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Original Research Article

Physical Health of Mothers after Normal Vaginal and Cesarean Deliveries: A Comparative Study in Kohat, Khyber Pakhtunkhwa, Pakistan

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Abstract

Delivery is the physiological process of giving birth to a baby. Besides other complications, both methods of deliveries impact the postpartum quality of life of mothers. The post-partum period is one of the critical period in which the health status of a woman changes. *Objectives*: To compare the physical health among post-partum mothers after cesarean and normal vaginal deliveries. *Methodology*: A causal-comparative study was conducted. Overall, 104 women with normal vaginal delivery (52) and cesarean section (52) were included using the consecutive sampling technique. Data was collected using the quality-of-life questionnaire (SF-36). *Results*: Overall, five (9.6%), 30 (57.6%), 13 (25%), and four (7.6%) women among the normal vaginal delivery reported very good, good, fair, and poor health. Similarly, two (3.8%), eight (15.3%), 20 (38.4%), and 22 (42.3%) women in the cesarean section group reported very good, good, fair, and poor health. Activities were "limited a little" among women undergoing normal vaginal delivery, and activities were "limited a lot" among women undergoing cesarean section. 80.7% of women in the normal vaginal delivery group and 90% of women in the cesarean section group reported that they cut down the amount of time they spent on work or other activities. *Conclusion*: The findings of the study concluded that women who undergo normal vaginal delivery have a better quality of physical health as compared to women undergoing cesarean section.

Keywords: Physical Health; Quality of Life; Normal Vaginal Delivery; Cesarean Delivery; Woman Health; Nursing Care.

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Introduction

Delivery is the physiological process of giving birth to a baby. Worldwide it is a very important domain of the health care system due to its dynamic process, it may be safe or harmful to the baby or mother due to its severe complications [1, 2]. Worldwide, 250 babies are born per minute and the global fatality rate per woman is 2.448. All these births account for 18.5 births per 1000 total population [3]. There are two way of baby delivery, the one is cesarean section and the second one is normal vagina delivery. Cesarean section is a surgical procedure when a cut is made in a women's abdomen to deliver a baby. This procedure is usually costly and may lead to severe complications such as prolonged hospital stay, severe infections, and

hemorrhage [4]. Normal delivery is the delivery of a baby normally through the vagina. Normal delivery is safer in terms of complications for the baby and mother, hospital stay, and financial point of view [5].

Cesarean section is a very important surgical procedure for the lifesaving of baby and mother in various situations. An elective cesarean can be harmful and may lead to many complications and medical risks, but in some situations, cesarean section is considered safer to save lives, the baby and the mother [6]. Globally, approximately 18.5 million C-section are carried out yearly, but the statistics of cesarean sections vary according to the countries. The cesarean section rate is less than 10% in almost 40% of countries, 10% of the countries have a cesarean rate between 10 to

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15%, and in more than 50% of countries, the cesarean section rate is higher than 15%[7, 8].

The cesarean section rate varies in developed and developing countries. Certain countries such as Africa, Uganda, and Ethiopia reported low cesarean section rates due to the poor access to hospital facilities whereas certain developing countries like Pakistan, India, Iran, and Turkey presented a high rate of cesarean section. In addition, the cesarean section rate was reported very high in developed countries [9, 10].

According to WHO, the rate of cesarean section should be less than 15% to balance the risks and benefits of the procedure and to maintain the normal rate of cesarean section [11]. The increased cesarean section rate also creates a huge burden on the health care system, particularly in low income and middle-income countries [12].

The both, cesarean and normal vaginal delivery, are critical events in a woman's life. It affects women in different ways dealing with this painful and stressful situation. Similarly, during both modes of delivery, women face multiple reactions such as emotional, physical, physiological, cultural, and mental [13]. The pain, physical and psychological impact of normal delivery, creates a huge mental burden on the mother. Also, the post-operative complication, physical restrictions, and post-operative pain create a stressful situation for women. In fact, a woman faces these critical events both in normal vaginal delivery and cesarean deliveries [14-16].

