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FACTORS RELATED TO THE BACK PAIN IN PREGNANT WOMEN IN THE THIRD TRIMESTER

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ABSTRAK : FAKTOR-FAKTOR YANG BERHUBUNGAN DENGAN SAKIT PUNGGUNG PADA WANITA HAMIL DI TRIMESTER III

Nyeri punggung bawah merupakan salah satu gangguan muskuloskeletal yang disebabkan oleh kurangnya aktivitas fisik. Prevalensi nyeri punggung pada ibu hamil di Provinsi Lampung adalah 314.492 jiwa, dan di Kota Bandar Lampung sekitar 90,55%. Angka tertinggi terdapat di Lampung Tengah (94,01%), diikuti Lampung Timur (92,09%), Kota Metro (90,11%), Lampung Utara (88,21%), dan Lampung Barat (83,82%). Faktor-faktor penyebab nyeri punggung pada ibu hamil meliputi usia, paritas, pekerjaan, keteraturan olahraga, pendidikan, punggung, beban fisik, dukungan sosial, BMI, riwayat operasi caesar, indeks cairan amnion, dan depresi. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang berhubungan dengan nyeri punggung pada ibu hamil trimester ketiga di wilayah kerja Puskesmas Seputih Raman di Kabupaten Lampung Tengah tahun 2022.

Penelitian ini merupakan jenis penelitian kuantitatif dengan pendekatan cross-sectional. Populasi penelitian adalah ibu hamil trimester ketiga, berjumlah 87 orang. Pemeriksaan dilakukan di Wilayah Kerja Puskesmas Seputih Raman, Kabupaten Lampung Tengah, dari Juni hingga Juli 2022. Data dikumpulkan menggunakan kuesioner dan dianalisis menggunakan univariat dan bivariat (Chi-Square).

Temuan penelitian menunjukkan bahwa responden dengan usia tidak berisiko berjumlah 55 (63,2%), responden dengan paritas tidak berisiko berjumlah 54 (62,1%), responden dengan BMI berisiko berjumlah 45 (51,7%), responden tanpa riwayat operasi caesar berjumlah 69 (79,3%), dan responden dengan nyeri punggung sedang berjumlah 33 (37,9%). Terdapat korelasi antara usia ibu (p-value = 0,013), paritas (p-value = 0,041), BMI (p-value = 0,006) dan riwayat operasi caesar (p-value = 0,004) dengan ibu hamil trimester ketiga yang mengalami nyeri punggung di wilayah kerja Puskesmas Seputih Raman, Kabupaten Lampung Tengah pada tahun 2022. Disarankan agar petugas kesehatan meningkatkan program yang mendukung kesehatan dan pengetahuan ibu hamil tentang keluhan kehamilan yang sering terjadi dan cara mengatasinya, salah satunya dengan memaksimalkan jumlah kelas untuk ibu hamil.

Kata kunci: faktor nyeri punggung, ibu hamil trimester ketiga

ABSTRACT

Low back pain is one of the musculoskeletal disorders induced by insufficient physical activity. The prevalence of back pain during pregnancy in Lampung Province is 314,492 individuals, and Bandar Lampung City is approximately 90.55%. The highest number is in Central Lampung (94.01%), followed by East Lampung (92.09%), Metro City (90.11%), North Lampung (88.21%), and West Lampung (83.82%). Factors causing back pain in pregnant women include age, parity, occupation, regularity of exercise, education, back, physical load, social support, BMI, history of Caesarian, amniotic fluid index, and depression. This research aimed to determine the factors related to back pain in pregnant women in the third semester in the working area of Seputih Raman Health Centre in the Central Lampung Regency in 2022.

This was a quantitative study type using a cross-sectional approach. The research population were pregnant women in the third semester, comprised of 87 people. The examination was performed in the Work Area of Seputih Raman Health Centre, Central Lampung Regency, from June to July 2022. The data was collected using a questionnaire and analysed using univariate and bivariate (Chi-Square).

