de Zoysa P. Patient Satisfaction with Physiotherapy Services in an Asian country: A report from Sri Lanka. *Hong Kong Physiotherapy Journal*. 2014; 32: 79-85.
24. Olawale OA, Adjabeng MT. Awareness and Knowledge of Physiotherapy among the General Public in an African market in Accra Metropolis, Ghana. *IJPT*. 2014; 2: 32-36.
25. Maruf FA, Ekediegwu EC, Akinpelu A, Nwankwo MJ. Awareness, Belief, Attitude and Utilization of Physiotherapy Services in a Nigerian Population. *Journal of the Nigerian Society of Physiotherapy*. 2012; 20: 26-34.
26. Prati V, Liu H. Perceptions of College Students Regarding the Current Physical Therapy Profession and Professional Education Process. *IJAHP*. 2006; 4: 10.
27. Symons Down D, Hausenblas HA. Women's exercise beliefs and behaviours during pregnancy and postpartum. *J Midwifery Women's Health*. 2004; 49: 138-144.

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