Besides other complications, both methods of deliveries impact the postpartum quality of life (QOL) of mothers. Quality of life includes emotional, physical, physiological, cultural, and mental aspects after birth [17]. The post-partum period is one of the critical periods in which the health status of a woman is impacted. Health promotion of post-natal mothers is an important goal, quality of life of mothers is very important to measure QOL, explore the attitudes socioenvironmental, interests, social goals and social values of postnatal mothers [18, 19].

The basic purpose of the study was to estimate the QOL of women after normal vaginal and cesarean deliveries, from a physical health perspective, and to compare their QOL after both modes of delivery.

MATERIAL AND METHODS

This was a causal-comparative study design conducted in the gynecology ward of Liaqat Memorial Hospital in Kohat Khyber Pakhtunkhwa, Pakistan. In the current study, QOL among women was compared after cesarean section and NVD. The current study was conducted in district Kohat Khyber Pakhtunkhwa (KPK). Participants were recruited Gynae ward of Liaqat Memorial Hospital (LMH) in Kohat KPK. The

population of the study was all women admitted after normal vaginal delivery and cesarean section in the Gynae ward of Liagat Memorial Hospital in Kohat KPK. Critically ill pregnant women and mentally ill women were excluded from the study. A consecutive non-probability sampling technique was used to recruit the participants for the study. The sample size for the current study was calculated through Open Epi software consecutively on 59% and 39%, with 95% confidence interval and 5% margin of error and 80% power of the study. The sample size on the proportion came to be 95. 10% non-response rate was added, and the total sample size came to be 104. Eventually, 52 participants were recruited each in the normal vaginal delivery group and cesarean section group. The questionnaire was divided into two sections. Section "A" consists of questions regarding socio-demographic variables participants such as age, the number of pregnancies, family type, the number of children, occupation, education, and religion. Section "B" is consisted of a Quality-of-life questionnaire (SF-36) questions. The section "B" is further divided into 7 sections and overall 36 questions. These seven sections are General Health, limitations of activities, physical health problems, emotional health problems, social activities, energy and emotions and social activities. In this paper, we will be presented the results relating to the sections general health, limitations of activities and physical health problems.

Data collection period and procedure

The total duration of the study was six months after the initial approvals. The study was approved by the graduate committee of the Institute of Nursing Sciences (INS). Data collection was started after the approval of KMU ASRB and ethical approval. Permission was also granted from the director of the hospital and head of the department of gynecology and obstetrics of Liaqat Memorial Hospital Kohat.

Initially, participants were recruited from the gynecology and obstetrics units of Liaqat Memorial Hospital Kohat. Participants were recruited following the inclusion and exclusion criteria. 52 post-cesarean section participants and 52 participants with normal vaginal deliveries were recruits in the study. The aims and objectives of the study were explained to the participants and the consents were granted. Data regarding socio-demographic variables and quality of life were gathered. The participants were allowed to quit the study at any stage. To ensure confidentiality, the data was collected separately.

Data was collected using the Quality-of-life questionnaire (SF-36). The questionnaire was translated into the Urdu language for better understanding. The primary investigator collected the data; enough time was given to the participants for a complete questionnaire.

DATA ANALYSIS

Data were analyzed using software SPSS version 24. Frequencies were calculated for categorical variables and means, and standard deviations were calculated for continuous variables. For inferential statistics, Chi-square test, T-test and Pearson's r test were applied to the quality of life, mode of delivery and socio-demographic variables of the study.

ETHICAL CONSIDERATION

Initially, the study was approved by the institution's graduate committee, after that, the study was presented in KMU ASRB, and approval was granted. The study was submitted to the ethical review board and approval of data collection was granted. Permission was also granted from the director of the hospital and head of the department of gynecology and obstetrics of Liaqat Memorial Hospital Kohat before collection of data. Written consents were also got from the participants after explaining the aims and objectives of the study.

RESULTS

Socio-demographic

Overall, 52 participants had gone through cesarean section and 52 were taken participants after

normal vaginal delivery. The average ages of the participants were 31.19 years with a minimum age of 19 years, maximum age 44 years, and standard deviation of 7.25.

