

The Psychological Impact of the COVID-19 Pandemic on Pregnant Women

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ABSTRACT

Background: Pregnancy is the most crucial phase of a woman's life in which she experiences many physical and psychological changes. Women will experience some level of stress and anxiety during this period mainly due to focus on the baby's health, fear of birthing experience, and adverse obstetric outcomes. Pregnant women are one of the vulnerable populations to psychological impact during this period of the coronavirus disease-2019 (COVID-19) outbreak.

Aim: To assess the psychological impact of the COVID-19 pandemic and associated sociodemographic factors among pregnant women attending prenatal clinics and delivering at the University Professorial Unit – Teaching Hospital Jaffna.

Methodology: It was a hospital-based descriptive cross-sectional study on the psychological impact of the COVID-19 pandemic among pregnant women, conducted at Teaching Hospital Jaffna from July 2021 to July 2022 among 268 pregnant women attending the prenatal clinic and delivering at Teaching Hospital Jaffna.

Results: The study included 217 participants, and the response rate was 80.97%. The majority of the participants (64.5%) fell in the age category of 20–30 years, most of the participants (99%) were Sri Lankan Tamils in ethnicity, and 77.4% were Hindus. Nearly half of the participants (47.5%) completed their General Certificate of Education O level (GCE O/L), and most (81.1%) of them were unemployed. About half of the participants had psychological impact due to the COVID-19 pandemic and were concerned about their prenatal, intrapartum, and postnatal care. Among them, more than three-quarters (77%) of them had anxiety about their prenatal care, about 61% of them had anxiety about labor and intrapartum care; only 46.1% had anxiety about postnatal care. The present study shows that age and educational level are statistically significant ($p < 0.05$) factors influencing psychological impact among mothers regarding prenatal care. Educational levels also had a statistically significant ($p < 0.05$) influence on the psychological impact regarding labor and intrapartum care as well as postnatal care among mothers.

Conclusion: There is a psychological impact on pregnant women due to COVID-19 regarding their pregnancy care. Hence, it is vital to give attention to the mental status of pregnant women, especially during pandemic situations like COVID-19.

Keywords: Anxiety, Coronavirus disease-2019, Psychological impact.

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INTRODUCTION

Coronavirus disease-2019 (COVID-19) is a highly infectious disease, identified in December 2019 in Wuhan, Hubei province, China, when cases of pneumonia of unknown etiology were reported.¹ Over a period of a few weeks, the infection spread across the globe at a rapid pace. As it continued to spread worldwide, on 11 March 2020, WHO declared COVID-19 as a global pandemic.² The first COVID-19 case was reported in Sri Lanka on 27 January 2020, after a 49-year-old woman from China was admitted National Institute of Infectious Disease.³

Pregnancy is the most crucial phase of a woman's life in which she experiences many physical and psychological changes. Women will experience some level of stress and anxiety during this period mainly due to focus on the baby's health, fear of birthing experience, and adverse obstetric outcomes.⁴ Pregnant women are one of the vulnerable populations to psychological impact during this period of COVID-19 outbreak.⁵ The pandemic has increased stress and anxiety among pregnant women.

OBJECTIVE

To assess the psychological impact of the COVID-19 pandemic and associated sociodemographic factors among pregnant women attending prenatal clinics and delivering at the University Professorial Unit – Teaching Hospital Jaffna.

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METHODOLOGY

It was a hospital-based descriptive cross-sectional study on the psychological impact of the COVID-19 pandemic among pregnant women, which was conducted at Teaching Hospital Jaffna from July 2021 to July 2022 among 268 pregnant women attending the prenatal clinic and delivering at Teaching Hospital Jaffna. The ethical clearance was obtained from the Ethical Review Committee of Teaching Hospital, Jaffna. An interviewer-administered questionnaire was used as a study instrument, SPSS statistical software was used to analyze the data, and influencing factors were analyzed by a Chi-squared test.

RESULTS

The study included 217 participants, and the response rate was 80.97%.

