









**Figure 1:** Flow Chart for participants included for data analysis.

## Discussion

In the following study, sacroiliac joint pain was reduced to a certain extent 8 weeks after delivery in women along with the restoration of mobility as median (IQR) for pain score was 4 (2.25 to 6) after 2 months of delivery. Sacroiliac joint pain in women in the final month of pregnancy was considered to be moderately severe based on visual analog scale scores as median for the pain score in pre partum (37<sup>th</sup> week of pregnancy) was 7 (6 to 8) which is consistent with previous studies [2]. The use of pregnancy mobility index in the present study signified scores showing notable mobility restriction and disability during the last month of pregnancy that had an impact on daily work for most women as mean PMI score during the 37<sup>th</sup> week of pregnancy was  $27.88 \pm 9.06$ . Also commuting by any transportation means during last month as well as following two months after delivery were the least preferred marked on the questionnaire and answering such questions posed reservations because women were unable to find genuine reasoning to respond to them because these behaviors are rarely preferred during pregnancy due to their dangerous existence [9]. Although pregnancy mobility index is a great source identifying mobility problems in pregnant women, there is still a need for a better questionnaire that establishes mobility restrictions in women specifically with sacroiliac joint pain. There was some limitation in doing simple house chores to maintaining their independent status as some women demonstrated the need for dependence. Mobility scores improved following delivery as mean PMI score was  $22.2 \pm 10.12$  after 2 months of delivery but there were some doubts raised regarding the questionnaire as most women tend to have decreased physical activity specifically walking during final months of pregnancy and after delivery [10]. Pain reduction and

mobility improvement in women following delivery is owing to factor that hormones primarily relaxing that are elevated during the course of pregnancy return back to normal within 3 months of pregnancy [11]. In a study suggested that women, although showing a reduction in pain scores, may be completely pain free in the coming weeks or months, but the persistence of pain and the fact of pain becoming chronic has been reported in previous studies with pain returning in future pregnancy [12]. Some factors associated with delayed or persistence of pregnancy related pelvic girdle pain were multiple pregnancies and history of PGP one year before pregnancy. Considerable recovery from Pelvic girdle pain is seen in 83% females after six weeks of delivery and half of these recovered subjectively from pain within the first two week [13]. The continuous persistence of pain must not be forgotten, as it would have a significant impact on self-involved health, as well as on their family, social and psychological well-being. This chronicity of pain results in prolonged leave from work place and rise in disability pension which can have a significant impact on financial resources [14]. Studies have been conducted in the past in which pregnancy related pain has persisted months to years after childbirth and subsequent future pregnancy. Women in the study had ongoing struggles with or adapted to the pain and accepted it as part of their lives. The women in our study may have a potential for chronic pain, they must be treated, and their pain must be considered and managed as soon as possible to avoid any long-term effects that could cripple their physical and mental well-being after pregnancy [15]. Changes in pelvic alignment during the post-natal period were analyzed in a study which showed that alignment changes continuously during this time and concluded that changes in pelvic width did not recover one month after partum. Such repeated changes in the symmetrical orientation of the pelvis may suggest why the SI joint pain diagnostic test performed in this study were still positive for the participants two months after delivery [16]. Treatment of pregnant women has rarely been emphasized in the field of physical therapy. A study showed that there was a definite gap in the identification and management of pelvic girdle pain [17]. In strength our study highlights the need for physical therapist to act in the field of pregnancy during and after childbirth so that women with acute pregnancy related sacroiliac pain can be guided and managed and possibly avoiding long term effects of chronicity. In weakness, the duration of the follow-up to our study was less and there is a significant need to check the proportions of the pain that had completely decreased and the extent to which it had persisted and the potential to become chronic. There is a potential for future studies such as this to be conducted over a longer period of time so that sacroiliac joint pain and mobility can be more closely monitored and pain resolution or persistence can be established to help physicians and physiotherapists possibly intervene and act in the best interests of patients.

## Conclusion

Based on the findings of this research, it was concluded that women with intense pain levels and significant limitations of

movement during the last month of pregnancy had substantial reduction in frequency of pain intensity along with increase in house and outdoor movement after two months of delivery. Finally, the comparison between the pre and post-pregnancy sacroiliac joint test for sacroiliac joint dysfunction showed no statistically significant differences concluding that the frequency of positive tests remains independent of the time they are used (before and after pregnancy) but rather depends on the condition that the patient presents during the use of these tests.

### Conflict of Interest

There is no conflict of interest.

### References

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