The majority (40.4%) of the participants were from the age group 21-30 years old, 37.5% women were from the age group 31-40 years, 13.5% women were from the age group more than 40, and only 8.7% women were age less than 20 years. The majority (89.4) of the participants were Muslims. The education level of the participants was: majority (42.3%) had primary education, 26% were illiterate, 28.8% had higher secondary and only 2.9% were graduated and above. The majority (76%) women were living in a joint family, 6.7% women were living in a nuclear family and 17.3% of participants were belonging to extended family. The majority (70.2%) women were housewives, 10.3 % were government employed, 17.7% participants were students, and 3.8% participants were private employed. Results shown in Table 1.

Table-1: Socio-Demographic profile of the women, n=104

| | Table-1: Socio-Demographic profile of the women, n=104 | | | | | | |
|---|--|---------------|---------|---------------|---------------------------|--|--|
| | | Frequency | Percent | Valid Percent | Cumulative Percent | | |
| Α | ge of the Participants | | | | | | |
| | Less Than 20 Years | 9 | 8.7 | 8.7 | 8.7 | | |
| | 21 years -30 years | 42 | 40.4 | 40.4 | 49.0 | | |
| | 31 years - 40 years | 39 | 37.5 | 37.5 | 86.5 | | |
| | More than 40 years | 14 | 13.5 | 13.5 | 100.0 | | |
| R | eligion of the Particip | ants | | | | | |
| | Muslim | 93 | 89.4 | 89.4 | 89.4 | | |
| | Christian | 11 | 10.6 | 10.6 | 100.0 | | |
| E | ducational Status of t | he Participan | ts | | | | |
| | Illiterate | 27 | 26.0 | 26.0 | 26.0 | | |
| | Primary | 44 | 42.3 | 42.3 | 68.3 | | |
| | Higher Secondary | 30 | 28.8 | 28.8 | 97.1 | | |
| | Graduate and above | 3 | 2.9 | 2.9 | 100.0 | | |
| F | amily Type | | | | | | |
| | Nuclear family | 7 | 6.7 | 6.7 | 6.7 | | |
| | Joint family | 79 | 76.0 | 76.0 | 82.7 | | |
| | Extended family | 18 | 17.3 | 17.3 | 100.0 | | |
| 0 | ccupation of the Part | icipants | | | | | |
| | Housewife | 73 | 70.2 | 70.2 | 70.2 | | |
| | Government job | 19 | 10.3 | 10.3 | 80.5 | | |
| ĺ | Student | 8 | 17.7 | 17.7 | 97.7 | | |
| | Private job | 4 | 3.8 | 3.8 | 100.0 | | |
| | Total | 104 | 100.0 | 100.0 | | | |

General health

Women were asked regarding their general health. Overall, 5(9.6%), 30 (57.6%), 13(25%) and 4(7.6%) women among the normal vaginal delivery reported very good, good, fair, and poor health.

Similarly, 2(3.8%), 8(15.3%),20(38.4%), and 22(42.3%) women among the cesarean section group reported very good, good, fair, and poor health. Results shown in Figure 1.

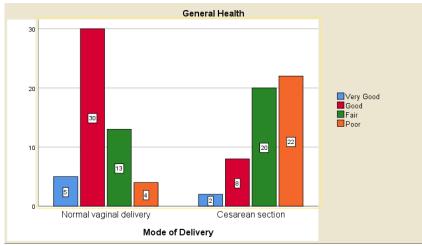


Fig-1: Bar-chart depicting general health among women who underwent normal vaginal delivery and cesarean section

Women were asked to compare their current general health to one year ago. Overall, 4.81%, 28.85%, 12.5%, and 3.85% women among normal vaginal delivery group reported "Much better now than one year ago", "About the same", "Somewhat worse now than one year ago" and "Much worse than one year

ago". In comparison, 1.92%, 7.6%, 19.2%, and 21.1% women among the cesarean section group reported their general health as "Much better now than one year ago", "About the same", "Somewhat worse now than one year ago" and "Much worse than one year ago". Results shown in Figure 2.

