

# Association between Demographic Variables and Impact of Pandemic Circumstance among Rural Pregnant Women

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## ABSTRACT

*Pregnancy period is a precious time for an expected mother, full of excitement and anticipation. Pregnant women need be aware of various events of pregnancy, including how the fetus will develop and grow in the maternal womb. In this case establishing appropriate strategies to address the physical and mental health of the pregnant women is very important and these groups are very venerable in the society, especially during pandemic period. A sample of 75 of pregnant women of the age group of 23 to 26 years from rural area, kanakapura was randomly selected for the present study. The tool was used to elicit the information was a developed scale by Dr.Muhaidat.N, Fram K, Thekrallab.F, Qatawneh A and Al.Btoish.A(2020). The data obtained was tabulated and analyzed by student t-test and chi-square test. The results show that the mean score of 9.23 and mean percentage of 19.2 of the respondents got affected with pandemic during covid-19. Association between demographic variables and of pandemic circumstance level, it shows that Educational Qualification, Occupational, age of marriage, type of family income per month and occupational status of Husband found to be significant with the respondents on impact of covid-19 pandemic situation.*

**Keywords:** antenatal care, pandemic condition.

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## INTRODUCTION

In this sense, health enables social, economic and personal development fundamental to well-being of pregnant women. Environmental and social resources for health can include: peace, economic security, a stable ecosystem, and safe housing. Individual resources for health can include: physical activity, healthful diet, social ties, resiliency, positive emotions, and autonomy. Health promotion activities aimed at strengthening such individual, environmental and social resources may ultimately improve well-being of pregnant women during pandemic.

Well-being of pregnant women integrates mental health (mind) and physical health (body) resulting in more holistic approaches to disease prevention and health promotion. Well-being of pregnant is valid population outcome measure beyond morbidity, mortality, and economic status that tells us how people perceive their life is going from their own perspective. Pregnant women do not appear more likely to contract the infection than the general population. However, pregnancy itself alters the body's immune system and response to viral infections in general, which can occasionally be related to more severe symptoms and this will be the same for COVID-19. Reported cases of COVID-19 pneumonia in pregnancy are milder and with good recovery.

The age between 23 to 26 years pregnant women are more unique and critical period of development during pandemic which unmet health needs and disparities in access to appropriate care, health status, and complications of prenatal period are high. This is a time when purposeful prevention and intervention strategies may still alter trajectories and decreases threats to health along with the newborn life course. The present study was envisaged with broad aim to know Impact of pandemic situation in association with the familial factors of pregnant women living in rural area.

## METHODOLOGY

The aim of the study is to know the Association between Demographic Variables and Impact of Pandemic Circumstance among Rural Pregnant Women.

### Objectives:-

1. Association between Demographic Variables and Impact of Pandemic Circumstance among Rural Pregnant Women

### Hypothesis: -

- There is a no Association between Demographic Variables and Impact of Pandemic Circumstance among Rural Pregnant Women

### Procedure:

A survey method was done to identify the hospitals situated in rural area of kanakapura. A random sampling method was applied for selection of sample. A tool developed by Dr.Muhaidat.N, Fram K, Thekrallab.F, Qatawneh A and Al.Btoish.A (2020), Department of Obstetrics and Gynecology, University of Jordan was used for data collection. The tool is comprised of two parts; Basic data and specific data. The basic data was self constructed tool. Specific data contains information related to dimensions of care of pregnancy during pandemic. The question for specific information comprises of 48 statements having 2 points scale covering 11 dimensions.

## RESULT AND DISCUSSION

The result of the study is discussed as below.

**Table -1: Overall Mean Impact of Pandemic Circumstances scores**

N=75

No.	Aspect	Statements	Max. Score	Scores			
				Mean	SD	Mean (%)	SD (%)
1	Impact of Pandemic Circumstances	48	48	9.23	4.07	19.2	8.5

Table 1 shows that the mean score of 9.23 and mean percentage of 19.2 of the respondents got affected with pandemic during covid-19.

## ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND IMPACT OF PANDEMIC AMONG RURAL PREGNANT WOMEN

**Table -2: Association between Personal variables and Impact of pandemic circumstances**

N=75

Demographic Variables	Category	Sample	Impact Level				$\chi^2$ Value	P Value
			Very low		Low			
			N	%	N	%		
Age group (years)	23-24	28	12	42.9	16	57.1	0.01 NS	P>0.05 (3.841)
	25-26	47	20	42.6	27	57.4		
Educational level	Higher secondary	12	2	16.7	10	83.3	3.95*	P<0.05 (3.841)
	Graduation	63	30	47.6	33	52.4		
Occupational status	Business/ Self employed	56	28	50.0	28	50.0	4.86*	P>0.05 (3.841)
	Home maker	19	4	21.1	15	78.9		
<b>Combined</b>		<b>75</b>	<b>32</b>	<b>42.7</b>	<b>43</b>	<b>57.3</b>		

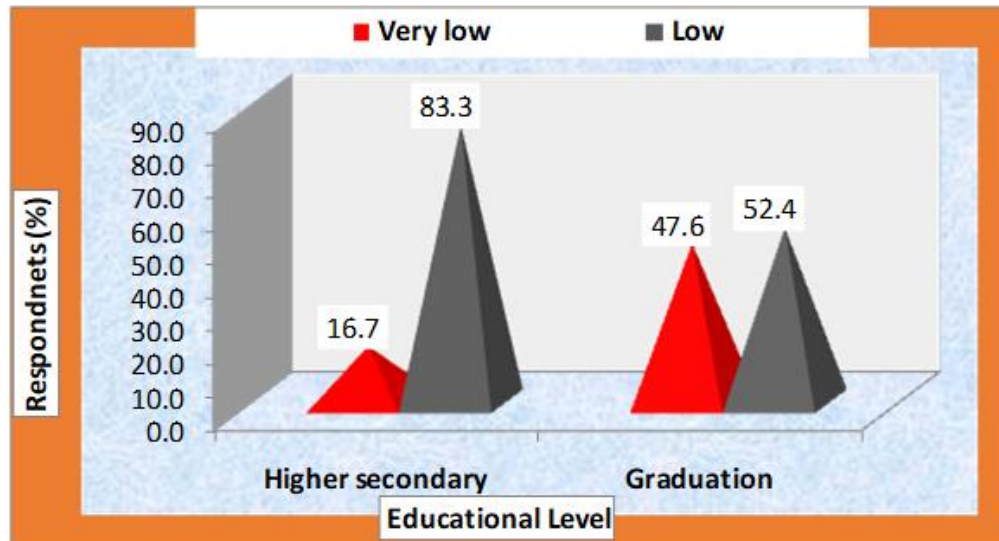
\* Significant at 5% Level,

NS: Non-significant

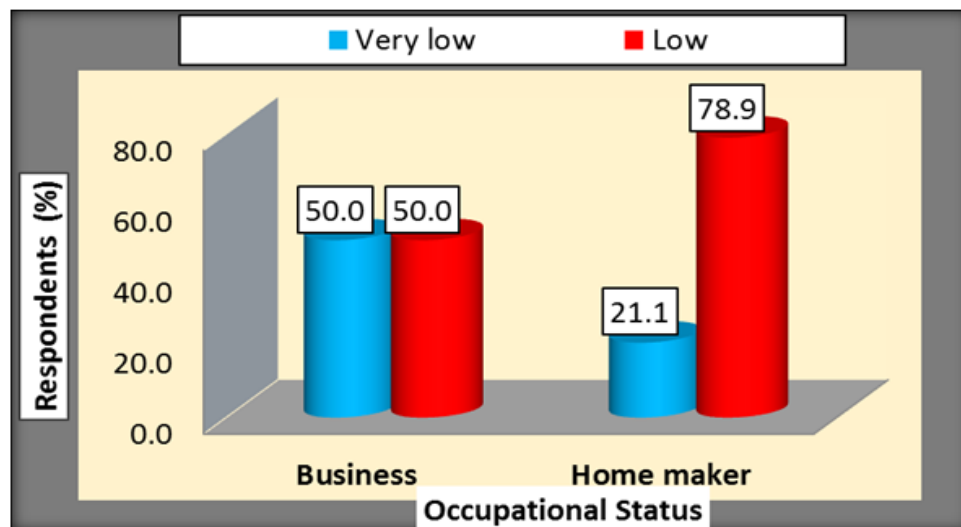
Note: Figures in the parenthesis indicate Table value

