A study to assess the knowledge and practice related to prevention of Covid-19 among pregnant mothers admitted in antenatal ward at selected Hospital, Kolkata with a view to develop an information booklet.

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Abstract: *A descriptive survey study was conducted in the antenatal ward of Medical College of Hospital, Kolkata involving 100 antenatal women to assess the knowledge and practice related to prevention of Covid - 19. The tools included one demographic proforma, one structured knowledge questionnaire and one practice checklist. After validating the tools, the reliability of the tools were calculated. The reliability of the structured knowledge questionnaire was calculated by Split half technique and the value was 0.98 and the reliability of the practice checklist was calculated by Inter-rater method and the value was 0.87. Samples were recruited through Probability random sampling method. The calculated mean and SD of the knowledge score were 11 and 4.89 respectively. The calculated mean and SD of the practice score were 8.3 and 6.75 respectively. The correlation co-efficient between the knowledge score and practice score was 0.93. There was a significant association between the educational status of the antenatal women with the practice scores and the calculated chi-square value was 14.96 at 0.05 level of significance. The researchers felt the need of developing an information booklet and it covered all the aspects related to prevention of Covid-19.*

Keywords: *Knowledge,practice,Covid-19, antenatal women, information booklet*

I. Introduction

From the end of 2019, the Covid-19,starting from Wuhan, China, has created a major impact on health system worldwide. It is the defining global health crisis of our times and the greatest challenege we have faced since world war.[1] Countries are racing to slow the spread of the virus by testing and treating the patients, limiting travel, quarantining the travelers, maintaining social distance and avoiding social gatherings. It is known that pregnant women are at a larger risk of falling from respiratory viruses than the women who are not pregnant. So, an abundance of cautionis advised for pregnant women at this time. The number of babies tested positive is less,according to the published reports.[2] But, its unknown if the babies contracted the virus before, during or after birth. A new observational study on Covid-19in the third trimester of pregnancy, the virus does not appear to travel the placenta from mother to cause infection of the fetus. (published in Archives of Pathology & Laboratory Medicine, China). Covid 19 is also been associated with an increased likelihood of pre term birth.[3]Roughly two-thirds of pregnant women with COVID-19 have no symptoms at all, and most pregnant women who do have symptoms only have mild cold or flu-like symptoms. However, a small number of pregnant women can become unwell with COVID-19. Pregnant women who catch COVID-19 are at slightly increased risk of becoming severely unwell compared to non-pregnant women, particularly in the third trimester. Pregnant women have been included in the list of people at moderate risk (clinically vulnerable) as a precaution.[4]The love of the mother to her child is unconditional. So, there should not be any chances to take risk.Hence, it is necessary to provide knowledge to all the antenatal women to keep them safe so that, they can take care of their babies with full potential.

II. Materials And Methods

Objectives-
The objectives of the study were-

i. To assess the knowledge of the antenatal women related to prevention of covid-19
ii. To assess the practice of the antenatal women related to prevention of covid-19
iii. To find out the relationship between the knowledge scores and practice scores of the antenatal women related to prevention of covid-19

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iv.   To find out the association between the knowledge scores and selected demographic variables
 v.   To find out the association between the practice scores and selected demographic variables
vi.   To develop an information booklet on prevention of Covid-19.

This descriptive study was carried out among 100 antenatal mothers admitted in antenatal ward of Medical College and Hospital, Kolkata from June 2021 to August 2021.

Study design- The design opted for the study is Descriptive survey type of Research design.

Setting- The setting of the study is antenatal ward of Medical College and Hospital,Kolkata

Duration- the study was conducted from June 2021 to August 2021.

Sample size-100 antenatal mothers were selected as sample required for the study

Sample size calculation-Considering prevalence of correct knowledge of 50%(P) and allowable error 20% of P, sample size will be $4Pq/l^2 = 100$

Subjects and selection method- The samples were selected through Probability random sampling method.

Inclusion criteria-The inclusion criteria are-

*   Antenatal women aged between 18 years to 35 years.
*   Antenatal women who are willing to participate in the study
*   Antenatal women who can speak,read and write Bengali

Exclusion criteria-The exclusion criteria are-

*   Antenatal women who are having pregnancy complications(GDM, PIH, Eclampsia, hematological disorders, autoimmune disorders)
*   Antenatal women who are having psychiatric problems.

Procedure methodology

*   Research proposal was made along with the tools to collect data
*   Ethical permission was taken from the Head of the Ethical Committee of MCH, Kolkata
*   Tools were validated by experts(a demographic proforma consisting of 8 items, a knowledge questionnaire consisting of 20 items and a practice checklist consisting of 15 items.)
*   Reliability of the tools were calculated
*   Date collected from the antenatal women after written and informed consent.
*   Statistical analysis of the data were computed.

Description of the tool

Tool 1: It dealt with demographic variables such as age, gravida, religion, educational qualification, occupation, habitat, H/o Covid-19 and any information received related to prevention of Covid-19 from friends, relatives or mass-media.

Tool 2: A structured knowledge questionnaire consisting of 20 multiple choice questions related to prevention of Covid-19 with 4 options, among which one was correct answer.