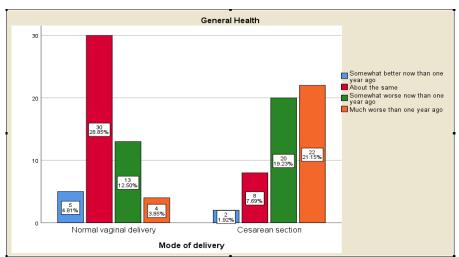


Fig-2: Bar-Chart depicting the comparison of current General health to one year ago among women who underwent normal vaginal delivery and cesarean section

Limitations and activities

The participants were asked whether they feel a limitation in performing vigorous activities such as lifting heavy objects or running. Overall, 30.8%, 61.5%, and 7.7% of women among the normal vaginal delivery reported that they feel "Limited a lot", "Limited a

little", and "No, Not Limited at all" when it comes to limitations while performing vigorous activities. In the same context, 90.4% and 9.6% of participants among the cesarean section group reported that they feel "Limited a lot" and "Limited a little". Results shown in Table 2.

Table-2: Comparison of Vigorous activities among women who underwent normal vaginal delivery and cesarean section

| Vigorous activi | ties, such as rui | nning, lifting heavy objects. * Mode of | f delivery Cross tab | oulation | |
|------------------------------|-------------------|--|----------------------------|---------------------|--------|
| | | | Mode of Delivery | | |
| | | | Normal Vaginal Delivery | Cesarean Section | |
| Vigorous | Limited a lot | Count | 16 | 47 | 63 |
| activities, such as running, | | % within vigorous activities, such as running, lifting heavy objects. | 25.4% | 74.6% | 100.0% |
| lifting heavy | | % within mode of delivery | 30.8% | 90.4% | 60.6% |
| objects, | | % of ttotal | 15.4% | 45.2% | 60.6% |
| participating | Limited a | Count | 32 | 5 | 37 |
| in strenuous sports. | little | % within vigorous activities, such as running, lifting heavy objects, participating in strenuous sports. | 86.5% | 13.5% | 100.0% |
| | | % within mode of delivery | 61.5% | 9.6% | 35.6% |
| | | % of Total | 30.8% | 4.8% | 35.6% |
| | No, Not | Count | 4 | 0 | 4 |
| | limited at all | % within vigorous activities, such as running, lifting heavy objects, participating in strenuous sports. | 100.0% | 0.0% | 100.0% |
| | | % within mode of delivery | 7.7% | 0.0% | 3.8% |
| | | % of total | 3.8% | 0.0% | 3.8% |
| Total | | Count | 52 | 52 | 104 |
| | | % within vigorous activities, such as running, lifting heavy objects, participating in strenuous sports. | 50.0% | 50.0% | 100.0% |
| | | % within mode of delivery | 100.0% | 100.0% | 100.0% |
| | | % of Total | 50.0% | 50.0% | 100.0% |

To explore furthermore the activity pattern of the participants, they were asked whether they feel limited while performing moderate activities, such as moving a table, pushing a trashcan, or cleaning a house. Overall, 6.73%, 31.7%, and 11.5% of women among normal vaginal delivery group reported that they feel

"Limited a lot", "Limited a little", and "No, not limited at all". Besides, the majority (43.2%) and 6.7% women among the cesareans section group reported that they feel "Limited a lot" and "Limited a little", when it comes to limitations while performing moderate activities. Results shown in Figure 3.

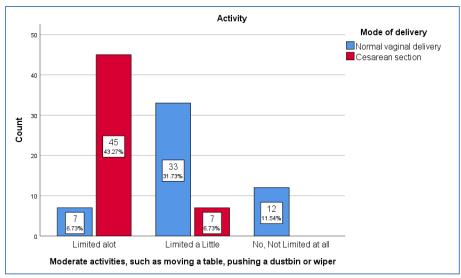


Fig-3: Bar-Chart depicting Moderate activities among women who underwent normal vaginal delivery and cesarean section

Furthermore, the limitations and activities of the women were better explored and they were asked if they they feel limitations lifting and carrying groceries. Overall, 11.5%, 55.8%, and 32.7% of women

underwent normal vaginal delivery reported that they feel "Limited a lot", "Limited a little", and "No, not limited at all" when it comes to limitations while lifting and carrying groceries. In the same context, the majority 88.5% and 11.5% of women underwent cesarean section reported that they feel "Limited a lot"

and "Limited a little". Results shown in Table 3.

