DOCTORS FOR YOU
THERE TO CARE

MATERNAL AND CHILD HEALTH CONFERENCE

IMPACT OF COVID ON MATERNAL HEALTH

October 09, 2021 || 10:00 am - 2:30pm

Conference Presentations

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#maternalandchildhealth

Acknowledgement

Our sincere gratitude to all the guests, speakers, and participants for making this conference into a such a resounding success. We would like to thank Ms. Akriti Sagar, IAS, DM Central Delhi, for eloquently defining the main idea of the conference with her opening speech. Ms. Akriti's consistent support to Doctors For You (DFY) has been imperative in our relief efforts in Delhi during Covid times. We would also like to thank Dr. Suresh Kumar, MD, Lok Nayak Hospital (LNH) , for the introductory address and for elaborating on the work of LNH in dealing with maternity patients during Covid.

Special thanks to Ms. Nidhi Pundhir for her clinical moderation of the panel discussion and for providing important food for thought. Our warm appreciation, also, to our stellar panelists, Dr. Soumya Tandon, Dr. Upasna Mahanta, and Dr. Divya Wadhawan for taking time out to enlighten us with their insightful scholarly work.

Many thanks to Dr. Taru Jindal for eliciting the discourse by sharing her profound experience of working for maternal health in rural India. Finally, we would like to thank our more than 1200 attendees for joining in and enriching the discussion with valuable comments.

Overview

Doctors For You has been extensively associated with the improvement and provision of maternal and child health services for a number of years since its inception in 2007. In our multifaceted health intervention strategy, maternal and child health assume a prominent role, given its significance in determining the health and well-being of the country. Recognizing this fact, Doctors For You has undertaken several programmes for not only bettering the deliverables but improving the underlying maternal and child health status in India. In this regard, our coherent health projects have envisioned producing direct and indirect tangible impacts on maternal health.

Currently, DFY is managing 12 hospitals with well-established centres for maternal and child health care. These centres are equipped with essential equipment and manpower, allowing access to quality health care for women and children. The facilities have been primarily established to provide affordable care to sections of the population who often lack access to quality health care. These include women and children from the vulnerable sections of society that are disproportionately impacted by diseases and illnesses. Our services start with providing antenatal care to mother up till immunization of children, rendering holistic care to mother and child.

We also run and manage maternal health services in Lallubhai centre in Mumbai. Here our health professionals provide services including antenatal care to pregnant women, immunization services, deworming against protozoal infection and supplementation to prevent blindness and infections in children.

Also, in our interventions through medical camps in tribal regions in Madhya Pradesh, special focus is laid on women and child health in the communities. Besides providing the basic check-up, crucial advice is imparted to adolescent females on menstrual hygiene and reproductive health.

In Masarhi village of Patna district, team DFY runs a health centre that works to provide accessible and affordable primary health with a focus on maternal and child health. Operating from November 2015 the centre has treated more than 25,000 patients.

DFY's comprehensive health intervention also encompasses delivering the right knowledge and promoting activities to induce positive behaviour in mothers and children. These include knowledge on nutrition, family planning, immunization, contraception, and other important facets of maternal and child health.

Doctor's For You First Maternal and Child Health Conference: Impact of Covid on Maternal Health

The conference was inaugurated by Dr. Akriti Sagar, DM, Central Delhi: "Though we have not yet reached the height of the Covid-19, the most impacted section during the peak was maternal and child health, which would have resulted in an increase in maternal mortality in Delhi.

Maternal and child health are better cared for in urban regions than in rural ones, owing to medical facility connection concerns, which were a difficulty and a source of relief for the government.

In partnership with Doctors for You, we established a mobile camp in several slum regions, where 100 individuals would be served on a daily basis for the next six months.

It's an honour to work with and be affiliated with Doctors for You."

Her opening speech was followed by a panel discussion chaired by Ms. Nidhi Pundhir Director, HCL foundation, a summary of which follows. Our illustrious panel members included Dr. Soumya Tandon, MD, DM, Consultant, Sir Ganga Ram Hospital, Dr. Upasana Mahanta, M. Phil, P. hD, Associate Professor, Jindal Global University, and Dr. Divya Wadhawan, MBBS, DNB, consultant Gynaecologist.

The Panel Discussion was followed by an address by Dr. Suresh Kumar, MD, Lok Nayak Hospital who spoke about how "during Covid, the count of preterm deliveries was increased. Covid pandemic has an impact on maternal and child health, both direct and indirect. Due to Covid period LNJP hospital has most of the Covid cases in Delhi and also the success rate of both C section & normal deliveries is 99%, LNJP hospital also set up nursery for the children."

Table of Contents

S. No.	Title	Page No.
1.	**Panel Discussion Summary Chaired- Nidhi Pundhir** *1. Dr. Divya Wadhawan* *2. Dr. Soumya Tandon* *3. Dr. Upasana Mahanta*	**6**
2.	**Impact of Covid on Reproductive Health**	
	1. Access to Abortion Services In India During and Post Covid - *Dr. Anamika Singh*	**9**
	2. Family Planning - *Ajendra Sirohi*	**12**
	3. Dynamics of Utilization of Modern Contraception by the Females of Slums of Noida - *Nidhi Pundhir et al*	**14**
	4. A Raging Pandemic and Women's Sexual and Reproductive Health - *Dr. Purvi Verma*	**24**
	5. Obstetric Complications Secondary to Covid - *Dr. Divya Wadhawan*	**26**

S. No.	Title	Page No.
	6. Impact of Covid-19 on Reproductive Health of women - *Annumeha Shahi et al*	**28**
3.	**Paediatric and Covid**	
	1. Covid and Access to Maternal and Newborn Care - *Asha Kilaru et al*	**33**
	2. Knowledge, Attitude, and Practice of Breastfeeding During Covid Times - *Dr. Jayashree Jayakrishnan et al*	**37**
4.	**Mental Health and Covid**	
	1. Maternal Mental Health During Covid-19 in India - *Preety Syiemlieh*	**40**
	2. Psychological Impact of Covid-19 on Maternal Health - *Dr. Arti Anand*	**46**
5.	**Tools and Techlonolgy**	
	1. Impact of Covid-19 on Maternal and Child Health-Poster - *Azhar khan*	**48**
	2. Impact of Covid-19 on Maternal Health in India - *Abid Faheem*	**52**
	3. Prenatal and Postpartum Phases - *Dr. Sparsh, Ankur Agarwal*	**54**

Panel Discussion

Dr. Divya Wadhawan | Dr. Soumya Tandon | Dr. Upasana Mahanta

Dr. Divya Wadhawan: Despite the fact that Covid has taken a total toll on our lives, particularly the reproductive system, not only the physical but also the emotional and mental health is affected.

What is the pathophysiology of Covid? It has the potential to affect any cell in our body.

So, basically, it has an effect on the reproductive system, the uterus, the ovaries, and it has an effect from adolescence until reproductive age.

We are experiencing significant alterations in our hormone levels as a result of Covid. It can produce menstrual irregularities as early as adolescence, such as excessive blood flow and alterations in the menstrual cycles.

