# Attitude and practice of pregnant women living in Saudi Arabia, about COVID-19 in relation to pregnancy outcome

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## **Abstract**

In December 2019, the outbreak of a new disease was reported in Wuhan, China (1).

The given name was COVID-19), and is caused by corona virus (1).On 12th March 2020 WHO classified the current condition as pandemic status. Recorded cases worldwide is over 221 (September 8, 2021) million of with more than 4.5 million fatalities documented so far(2). A considerable number of pregnant women have been affected by the current pandemic. As per literature review there were studies looking at concerns, attitudes and knowledge of pregnant women regarding Covid 19 in nearby countries, e.g. Iran and Turkey (3,4). This study aimed to assess knowledge, attitude and practice toward the Covid-19 pandemic among pregnant women living in Jeddah, Saudi Arabia.

Key words: Pregnancy, knowledge, attitude, practice, Covid 19

#### Introduction

Infectious diseases can play a significant role in pregnancy, particularly by affecting maternal and fetal outcomes (1). Prenatal respiratory infections may also result in stillbirth, miscarriage, and preterm delivery (1).

Pregnant women are more susceptible to developing severe cases of COVID-19. Prevention is superior to therapy, so knowledge, attitude and practice of pregnant women towards Covid 19 has a vital role in preventing infection transmission.

Our study looked at knowledge of a sample of pregnant women living in Jeddah during January and February 2021.

#### Materials and Method

A cross sectional study, convenient non-probable sample, was used after collecting approval of ethical committee at the Research center of Ibnsina national college for medical studies (no:021MP10022021). A validated website-based questionnaire was used. The sample size used software G power(3.1.9.4). It was found that minimal acceptable sample size is around 150 subjects. That number was based on G power software with alpha equal to 0.05 and power equal to 0.08 plus effect size of 0.3 plus differentiation factor of 5. The inclusion criteria was pregnant women living in KSA at the time of collecting data. Exclusion criteria was males, children and non-pregnant women.

**Data analysis.** In this study, the data were analyzed using IBM SPSS Statistics software (version 22). The relationship between qualitative variables was further assessed via the chi-square test. T test was used to compare numerical variables. Level of significance was <0.05.

**Data collection description:** The data collection instrument in this study was an online self-administrated questionnaire,composed of 4 main parts: sociodemographic characteristics information, knowledge, practice and attitude toward

**COVID-19.** The first 6 questions addressed area of residence, educational level, employment status. Question 7 was a direct question asking about if the pregnant lady had been diagnosed recently with Covid 19. Questions (7 -19) explored practice of participants towards preventive measures implementation (wearing mask, sanitizing hands, sanitizing surfaces, practice frequent hand washing, implementing social distancing, sleeping well, drinking plenty of water, practicing physical activity, ingesting supplements). These questions were given 3 options (yes, no, I do not know)

The attitude section was covered by questions (20-28). The questions discussed the participants attitude towards travelling, following Covid news, discussing Covid issues with family, social network and attending physician. Also participants were asked about their attitude towards breast feeding postpartum.

#### Results

A total of 150 participants received the questionnaires. Their answers were complete and included in our study. Table 1 shows demographic characteristics of our study group. Most of the participants were Saudis living in Makkah region. 74% of the study sample had a university degree. Most members of our sample are from the age group (25-36 years old). Furthermore, 49% of the mothers had one child and they are currently housewives. Most of the participants were free from active Covid-19 infection at tht time of the survey (Table 1).

Table 2 shows that most of the study group were using a face mask, while 57% of the participants used hand sanitizer strictly. Most of the study group always wash their hands regularly. In addition half of the group claimed that they avoid touching their nose and mouth with their hands. Most of the study group practice social distancing and continuous disinfection of surfaces.

In regards to measures for boosting self-immunity 7.3% never got adequate sleep, while 73.3% were always eating healthy foods and 56% were drinking water. A small portion of the group were always taking supplements and practiced physical activity on a regular basis. (Table 2).