Table-3: Limitations and activities among women who underwent different modes of delivery in lifting or carrying groceries

| Lifting or carrying groceries * Mode of delivery Cross tabulation | | | | | | |
|---|------------------|--|-------------------------------|------------------|--------|--|
| | | | Mode of delivery | | | |
| | | | Normal vaginal delivery | Cesarean section | | |
| Lifting or | Limited a lot | Count | 6 | 46 | 52 | |
| carrying | | % within lifting or carrying groceries | 11.5% | 88.5% | 100.0% | |
| groceries | | % within mode of delivery | 11.5% | 88.5% | 50.0% | |
| | | % of Total | 5.8% | 44.2% | 50.0% | |
| | Limited a little | Count | 29 | 6 | 35 | |
| | | % within lifting or carrying groceries | 82.9% | 17.1% | 100.0% | |
| | | % within mode of delivery | 55.8% | 11.5% | 33.7% | |
| | | % of Total | 27.9% | 5.8% | 33.7% | |
| | No, not limited | Count | 17 | 0 | 17 | |
| | at all | % within lifting or carrying groceries | 100.0% | 0.0% | 100.0% | |
| | | % within mode of delivery | 32.7% | 0.0% | 16.3% | |
| | | % of Total | 16.3% | 0.0% | 16.3% | |
| Total | | Count | 52 | 52 | 104 | |
| | | % within lifting or carrying groceries | 50.0% | 50.0% | 100.0% | |
| | | % within mode of delivery | 100.0% | 100.0% | 100.0% | |
| | | % of Total | 50.0% | 50.0% | 100.0% | |

The participants were asked whether they feel limitations climbing several flights of stairs. 15.4%, 21.2%, and 63.5% of women who underwent normal vaginal delivery reported that they feel "Limited a lot", "Limited a little", and "No, not limited at all" limitations while climbing several flights of stairs.

Besides, the majority (90.4%) and 9.6% of women who underwent cesarean section reported that they feel "Limited a lot" and "Limited a little" limitations while climbing several flights of stairs. Results shown in Table 4.

Table-4: Limitations and activities among women who underwent different modes of delivery in climbing several flights of stairs

| Climbing several flights of stairs * Mode of delivery Cross tabulation | | | | | | |
|--|--|---|-----------|----------|--------|--|
| | | | Mode of d | Total | | |
| | | | Normal | cesarean | | |
| | | | vaginal | section | | |
| | | | delivery | | | |
| Climbing several | Limited a lot | Count | 8 | 47 | 55 | |
| flights of stairs | | % within Climbing several flights of stairs | 14.5% | 85.5% | 100.0% | |
| | | % within mode of delivery | 15.4% | 90.4% | 52.9% | |
| | | % of Total | 7.7% | 45.2% | 52.9% | |
| | Limited a | Count | 11 | 5 | 16 | |
| | little % within Climbing several flights of stairs | | 68.8% | 31.3% | 100.0% | |
| | % within mode of delivery | | 21.2% | 9.6% | 15.4% | |
| | | % of Total | 10.6% | 4.8% | 15.4% | |
| | No, not | Count | 33 | 0 | 33 | |
| | limited at all | % within Climbing several flights of stairs | 100.0% | 0.0% | 100.0% | |
| | | % within mode of delivery | 63.5% | 0.0% | 31.7% | |
| | | % of Total | 31.7% | 0.0% | 31.7% | |
| Total | | Count | 52 | 52 | 104 | |
| | | % within Climbing several flights of stairs | 50.0% | 50.0% | 100.0% | |
| | | % within mode of delivery | 100.0% | 100.0% | 100.0% | |
| | | % of Total | 50.0% | 50.0% | 100.0% | |

Similarly, women were asked regarding the limitation they have in walking more than a mile. 34.6%, 44.2%, and 21.2% of women who underwent normal vaginal delivery reported that they have "Limited a lot", "Limited a little", and "No, not limited

at all" when it comes to limitations while walking more than a mile. Besides, 92.5% and 7.7% of women in the cesarean section group reported that they have "Limited a lot "and "Limited a little". Results shown in Table 5.