For pregnant women, there are serious concerns about immunizations and breast feeding.

Covid has had an effect on pregnant women, such as premature birth, maternal and foetal death, infertility issues, and hormonal imbalance.

During the Covid era, there was a crash in health facilities.

When the economy crashed, it created a barrier to seeing a doctor for a checkup.

Dr. Soumya Tandon: Covid has unquestionably had an influence on society and humanity, and when it comes to mental health, there has been a significant increase in psychiatric diseases.

Depressive disorders and anxiety disorders are common in pregnant and postpartum women.

During this time, the body was already sensing physical and hormonal changes, and there was a lot of ambiguity since the platform switched from physical consultations to online consultations.

People who were not fortunate enough to have access to online consultations experience a great deal of stress and a diminished feeling of fulfilment.

It caused tremendous concern in the women.

Misconceptions and myths about Covid contribute to increased anxiety among the general public.

Due to a shortage of family planning services, many unintended pregnancies occurred during this time period.

During the two waves of Covid, the children were the most afflicted, according to WHO.

Children's cognitive, psychiatric, and social development were hindered as a result of the effects of Covid.

During this time, they witnessed many ups and downs in the family, such as fear of being affected, death of close relatives, and a lack of connections with peer groups and friends, which increases behavioural issues in youngsters.

Dr. Upasana Mahanta: Women and children all across the world suffer as a result of a lack of access to health care.

A variety of social and economic elements impact women's decision-making capacities and gender unequal standards; imbalances in relationships limit women's health and fertility decisions; and reproduction is regarded as a mercantile responsibility in our Indian environment.

Due to stigma, women and girls continue to lack access to information on reproductive health, safety precautions, and critical health care services.

The pandemic of Covid-19 also increases violence towards women. It also increases unpaid care work in women. In the Indian setting, many informal employees who work without a contract in domestic help were the first to lose their employment and the last to gain access to health care services.

Q. 1. There was an increase in infertility, a lack of safe sex, and unwanted pregnancies as a result of the Covid epidemic; what quick action was done by the government to address the situation? Is there any research or mechanism to get the data on this?

Dr. Divya Wadhawan: Yes, there is a lot of research going on because there is a fear of the unknown. We didn't know much about the nature of the virus at first, but we're learning more about it every day. Regarding our knowledge of the nature of the illnesses, we are currently in a better situation, and research has been ongoing since day one. The WHO conducts several research. During the early stages of the epidemic, 12 million individuals were unable to get contraception, and 1.4 million women had unplanned pregnancies in the low and middle age groups. There was also a decrease in the identification and treatment of STDs due to health-care system failure. The first concept was that various countries, such as Europe and France, came up with tele-communication and telemedicine. Initially, it was not legal to write a drug using an internet checkup, but it is now medically approved with specific constraints.

Q.2. Children were the most vulnerable throughout the pandemic time, and they experienced numerous shifts in their families. What can be done for children in this scenario to establish a feeling of normalcy?

Dr. Soumya Tandon: After all of this emotional, behavioral, and mood disturbance in children, we have worked very closely with the parents. When it comes to mental health at any age, there is a lot of stigma. People are encouraged to seek the advice of mental health specialists. However, as a result of the epidemic, individuals are becoming more aware of the importance of consulting a mental health professional if they are experiencing any difficulties. During this time, we worked closely with the parents in one-on-one sessions. The primary tactic that might be utilized to meet the needs of children who have uncertainties is to consult with their parents. The most important aspect is open communication; at times, family members are hesitant to interact with the children, fearing that if they do, the children's worry would escalate. There are significant differences between how toddlers and adults react to stress. When we are stressed as adults, we may talk about it, but children do not; instead, they express their concern through behavioral changes such as refusing food, weeping, rage, sleep disturbances, hunger changes, and fearfulness.

Q.3. What are the policies in place to support the work form in order to save the economy from the aspect of maternal and child health?

Dr. Upasana Mahanta: Family planning, reproductive sexual health is mostly considered to be women's concerns, as women have little say in family planning decisions in our society. There is a need for improvements in the approach of persuading women about maternal health; the approach should be simple enough for women to understand the depth of the necessity. According to a national family planning health survey, 13 percent of married women have met family planning, 18 percent of family women responded that a health worker approached them about family planning consultation, and 8 percent of women aged 18 to 19 were already mothers at the time of the survey. Women are still hesitant to speak up to the social worker about reproductive health issues. There is still a societal stigma attached to utilizing contraception.

Access To Abortion Services In India During And Post Covid

- Dr. Anamika Singh
Doctors For You

The Covid-19 pandemic emerged as a major public health crisis, which has affected all dimensions of the health care system. Sexual and reproductive health services were severely affected, leading to a decrease in access and service utilization, affecting the overall health of women. Access to safe abortion is a reproductive rights and justice issue, and it is imperative that safe abortion access during and after the Covid-19 pandemic is a reality for all. Of the two million pregnancies that occur among adolescents in India each year, 53% of them end in abortion, resulting in 930,000 abortions annually. An estimated 78% of all abortions in India are unsafe (either less safe or least safe). Abortions categorized as least safe are those most likely to result in complications. Of the 450,000 adolescent women per year who need postabortion care for complications following an unsafe abortion, 42% of them (190,000) do not receive it.

During the pandemic, reduced mobility, lack of clarity about abortion as an essential service and as a service permitted by telemedicine, shortages in raw material for medication abortion pills and limited inter and intra state transport of drugs are factors that contributed to reduced access to abortion services and drugs. Furthermore, reduced access due to higher dependency on the male partner for contraceptives and morning after pills, decisions around parenting and childbirth have shifted among the couples and migration of population from urban to rural areas have contributed to the increased demand of abortion services during the pandemic. The Foundation for Reproductive Health Services India, estimates that the disruption caused from lockdowns could leave up to 26 million couples in India unable to access contraception, leading to an additional 2·3 million unintended pregnancies and over 800 000 unsafe abortions, which is the third leading cause of maternal deaths in India.

The policy brief will include a few policy recommendations to improve the access to abortion services in India during and post Covid.

Introduction

- The Covid-19 pandemic emerged as a major public health crisis, which has affected all dimensions of the health care system including sexual and reproductive health services, leading to a decrease in access and service utilization, affecting the overall health of women.
- Access to safe abortion is a reproductive rights and justice issue, and it is imperative that safe abortion access during and after the Covid-19 pandemic is a reality for all.
- Complications arising due to unsafe abortions is the third leading cause of maternal deaths in India.

- Of the two million pregnancies that occur among adolescents in India each year, 53% of them end in abortion, resulting in 930,000 abortions annually. An estimated 78% of all abortions in India are unsafe.
- Of the estimated 15.6 million abortions conducted in India each year, 73% are performed using medical abortion outside of a health facility.
- The Covid-19 pandemic creates both the necessity and opportunity to innovate to meet people's essential sexual and reproductive needs. These innovations must be integrated into long-term service delivery and policy strategies to expand abortion service delivery options in the post-Covid era.
- The policy brief will include a few policy recommendations to improve the access to abortion services in India during and post Covid.

