Disability among pregnant women due to pregnancy related low back pain

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Objective: To find the impact of pregnancy related low back pain on activity of daily life.

Methodology: This survey collected data of 200 patients visiting antenatal clinics/hospitals from four city of Punjab during a six months period. Inclusion criteria were the women with third trimester and visiting to antenatal clinic or hospitals. Exclusion criteria were women of 1st and 2nd trimester, and women with previous history of surgery and trauma. Data were collected with modified Oswestry Disability Index by direct interview.

Results: Out of 200 women, 156 were with low back pain. Forty (25.6%) females showed minimal disability, 44.9 % (70) females showed moderate disability, 26.3% (41) females showed severe disability, four (2.6%) were crippled and One (0.6%) was bedridden. Out of 200 females, 83.3% had pain in lumbosacral area, 15.4% in sacroiliac area and 1.3% in upper back. 5.7% could not sleep, 5.1% could not lift, 3.8% could not travel, 1.3% had no social life, 0.6% could not stand and 0.6% could not walk. Most disability was noted in sleeping and lifting.

Conclusion: Prevalence of low back pain among pregnant women was 78%. 26.3% showed severe disability. Low back pain in pregnancy is very common problem that causes significant disability in pregnant women. (Rawal Med J 201;43:658-660)

Key words: Pregnancy, low back pain, Functional activity, disability,

INTRODUCTION
Low back pain is very common complaint in pregnancy and it had a negative impact on quality of life in pregnant women.1,2 During pregnancy, hormonal changes lead to hyper mobility and increase flexibility of ligaments and tendons.3,4 Pain is deep, stabbing and continuous and is most common cause of sick leave after delivery.5 Low back pain is strongly associated with mechanical factors i.e. weight gain during pregnancy, increased stress on lower back, weakness of abdominal muscles and increased anterior pelvic tilt.6 Onset of pain is in 18th weeks of gestation and reaches to maximum during 24th and 36th weeks of gestations.7

Conservative management includes physiotherapy, stabilization, pharmacological management, massage, nerve stimulation and relaxation.8 Current prevalence of pregnancy related low back pain in Pakistan is about 69 % among pregnant women in 3rd trimester.9 This study was conducted to evaluate the impact of pregnancy related low back pain on functional activity of patients.

METHODOLOGY
This cross sectional observational study was conducted in Mola Bakhsh Hospital Sargodha, Hill e Ahmar Hospital Sargodha, Sajida Basharat Hospital, Hafizabad, Sadiq Dost Hospital, Hafizabad and Bhatti international Hospital, Khushaab from October 2016 to March 2017. Informed consent was obtained from patients and head of departments of institutions. Inclusion criteria were females of third trimester. Exclusion criteria were the pregnant females of first and second trimester and patient with any injury. Convenient sampling was used during data collection.

We used Oswestry low back pain for functional evaluation and self-structured questionnaire for demographic data, history of pregnancy, site of back pain and severity of back pain. Oswestry disability index is derived from the Oswestry low back questionnaire and used for the quantifying the disability due to low back pain.10 This scale
measured the disability in ten domains i.e. intensity of pain, lifting, ability to care for oneself, ability to walk, ability to sit, sexual function, ability to stand, social life, sleep quality, and ability to travel.\textsuperscript{10}

RESULTS
Total numbers of participants were 200, with mean age of 27.53 year (range 16-44). 39% female were in 7\textsuperscript{th} month of pregnancy, 43.5% were in 8\textsuperscript{th} month of pregnancy and 17.5% were in 9\textsuperscript{th} month of pregnancy. Out of 200 females, 149 were housewife, 39 were teacher and 12 were farmer. Out of total, 44(22%) had no pain and 156(78%) had pain. 119(59.5%) belonged to lower class, 77(38.5%) to middle class and 4(2%) to higher class.

Out of 156 with pain, 83.3% had pain in lumbosacral area (Table 1) 64.1% showed aggravation on bending activities, 12.8% showed aggravation on twisting and 23.1% showed aggravation on floor mopping activities. 87.8% women had relief of pain by rest and 12.2% by medication. Out of 156, 89.7% used analgesics, 1.3% had physical therapy treatment and 8.5% never sought any treatment. Out of 156, 17.8% showed no pain on moving, 35.0% showed mild pain, 42.0% showed moderate, 3.8% showed fairly severe pain and 1.3% showed very severe pain.

Out of 156 females, 10.2% could stand without extra pain, 29.3% with extra pain, 17.2% had pain in 1 hour, 15.9 had pain within 30 minutes, 26.8% had pain within 10 minutes and 0.6% could not stand. Out of 156 females, 18.5% slept without pain, 47.1% disturbed occasionally, 7.6% slept less than 6 hours, 8.9% slept less than 4 hours, 12.1% slept less than 2 hours and 5.7% could not sleep at all. 9.0% could not travel without extra pain, 37.2% could travel with pain, 19.2% travel within 2 hours, 18.6% travel less than one hour, 12.2% travel within 30 minutes and 3.8% could not travel at all. Forty (25.6%) females had minimal disability, 70 (44.9%) had moderate disability and 4(2.6%) were crippled (Table 2).

DISCUSSION
Back pain is common problem in pregnancy. In our study, the prevalence of pregnancy related low back pain was 78%. Result of this study is similar to study conducted by Khan et al who reported 69% prevalence of pregnancy related low back pain.\textsuperscript{9} Mogren and Pohjanen reported prevalence of low back pain and pelvic pain during pregnancy of 72%.\textsuperscript{11}

In current study, the functional evaluation was measured with the help of Oswestry disability index and it showed that 25.6% females had minimal disability, 44.9% moderate disability, 26.3% severe disability, 2.6% were crippled and 0.6% was bedridden. These results are similar to a study from Abbottabad, Pakistan.\textsuperscript{9} If we compare our results with some international studies, the prevalence of low back pain is much greater in Pakistan. Mostly literature reported 45% prevalence of low back pain in pregnancy. Wang et al reported that 68.5% respondents experienced back pain in their study and in majority of patients back pain disturbed the sleep.\textsuperscript{12} There is increase disability and prevalence of low back in pregnancy when compared to developed countries, reason may be inactivity, sedentary life style and decreases muscle strength of pelvic floor.

Postural advices and proper education can be used to prevent the low back pain in these patients. In future, more studies are required that focus the risk factor, causes, prevention of low back pain pregnancy.
Limitations of study include that it was conducted in hospital and clinics and patients who did not visit to hospitals were excluded. Some patients were reluctant and non cooperative to share their information. Patients from 1st and 2nd trimester were excluded from the study, if included results may be different. In this study, only three cities i.e. Sargodha, Khushab and Hafizabad were included, the results of study may be different if included developed city like Lahore, Islamabad and Karachi.

CONCLUSION
It was concluded that the prevalence of low back pain among pregnant women was 78%. Low back pain in pregnancy is very common problem that causes significant disability in pregnant women.

REFERENCES