Table-5: Limitations and activities among women who underwent different modes of delivery in walking more than a mile

| Walking more than a mile * Mode of delivery Cross tabulation | | | | | | |
|--|------------------|-----------------------------------|-------------------------|------------------|--------|--|
| | | <u>-</u> | Mode of delivery | | Total | |
| | | | Normal vaginal delivery | Cesarean section | | |
| Walking | Limited a lot | Count | 18 | 48 | 66 | |
| more than | | % within walking more than a mile | 27.3% | 72.7% | 100.0% | |
| a mile | | % within mode of delivery | 34.6% | 92.3% | 63.5% | |
| | | % of Total | 17.3% | 46.2% | 63.5% | |
| | Limited a little | Count | 23 | 4 | 27 | |
| | | % within walking more than a mile | 85.2% | 14.8% | 100.0% | |
| | | % within mode of delivery | 44.2% | 7.7% | 26.0% | |
| | | % of Total | 22.1% | 3.8% | 26.0% | |
| | No, not limited | Count | 11 | 0 | 11 | |
| | at all | % within walking more than a mile | 100.0% | 0.0% | 100.0% | |
| | | % within mode of delivery | 21.2% | 0.0% | 10.6% | |
| | | % of Total | 10.6% | 0.0% | 10.6% | |
| Total | | Count | 52 | 52 | 104 | |
| | | % within walking more than a mile | 50.0% | 50.0% | 100.0% | |
| | | % within mode of delivery | 100.0% | 100.0% | 100.0% | |
| 1 | | % of Total | 50.0% | 50.0% | 100.0% | |

Additionally, women were asked regarding the limitation they have in walking several blocks. 21.2%, 59.6%, and 19.2% of women who underwent normal vaginal delivery reported that they feel "Limited a lot", "Limited a little", and "No, not limited at all"

limitations while walking several blocks. Similarly, 90.4% and 9.6% of women among the cesarean section group reported that they have "Limited a lot "and "Limited a little" limitation while walking several blocks. Results shown in Table 6.

Table-6: Limitations and activities among women who underwent different modes of delivery in walking several blocks

| Walking so | Walking several blocks * Mode of delivery Cross tabulation | | | | | | |
|---|--|----------------------------------|-------------------------|---------------------|--------|--|--|
| ,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 7,0141 2100112 1110 | de of defivery cross tandiamient | Mode of delivery | Mode of delivery | | | |
| | | | Normal vaginal delivery | cesarean section | | | |
| Walking | Limited a lot | Count | 11 | 47 | 58 | | |
| several | | % within walking several blocks | 19.0% | 81.0% | 100.0% | | |
| blocks | | % within mode of delivery | 21.2% | 90.4% | 55.8% | | |
| | | % of Total | 10.6% | 45.2% | 55.8% | | |
| | Limited a little | Count | 31 | 5 | 36 | | |
| | | % within walking several blocks | 86.1% | 13.9% | 100.0% | | |
| | | % within mode of delivery | 59.6% | 9.6% | 34.6% | | |
| | | % of Total | 29.8% | 4.8% | 34.6% | | |
| | No, not limited | Count | 10 | 0 | 10 | | |
| | at all | % within walking several blocks | 100.0% | 0.0% | 100.0% | | |
| | | % within mode of delivery | 19.2% | 0.0% | 9.6% | | |
| | | % of Total | 9.6% | 0.0% | 9.6% | | |
| Total | | Count | 52 | 52 | 104 | | |
| | | % within walking several blocks | 50.0% | 50.0% | 100.0% | | |
| | | % within mode of delivery | 100.0% | 100.0% | 100.0% | | |
| | | % of Total | 50.0% | 50.0% | 100.0% | | |

The activities and limitations were better explored and women were asked regarding the

limitation they have in bathing and dressing. 19.2%, 55.8%, and 25% of women who underwent normal

vaginal delivery reported that they have "Limited a lot", "Limited a little", and "No, not limited at all" limitations while bathing and dressing. In the same context, 88.5% and 11.5% of women in the cesarean

section group reported that they have "Limited a lot "and "Limited a little limitation while bathing and dressing. Results shown in Table 7.