Decreased access to abortion services during pandemic

- Reduced mobility, lack of clarity about abortion as an essential service and as a service permitted by telemedicine, shortages in raw material for medication abortion pills and limited inter and intra state transport of drugs are factors that contributed to reduced access to abortion services and drugs during the pandemic.
- A study calculated potential annual impacts of a 10% proportional decline in use of sexual and reproductive health care services resulting from Covid-19–related disruptions in 132 low- and middle-income countries estimated nearly 3,325,000 additional unsafe abortions and 1,000 additional maternal deaths.
- Furthermore, reduced access to contraception due to higher dependency on the male partner for contraceptives and morning after pills, a shift in decisions around parenting and childbirth among the couples and migration of population from urban to rural areas have contributed to the increased demand of abortion services during the pandemic.
- The Foundation for Reproductive Health Services India, estimates that the disruption caused from lockdowns could leave up to 26 million couples in India unable to access contraception, leading to an additional 2·3 million unintended pregnancies and over 800 000 unsafe abortions.

Policy recommendation

▶Telemedicine:

- In 2015, of the 15.6 million induced abortions, 81 percent of the abortion took place using medical abortion and 73% of them were outside of facility settings.
- A recent study by Gambir et al found no difference between homebased and clinic-based administration of medical abortion in having a successful abortion. Of the home-based participants, 95.3% had a successful abortion, compared with 95.8% in

the clinic-based group. 94.6 % of participants who had home-based medical abortions reported being satisfied or highly satisfied with the method.

- Another study by Godfrey et al concluded that Family physicians can successfully provide medication abortion in three states using online consultations and medications mailed directly to patients.

- Furthermore, WHO's recently published Consolidated Guideline on Self-Care Interventions for Sexual and Reproductive Health and Rights leverages self-care as key to achieve universal health care coverage. WHO recommends managing an early abortion with the combi pack without direct medical supervision when pregnant individuals "have a source of accurate information and access to a health-care provider should they need or want it at any stage of the process,"

- Thus, the use of telemedicine to its full potential to provide counselling, assessing medical eligibility for abortion, provision of information and support during abortion can increase accessibility to abortion services.

- A change in guideline allowing self management of medical abortion up to 7 to 9 weeks when provided with appropriate information through teleconsultation is required to increase access.

▶ Increasing the cadre of health workers providing abortion services:

- India faces a huge shortage of specialists with skewed distribution across the country, however studies suggest that there are high availability of nurses and ANMs both in absolute number and proportion of total requirement in public health facilities.
- A study by Rocca et al done in Nepal concluded that Early mifepristone-misoprostol abortion was as effective and safe when provided by trained auxiliary nurse-midwives with no serious adverse events.
- A change in guideline allowing the AYUSH doctors and ANMs to provide medical abortion services up to 9 weeks and medical management of incomplete abortion up to 13 weeks will help in increasing access. Studies in other low- and middle-income countries have shown successful results.
- Effectiveness and safety of early medication abortion provided in pharmacies by auxiliary nurse-midwives: A non-inferiority study in Nepal Rocca CH, Puri M, Shrestha P, Blum M, Maharjan D, et al. (2018) Effectiveness and safety of early medication abortion provided in pharmacies by auxiliary nurse-midwives: A non-inferiority study in Nepal. PLOS ONE 13(1): e0191174. https://doi.org/10.1371/journal.pone.0191174

Family Planning – UDAY

- Ajendra Sirohi
State Program Manager, Delhi-NCR

Family well-being and health through changing social norms and individual behavior related to delaying, spacing, and limiting children

▸ Reached

48,962	7,773
eligible couples	adolescents

▸ Results

- ❖ Strong referral linkages : 8/8 Government facilities
- ❖ Contraceptive use:
  - 6280 /12834 Eligible couples: 49.33% (32.34%)
  - Teenaged married women : 32.10% (14.63%)
  - Women with one child : 38.04% (27.27%)
  - Women with > 2 children : 53.54% (47.22%)
- ❖ Pregnancies in teenaged married women: 9.7% (17.8%)

CHALLENGES

▸ No ASHAs /AWW in our area:

❖ Strong relationship built with ASHAs of adjoining areas

▸ Lock down

❖ Clinical contraception services unavailable:

- 109 community depot holders;
- promoted temporary methods as a stop-gap

❖ Migration of target population to villages : 22 %

- Telephonic follow –up / WhatsApp group

Dynamics of Utilization of Modern Contraception by the Females of Slums of Noida

- Nidhi Pundhir[1], Arindam Das[2]

[1]Director, HCL Foundation, Ph D Scholar, IIHMR University, Jaipur
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Abstract:

Unplanned urbanisation has led to a significant rise in number of slums in metro cities of India. Gautam Buddh Nagar District, of Uttar Pradesh, is no exception. Family planning indicators remain dismally poor amongst the habitants, pushing them further into poverty. HCL Foundation in partnership with FPAI conducted a study "My Choice, My Right": Enabling urban slum based communities including young people in Noida to lead better lives by choosing Family Planning. We used the study data to find out the dynamics of utilization of contraceptives in slums of Noida. A total of 735 women, in reproductive age group, were interviewed during the study. Only 53 percent were found to have knowledge regarding contraception. Only one-fourth (26 percent) of the overall respondents ever used any modern contraception method in the study area. Majority (91 percent) used either female sterilization (41 percent) or male condoms (37 percent) or OCP (13 percent). Policy makers, decision makers and implementors must consider level of awareness on contraception and use of modern methods as two critical factors while designing policy and intervention plans for this segment of population.

(Keywords: Family Planning, Contraception, Women, Empowerment, SDG 5, Urban, Slums)

Introduction

As urbanization continues to persist in India, the wellbeing of the urban poor, whose majority live in slum settlements will increasingly drive national development indicators including SDGs and FP2020 goals. Most of the health indicators of urban slums are even worse than that of rural areas. It is therefore central to understand and identify ways to address the poor reproductive health outcomes among poor urban slum populations in the country.

Reproductive health presents a lifelong continuous process associated with various stages of women in the family and society.1 It should ensure safe and healthy sex life by using a collection of preventive methods and techniques. In 1951, India was the first country to launch National Family Welfare program (NFWP). Over the decades, the NFWP has seen a paradigm shift from population control to integrated approach with the National Rural Health Mission (NRHM). With NRHM, there was an integrated approach adopted applying both health and demographic specific indicators under NFWP. The revised goals not only aim at population control, it also includes protection

of reproductive rights of women, to reduce Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) by increasing availability and accessibility towards modern contraceptive methods. Contraceptive usage and family planning correlates highly with the indicators maternal and child health. According to Sample Registration System (SRS) 2016 - 18 MMR in India has reduced from 130 per 1,00,000 live births to 113 per 1,00,000 livebirths. Total fertility has reduced from 2.7 (NFHS 3, 2005-06) to 2.2 (NFHS 4 2015-16). IMR has reduced to 41 per 1000 live births (NFHS 4, 2015-16) from 57 per 1000 live births (NFHS 3, 2005-06).2-4

▶ Study Background

To understand the knowledge and utilization of modern contraceptive methods amongst the women of urban slums, HCL foundation has conducted a study namely "My Choice, My Right": Enabling urban slum based communities including young people in Noida to lead better lives by choosing Family Planning. We used the data to find out the dynamics of utilization of contraceptives in slums of Noida. Noida houses a large population of income poor and vulnerable people, living in compromised conditions of housing and sanitation in the urban slums, with less than optimal access to health services including family planning. The urban slums tend to be ever expanding due to the influx of migrants in search of a living, piling on, mostly from parts of UP, Bihar and West Bengal. The existing health, education, water, and sanitation facilities are not designed to reach this unchecked, unplanned growing population.