Most of the participants avoided following up news and updates related to the current pandemic. They also did not share news with others. 83.3% of the study group claimed that they did not travel recently and they avoided attending social gatherings. However 28.7% went to work while most of the sample implemented distance working. 50% of our participants have had contact with someone with flu like symptoms.

In addition 71.3% of the sample did not discuss with their attendants impact of Covid-19 on pregnancy, or intra and postpartum care. A good finding was 80% of them plan to breast feed their babies (Table 3).

There was no significant relation between demographics and other questions except between education level and hand sanitizers using P-value 0.003.

#### Limitation of study:

The limited number of cases involved may act as a limitation. It is recommended to perform the study on a wider scale with a larger number of participants.

Table 1	Demographics		
Age Groups	Frequency	Percentage %	
15-25	55	36.7	
26-35	66	44.0	
more than 35	29	19.3	
	Nationality		
non-Saudi	32	21.3	
Saudi	118	78.7	
Total	150	100.0	
	Level of Education		
High School or less	29	19.3	
Bachelor	111	74.0	
Higher degree	10	6.7	
	Employment Status		
Employed	59	39.3	
House wife	73	48.7	
Unemployed	18	12.0	
8	Number of Children		
one	73	48.7	
2-4	65	43.3	
more than 4	12	8.0	
Total	150	100.0	
	Diagnosed with Covid-	19	
No	123	82.0	
Yes	27	18.0	

Table 2		
8- How often do you wear a face mask?	Frequency	Percentage %
Always	105	70.0
Sometimes	39	26.0
Never	6	4.0
	you use hand sanitizer?	
Always	85	56.7
Sometimes	61	40.7
Never	4	2.7
10- How often do you wash	n your hands with soap and	
Always	126	84.0
Sometimes	24	16.0
11- Limit groups, mee	ting to no more than 5 peo	ple
Always	51	34.0
Sometimes	93	62.0
Never	6	4.0
12- Put space-distan	ce between you and peopl	e
Always	88	58.7
Sometimes	57	38.0
Never	5	3.3
13- Avoid touching	your eyes, nose, and mout	h
Always	73	48.7
Sometimes	69	46.0
Never	8	5.3
14- How often do you	clean and disinfect surface	es?
Always	82	54.7
Sometimes	65	43.3
Never	3	2.0
	ng healthy food	2.0
Always	29	19.3
Sometimes	110	73.3
Never	11	7.3
A10-7-0-7-00	our supplements	5,7,12
Always	55	36.7
Sometimes	68	45.3
Never	27	18.0
	king lots of water	10.0
Always	84	56.0
Sometimes	0.000	
	59 7	39.3
Never	N / / / / / / / / / / / / / / / / / / /	4.7
	t least 7 hours a day	44.0
Always	66	44.0
Sometimes	73	48.7
Never	11	7.3
	ice any form of exercise?	
Always	21	14.0
Sometimes	82	54.7
Never	47	31.3

Table 3		
Follow the news on latest COVID-19 updates	Frequency	Percentage %
Always	55	36.7
Sometimes	68	45.3
Never	27	18.0
Share the latest facts and news of COV	/ID-19 with other pregna	nt women
Always	19	12.7
Sometimes	58	38.7
Never	73	48.7
Did you trave	l recently?	7.00
No	125	83.3
Yes	25	16.7
Do you attend larg	ge gatherings?	3/8
Always	6	4.0
Sometimes	55	36.7
Never	89	59.3
Do you go to	o work?	
No	107	71.3
Yes	43	28.7
Have you been in contact with someone	who has cold or flu-like	symptoms?
No	75	50.0
Yes	75	50.0
Do you seek immediate ca	are when feeling sick?	
Always	66	44.0
Sometimes	67	44.7
Never	17	11.3
Have you discussed the impact of COVID-1	9 on your pregnancy with	your doctor?
No	107	71.3
Yes	43	28.7
Are you planning to bre	astfeed your child?	8
No	10	6.7
Yes	120	80.0
Maybe	20	13.3

### Conclusion

Our sample showed quite good practice and response towards preventing Covid 19 cross infection. It shows the impact of team work done by authorities at KSA.

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