Table-7: Limitations and activities among women who underwent different modes of delivery in walking and bathing

| Bathing or dressing yourself * Mode of delivery Cross tabulation | | | | | | |
|--|------------------|---------------------------------------|------------------|----------|--------|--|
| - | | • | Mode of delivery | | Total | |
| | | | Normal vaginal | cesarean | | |
| | | | delivery | section | | |
| Bathing or | Limited a lot | Count | 10 | 46 | 56 | |
| dressing | | % within bathing or dressing yourself | 17.9% | 82.1% | 100.0% | |
| yourself | | % within mode of delivery | 19.2% | 88.5% | 53.8% | |
| | | % of Total | 9.6% | 44.2% | 53.8% | |
| | Limited a Little | Count | 29 | 6 | 35 | |
| | | % within bathing or dressing yourself | 82.9% | 17.1% | 100.0% | |
| | | % within mode of delivery | 55.8% | 11.5% | 33.7% | |
| | | % of Total | 27.9% | 5.8% | 33.7% | |
| | No, not limited | Count | 13 | 0 | 13 | |
| | at all | % within bathing or dressing yourself | 100.0% | 0.0% | 100.0% | |
| | | % within mode of delivery | 25.0% | 0.0% | 12.5% | |
| | | % of Total | 12.5% | 0.0% | 12.5% | |
| Total | | Count | 52 | 52 | 104 | |
| | | % within bathing or dressing yourself | 50.0% | 50.0% | 100.0% | |
| | | % within mode of delivery | 100.0% | 100.0% | 100.0% | |
| | | % of Total | 50.0% | 50.0% | 100.0% | |

Physical health problems

Women were asked whether they have the following problems with their work or other regular daily activities as a result of their actual physical health. Overall, 80.7% of women in the normal vaginal delivery group and 90% of women in the cesarean section group reported that they cut down the amount of time they spent on work or other activities. 88.4% of women in the normal vaginal delivery group and 92% women in the cesarean section group reported that they

accomplished less than they would like to. Similarly, 78.8% of women in the normal vaginal delivery group and 88.46% of women in the cesarean section group reported that they were limited in the kind of work or other activities. Also, 67.3% of women in the normal vaginal delivery group and 96.1% among the cesarean section group reported that they had difficulty performing the work or other activities. Results displayed in Table 8.

Table-8: Physical health problems among women who underwent normal vaginal delivery and cesarean section

| Normal Vaginal Delivery | f/% | Cesarean Section | f/% |
|--|-------|--|--------|
| Cut down the amount of time you spent on | 42 | Accomplished less than you would like | 48 |
| work or other activities | 80.7% | | 92.3% |
| Accomplished less than you would like | 46 | Were limited in the kind of work or | 46 |
| | 88.4% | other activities | 88.46% |
| Were limited in the kind of work or other | 41 | Had difficulty performing the work or | 50 |
| activities | 78.8% | other activities (for example, it took | 96.1% |
| | | extra effort) | |
| Had difficulty performing the work or other | 35 | Cut down the amount of time you | 47 |
| activities (for example, it took extra effort) | 67.3% | spent on work or other activities | 90.3% |

DISCUSSION

Few studies have been conducted to estimate different results according to the QOL among post-partum mothers. Most findings revealed no difference while one of the studies shown cesarean creates a better QOL as compared to vaginal delivery and QOL was reported better among mother with vaginal delivery [17, 20, 21].

The results of this study revealed that the mean age of the women is 31.19 years with a minimum age of 19 years and maximum of 44. The majority (40.4%) of the participants were from the age group 21-30 years old. Besides, the majority (42.3%) women were educated to primary level, 26% were illiterate and 28.8% were higher secondary level. The majority (76%) women were living in a joint family, 6.7% women were living in a nuclear family and 17.3% of participants

were belonging to extended family. The majority (70.2%) women were housewives, 10.3% were government employees and 17.7% participants were students.

