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Prevalence of Low Back Pain among Pregnant Women and their Quality of Life at Talegaon Dabhade

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Abstract: ***Back pain is more common during pregnancy. Severe low back pain during pregnancy are at extremely high risk for developing a new episode of severe low back pain during a subsequent pregnancy as well as later in life. The objective was to find out the prevalence of pregnancy-related LBP in the different trimester, severity of it, prevalence according to chronological state, awareness about Physiotherapy in pregnant women and their quality of life.164 samples were selected to access. Questionnaire of the prevalence of pregnancy-related LBP was given to subjects. Data were analyzed based on tables and graphs, which shows LBP is a major and serious problem during pregnancy, more in multigravida and 3rd trimester of pregnancy. Most of the women in society were unaware of physiotherapy interventions. Physical and mental QOL is affected during pregnancy which needs to take care of.***

Keywords: Pregnancy, low back pain, quality of life, pregnancy related low back pain questionnaire

1. Introduction

Back pain is widely spread in today's society and is particularly common during pregnancy[1]. Back pain may lead to the disabling condition that needs attention. According to Sabino and Grauer, 2008, 70% of all women will experience with back pain during pregnancy[2], but prevalence can vary in different countries depending upon population. Though LBP is more common during pregnancy, the extent of the problem is less well documented and detailed study concerning related risk factor scarce[3]. A Swedish survey reports that 66% of women between the age of 38 and 64 years experience LBP and the majority of these women reported that their first episode of low back pain occurred during pregnancy[4]. In a study on Iranian women, 57.3% of women experience LBP during pregnancy and it was reported most frequently in the third trimester of pregnancy i.e 40. 7%. 44.1% of patients reported their pain as moderate[5]. In Turkey, 1500 women were included in the study. So the prevalence of PRLBP was 53.9% and mostly it prevalence was present in the third trimester of pregnancy[6]. LBP during pregnancy can be classified into three types. Lumbar pain can occur with or without radiation to the legs; true sciatica is rare and thought to account for a small percentage of low back pain in pregnancy. Sacroiliac pain is felt distal and lateral to the lumbar spine near the posterior superior iliac spine, and rarely to the calf. It is four times more common than lumbar pain. Symptoms of sacroiliac joint pain typically continue several months after delivery. It is thought that 20% to 30% of pregnant women experience both lumber and sacroiliac pain. Nocturnal pain occurs in the low back only at night while recumbent (Colliton, 1996)[7]. The pain may Constant, intermittent, occasional, behavioral, stay in one place or refer or radiate to other areas. According to, Robinsonn(2011)[8], It may be a dull ache, or a sharp or piercing or burning sensation. Shiel (2009)[9], said that low back pain is pain and stiffness in the lower back. Low back pain is usually caused when a ligament or muscle holding a vertebra in its proper position is strained. Vertebrae are bones that make up the spinal column through which the spinal cord passes. When these muscles or ligaments become weak, the spine loses its stability, resulting in pain. Because nerves reach all parts of the body from the spinal cord, back problems can lead to pain or weakness in almost any part of the body. It is important to know the quality of life during pregnancy of pregnant women having low back pain. It can measure in two terms i.e Physical QOL and Mental QOL. Due to an increase in abdominal girth, pregnant women suffer from pain in the thoracic region to the gluteal region. A physiotherapist can help women through their pregnancy and adjust with their physical changes, so as to minimize stress. So there is an important role of the obstetric physiotherapist in supporting women throughout her pregnancy.

2. Materials & Methodology

It was a cross-sectional study with simple randomized sampling. Inclusion criteria was pregnant women between the age group 18- 35 yrs and exclusion criteria were pregnant women with cognitive problem, persistent or previous pathological and traumatic history of the lower back region.

Procedure

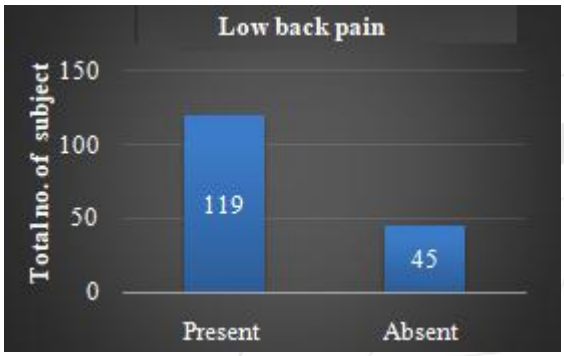
Approval from the Institutional Ethical Committee was taken. Detailed explanation of the study procedure was given to subjects in a language they understand and signed consent was taken from each of them. Based on the inclusion and exclusion criteria 164 samples were selected to

assess. One to one Interview of each subject was taken by translating both Questionnaires (i.e self-made pregnancy-related low back pain questionnaire and SF12 Quality of Life questionnaire) in their local language by the therapist. Severity of LBP was calculated using Visual analog scale[10]. The Questionnaire includes questions about pregnancy-related low back pain and demographic data of the patient i.e age, height, weight, etc. Data will be analyzed based on tables and graphs