Table 2 and figure 1 and 2 shows that age group, educational level and occupational status of the respondents. About 57 percent of the both the age group got affected with low level compared to 42 percentages with very low impact of

covid-19 among selected respondents. However the statistically it was found to be non significant. In educational level respondents who completed higher secondary educational level shows high impact on covid-19 pandemic situation (83.3%) compared to graduates. Statistically it was found to be significant (3.95\*) at 5% level. It shows that educational level and impact of covid-19 both are found to be associated. The result line with the study conducted on “The correlation among pregnant woman's education level with knowledge and behavior on readiness toward COVID-19 pandemic” which reveals that there was a significant correlation between pregnant woman's education level and knowledge of pregnant women's readiness on facing COVID-19 pandemic, and there was a significant correlation between pregnant woman's education's level and behavior of pregnant woman readiness on facing COVID-19 pandemic. With regard to the occupational status of the respondents it shows that 79% of the home makers are more vulnerable to the covid-19 pandemic situation, followed by the 21.1 percent of home maker respondents’ shows very low impact of covid-19 pandemic situation. Statically it was found to be significant (4.86\*) at 5% level. It shows that occupational status and impact of covid-19 both are found to be associated. The result line with study conducted on “Anxiety and Worries among Pregnant Women during the COVID-19 Pandemic: A Multilevel Analysis” (2021) by Sara Esteban-Gonzalo which revealed that in homemakers worries caused by restrictive measures adopted against COVID-19 and resulting isolation, delivery, postpartum and breastfeeding were also associated with increased anxiety levels. Thus, rejecting the null hypothesis stating that covid-19 pandemic has not affect education level and occupational status of the respondents.



**Figure .1: Association between Education and Impact of pandemic Circumstances level**



**Figure .2: Association between Occupation and Impact of pandemic Circumstances level**

Table – 3: Association between Families related variables and Impact of Pandemic Circumstances level

N=75

Demographic Variables	Category	Sam ple	Impact Level				$\chi^2$ Value	P Value
			Very low		Low			
			N	%	N	%		
Type of family	Nuclear	21	5	23.8	16	76.2	4.24*	P<0.05 (3.841)
	Joint	54	27	50.0	27	50.0		
Family income/month	Rs.20,000-29,000	29	17	58.6	12	41.4	4.92*	P<0.05 (3.841)
	Rs.30,000-50,000	46	15	32.6	31	67.4		
<b>Combined</b>		<b>75</b>	<b>32</b>	<b>42.7</b>	<b>43</b>	<b>57.3</b>		

\* Significant at 5% Level,

NS: Non-significant

Note: Figures in the parenthesis indicate Table value

Table 3 and figure 3 and 4 is depicts that types of family and family income among the respondents. About 76.2 percentage of the nuclear family respondent were more affected by low level of impact compared to 23.8 percentage of the respondents were very low level of impact of covid-19 pandemic situation, whereas level of impact on joint family respondents were 50% percent in low and very low level of impact measurement are showed during pandemic period. However the result shows statistically it has significant influence ( $t = 4.24$ ) at 5% level. The result shows that nuclear family respondents are more prone to covid-19 pandemic situation. It may be due to less number of people leaving in a family leads to more isolation and restricts interactions and sharing their feeling with one another which may lead to undergo anxiety, stress and psychologically get affected.

With regards to family income of the respondents it shows that 58.6 percentage have the earning of Rs. 20,000/- to 29,000/- per month had very low level of impact during covid-19 pandemic situation compared to 41.4 percent of the respondents had low level of impact. About 67.4 percentages of the respondents who's earning was between Rs. 30,000/- to 50,000/- had low level of impact and compared to 32.6 percentage of the respondents had very low level of impact of covid-19 pandemic situation. The result shows that statistically it has significant influence ( $t = 4.92^*$ ) at 5% level. Around Rs.30, 000 to 50,000 earning respondents were more affected by covid-19 pandemic situation that is 67.4 percent. It may be the due to the reason that way the pregnant women manage their financial situations of the family and handle financial crises during pandemic. Thus, the rejecting the null hypothesis stating that types and income of the family has not been associated with covid-19 pandemic circumstance among the selected respondents.