The study's findings revealed that respondents with no risk age were 55 (63.2%), respondents with no risk parity were 54 (62.1%), respondents with BMI at risk were 45 (51.7%), respondents with no history of Caesarian history were 69 (79.3%), and respondents with moderate back pain were 33 (37.9%). There is a correlation between maternal age (p-value = 0,013), parity (p-value = 0,041), BMI (p-value = 0,006) and history of Caesarian (p-value = 0,004) pregnant woman in the third semester with back pain in the working area of Seputih Raman

Health Centre, Central Lampung Regency in 2022. It is suggested that health workers improve programs that support the health and knowledge of pregnant women about frequent pregnancy complaints and how to manage them, one of which is to maximise the number of classes for pregnant women

Keywords: back pain factors, pregnant women in the third semester

INTRODUCTION

Pregnancy is the fetus's intrauterine growth and development from conception to the beginning of labour. Pregnancy, delivery, postpartum, newborn, and the selection of contraception are continual physiological processes (Marmi, 2013). Moreover, it cannot be denied that women will encounter numerous health issues throughout pregnancy, delivery, and the postpartum period while caring for babies and when using contraception. A woman requires quality health services for a mother's pregnancy, delivery, and postpartum period to run normally. Government regulation No. 61 of 2014 about reproductive health states that every woman has the right to receive health services to attain a healthy life, give birth to healthy and quality generations, and reduce maternal mortality (Handayani, 2022).

The changes that occur during pregnancy typically cause discomfort and concern for most pregnant women, and they are frequently occurring worries and fears in pregnant women. They might cause them to be unprepared to cope with their pregnancy, hence increasing the likelihood of a problematic pregnancy characterised by the emergence of dangerous signs of pregnancy that may terminate in death (Yuliani, 2021).

All the physical changes women experience during pregnancy are related to several systems caused by the special effects of hormones. These changes occur in preparation for foetal development, the mother's body for birthing, and breast development for the formation or production of breast milk during the puerperium. Sleep disorders may be affected everyone, particularly pregnant women entering their third trimester. Sleep disruptions in pregnant women are related to changes in discomfort during pregnancy, such as back pain, frequent urination, a burning feeling owing to hormonal changes, and enlargement of the uterus (Yuliani, 2021).

Various problems emerge in the second and third semesters of pregnancy are psychological issues are frequently complained of by pregnant women, such as anxiety and pain. Low back pain is the most typically reported complaint, occurring in 60% to 90% of pregnant women, and is one of the reasons for a caesarean birth (Purnamasari, 2019).

Low back and pelvic pain is a frequent complaint of pregnant women, generally felt as axial or para-sagittal discomfort in the lower waist area to the buttocks and the thighs. The term frequently used is pregnancy-related lumbopelvic pain, which is further divided into two additional terms, namely pregnancy-related pelvic girdle pain (PPP) to describe pain due to musculoskeletal problems in the pelvic area and pregnancy-related low back pain (PLBP) to describe the pain in the lumbar area (Purnamayanti, 2020).

Pain is a pervasive issue in pregnancy, particularly in the second and third semesters. The phenomenon of pain has become a complex problem defined by the International Society for The Study of Pain as "an unpleasant sensory and emotional experience resulting from actual or potential tissue damage". Pain leads to fear and anxiety; thus, it may enhance stress and drastic physiological changes during pregnancy. Pain and anxiety work synergistically, exacerbating each other. The phenomenon of back pain in pregnant women is one of the most often reported complaints among pregnant women, ranging from 50% to 80% based on previous research conducted in various countries; 8% of these cases ended in severe disability (Purnayanti, 2020).