3. Result

Table 1: Prevalence of LBP among pregnant women

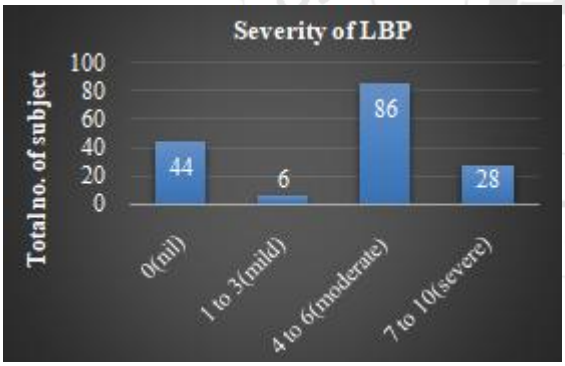
LBP (N= 164)	Present	Absent
Total no. of subject	119	45
%	72.5%	27.5%



Graph 1: Prevalence of LBP among pregnant women

Table 2: Severity of LBP among pregnant

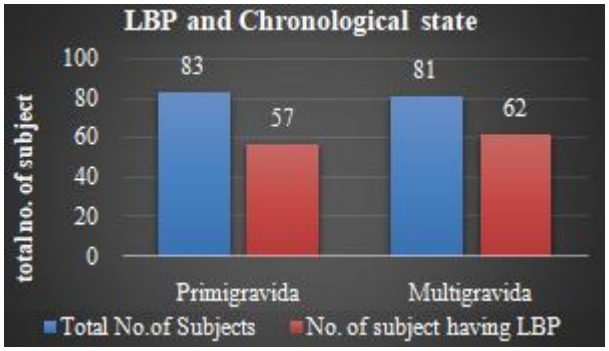
LBP (N=164)	No pain (0)	Mild (1-3)	Moderate (4-6)	Severe (7-10)
Total no. of subject	44	6	86	28
%	26.8%	3.6%	52.4%	17.03%



Graph 2: Severity of LBP among pregnant women

Table 3: Prevalence of LBP according to chronological state among pregnant women

LBP(N=164)	Primigravida (n=83)	Multigravida (n=81)
Total no. of subject	57	62
%	49.3%	50.6%



Graph 3: Prevalence of LBP according to chronological state among pregnant women

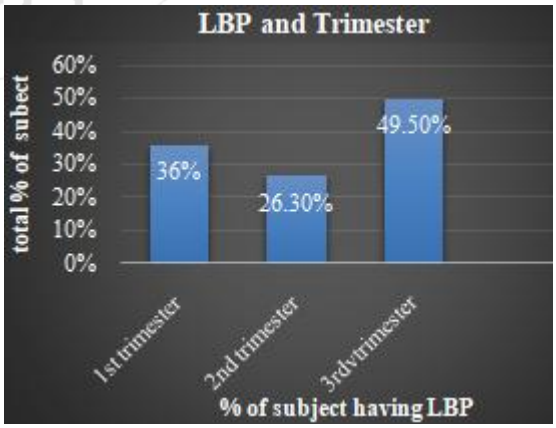
Table 4: Awareness of Physiotherapy among pregnant women

Total no of subject (N=164)	No. of subject aware of Physiotherapy	No. Of subject not aware of Physiotherapy
No. of Subjects	4	160
%	2.4%	97.6%

Graph 4: Awareness of Physiotherapy among pregnant women

Table 5: Prevalence of LBP present in each trimester among pregnant women

LBP (N=164)	1st trimester (n=25)	2nd trimester (n=38)	3rd trimester (n=101)
Total no. of subject having LBP	19	22	78
%	36%	26.3%	49.5%



Graph 5: Prevalence of LBP present trimester wise among pregnant women

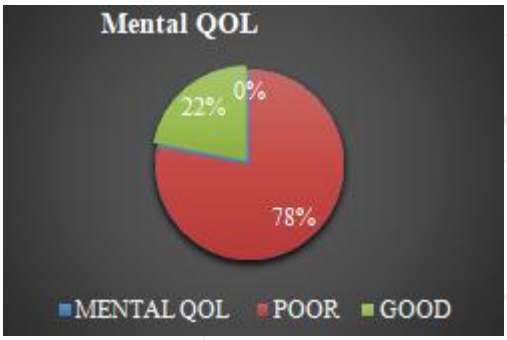
Table 6: Physical QOL in pregnant women using SF-12