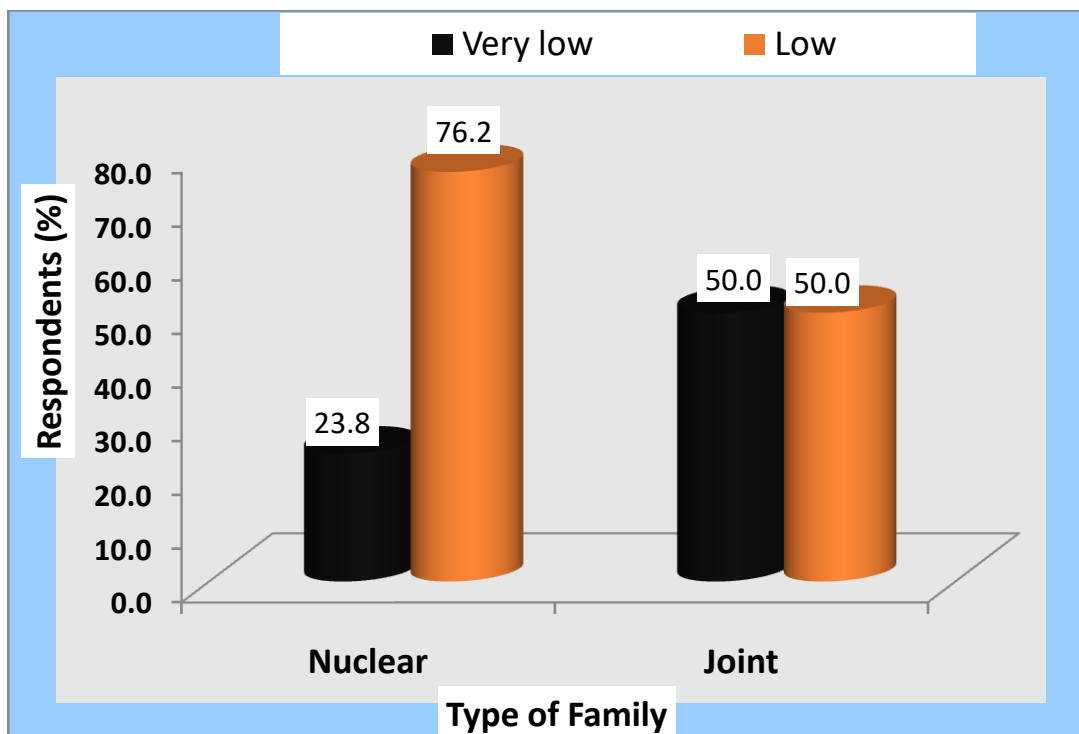


Figure .3: Association between Type of Family and Impact of pandemic Circumstances level

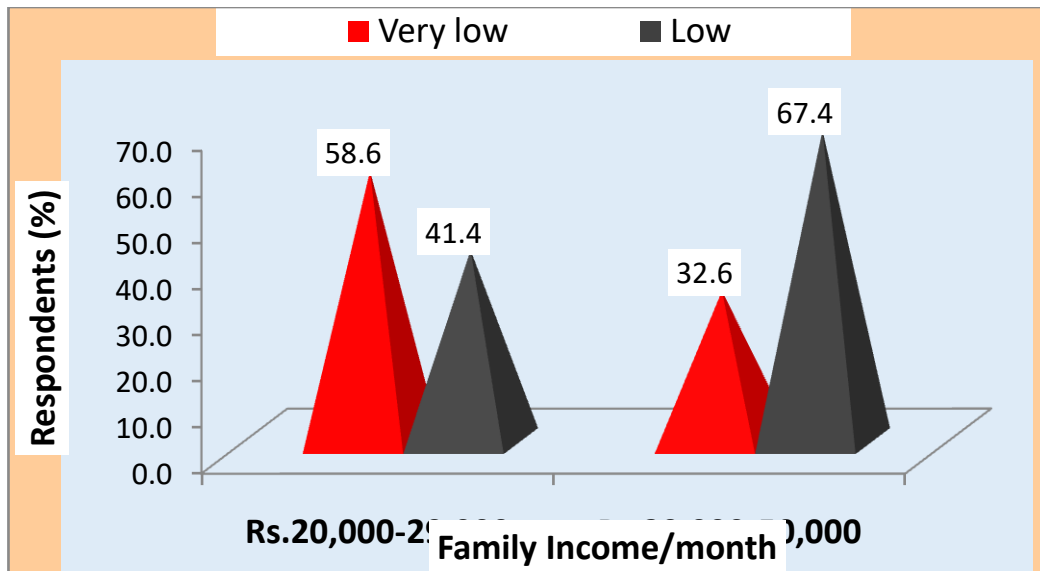


Figure .4: Association between Family Income and Impact of pandemic Circumstances level