Table 1 represents the distribution of sociodemographic characteristics of participants. The majority of the participants

Table 1: Distribution of sociodemographic factors of the participants

Sociodemographic factors	Category	Frequency (n)	Percentage (%)
Age (in years)	Under 19	26	12
	20–30	140	64.5
	31–35	45	20.7
	Above 35	6	2.8
Occupation	Employed	41	18.9
	Unemployed	176	81.1
Educational level	Up to grade 10	17	7.8
	Up to O/L	103	47.5
	Up to A/L	68	31.3
	Diploma	8	3.7
	Degree	21	9.7
Ethnicity	Tamil	215	99.0
	Sinhala	1	0.5
	Muslim	1	0.5
Marital status	Married	216	99.5
	Unmarried	1	0.5
Religion	Hindu	168	77.4
	Christian	47	21.7
	Buddhist	1	0.5
	Islam	1	0.5
Average monthly income	Up to 10,000	20	9.2
	10,000–25,000	79	36.4
	25,000–40,000	86	39.6
	Above 40,000	17	7.8
	Not mentioned	15	6.9

A/L, A level; O/L, O level

(64.5%) fell in the age category of 20–30 years, and almost all of the participants (99.5%) were legally married. Most of the participants (99%) were Sri Lankan Tamils in ethnicity, and 77.4% were Hindus. Nearly half of the participants (47.5%) completed their General Certificate of Education O level (GCE O/L), and most (81.1%) were unemployed. Most of the participants in the study had an income between 11,000 and 25,000 (36.4%) and between 25,000 and 40,000 (39.6%).

Distribution of Information-gathering Resources about COVID-19 among Participants

Social media is the most common source (50.7%) to obtain information regarding COVID-19, the next most commonly used source was television (29%), and most of them (46.1%) considered television as the most reliable resource for getting information.

The Psychological Impact of COVID-19 among Participants

About half of the participants had psychological impact due to the COVID-19 pandemic and were concerned about their prenatal, intrapartum, and postnatal care. Among them, more than three-quarters (77%) had anxiety about their prenatal care, about 61% of them had anxiety about labor and intrapartum care, while only 46.1% had anxiety about postnatal care (Fig. 1).

The present study shows that age and educational level are statistically significant ($p < 0.05$) factors influencing psychological impact among mothers regarding prenatal care (Table 2). Educational levels also had a statistically significant ($p < 0.05$) influence on the psychological impact regarding labor and intrapartum care (Table 3) as well as postnatal care among mothers (Table 4).

DISCUSSION

Our study demonstrates that COVID-19 has a psychological impact on pregnant women which would affect their perceptions/choice of care during prenatal, labor, intrapartum, and postpartum periods. This corresponds to the findings of a similar study which was conducted in Sri Lanka which showed that perinatal anxiety was increased in pregnant women with no proven/known COVID-19 infection in the year 2020.⁶ The year 2020 marked the height of

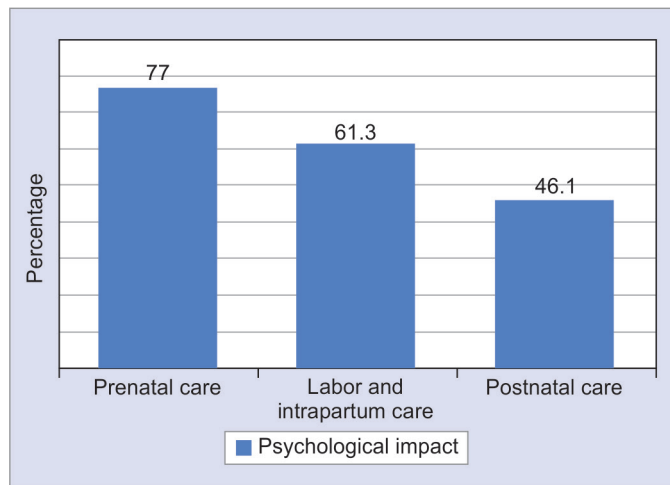


Fig. 1: The psychological impact of COVID-19 among participants



Table 2: Distribution of sociodemographic factors in relation to psychological impact regarding prenatal care