▶ Objectives

❖ Find out the knowledge and utilization of modern contraceptive amongst respondents

❖ Study the dynamics of utilization of modern contraceptive in the females residing in slums of Noida

▶ Methodology

i. Sampling technique: A Multi-stage cluster sampling technique was adapted for the selection of the respondents. In the first stage, a complete house listing was conducted prior to the individual survey. In the second stage, the entire study area was divided into clusters of approximately 500 households each geographically. A total 120 such clusters formed. One-third, i.e., 40 clusters were selected by systematic random sampling. From these selected 40 clusters (Primary Sampling Units), households for individual survey were identified based on the number of years household head is living in Noida, up to 5 years (migrant) and above (nonmigrant). From the selected households in each PSU, 20 women in the age group 15-49 years were selected using random sampling technique. Household heads staying less than 6 months were excluded from the sample selection for individual survey. Within each household, only one person was selected for interview. If the selected respondents were not present at home, 3 visits were made and after 3 visits, they were recorded as non-response. A total of 735 female respondents, in reproductive age group, were interviewed during the study.

ii. Techniques adopted for analysis: Univariate, bi-variate, and multivariate techniques were used to analyze the data. Statistical test like chi-square test was conducted to find the association between respondents' characteristics and their knowledge and present utilization of modern family planning methods. Also, binary logit regression was used to find the determinants of modern family planning method use.

Results and Discussion

Analysis was carried out to find socio-economic and demographic characteristics of the respondents. Results of the same suggests, most of the respondents (88 percent) were Hindu, one-third (36 percent) were illiterate, and two-third (68 percent) were homemaker. Nearly 68 percent got married at or after reaching the legal age for marriage. More than half (55 percent) respondents reported their age as more than 30 years and 41 percent found having more than two children (3 and above). Further, the analysis reveals, a little more than half (53 percent) of them found having the knowledge regarding contraception. However, they mentioned various source for this knowledge, namely, friends/relatives/neighbours (63 percent), doctors (56 percent), husband/partner (47 percent) and ASHA/health worker (32 percent) amongst others. Most of them (85 percent) mentioned medical store as the source of the contraception followed by hospital/clinic (73 percent). When the question regarding ever use of contraception was asked, it was found that around half (49 percent) of the respondents amongst who had knowledge regarding contraception ever used a method of contraception. It suggests around one-fourth (26 percent) of the overall respondents ever used any modern contraception method in the study area. Information was also collected to find what method they used, it was emerged out that the majority (91 percent) used either female sterilization (41 percent) or male condoms (37 percent) or OCP (13 percent). However, current uses of contraception amongst respondents suggest, 47 percent found using female sterilization, 35 percent male condoms and nearly 12 percent reported using oral contraception pills on the day of interview.

Additionally, analysis was done to find out the association between characteristics of the respondents with knowledge of contraception. Results of the same are being presented in Table 1.

Table 1: Association Between Characteristics and Knowledge Regarding Modern Contraception (N = 389)

Characteristics	Number	Value of Chi Square Test
Education*		
Illiterate	112	30.763
Primary	21	
Middle	49	
Secondary	126	
Higher Secondary	40	
Graduate and above	41	
Religion*		
Hindu	354	9.348
Others	35	
Caste		
Scheduled Caste (SC)	69	2.900
Schedul 2.900 ed Tribe (ST)	32	
Other Backward Class (OBC)	165	
Others	123	
Occupation*		
Homemaker	282	7.140
Working	107	
Husbands' Education*		
Illiterate	57	38.204
Primary	22	
Middle	50	
Secondary	152	
Higher Secondary	67	
Graduate and above	41	

Characteristics	Number	Value of Chi Square Test
Husbands' Occupation*		
Not Working	17	6.774
Working	372	
Standard of Living Index (SLI)*		
Low	141	31.431
Medium	201	
High	47	
Age of the Respondents*		
15-19	7	52.154
20-29	160	
30 & above	221	
Age at Marriage (respondent)		
<18	132	1.902
>=18	257	
Marital Status*		
Currently Married	380	7.824
Others	9	
Husband living with Respondent*	369	45.654
Children ever born*		
No child	46	54.581
1-2 children	182	
3-4 children	36	
5 & more children	25	
Pregnancy not resulted in live births	53	0.216

* $p<0.05$

The analysis suggests that characteristics namely, religion, education, education of husband, occupation of self and husband, standard of living index, age of the respondents, her marital status, children ever born and whether husband is living with the respondent or not emerged out having statistically significant association with knowledge regarding family planning. (Table 1) As mentioned in methodology section, further, the research tries to find out the association between the characteristics of the respondents with their current use of modern contraception. Chi-square test was performed to see whether any statistically significant association between these variables were present or not. The results are presented in Table 2.

Table 2: Association Between Characteristics and Current Use of Modern Contraception (N =164)

Characteristics	Number	Value of Chi Square Test
Education*		
Illiterate	44	15.837
Primary	5	
Middle	26	
Secondary	60	
Higher Secondary	16	
Graduate and above	13	
Religion*		
Hindu	154	7.944
Others	10	
Caste		
Scheduled Caste (SC)	26	10.222
Schedul 2.900 ed Tribe (ST)	20	
Other Backward Class (OBC)	64	
Others	54	
Occupation*		
Homemaker	128	9.506
Working	36	
Husbands' Education*		

Characteristics	Number	Value of Chi Square Test
Illiterate	27	33.586
Primary	5	
Middle	18	
Secondary	69	
Higher Secondary	30	
Graduate and above	15	
Husbands' Occupation*		
Not Working	5	21.063
Working	159	
Standard of Living Index (SLI)*		
Low	51	23.251
Medium	88	
High	25	
Age of the Respondents*		
15-19	5	20.692
20-29	52	
30 & above	106	
Age at Marriage (respondent)		
<18	67	8.168
>=18	97	
Marital Status*		
Currently Married	159	27.239
Others	5	
Husband living with Respondent*	159	26.069
Children ever born*		
No child	5	47.137
1-2 children	72	
3-4 children	75	
5 & more children	12	
Pregnancy not resulted in live births	22	0.104

* $p<0.05$

The analysis suggests that respondents' characteristics namely, religion, caste, education of respondents, education of husband, occupation of self and husband, standard of living index, age of the respondents, her marital status, age at marriage, children ever born and whether husband is living with the respondent or not found having statistically significant association with current use regarding modern family planning. (Table 2) To find out the determinants of current utilization of modern family planning, binary logit regression was done with dependant variable current use of modern family planning =1 and non-using of modern family planning currently = 0. The characteristics of the respondents were used as predictors. The results of the binary logit regression are being presented in Table 3.