Table – 4: Association between Educational and occupation of husband with Impact of Pandemic Circumstances level

N=75

Demographic Variables	Category	Sam ple	Impact Level				$\chi$ Value <sup>2</sup>	P Value
			Very low		Low			
			N	%	N	%		
Educational status of husband	Graduation	49	21	42.9	28	57.1	0.01 NS	P>0.05 (3.841)
	Post graduate degree	26	11	42.3	15	57.7		
Occupation of Husband	Government	28	13	46.4	15	53.6	6.99*	P<0.05 (5.991)
	Private	29	16	55.2	13	44.8		
	Business/Self employed	18	3	16.7	15	83.3		
<b>Combined</b>		<b>75</b>	<b>32</b>	<b>42.7</b>	<b>43</b>	<b>57.3</b>		

\* Significant at 5% Level,

NS: Non-significant

Note: Figures in the parenthesis indicate Table value

Table 4 and figure 5 depict that educational status and occupational status of respondent's husband. About 57 percent of both graduates and post graduates were got affected with low level compared to 42 percentages of respondents with very low impact of covid-19 pandemic situation. However the statistically it was found to be non significant. The result predicts that both the educational levels of the respondent's husband were vulnerable to the covid-19 situation but the impact was not so significant.

About occupational status of the respondent's husband 53.6 percentages of the government employers has low level of impact, compared to 46.4 percentages with very low level of the impact of covid-19 situation.

Around 55.2 percentages of the private employers affected with very low impact compared to the 44.8 percentage that had low level of impact of covid-19 pandemic situation, whereas 83.3 percentages of business or self employed employers had low level of impact, compared to the 16.7 percentages that got affected with very low level of impact of covid-19 pandemic situation. The result shows that it has significant influence (6.99) at 5% level. The results of occupational status of the respondent's husband shows that business or self employed employer were more affected by the covid-19 pandemic situation. Business and self employed people got more affected during covid-19 pandemic due to the restriction of people movement and not exposing more to the outside the home lead to less purchase of goods that affected very badly to the business man and self employed people. Further this financial crises made business man and self employed people to undergo lot of stress and tension and psychologically got affected during pandemic. Thus, the rejecting the null hypothesis stating that there is no association between occupational statuses of the respondents' husband covid-19 pandemic.

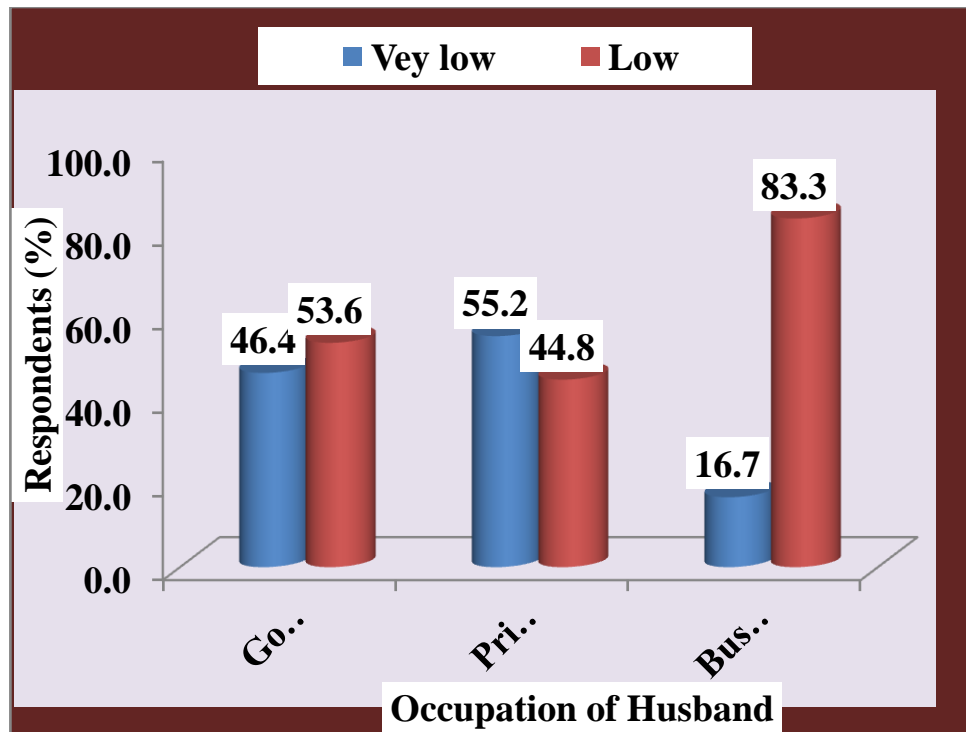


Figure 5: Association between Educational and occupation of husband with Impact of pandemic Circumstances level