The prevalence of back pain in pregnancy has been reported to vary from 50% in the UK and Scandinavia to 70% in Australia. According to the Indonesia Health Data Profile report in 2020, there were 5,298,285 people in Indonesia; in the Lampung Province area were 314,492 people; in Bandar Lampung City, approximately 90.55%. The highest number was in Central Lampung at 94.01%, East Lampung at 92.09%; Metro City, 90.11%, North Lampung at 88.21%, and West Lampung the lowest in West Lampung at 83.82% (Subketi, 2020).

In pregnancy, low back and pelvic pain have been carried out worldwide, the reported prevalence varying from 45.3% to 84.1%. Research in Indonesia also shows that low back pain in pregnancy is relatively high. At the KH Hospital. Abdurrahman Syamsuri, East Java, in 2017, the prevalence of low back pain in pregnant women was 54.5.8%, demonstrating that most pregnant women worldwide, including in Indonesia

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(Purnayanti, 2020), complain of low back pain during pregnancy.

Based on Hakiki's research (2015), of 180 pregnant women studied, 47% experienced low back pain. Ulfah (2017) stated that 58.1% of pregnant women complained of back pain, with details of moderate pain (29.0%), mild pain (22.6%), and severe pain (6.5%). In conjunction with research performed by Ulfah (2017), Permatasari (2019) did a further study on pregnant women who occurrence low back pain; (73.33%) experienced moderate pain; on the other hand (10%) experienced mild pain and (16.67%) experienced severe pain.

Due to hormonal changes, joints around the pelvis and lower back of pregnant women may occur during pregnancy. In tandem with the gradual increase in body weight during pregnancy and the redistribution of concentration, a hormonal effect on muscle structure occurs. These two factors cause alterations in pregnant women's body posture. As the gestational age progresses, the musculoskeletal system changes. These musculoskeletal adaptations include: weight gain, shifting of the centre of gravity due to uterine enlargement, relaxation and mobility. The greater the possibility of instability of the sacroiliac joint and increased lumbar lordosis causes pain (Purnamasari, 2019).

Back pain has numerous negative impacts on pregnant women. They have trouble conducting daily tasks such as standing, sitting, moving places or positions, and lifting or relocating objects. There is several evidence of socioeconomic disadvantage, mainly attributable to employee absence. Exercise therapy is an effective strategy and is recommended to treat low back pain. The suggested kinds of exercise may include general physical or aerobic exercises, muscular strengthening, and additional flexibility and stretching exercises, including yoga (Purnamayanti, 2020).

Factors causing back pain in pregnant women include age, parity, occupation, regular exercise, education, history of back pain, physical workload, social support, BMI, Caesarian, amniotic fluid index, and depression (Sencan, 2017).

Based on the graph on the Lampung Health profile in 2020, it demonstrated that K4 coverage 2020 in 15 districts/cities has not yet reached 100%; the highest coverage is in the Central Lampung district, 96.67%. On the other hand, the lowest coverage was in Way Kanan Regency at 79.49%. Based on data, the highest number of pregnant women was in the Central Lampung region, totalling 23,570 pregnant women.

Based on the preliminary survey conducted in Seputih Raman, Central Lampung, in March 2022, among 84 pregnant women, there were 30 who were in the third semester. According to the findings of interviews with 7 (seven) pregnant women, 5 (five) pregnant women suffered back discomfort and never gymnastics throughout pregnancy; on the other hand, 2 (two) pregnant women did not experience back pain and did gymnastics during pregnancy. Stretching exercises, often called pregnant exercises, are essential in the third semester of pregnancy; by performing gymnastic movements regularly, the muscles and joints become relaxed and flexible, facilitating the delivery process. Most pregnant women in the third semester suffer from lower back discomfort and usually seek assistance from their husbands, relatives, and midwives.

RESEARCH METHODS

This study employed quantitative research and an analytical survey design, and a cross-sectional approach. This study's population were all pregnant women with back discomfort complaints. This study was conducted in June - July 2022 in the working area of Seputih Raman Health Center in the Central Lampung Regency. This research utilised two variables; the independent variable was parity, age of pregnant women, BMI, and history of Caesarian. The dependent variable was back pain. There were univariate and bivariate analyses of data.