Table 3: Determinants of Utilization of Modern Contraceptive methods

Characteristics	Exp (B)	CI lower bound	CI Upper bound
Education#			
IlliterateR			
Primary	2.683	0.967	7.446
Middle	2.677	0.738	9.707
Secondary	1.327	0.468	3.768
Higher Secondary	1.849	0.337	2.136
Graduate and above	1.184	0.451	3.117
Religion#			
HinduR			
Others	0.393	0.193	0.798
Caste*			
Scheduled Caste (SC)R			
Scheduled Tribe (ST)	1.001	0.553	1.811
Other Backward Class (OBC)	1.335	0.657	1.925
Others	1.867	1.175	2.968
Occupation			
HomemakerR			
Working	0.776	0.491	1.226

Characteristics	Exp (B)	CI lower bound	CI Upper bound
Husbands' Education			
IlliterateR			
Primary	0.543	0.197	1.499
Middle	1.348	0.367	4.952
Secondary	0.849	0.307	2.35
Higher Secondary	0.662	0.274	1.598
Graduate and above	0.671	0.279	1.615
Husbands' Occupation			
Not WorkingR			
Working	1.333	0.472	3.762
Standard of Living Index (SLI)*			
LowR			
Medium	3.131	1.535	6.384
High	2.251	1.141	4.437
Age of the Respondents*			
15-19R			
20-29	1.727	0.978	3.658
30 & above	1.126	0.704	1.802
Age at Marriage (respondent)#			
<18R			
>=18	1.737	0.699	4.127
Children ever born*			
No child[R]			
1-2 children	8.377	2.298	13.539
3-4 children	0.774	0.356	1.679
5 & more children	0.532	0.256	1.107

* p<0.05, # p<0.10, R = Reference category

The analysis suggests that as education increases the utilization of modern contraception also increases ($p<0.1$). It was also found that respondents followed other religion utilizing 0.61 times lesser modern method of contraception while comparing with Hindu women. Further, the analysis shows, respondents from other caste and OBC found utilized more than their Scheduled Caste counterparts ($p<0.05$). Respondents found having 1-2 children utilized modern contraception 8.38 times more than the women who did not have any child. Contrary to that females reported 3-4 children and more than that found utilizing modern contraception less (Table 3).

▶ Conclusion and Suggestions

The study suggests poor utilization of modern contraception amongst the females residing in slums of Noida. By and large only one-fourth (26 percent) amongst the respondents found utilizing any modern contraception during the survey. Utilization of contraception was more amongst educated women, women following Hinduism, women of other caste and OBC women, women having higher economic status and 1-2 children. While policymakers and practitioners designing the policy and intervention plan the factors listed in the study should be considered.

▶ Ethical Consideration

Respondents participated voluntarily in this study. Informed consent was taken. Interviews were conducted in Hindi. All data kept secure, password protected, and privacy of respondents ensured. At the end of interview, they were provided with information on modern family planning methods.

▶ Acknowledgement

We sincerely acknowledge time given by all respondents, diligence of all surveyors, efforts of the FPAI team and the HCLF team, who were involved in the study.

▶ Source of Funding

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A Raging Pandemic And Women's Sexual and Reproductive Health: Should Women Ever Have To Choose Between Getting Health Care Access Between the Two?

*- *Dr. Purvi Verma*
PCP, Ph. D scholar, JNU

Abstract:

Does a pandemic make Sexual and Reproductive Health a secondary option? As we all witnessed the raging Corona virus pandemic spreading its claws all across the globe in a span of merely 6 months and hitting South east Asian countries aggressively with its second wave this year, most burden fell upon adolescents and women of child bearing age. While the whole of healthcare system was busy preparing to fight the virus, which was wreaking havoc all across the country, preparing hospitals and medical practitioners to engage in first response and rehabilitation of infected persons, the most underprivileged remained emergency gynecological and obstetrics services. Women everywhere were faced with a dilemma of accessing sexual health related, ante natal, and post-natal health care services in urban as well as rural areas.

Research has shown that contrary to the promise of attainment of primary health care for all as envisioned in the declaration of Alma Ata in 1978, the pandemic has opened our eyes in the still existing lacunae in the field of primary health care. With merely a health budget of 1.2 %, the major resources were diverted to deal with the ongoing emergency which led to neglect of other basic health care especially sexual and reproductive health.

Through this paper, the author focusses to shine light on preparedness and under preparedness of the health care system, the commitment of political will and bureaucracy and of general public on understanding which services fall under emergency care. Since half the population comprises of females and LGBTQI spectrum, whether availing emergency services such as abortion care, pregnancy care and sexual health care were being provided or were halted? Do women and LGBTQI community have to choose between accessing certain type of healthcare ? With many public health facilities and private health care institutions shutting down their services for pregnant women during Covid-19, is it now to understand that women and people belonging to third gender and spectrum are allowed to negate their health care needs?

It's imperative to understand the structural pathways upon which gender is constructed and the amount of importance other essential services are given in our country. Through a thorough assessment of patients admitted at a Covid care center in the east Delhi, this paper tries to examine and understand the felt needs of women and third gender/ spectrum. What problems were faced by them during the second wave in terms of getting health care access and if they have faced any complications during and post Covid infection.

The finding will be helpful in formulating and implementing policies which are inclusive and not based on gender, caste or religious divide. For intersectional population, we need to devise mechanisms that are distributed fairly across all sections of society. As health care workers, the exclusiveness caused during the Covid times has been a cause of concern and should be dealt at policy making level.

KEY WORDS

Women, gender, Sexual & reproductive health, Healthcare access, Covid, Health&Gender

Obstetric Complications Secondary to Covid

- Dr. Divya Wadhawan, Gynaecologist
M.B.B.S, D.N.B (Gynae), Consultant

- Covid during pregnancy has been seen to result inhigher incidence of preterm labour (1) (3), especially ifinfected in the early trimesters (8), C-Section (1),Intrauterine growth restriction (IUGR) (2),Intrauterine fetal demise (IUFD) (2) andOligohydramnios.
- Presence of Diabetes (7), hypertension, obesity (4),and infections are compounding factors and increasethe likelihood of complications in Covid pregnancies(1).
- Geriatric pregnancy is also a risk factor (1).
- Maternal Mortality was uncommon (1), though late-term Covid cases reported higher incidence ofrequiring ICU-level care.
- Risk of vertical transmission seems to be low (2)(3)(5), virus presence not detected in amniotic fluid (1).