TABLE – 5  
Association between Health care and Impact of Pandemic Circumstances level

N=75

Demographic Variables	Category	Sam ple	Impact Level				$\chi$ Value <sup>2</sup>	P Value
			Very low		Low			
			N	%	N	%		
Antenatal care provider prior to lockdown	Private health worker	56	28	50.0	28	50.0	4.86*	P>0.05 (3.841)
	Public health worker	19	4	21.1	15	78.9		
<b>Combined</b>		<b>75</b>	<b>32</b>	<b>42.7</b>	<b>43</b>	<b>57.3</b>		

\* Significant at 5% Level,

NS: Non-significant

Note: Figures in the parenthesis indicate Table value

Table 5 and figure 6 indicate that antenatal care provider prior to lockdown. Impact of covid-19 situation on antenatal care provider prior to pandemic who were taken routine health check up under private health sector were showed 50 percentages of very low and low level of the impact, followed by 78.9 percentages of the respondents who were under public health sector showed low level of impact, compared with 21.1 percentages of the respondents were expressed very low level of the impact of covid-19 pandemic situation among pregnant women. The study shows that statistically it has significant influence (4.86\*) at 5% level. The result shows that public health sector respondents were more affected by covid-19 pandemic. It may due to the reason that more crowd at public health office and more number public health centers were taken for health checkup for all public people. Thus, the rejecting the null hypothesis stating that antenatal care provider prior to pandemic may not have an impact on pregnant during covid-19 pandemic.

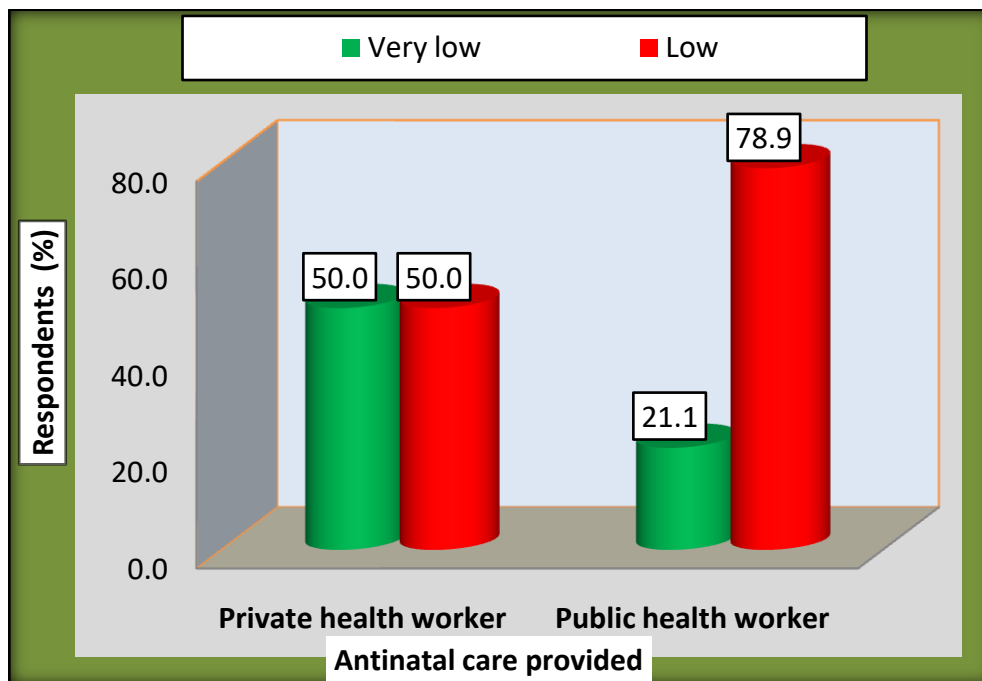


Figure .6: Association between Health care and Impact of pandemic Circumstances level

Table – 6: Association between Pregnancy and Type of delivery with Impact of Pandemic Circumstances level