RESEARCH RESULTS

Univariate Analysis

Table 1 reveals that respondents with age not at risk were 55 (63.2%), respondents with parity were 54 (62.1%), respondents with BMI were 45 (51.7%), and respondents with a history of Caesarian were 69 (79.3%), and respondents with moderate back pain are 33 (37.9%); therefore, it can be inferred that in this research, more respondents with age, parity, and history of SC are not at risk; on the other hand, the BMI more many were at risk.

Table 1
Frequency distribution of age, parity, BMI, history of Caesaran and back pain among pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency in 2022

Variable	N	%
Age		
Risk	32	36.8
No Risk	55	63.2
Parity		
Risk	33	37.9
No Risk	54	62.1
BMI		
Risk	45	51.7
No Risk	42	48.3
Caesaran History		
With Casarean	18	20,7
No Casarean	69	79,3
Back Pain		
Severe	0	0,0
Moderate	33	37.9
Mild	26	29.9
No pain	28	32.2

Bivariate Analysis

Table 2 of the study findings demonstrate that of 32 respondents with maternal age at risk, none suffered severe back pain, 6 (six) (18.8%) respondents experienced moderate back pain, 8 (eleven) (34.4%) respondents had mild back pain, and 15 (fifteen) (46.9%) respondents with back pain did not experience pain. Of the 55 respondents whose maternal age was not at risk, no respondents had severe pain. There are 27 (49.1%) respondents who experienced moderate back pain, 15 (27.3%) respondents who had mild back pain, and 13 (23.6%) respondents with back pain who did not experience pain. Statistical test results obtained a p-value = 0.013, which indicates p <α (0.05); thus, it can be inferred that there is a relationship between maternal age and back pain in pregnant women in the third semester in the working area of Seputih Raman Health Center.

Tabel 2
The correlation between maternal age and back pain on pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency, in 2022

Mother's Age	Back Pain								N	%	*p-value*
	Severe		Moderate		Mild		No pain				
	n	%	n	%	n	%	n	%			
At risk	0	0.0	6	18.8	11	34.4	15	46.9	32	100,0	0,013
No Risk	0	0.0	27	49.1	15	27.3	13	23.6	55	100,0	

Table 3
The relationship between parity and back pain on pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency in 2022

Mother's parity	Back Pain								N	%	*p-value*
	Severe		Moderate		Mild		No pain				
	n	%	n	%	n	%	n	%			
At risk	0	0.0	7	21.2	13	39.4	13	39.4	33	100,0	0,041
No Risk	0	0.0	26	48.1	13	24.1	15	27.8	54	100,0	

Based on Table 3 of the study's findings, none of the 33 respondents with parity at risk suffered severe back pain; there were 7 (21.2%) respondents who experienced moderate back pain, 13 (39.4%) had mild back pain, and 13 respondents (39.4%) did not have back pain. There were no respondents with severe back pain among the 53 respondents with non-risk parity, 26 (48.1%) respondents suffered moderate back pain, 13 (24.1%) respondents had mild back pain, and 15 (28.3%) respondents with back pain did not experience pain. Statistical test findings generated a p-value = 0,041, indicating that p <α (0.05), it can be concluded that there is a parity relationship with back pain for pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency in 2022.

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Table 4
The relationship between BMI and back pain of pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency in 2022

Mother's BMI	Back Pain								N	%	*p-value*
	Severe		Moderate		Mild		No pain				
	n	%	n	%	n	%	n	%			
At risk	0	0.0	10	22.2	18	40.0	17	37.8	45	100,0	0,006
No Risk	0	0.0	23	54.8	8	19.0	11	26.2	42	100,0	

Table 4 demonstrates that among 45 respondents with BMI at risk, there were no respondents with severe pain; 10 (22.2%) experienced moderate back pain, 18 (40.0%) respondents had mild back pain, and 17 (37.8%) did not have back pain. Of the 42 respondents with no risk parity, there were no respondents with severe pain, 23 (54.8%) experienced moderate back pain, 8 (19.0%) had mild back pain, and 11 (26.2%) respondents with back pain did not experience pain. Statistical test results obtained a p-value = 0.006, indicating that p <α (0.05), it can be referred that there is a relationship between BMI and back pain of pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency in 2022.