Supporting the findings of the current study, another study revealed that the average age of the women was 30.23 years old and reported that the majority of the women were from the age group 25-35 years old. Besides, the educational level of the participants was reported more than the 10^{th} standard [22]. Also, one more study supported the findings of the current study and reported that the majority of the women were from the age group 20 to 30 years, also that the majority (56%) of the women were from a low level of education and 88% of the women were not employed[23].

In contrast, another study also provided different results and revealed that the average age of the participants was 26.12, the majority (38.4%) of the participants were from the age group 20- 30 years. 4.9% of the participants had primary education, the majority (30.5%) participants had high school education and 43% of the women were employed[17]. Also, a study provided different results and reported the majority of the participants were from more than 30 years of age, 77.8% participants were educated, 74.4% participants were from joint family and 73.5% were housewives [24].

In this study overall, 5 (9.6%), 30 (57.6%), 13 (25%), and 4 (7.6%) women among the normal vaginal delivery reported very good, good, fair, and poor health. Similarly, 2 (3.8%), 8 (15.3%), 20 (38.4%), and 22 (42.3%) women in the cesarean section group reported very good, good, fair, and poor health. The findings of this study were conducted in Iran and revealed good general health status among women who underwent normal vaginal delivery and fair general health status among women who underwent cesarean section [25]. In developed countries, especially in the USA, a study reported very different findings regarding health status among women who underwent normal vaginal delivery and cesarean section. The findings of that study estimated excellent and very good health status among women undergoing normal vaginal delivery and cesarean section [26].

In this study, activities were "limited a little" among women undergoing normal vaginal delivery, and activities were "limited a lot" among women undergoing cesarean section. The findings of the current study revealed that fatigue, a lack of motivation and confidence, substantial time constraints, lack of access to affordable and appropriate activities, and poor access to public transport affect the activities among women who underwent the main two methods of delivery. These factors impact the activity among women undergoing cesarean section more as compared to

women with normal vaginal delivery [27]. Besides, another study also supported the results of the this study and reported limited activities among women who underwent through a cesarean section, and activities were restricted to a limited level among women with normal vaginal delivery[28-30].

In this study, overall, 80.7% of women in the normal vaginal delivery group and 90% of women in the cesarean section group reported that they cut down the amount of time they spent on work or other activities. 88.4% of women in the normal vaginal delivery group and 92% of women in the cesarean section group reported that they accomplished less than they would like. Similarly, 78.8% of women in the normal vaginal delivery group and 88.46% of women in the cesarean section group reported that they were limited in the kind of work or other activities. In addition, 67.3% of women in the normal vaginal delivery group and 96.1% among the cesarean section group reported that they had difficulty performing the work or other activities. These findings were supported by different studies and the findings revealed that both modes of the delivery impact the activities and time they spend to other daily work.

Also, the findings estimated that women after both modes of delivery face difficulty and have limitations in the kind of work or other activities they perform in their daily routine [31-36].

CONCLUSION

The findings of the study demonstrated that women who undergo normal vaginal delivery have a better quality of physical health as compared to women undergoing cesarean section.

The quality of life of mothers is very essential to highlight from a nursing perspective as nurses play an important role in promoting the QOL of the mother. Besides that, all the health professionals are very important to highlight this issue and work on the good quality of life of women who undergo both normal vaginal delivery and cesarean section.

RECOMMENDATIONS AND FUTURE COMMITMENTS

A similar study is recommended with a large sample size and included more health care setups.

The community-level research study is recommended as the majority of babies were delivered in homes in backward areas of Kohat. In addition, factors contributing to poor quality of life, among women who undergo both modes of delivery should be highlighted in another similar study.

The government should initiate a special program on the community level where the Lady Health

Visitors (LHVs) and Lady Health Workers (LHWs) work and focus on the good quality of life of women who undergo both modes of delivery.

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