▸ Other Findings

- The clinical characteristics ofthese patients with Covid-19during pregnancy were similarto those of non-pregnant adultswith Covid-19 that have beenreported in the literature (6) (7)(8).
- Response to treatmentmodalities similar to non-pregnant Covid patients, withproning and high flow O2 helpwith respiratory function (7).
- The maternal, fetal, andneonatal outcomes of patientswho were infected in latepregnancy, with active,intensive management,appeared very good (8).
- Continued research is required tostudy the longer-term effects ofCovid, both on the mother (longCovid) as well as both on the unbornchild as well as the neonate post birth

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Impact of Covid-19 on Reproductive Health of Women

- *Annumeha & Dr. Shagufa Alim Khan
Doctors For You

Covid-19 pandemic has presented an unprecedented challenge on public health systems and people of developing and developed countries alike. Governments all around the world are at their toes in their efforts to quickly adapt and respond to curb the transmission of this novel virus and to provide the best possible care to the large number of people who are infected with the virus around the globe. When unprecedented challenges like these strike humankind, they assume precedence over other aspects of public life, given the gravity, urgency and number of human lives at stake. However, these efforts to contain the pandemic are not without its ramifications. They have their impact on other aspects of lives of people, the intensity of which might vary in tone with the issue at hand, one such aspect is the adverse effect of Covid-19 pandemic on the sexual and reproductive health of women all across the globe. The strain that the pandemic has posed on the public health systems will undoubtedly affect the sexual and reproductive health of individual, having more profound effect on women living in low- and middle-income countries (LMICs). Sexual and Reproductive Health (SRH) of women are not only affected by the strain imposed on the public health system but are also affected by the societal responses to the pandemic such as national and local lockdowns which have their own effect on women.

▶ Examples from the past outbreaks, and their impact on Reproductive health of women-

According to an analysis of data from Sierra Leone's HMIS due to disruption in maternal and new-born care and fear of seeking treatment during the outbreak an estimated 3,600 maternal deaths, neonatal deaths and stillbirths were reported in the country during the Ebola outbreak.

▶ Impacts of the Pandemic on SRH outcomes-

According to a study the potential impact of Covid-19 pandemic on sexual and reproductive health of women have manifested in the form of disruption of healthcare services, unintended pregnancies, unsafe abortions and maternal and new born deaths. In developing countries like India where public health systems are still in an infant stage, due to the urgent nature of the Covid-19 crisis, all the health system resources were diverted for Covid Care, a high number of pregnant women were unable to seek care for their reproductive healthcare needs.

The impact of the Covid-19 pandemic on the contraceptive commodities supply chain has disrupted the production of key pharmaceutical components of contraceptive methods, there has also been delay in the transportation of contraceptive commodities.

The already high unmet need for Family planning and abortion services in India experienced reduced access due to Covid-19. The need of the hour is to address Family planning services

provision during pandemic, which calls for establishment of comprehensive, rights-based health systems response in order to avoid unwanted pregnancies and prevent additional mortality and morbidity of women due to reduced access to Family planning and abortion services.

Availability of limited resources and the extreme fear among the women and care-givers in the family of contracting Covid-19 infection at the healthcare facilities, a significant reduction in tubal ligations and IUD insertions has been observed in private sector.

Reports have indicated that even in the early six weeks of lockdown, many abortions that have been carried out surgically could have been carried out with medicines, if there weren't lack of access and fear among women of contracting infection and it is known that surgical abortions can cause complications and increase the chances of morbidity and mortality among pregnant women. In several instances gynaecologists have also indicated, that healthcare facilities have insisted on carrying out Covid-19 tests before women can be provided access to reproductive healthcare facilities which increases the financial burden on the patients and usually cause further delay in initiation of treatment causing risk.

In developing countries like India where a large portion of SRH activities are carried by Anganwadi and frontline workers and all the frontline workers were diverted to Covid duty, pregnant women in these areas missed their ANC visits, thereby increasing the number of high-risk pregnancies.

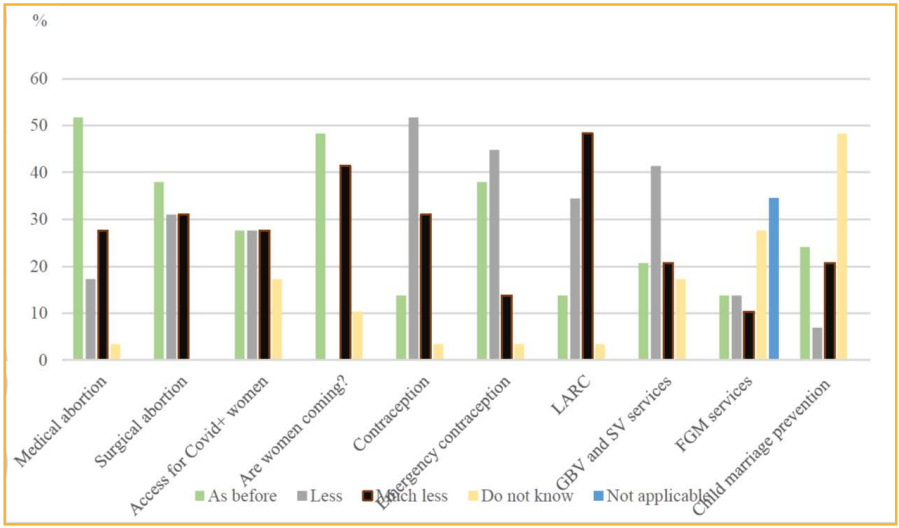

Figure 1- Impact of the Covid-19 pandemic on access to sexual and reproductive health and rights services in 29 countries according to a global survey. LARC, long-acting reversible contraception; GBV, gender-based violence services; SV, sexual violence services; FGM, -female genital mutilation (source- Source- Acta obstetricia et gynecologica Scandinavica, 100(4), 571–578.)

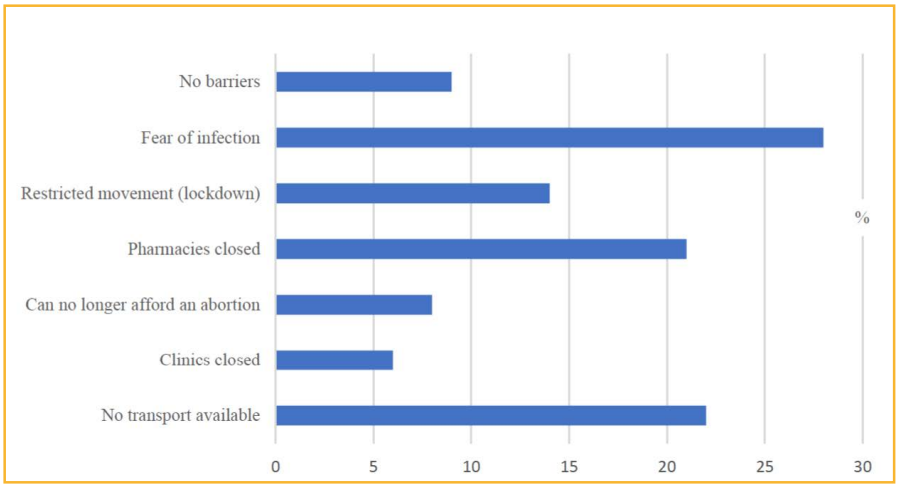

Figure 2- Perceived barriers to access to abortion due to the effects of the Covid-19 pandemic in 29 countries according to a global survey Source- Acta obstetricia et gynecologica Scandinavica, 100(4), 571–578.)