Table 5
The relationship between cesarean history and back pain in pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency in 2022

Cesarean History	Back Pain								N	%	*p-value*
	Severe		Moderate		Mild		No pain				
	n	%	n	%	n	%	n	%			
At risk	0	0.0	5	27.8	11	61.1	2	11.1	18	100,0	0,004
No Risk	0	0.0	28	40.6	15	21.7	26	37.7	69	100,0	

According to table 5 of the study's findings, 18 respondents with cesarean history, no respondents suffered severe pain, 5 (27.8%) respondents experienced moderate back pain, 11 (61.1%) respondents had mild back pain, and 2 (11.1%) respondents with back pain did not experience pain. There was no severe pain among the 69 respondents with parity without history. There were 28 (40.6%) respondents who experienced moderate back pain, 15 (21.7%) respondents who had mild back pain, and 26 (37.7%) respondents with back pain who did not experience pain.

The statistical test yielded a p-value = 0,004, indicating that p<α (0,05), it can be inferred that there was a correlation between a history of cesarean and back pain among pregnant women in the third semester in the working area of Seputih Raman Health Center in Central Lampung Regency in 2022.

DISCUSSION

The relationship between maternal age and back pain in pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency, in 2022

Based on the results of statistical tests with a p-value = 0,013, it is indicating that p<α (0,05), it can be concluded that there is a relationship between maternal age and back pain in pregnant women in the third semester in the working area of Seputih Raman Health Center in Central Lampung Regency in 2022.

Low back pain is one of the musculoskeletal disorders induced by insufficient physical activity (Rahmat, 2019). Weak muscles cause the majority of low back pain in the waist; thus, performing an inappropriate movement or remaining in one position for a long time may cause muscular stretching, which is characterised by pain (Fitriana, 2017).

Factors causing back pain in pregnant women include age, parity, occupation, regular exercise, education, history of back pain, physical workload, social support, BMI, cesarean, amniotic fluid index, and depression (Sencan, 2017).

Age is the length of time lived or the birth of an individual. Age affects a mother's health; pregnant women under the age of 20 and beyond the age of 35 are considered to be at high risk. Age helps anticipate the diagnosis of health problems and the actions conducted (Walyani, 2015).

Age is a significant factor in determining the health of a mother. Pregnant women are considered at high risk if they are under 20 or more than 35. Developmental differences will affect the pain response. These developments are physically, and the organs at the age of fewer than 20 years are not ready to carry out reproductive tasks and are not yet mature psychologically. Young age or less than 20 years will be difficult to control pain. The reproductive age is more than 35 years, and physical and organ functions, especially the reproductive system, have decreased (Manuaba, 2013).

According to the results of the study, among 32 respondents with maternal age at risk, as many as 6 (18.8%) respondents experienced moderate back pain; from 55 respondents with maternal age not at risk, as many as 27 (49.5%) respondents experienced moderate back pain, someone's perception of pain is different, where the factors that cause pain, one of which is family support, physical and psychological conditions of the mother; thus, the diverse intensity of back discomfort experienced by pregnant women differs widely.

According to researchers, low back pain typically will begin experienced in women between the ages of 20 and 24 and will reach its peak at the age of more than 40. This pain generally occurs between 20 and 28 weeks of pregnancy, with an average gestational age of 22 weeks. The emergence of pain typically happens at 27 weeks, which is supported by the reporting that 20-28 weeks is the first period during which pain arises; the pain level in the lower back region is more prevalent in pregnant women entering the third semester. The angle of lordosis and pain is most significant in the third trimester. Doing too much and excessive physical activity causes back discomfort in pregnant women entering their third trimester; typically, pregnant women tend to perform more household and have to work, resulting in fatigue and inadequate rest on pregnant women.