N=75

Demographic Variables	Category	Sam ple	Impact Level				$\chi$ Value <sup>2</sup>	P Value
			Very low		Low			
			N	%	N	%		
Trimester of Pregnancy	Second	10	3	30.0	7	70.0	0.76 NS	P>0.05 (3.841)
	Third	65	29	44.6	36	55.4		
Type of Delivery	Vaginal delivery	56	28	50.0	28	50.0	4.86*	P<0.05 (3.841)
	Caesarean section	19	4	21.1	15	78.9		
<b>Combined</b>		<b>75</b>	<b>32</b>	<b>42.7</b>	<b>43</b>	<b>57.3</b>		

\* Significant at 5% Level,

NS: Non-significant

Note: Figures in the parenthesis indicate Table value

Table 6 and figure 7 depicts trimesters of the pregnancy and types of delivery among the selected respondents. About trimester of the pregnancy shows those 70 percentages of the respondents were under second trimester had low level of impact, compared with 30 percentage of the respondents who had very low level of the impact of covid-19 pandemic situation.

About 55.4 percentage of the respondent were entitled under third trimester had low level impact and 44.6 percentage of the respondents showed very low impact during covid-19 pandemic situation, whereas 50 percentages of the respondents shows very low and low level of impact and around 78.9 percentages of the respondents were undergone caesarean section shows that low level of impact, compared with 21.1 percentages of the respondents with very low impact of the covid-19 pandemic situation. The study shows statistically has significant influence (4.86\*) at 5% level. The overall result shows on type of delivery exhibited caesarean section respondents were more prone to covid-19 pandemic situation among pregnant women because they may have to stay little longer time in the hospitals and expose to more number of people.

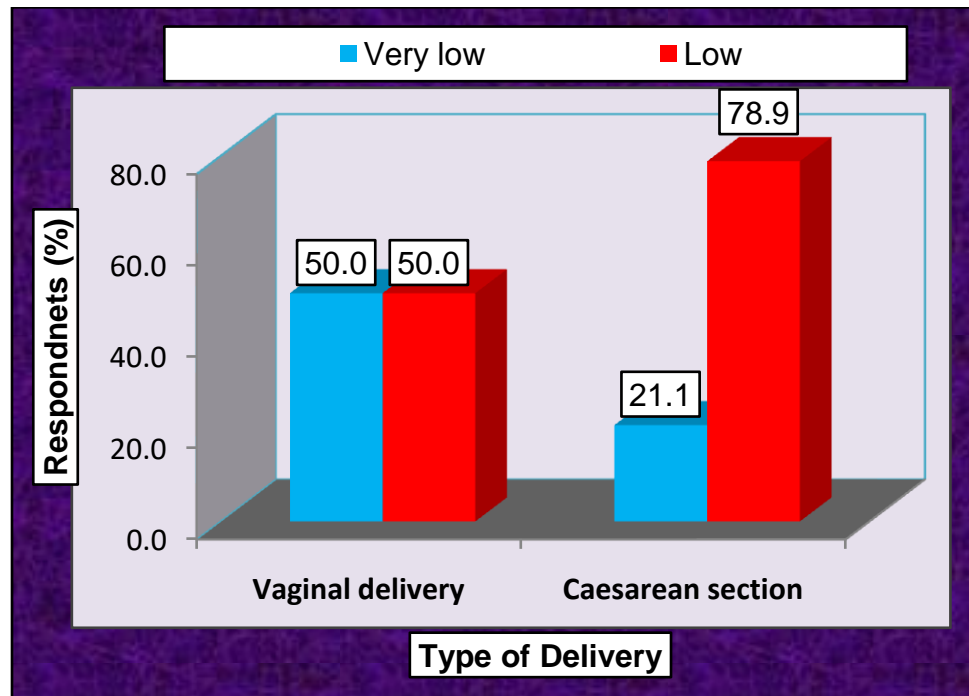


Figure .7: Association between Pregnancy and Type of delivery with Impact of pandemic Circumstances level

### CONCLUSION

The data obtained from the study states that there are significant difference in the antenatal care among pregnant women on during pandemic situation in rural area of kanakapura. Study concludes that antenatal care provider, medication and supplements, economic status and pregnancy complications had affected by covid-19 pandemic situation. Other domains are physical activity and preexisting medical conditions has also slightly affected by covid-19 pandemic situation. It was also noticed that Educational Qualification, Occupational, age of marriage, type of family income per month and occupational status of Husband found to be significant with the respondents on impact of covid-19 pandemic situation.

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