



Research Article

A Cross-Sectional Study of Maternal Views regarding COVID-19 Pandemic

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Abstract

Aim: Covid-19 Pandemic impacted pregnant and postnatal women and the healthcare systems. We performed this study to see the perspectives of pregnant and postnatal women regarding the COVID-19 Pandemic.

Methods: This cross-sectional knowledge, attitudes, practices (KAP) survey was conducted between 15/05/2021 to 15/06/2021 in a General hospital in Ireland and included pregnant and postnatal women via convenience sampling.

Results: The study participants were 183, including 144 (79%) pregnant and 30 (21%) postnatal women. Most women identified COVID-19 correctly as a viral droplet infection. The number of women who were concerned because of the Pandemic (136/172=79%), affected by social distancing (106/183=58%), and hospital policy for visitor restrictions (161/183=88%), due to the COVID-19 Pandemic is quite alarming. More women reported that the GP services were compromised as compared to hospital services (84/183=46% Vs 52/206=29%).

Conclusions: The women expressed deterioration of both GP and hospital services and a rise in psychological distress during the Pandemic. The use of telemedicine and virtual clinics can't be overemphasized to help the depleted healthcare resources. The effects of the Pandemic on maternal health can't be fully elucidated; thus, there is a need for ongoing research, innovation, and strategies.

Introduction

The deleterious effects of the COVID-19 Pandemic on maternal health and healthcare services are diverse and challenging. As the course of the Pandemic has unfolded, we know more about COVID-19 infection in pregnancy including higher risk of preeclampsia, prematurity, stillbirth, increased maternal morbidity and mortality, etc. Moreover, another advancement is that the COVID-19 vaccine is available and recommended for all pregnant women [1-6].

Our study aimed to explore the views of pregnant and postnatal women during the second year of the COVID-19 Pandemic.

Methods

This study was conducted from 15th May 2021 to 15th June 2021 in a General hospital in Ireland and included a cross-sectional knowledge, attitudes, practices (KAP) survey. The data was anonymized, and study participants consented to participate in the study.

Pregnant and postnatal women were included in the study through con-

venience sampling and a hard copy questionnaire was completed by the study participants. Pregnant women at less than 16 weeks of pregnancy were excluded. We aimed to cover 10% of the target population and Microsoft Excel was used for descriptive analysis.

Results

Among study participants, forty women declined to participate in the study and 19 questionnaires were incomplete. Thus, we achieved a sample size of 183 in a General hospital in Ireland with 1300 births yearly i.e., 14% of the target population and a response rate of 76%.

The number of antenatal and postnatal women were 144 (79%) and 39 (21%) respectively, and 8 had previous COVID-19 infection. Their demographic characteristics were shown in Table 1. The mean gestational age was 30 weeks (range 16 - 41.5 weeks).

Table 1 shows the views of women regarding COVID-19 infection e.g., the nature of the infection, transmission, sources, and types of information, its effects on pregnancy, and how the women were affected by it. Most women

identified COVID-19 correctly as a viral droplet infection.

Among study participants, 112 women (61%) thought that pregnant women were prone to more serious complications. Many women (161/183=88%) reported that they were affected by hospital policy for visitor restriction and among them, 55% (88/161) reported that they were anxious. A higher number of Irish and European women were concerned because of the Pandemic (136/172=79%) and felt upset by the social distancing (62/172 =60%) than the women of BAME background (7/11 =64 % & 4/11 36% respectively). Contrarily, more women of BAME background reported reduced family household finances because of the Pan-

dem (6/11=55%) than the Irish and European women (62/172=36%); although these findings can't be extrapolated because of the low number of BAME women in the study.

A concerning finding was that 5% of women didn't believe in using masks to prevent COVID-19 infection (Table 1). More women reported that the GP services were compromised as compared to hospital services (84/183=46% Vs 52/206=29%) (Table 1). Many women (173/183=95%) responded that they would contact their GP services for advice if they suspected a COVID-19 infection.