The relationship between parity and back pain in pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency, in 2022

Based on the results of statistical tests achieved p-value = 0.041, which indicates p <α (0.05), it can be inferred that there is a parity relationship between back pain in pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency in 2022.

According to an official study by Dewi Candra et al. in 2017, there is a significant correlation between parity and back discomfort in pregnancy. The more frequently and the more amount of a woman's pregnancy and childbirth, the greater risk for them compared to women becoming primiparous. Parity a lot will increase the risk of experiencing back pain. The more frequent a woman's pregnancy and childbirth, her risk of experiencing back pain (Demang, 2020).

Low back pain is one of the musculoskeletal disorders carried on by insufficient physical activity (Rahmat, 2019). Weak muscles cause most low back pain in the waist; thus, performing an inappropriate movement or remaining in one position for a long time may cause muscular stretching, which is characterised by pain (Fitriana, 2017).

Parity is the number of deliveries a mother has experienced in her lifetime. According to the research findings, there is a correlation between parity and back pain in pregnancy. Pregnant women with a high parity of more than five or equal to four (grande multigravida) are more likely to have low back pain. This is because every pregnancy followed by birthing causes uterus anomalies, such as damage to the uterine wall and blood vessels connected with nutrition circulation to the fetus. This may decrease muscular and reproductive organ function (Prawiroharjo, 2016).

According to researchers, parity frequently occurs in multiparas and grand multiparas, who are more at risk because the muscles have weakened and caused the muscles to fail to support the uterus or enlargement the uterus; thus, numerous experience back pain.

According to a study, multiparous and grand multiparous mothers will experience back pain and are at a greater risk than primiparous since their muscles are weaker, resulting in the inability of the muscles to support the uterus or since the uterus is growing bigger. In the absence of support or assistance, the uterus appears sagging, and the arch of the back elongates. Grand multiparas generally experience weakness in the muscles in the abdomen.

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The relationship between BMI and back pain of pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency in 2022

Based on the findings of statistical tests obtained a p-value = 0,006, which indicates, p<α (0,05), it can be inferred that there is a correlation between BMI and back pain of pregnant women in the third semester in the working area of Seputih Raman Health Center in Central Lampung Regency in 2022.

Nagara (2017) stated that the results are inappropriate; there is a significant relationship p value = 0,001 between LBP and obesity. According to Septiawan (2013), a person with a Body Mass Index (BMI) is classed as fat and has a 2.5 times greater risk than a person with a BMI classed as thin.

The International Association for the Study of Pain (IASP) defines low back pain (LBP) as the discomfort experienced in the low back pain by pregnant women in the third trimester from the last thoracic vertebra (T12) to the first sacral vertebra (S1) (). Low back pain in pregnancy is a discomfort condition caused by the enlargement of the uterus and increased body weight, which causes muscles to work harder, leading to stress on muscles and joints (Antari, 2021).

Low back pain during pregnancy is caused by the enlargement of the uterus, which causes the posture of pregnant women changes, resulting in increasing pressure on the spinal curvature and causing shortening of the lower back muscles.

A simple index of weight for height is employed to classify overweight and obesity in adults. BMI is defined as a person's weight in kilograms divided by the square of height in meters (kg/m) (Walyani, 2015).

According to studies, nutritional status related to low back pain is overweight and obesity. When an individual is overweight, the excess weight is usually transferred to the abdominal area, which increases the work of the lumbar spine. When experience overweight, the spine will be pressured to accept the burdens, resulting in easy damage and danger to the spinal structure. Abdominal muscle tone weakens due to excess body weight, which causes the body's centre of gravity to be pushed forward and the lumbar lordosis to rise, resulting in fatigue in the paravertebral muscles. As body weight rises, the spine will compress to accommodate the strain, resulting in lower back mechanical stress. Long-term mechanical stress induces a response in muscle tissue to sustain the increasing load, leading to changes in cell shape, cell membranes, ion concentrations, and the appearance of integrins in the tissue.