10% decline in use short- and long-acting reversible contraceptives	48, 558,000 additional women with an unmet need for modern contraceptives. 15,401,000 additional unintended pregnancies.
10% decline in service coverage of essential pregnancy-related and new born care	1,745,000 additional women experiencing major obstetric complications without care. 28,000 additional maternal deaths. 2,591,000 additional new-borns experiencing major complications without care. 168,000 additional new born deaths
10% shift in abortions from safe to unsafe	3,325,000 additional unsafe abortions 1,000 additional maternal deaths.

Table 1-Potential annual impact of a 10% proportional decline in use of sexual and reproductive health care services resulting from Covid-19 related disruptions in 132 low and middle -income countries. (Source- Acta obstetricia et gynecologica Scandinavica, 100(4), 571–578.)

▶ Barriers to SRH access-

- ❖ Prioritizations made in health service delivery to curb Covid-19 pandemic at the expense of SRH services.
- ❖ The detrimental effect of the local and national lockdowns imposed.
- ❖ Suspension of sexual and reproductive education to young and adolescent girls.

▶ Requirements to mitigate the threat to Sexual and reproductive rights of women-

- ❖ Due attention and sensitization of society and healthcare providers of women's reproductive health needs and rights.
- ❖ Facilitated access to healthcare facilities.
- ❖ Availability of public transport to access the health care facilities.
- ❖ Availability of health care professionals to provide care in due time.

▶ Opportunities provided by the Covid-19 pandemic –

The current state of pandemic can be viewed as window of opportunity for governments, public health professionals, academicians, students, social scientists and researchers across the globe to push forward women's sexual and reproductive health and rights.

Voices from across the globe

"The biggest threat is that attentaion has been focused only on Covid-patient. Outpatients sexual and reproductive health care has been suspended in hospitals. In public sectors hospitals and health centres, there are no obstetric, gynaecological, or family planning consultations" - (Peru)

"Lack of the political will and support where SRHR matters are concerned. Limited funds to those willing to implement interventions. Poverty pushing in negative decisions" - (Kenya)

"Thinking about innovative measures in dealing with current status, such as remote approaches (telephone, digital applications, SMS text messaging, voice calls, interactive voice response) whenever applicable." - (Iraq)

▶ Way forward: -

Disastrous consequences on reproductive health of women have happened because sexual and reproductive health services were either reduced or in countries with limited health resources, these services are deemed non-essential.

Governments and societies across the globe need to take their learning lessons from the prior and current epidemics and put in place health systems and critical resources

in place and ensure provisions of essential sexual and reproductive services that are resilient and sustainable to disruptions and outbreaks that can have catastrophic effects on people's lives. In order to avert this healthcare crisis, decisive actions need to be taken by the government and health systems alike. To begin with sexual and reproductive healthcare services of women including- maternal and new born care, contraceptive services etc need to be clearly defined and declared essential. Strong political will to promote and support the advancement of SRH care services is fundamental for assuring continued access during the pandemic. Capacity building of ASHAs and ANMs into skilled birth attendants can help into converting PHCs into a delivery care point in case of emergencies and crisis.Strengthening national and regional supply chains through public private partnership for better accessibility of contraceptive commodities and reproductive healthcare needs of women. Identifying and addressing the unique needs of vulnerable and marginalised population in hours of crisis should be an essential component of crisis response regardless of the nature of the crisis. Appropriating additional funding for sexual and reproductive health services should be a part of both short -term and long-term solution in according the reproductive healthcare needs of women the attention they deserve.

Outbreaks are inevitable but catastrophic loses for sexual and reproductive health are not.

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Access To Maternal and Newborn Care - Insights From A 2020 Lockdown Helpline

- Asha Kilaru, Nora Kropp, Madhavi Latha, Sapna Krishnan, Aswani Presanna Kumar, Gayatri Chadwa

The Bangalore Birth Network

Abstract:

The sudden introduction of a severe lockdown in India in March 2020 disrupted and severed for many women essential maternal, newborn and young child care across India. India's lockdown was one of the most restrictive in the world according to the Oxford Covid-19 Government Response Tracker. In response to the near complete shut down of non-Covid health care services, the Bangalore Birth Network, a public health nonprofitwith 14 years of experience in promoting evidence-based, respectful maternal and newborncare, launched a helpline. In this presentation, we share the practical steps we undertook in the rapid development of a Helpline using a previously registered missed call service. Review and assembling of national and international guidelines, and the recruiting and training counselorswith the knowledge of nine languages will be discussed. Furthermore, an analysis of the reasons for the calls will be presented and a summary of the geography of the callers, from different parts of India, and some additional countries such as including Pakistan, Dubai, and Kuwait.

Background:

The Covid-19 pandemic increased women and babies' vulnerability, as nation-wide lockdowns disconnected women fromtheir healthcare providers, support systems, and information networks. Low income women in urban and rural areas in India became more acutely at risk, and the former facedthe anxiety of high population density and as the local health care workers and clinics they depend on have abruptly stopped coming or closedtheir doors to mitigate risk. Notably, India had one of the strictest lockdowns globally, based on Oxford University's Stringency Index metrics(https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker). Millions of women were without medical access, unable to address critical questions over the course of their pregnancy, labour, or postpartum period for months. Given the dynamic nature of pregnancyand birth, complications can easily be missed or quickly intensify, and existing health risks of undernutrition, low birth weight, mental stress, and lack of information amplified the absence of care. India lost hard information amplified the absence of care. India lost hardfought progress in maternal and infant health.

▶ Methods:

BBN launched a Mother-Child Covid-19 Helpline on April 3, 2020 in response to the first lockdown. In order to facilitate access, the helpline was free and entirely remote. Key features:

I. Developed MCH Covid Guidelines and FAQs

BBN members reviewed and collated guidelines from MoHFW, ICMR, WHO, ACOG, RCOG, ICM and CDC. These were summarized and condensed into categories with an easy-to-reference Table of Contents and FAQs. These were reviewed by a US certified midwife and Lamaze Certified Child Birth Educator.

Back-up resources for Mental Health and Serious Obstetric Complications were researched and on-boarded.

II. Recruited volunteers

Tapping into our network members, we broadcast a call for volunteers. Approximately 12 volunteers were onboarded and trained, all with MCH certifications (child birth educators, doulas, lactation counselors). 9 languages were spoken by the 12 volunteers.

III. Training

Training included: Ethics (privacy, confidentiality), sensitive communication, signs of potentially high health risks (including mental health) and back-up resources.