Table 1: The different demographic characteristics, maternal knowledge, attitudes and practices of women (n=183) regarding the COVID-19 Pandemic

A: Demographic characteristics		Frequencies	Percentages (%)
Age	<20 years	4	2
	20-34 years	120	66
	35-39 years	49	27
	40 and above years	10	5
Ethnicity	Irish	163	89
	Non-Irish European	9	5
	Black African	2	1
	Asian	6	3
	Other	3	2
Employment status	Employed	132	72
	Unemployed	51	28
Are you attending hospital for	Antenatal visit	120	66
	Day ward visit	6	3
	Admission in maternity ward	56	30.5
	Emergency department visit	1	0.5
Parity	0	62	34
	1-4	119	65
	5 and above	2	1
Gestational age (weeks)	16-24 weeks	34	24
	24-40 weeks	105	73
	>40 weeks	5	3
B: Aspects of knowledge related to COVID-19		Frequencies	Percentages (%)
What causes COVID-19?	Virus	156	85
	Bacteria	11	6
	Fungi and Virus	1	1
	Virus and Bacteria	11	6
	I don't know	4	2
How can you contact COVID-19? infection	Respiratory secretions of infected person	16	9
	Touching objects of infected person	32	17
	Blood and blood products	0	0
	Unhealthy food	1	0.5
	All of above	6	3
	Respiratory secretions of infected person and touching objects of infected person	120	66
	Respiratory secretions of infected person, touching objects of infected person, and Blood and blood products	7	4
	I don't know	1	0.5

Who was your source of information about COVID-19 in pregnancy?	GP	76	41
	Midwife	47	26
	Obstetric doctor	50	27
	Friend	16	9
	Internet	63	34
	News	82	45
	No one	6	3
Which type of information about COVID-19 in pregnancy did you get?	Leaflet	49	27
	Verbal communication	90	49
	Internet search	75	41
	No one	28	15
Do you think pregnancy makes women more susceptible to COVID-19 infection?	Yes	66	36
	No	66	36
	I don't know	51	28
Do you think pregnant women infected with COVID-19 are prone to serious complications?	Yes	112	61
	No	20	11
	I don't know	51	28
The common symptoms of COVID-19 are	Cough	180	98
	Fever	176	96
	Shortness of breath	179	98
	Altered taste/ smell	175	95
	Diarrhoea	110	60
	Sore throat	144	79
	Headache	135	74
	All of above	110	60
Do you think that most of the pregnant women with COVID-19 recover without complications?	Yes	88	48
	No	17	9
	I don't know	78	43
Does COVID-19 cause an increased risk of miscarriage?	Yes	57	31
	No	21	11
	I don't know	106	58
Does COVID-19 affect the development of the baby?	Yes	36	20
	No	31	17
	I don't know	116	63
Is Covid-19 associated with an increased risk of the premature birth of the baby?	Yes	58	32
	No	10	5
	I don't know	115	63
If a pregnant woman gets COVID-19, is it transmissible to the baby?	Yes	81	44
	No	15	8
	I don't know	87	48
C: Attitudes of women regarding COVID-19		Frequencies	Percentages (%)
Are you concerned for yourself, your baby, or your family because of COVID-19?	Yes	143	78
	No	32	18
	I don't know	8	4
Have your family household finances been reduced because of the Pandemic?	Yes	68	37
	No	88	48
	I don't know	27	15
Do you feel upset by COVID-19 induced social distancing?	Yes	106	58
	No	67	37
	I don't know	10	5
You feel anxious when attended by health care professionals wearing personal protection equipment (e.g. gloves, mask, apron, etc).	Yes	10	5
	No	170	93
	I don't know	3	2
D: Practices of women regarding COVID-19		Frequencies	Percentages (%)