Sociodemographic factors	Psychological impact				Statistical test
	Affected		Not affected		
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)	
<i>Age (in years)</i>					
Under 19	17	65.4	9	34.6	$\chi^2 = 7.568$
20–30	104	74.3	36	25.7	<i>df</i> = 2
Above 30	46	90.2	5	9.8	<i>p</i> = 0.023
<i>Educational level</i>					
Up to O/L	84	70.0	36	30.0	$\chi^2 = 7.331$
Above O/L	83	85.6	14	14.4	<i>df</i> = 1
<i>Monthly income</i>					
Up to 25,000	79	79.9	20	20.1	<i>p</i> = 0.007
Above 25,000	75	72.7	28	27.3	$\chi^2 = 1.358$

A/L, A level; O/L, O level

Table 3: Distribution of sociodemographic factors in relation to psychological impact regarding labor and intrapartum care

Sociodemographic factors	Psychological impact				Statistical test
	Affected		Not affected		
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)	
<i>Age (in years)</i>					
Under 19	17	65.4	9	34.6	$\chi^2 = 0.209$
20–30	85	60.7	55	39.3	<i>df</i> = 2
Above 30	31	60.8	20	39.2	<i>p</i> = 0.901
<i>Educational level</i>					
Up to O/L	65	54.2	55	45.8	$\chi^2 = 5.742$
Above O/L	68	70.1	29	29.9	<i>df</i> = 1
<i>Monthly income</i>					
Up to 25,000	54	54.5	45	45.5	<i>p</i> = 0.017
Above 25,000	60	58.3	43	41.7	$\chi^2 = 0.282$

A/L, A level; O/L, O level

Table 4: Distribution of sociodemographic factors in relation to psychological impact regarding postnatal care

Sociodemographic factors	Psychological impact				Statistical test
	Affected		Not affected		
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)	
<i>Age (in years)</i>					
Under 19	10	38.5	16	61.5	$\chi^2 = 1.135$
20–30	68	48.6	72	51.4	<i>df</i> = 2
Above 30	22	43.1	29	56.9	<i>p</i> = 0.567
<i>Educational level</i>					
Up to O/L	48	40.0	72	60.0	$\chi^2 = 3.998$
Above O/L	52	53.6	45	46.4	<i>df</i> = 1
<i>Monthly income</i>					
Up to 25,000	40	40.2	59	59.8	<i>p</i> = 0.046
Above 25,000	46	44.9	57	55.1	$\chi^2 = 0.374$

A/L, A level; O/L, O level

Sri Lanka's pandemic prevention response with widespread lockdowns and travel restrictions. During the year 2021, these restrictions were greatly relaxed, and our study was conducted in this period of relatively relaxed restrictions.

Our study demonstrates that age is a statistically significant factor influencing the psychological impact of pregnant women regarding their prenatal care but does not influence labor, intrapartum, and postpartum care. Age was a significant factor influencing anxiety.⁷ But the impact of age not being a factor influencing the psychological impact of pregnant women regarding labor, intrapartum, and postpartum needs to be studied further. Even though the country and people have returned somewhat to normalcy, the psychological impact of COVID-19 has persisted.⁸

The previous psychiatric illnesses such as depression, obsessive-compulsive disorder, and anxiety disorders and attitudes of the patient regarding the health care providers before the COVID-19 outbreak would have been a confounding factor affecting the results of this study. Such factors need to be eliminated when planning a study in the future.

Furthermore, our study only demonstrated the presence of psychological impact on pregnant women due to COVID-19. This needs to be qualified and quantified by using a standard scale such as the Hospital Anxiety and Depression Scale (HADS), Impact of Event Scale-Revised (IES-R), etc.

This study mainly focused on the psychological impact of pregnant women in the Jaffna district. Most of them belong to a specific ethnic group and this study should be expanded to include other ethnicities to have a wider application.

CONCLUSION

Our study shows that the majority of the participants (77%) had anxiety regarding prenatal care during COVID-19 pandemic. Although about half of the participants had anxiety regarding labor, intrapartum care, and postnatal care as well. Overall, the psychological effects, especially the anxiety increased among pregnant women during COVID-19 pandemic.

Hence, it's vital to give attention to the mental status of pregnant women, especially during pandemic situations like COVID-19. Identifying the mothers at risk and providing adequate

psychological support at the right time is far more important to improve the quality of the outcome of their pregnancy.

The health staff and family members should be prepared to provide health education and conduct awareness programs about the psychological impact on pregnant mothers.

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