Tool 3: it comprised of a practice checklist consisting 15 items related to prevention of covid -19. The responses were recorded as yes or no.

Scoring procedure:

1.   In the knowledge questionnaire, each right answers were scored as 1 and each wrong answers were scored as 0. In the practice checklist, each positive response was scores 1 and each negative response was scored 0.

III.   Results &Statistical analysis

Descriptive and inferential statistics were adopted while analyzing the values. Reliability of the knowledge scores was computed by Split half technique**(r=0.98)** and reliability of practice checklist was computed by Inter- rater method**(r=0.87)** which reveals that the tools are highly reliable. Frequency percentage, mean, median and SD were calculated of the knowledge scores and practice scores.. Chi square were calculated to identify the significance between the knowledge scores and practice scores with the demographic variables . Co-efficient correlation was calculated to find the relation between the knowledge score and practice score.

IV.   Major Findings
I.   Description of the demographic proforma

n=100

Sl.no.	Demographic variables	Frequency(f)	Percentage (%)
1.	**Age** 18-30 years >30 years	 80 20	 80% 20%
2.	**Gravida** Primi Multi	 61 39	 61% 39%

3.	**Religion**		
	Hindu	64	64%
	muslim	36	36%
4.	**Educational qualification**		
	Primary level	22	22%
	Secondary level	20	20%
	H.S. level	40	40%
	Graduation level	18	18%
5.	**Occupation**		
	Homemaker	100	
	Others	0	100%
6.	**Habitat**		
	Rural	13	13%
	Urban	87	87%
7.	**h/o Covid 19**		
	yes	0	0
	no	100	100%
8.	**Information from mass/media/relatives**		
	Yes	77	77%
	No	23	23%

Fig 1: The table showing the frequency & percentage of the demographic variables

From the above table we can see that majority(80%) of the antenatal women are aged between 18 years to 30 years. Majority (61%) of the women are primigravida. The percentage of the antenatal women whose education level is up to primary level is 22% and 40 % of them are H.S passed. All the natental women (100%) are homemaker and majority of them (87%) belonged to urban habitat. Majority(77%) of the antenatal women received information related to prevention of Covid-19.

II.   Description of the knowledge score

n=100

Level of knowledge	Score	Frequency(f)	Percentage(%)
Inadequate knowledge	**1-10**	**48**	**48%**
Adequate knowledge	**11-20**	**52**	**52%**

Fig 2: The table showing the frequency & percentage distribution of knowledge scores of antenatal women related to prevention of Covid 19

Table 2 shows that 48% of antenatal women were having inadequate knowledge and 52% of antenatal women were having adequate knowledge regarding prevention of Covid-19.

n=100

Variable	Mean	SD
Knowledge score	11	4.89

Fig 3: Table showing mean and SD of knowledge score

Table 3 shows that the mean knowledge score was 11 and the SD of knowledge score was 4.89.

III. Description of practice score

n=100

Level of practice	Score	Frequency	Percentage
Bad practice	1-5	32	32%
Fair practice	6-10	30	30%
Good practice	11-15	38	38%

Fig 4: Table showing frequency and percentage distribution of practice score related to prevention of Covid 19

The table shows that 32% of antenatal women had bad practice, 30% had fair practice and 38% of antenatal women had good practice related to prevention of Covid 19.

Variable	Mean	SD
Practice score	8.3	6.75

Fig 5: Table showing mean and SD of practice score related to prevention of Covid 19

Table 5 shows that the mean practice score was 8.3 and the SD of practice score was 6.7

III.   Relation between the knowledge score and practice score

Variable	Calculated r value
Knowledge score	
Practice score	0.93

Fig 6: Table showing co-efficient correlation between knowledge score and practice score

Table 6 shows that the calculated correlation-coefficient (r) between knowledge score and practice score was 0.93 which is highly positive.

V. a. Association between the knowledge score with demographic variables
The calculated chi-square value showed no significant association between the knowledge score and selected demographic variables at 0.05 level of significance**.**

V.b. Association between practice score and selected demographic variables
The calculated chi-square value showed no significant association between the practice score and demographic variables except with education, where the calculated chi-square value was **14.96 at 0.05 level of significance** which is highly significant.

VI. Development of information booklet
After computing the statistical value, the researcher felt the need of developing an information booklet on prevention of Covid-19. It consisted of the following areas

- Introduction
- Incidence & prevalence of Covid-19
- High risk groups for developing Covid-19
- Signs & symptoms of Covid-19
- Investigations for detecting Covid-19
- Prevention of Covid -19
- Conclusion

Future scope of the study: The study will be definitely useful to assess the knowledge and practice related to prevention of Covid-19, so, that appropriate health education can be given to prevent occurring of the deadly disease.
The study can be replicated by taking larger sample size, adopting quasi-experimental research design and in community setup .

V.   Conclusion

After conducting the researchers conclude that antenatal women should be provided with adequate knowledge related to prevention of Covid -19 that will in turn help to enhance good practices related to prevention of Covid-19. This will help them to keep away from contracting the disease which will be beneficial for both the mothers and their newborns.

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