What measures are you doing to prevent COVID-19 in pregnancy?	Gloves	32	18
	Mask	174	95
	Hand washing	180	98
	Social distancing	176	96
	Alcohol based sanitizers	169	92
During COVID-19, has your contact with GP services been	Normal	75	41
	Compromised	84	46
	Better	14	8
	I don't know	10	5
During COVID-19, has your contact with the Hospital services been	Normal	101	55
	Compromised	52	29
	Better	11	6
	I don't know	19	10
If you are sick and suspect COVID-19, what should you do?	Contact GP on telephone	173	95
	Visit hospital emergency	2	1
	Call hospital emergency to take advice	28	15
	Visit maternity ward	3	2
	I don't know	0	0

Discussion

The main findings of the current study i.e., compromised GP and hospital services and emotional distress are also reported during the first year of the COVID-19 pandemic, thus emphasizing the need for consolidated efforts [7].

As we expected, the study participants' knowledge regarding the nature of COVID-19, and its transmission improved this year. Albeit their knowledge related to pregnancy-specific issues e.g., risks of transmission, prematurity, etc remained quite low. Employed women had better knowledge of COVID-19 related complications in pregnancy as compared to unemployed women (prematurity 45/132=34%, & transmissibility 59/132=45% Vs 12/51=23% & 21/51=41% respectively) in the study participants. Existing evidence indicates pregnancy is an independent risk factor for COVID-19 infection disease severity [8].

Study participants expressed active involvement of doctors and GPs in sharing information about COVID-19 infection; this could be explained by the emergence and availability of the respective evidence-based data to share with health care service consumers.

The number of concerned women because of the Pandemic (143/183=78%), women affected by social distancing (106/183=58%), and the hospital policy for visitor restrictions (161/183=88%), due to the COVID-19 Pandemic is quite alarming. A literature review of studies addressing perinatal women suggested concerns about their health and unborn children, increased psychological symptoms, especially depressive and anxiety symptoms, increase in stress levels and partial social support [9-13]. Maternal mental well-being is a public health priority during the Pandemic [14]. Sererna Grumi emphasized the need for research on the impact of COVID-19 on the growth and development of infants during the first year of life because of maternal affective problems [13].

Most of the study participants used masks and social distancing to prevent COVID-19 infection (174/183=95% and 176/183=96% respectively). This finding is consistent with public health recommendations during the pandemic to wear a mask in public places and social distancing to reduce the risk of infection.

The women expressed a deterioration of both GP and hospital services this year, albeit mentioned GP services were more compromised than

hospital services. The compromised community health services and staff burnout have been acknowledged and replicated in other national, and international studies [15-17]. We advocate the use of telemedicine and virtual consultations to offset this effect and prevent contagion of COVID-19. Rosy Tsopra, et al have suggested a reorganisation of consultations, practice places, medical examinations, and staff [18]. Research has identified that the remote consulting model using telephone, video, and online sources during the recent Pandemic was successful and it helped GPs to focus on vulnerable patients [19]. There is ongoing research into the rebuilding of health care services, and making comprehensive health programs, using partnerships with community organizations and voluntary groups to tackle the impact of the Pandemic [15].

The limitations of the study include a small sample size and single-centred study for convenience purposes. Another limitation was excluding the women with language barriers as the questionnaire was only provided in the English Language.

Legislators, policymakers, health planners, GPs, and obstetricians need to focus on the vulnerable groups among perinatal women including women from BAME backgrounds, those facing existing social inequalities, domestic abuse, and single, unsupported mothers to mitigate the effects of the Pandemic.

Promoting maternal mental health services not only helps the mothers but also affects mother-infant bonding and infant development. The reorganization and strengthening of perinatal mental health services, GP, and hospital services need further research, funding, and resources. The use of telemedicine and virtual clinics can't be overemphasized to help the depleted healthcare resources. The effects of the Pandemic on maternal health can't be fully elucidated; thus, there is a need for ongoing research, innovation, and strategies.

Disclosure of Interests

We did not seek financial help at any time at any stage of this study. The authors declare that there is no conflict of interest.

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