BMI causes back discomfort not only not directly but also indirectly. This indirect cause is related to other factors contributing to back pain. Other factors include those that cannot be altered and daily habits that might exacerbate back pain. Immutable factors are age and gender. Factors of daily habits include smoking, body position in activities, and exercise habits.

Relationship between cesarean history and back pain of pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency in 2022

Based on the results of statistical tests received p-value = 0.004, which indicates p<α (0,05), it can be inferred that there is a correlation between cesarean history and back pain of pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency, in 2022.

The International Association for the Study of Pain (IASP) defines low back pain (LBP) as the discomfort experienced in the low back pain by pregnant women in the third trimester from the last thoracic vertebra (T12) to the first sacral vertebra (S1). Low back pain in pregnancy is a discomfort condition caused by the enlargement of the uterus and increased body weight, which causes muscles to work harder, leading to stress on muscles and joints (Antari, 2021).

Caesarean section is an artificial birth in which the foetus is delivered through an incision in the abdominal wall and uterine wall if the uterus is intact and the foetal weight is more than 500 grammes (Wiknjosastro, 2016). Sectio caesarian is a method of childbirth including an incision in the uterine wall through the front wall of the abdomen (Mochtar, 2012). Section caesarean is an artificial delivery in which an incision delivers the foetus in the anterior abdominal wall and uterine wall provided the uterus is intact. The foetal weight is more than 500 grammes (Maryunani, 2016).

Based on the study findings, from the 18 respondents with a history of cesarean, 5 (27.8%) suffered moderate back pain, and 11 (61.1%) experienced mild back pain. According to researchers, back epidural injections may trigger convulsions in muscles close to the spinal cord, and these muscular spasms may last for weeks or even months after childbirth. The emergence of back pain after an SC (section caesarean) surgery may be attributable to the surgical process (if conducted under spinal anaesthesia) or related to other

conditions. Two (11.1%) of the respondents with back pain did not experience pain; this factor may be caused due to the respondents engaging in activities like pregnancy exercise or yoga; thus, they did not experience back pain during pregnancy. Generally, a disturbance can cause back pain in the back or spine. This back pain may be caused or worsened by various factors, including standing, sitting, or engaging in activities. This is what causes back pain in mothers after a caesarean section. This occurrence will continue to cause back pain in the mother when pregnant women return.

The research findings revealed that 69 respondents without a history of cesarean, 28 (40.6%) respondents experienced moderate back pain. The release of hormones disturbs the tissues around the waist, mood changes that cause the waist muscles to tighten, and changes in balance points due to alterations in body posture. Back pain may be alleviated in various ways, including decreasing rigorous activity, obtaining sufficient rest, practising yoga, and sleeping in an appropriate position. 15 (21.7%) respondents had mild back pain, and 26 (37.7%) had no back pain.

CONCLUSION

1. It is obtained that respondents with age not at risk were 55 (63.2%), respondents with parity were not at risk 54 (62.1%), respondents with BMI at risk were 45 (51.7%), respondents with cesarean without history was 69 (79.3%), and respondents with moderate back pain were 33 (37.9%).
2. There was a correlation between maternal age and back pain of pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency, in 2022 (p-value = 0,013).
3. There was a relationship between parity and back pain of pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency, in 2022 (p-value = 0,041).
4. There is a relationship between BMI and back pain of pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency, in 2022 (p-value = 0,006).
5. There is a correlation between cesarean history and back pain of pregnant women in the third semester in the working area of Seputih Raman Health Center, Central Lampung Regency, in 2022 (p-value = 0,004) .

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