Physical QOL	Good	Poor
Total no. of subject	11	153
%	7%	93%

Graph 6: Physical QOL in pregnant women using SF-12

Table 7: Mental QOL in pregnant women using SF-12

Mental QOL	Good	Poor
Total no. of Subjects	36	128
%	22%	78%



Graph 7: Mental QOL in pregnant women using SF-12

4. Discussion

Prevalence of LBP was found to be 72 %, As out of 164 Pregnant women 119 has LBP problem. Many structural and hormonal changes occur during pregnancy, which may affect the spine, pelvis, related structures, muscle, and nerves. During pregnancy, because of baby's weight COG shifts forward. So, women have to arc her back, which ultimately stresses the facet joints and disc and makes them sensitive for pain[11]. Several studies done in different countries show different results. In Swedish women, Prevalence was found to be 68.5% [12]. In this study, most of the participants having LBP were housewife, up-to 86.5%. 13.4% were service holder. LBP can occur if a person's daily activities involve long time standing and sitting position, lifting heavy weights or bending over. In this study, 32.9% of women remain in standing position for most of the time in a day. 49.3% of women do not have diurnal variation for pain, but 37.1% have more pain experience during night time. According to Wang et al., (2004), the majority of women i.e 58% were having LBP during pregnancy cause of sleep disturbance[13]. 57.9% of women experience aggravating pain after work. A study done in Bangladesh got 70.59% of women having aggravating pain due to work. 68% of women got pain relief on rest[1]. Only 2.4% of women have taken Physiotherapy for their LBP. In this study, Prevalence of severity of pain was more(52.4%) for a moderate type of pain i.e between 4-6 on VAS. Aches and pain during pregnancy is part and parcel of joy of pregnancy. During a healthy pregnancy, women usually gain 25 to 35 pounds. Spine has to support that weight. Due to an increase in abdominal girth, many postural changes occur. Also, hormone relaxin allow the ligament of the pelvic region to relax and joints to loose for preparation of the birth 44.1% of patients reporting the moderate type of pain during pregnancy[5]. moderate type According to a study done in Bangladesh, it was more for the moderate type of pain(50.98%)[1] In this study, Prevalence of LBP was more common in 3rd trimester of pregnancy. 50 out of 101 pregnant women suffered from LBP during pregnancy, about 49.5%. As the baby descends into the pelvis, the head can cause pressure on the pelvis which can be a reason for pain. In contrast to this study, A study undertaken in Bangladesh found that pain onset is mostly in 2nd trimester of pregnancy[1]. As women included in 3rd trimester are having more BMI in this study. According to Peter and Ulrich (2011), 80% of pregnant women suffer from LBP in 3rd trimester of their pregnancy[14].In the present study, the prevalence of LBP among pregnant women was found to be more common in Multigravida or more than one pregnancy, about 51.2%. As general changes occur in laxity of supporting muscle and tissue because of hormonal influences. Pain may occur because of repetitive overloading of already weakened structures[11]. A study done in Bangladesh found more prevalence in primigravida, up-to 45.1%[1]. Prevalence study done on Swedish women found multiparty is a risk factor for LBP[4]. In this study, it was found that 93% of women have poor Physical QOL, which includes, experiencing weakness throughout pregnancy, limitation in doing work such as the sweeping and mopping floor, pushing table, etc. They experience, breathlessness on climbing stairs. It was found out that, 78% of women are having poor Mental QOL, which includes depression or anxiety during pregnancy, its effect on daily activities, social life. It also includes feeling calm and peaceful or feeling downhearted and blue.

5. Conclusion

From these results, we found out that LBP is a major and serious problem during pregnancy, which was more in multigravida and 3rd trimester of pregnancy. Most of the women in society were unaware of physiotherapy interventions. Physical and mental QOL is affected during pregnancy which needs to take care of.

6. Limitations

1) In this study only 164 participants were included which is very little sample size to represent the whole population of pregnant women.
2) The most easily accessible participants were collected in the city and not from the other area.
3) The interviewing skills were not adequate to get deeper to get information from participants.

7. Clinical Implication

Using the information, ANC classes can be start in the area having more Prevlance of Low Back Pain during pregnancy. Protective measures to avoid low back pain during pregnancy can be taught right from first month of pregnancy.

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