IV. A Missed-Call number based Helpline

A previously registered number re-purposed for the Helpline. Volunteers trained on use of the simple software login, tracking. Features of the missed call:

-number logged in system

-an auto-reply smsinforming of call back within two 2 hours of missed call

-call reassigned if different language needed

-volunteers working in shifts and updating a Google sheet with data from caller

-posts circulated with number on WhatsApp, FB, IG in different languages

TYPES OF CALLERS IN THE FIRST 2 MONTHS

Type of Caller	N (%)
Pregnant	77 (34.1%)
Postpartum	76 (33.6%)
Doctor	3 (1.3%)
N/A or Unknown	66 (29.2%)
Covid	3 (1.3%)

▶ Call Examples:

A 32 week pregnant woman, in the interiors of a village in Rajasthan, had mild fever, chest pains and slight breathlessness. When she visited the PHC, the care providers refused to touch her because they feared she had Coronavirus. Since this was very early in the lockdown, fear and misinformation among health care providers in rural and remote areas was likely very high. The woman did not have her blood pressure checked and she was directed to a centre 60kms away for an ultrasound. After the ultrasound, the couple reached home late and decided to visit the PHC the next day with the report. The woman woke up with severe chest pain and passed away while being taken to the hospital. On inquiry, the officials found out that the possible cause of death was pre-eclampsia.

A 37 weeks pregnant mother had travelled from Dubai to India in the last week of February and self quarantined. She wasn't showing any symptoms after her quarantine period but yet the doctor she saw insisted on a C-section due to Covid-19. She was distressed at being forced into a surgical birth.A woman in Ahmedabad in her first trimester was not able to find a doctor in Ahmedabad willing to accept her as a patient. She has Thalassemia and was feeling tired all the time and very concerned at having no doctor willing to provide care.

In the first case, the PHC officials wanted guidance on how to train their care providers to ensure such situations don't arise next time. In the other two cases, through our country-wide network, we put the callers in touch with providers who were able to provide respectful care and understand the health needs and concerns of the woman.

Summary

Our Helpline provided guidance on pregnancy, birth, postpartum and newborn/infant health in the context of Covid-19 to anyone seeking help in India. We also give them practical advise about safely seeking care during the pandemic, safety precautions for pregnant and breastfeeding mothers and newborns, on the ground assistance with testing locations and protocols and finding MCH facilities, providers and services that meet their needs and emphasize their reproductive rights even and especially during during the lockdown. The types of reproductive rights abuses we help women navigate during the pandemic have been refusal of care in labour due to no Covid test result, separation of mother and baby after birth due to no Covid test result, Caesarean section with no medical indication. Our counselorsspeak 8 different languages, spoken by a majority of Indians. Callers from Kerala and Tamil Nadu in the south to Kashmir in the north and from Pakistan, Kuwait, and Dubai have accessed the service. Much of the information we provide is applicable to other countries. Our response rate was just under 100%, because a few people did not pick up when called back.

Knowledge, Attitude, and Practice of Breastfeeding during Covid Times

- Dr. Lakshmi V, Dr. Saravana Kumar S,
Dr. Jayashree Jayakrishnan, Tamizharasi M., Mehta Hospital

▶ Introduction:

- ❖ Breastfeeding is the best gift a mother can give to her baby.
- ❖ Nowadays mothers considering breastfeeding as a job rather than a pleasure.
- ❖ The objective of this study is we wanted to know the mother's knowledge, attitude, and practice of breastfeeding during Covid times.
- ❖ This study was conducted on mothers attending follow-up pediatrics OPD
- ❖ We created a valid and reliable google questionnaire and circulated it.
- ❖ Data were gathered and analyzed.

▶ Methods:

This study was conducted on mothers in our Pediatric out patient department. We created a valid and reliable google questionnaire and circulated it. Data gathered and analyzed.

RESULTS AND ANALYSIS

100 REPONSES RECEIVED	
PRIMI MOTHERS	83.8%
AN COUNSELLING ON BF	45%
HAD KNOWLEDGE ABOUT EXCLUSIVE BF	91.8%

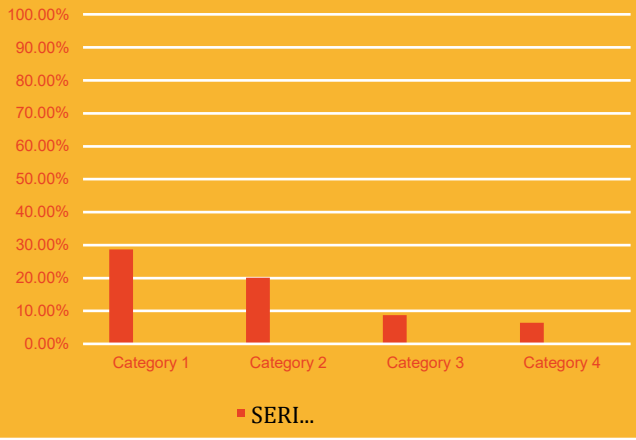
LEARNT FROM	
OWN EXPERIENCE	56.3%
HEALTH CARE PROFF	40.5%

BREASTFEEDING RATE	
INITIATED BF SAME DAY	86.2%
DOING EXCLUSIVE BF	81.3%
STILL BREASTFEEDING	91.8%

REASON FOR STOPPING BF

8.3% STOPPED BREASTFEEDING

CATEGORY 1	LACK OF GUIDANCE	28.7%
CATEGORY 2	INSUFFICIENT MILK	20.1%
CATEGORY 3	Covid	6.7%
CATEGORY 4	RESUMING WORK	6.7%



IMPACT OF Covid

21.4% - Covid POSITIVE

65% CONTINUED BF

34.5% DISCONTINUED BF

UNAWARENESS	61.1%
ADVISED BY HCW	22.2%
FEAR	16.7%

▶ CONCLUSION

- ❖ Despite being primi mothers 86% initiated the same day, 81% doing exclusive breastfeeding, 91% still breastfeeding.
- ❖ Even during Covid times most of the mothers 65% continued breastfeeding.
- ❖ 61% of the discontinued mailnly because of unawareness and lack of proper guidance.
- ❖ Which can be addressed by antenatal counselling, lactation support and guidance by the HCW.
- ❖ It is necessary to counsel the mothers and support them in every possible way to ensure exclusive breastfeeding irrespective of Covid.

Maternal Mental Health during Covid-19 in India

- Preety Syiemlieh
M. Phil Scholar, JNU

The Covid-19 pandemic has affected many aspects of human life, from health to economic losses, consequent loss of income and livelihood, and to social ramifications worldwide. It has also undoubtedly altered the routine of life and caused unanticipated changes resulting in severe psychological responses and mental health crisis. The present paper, with an objective to contribute towards a holistic understanding of the impact of Covid-19 on maternal health in India, discusses on a significant and yet side-lined aspect of maternal health which is „maternal mental health".

It is estimated that 10-35% of perinatal women around the world including India suffer from depression. A recent cross-national study on "Factors associated with women's perinatal mental health and well-being during Covid-19 pandemic" by Basu et al., 2021 showed that there is an increase in rates of mental health problems among perinatal women during the pandemic including depression, anxiety, dissociation, posttraumatic stress systems, as well as loneliness and isolation as compared to perinatal women before the pandemic. While several studies and articles on Covid-19 and maternal health has been published recently, but similar level of discussion on the impact of this pandemic on maternal mental health has not been seen.

The topic of this paper addresses an essential aspect of maternal health during the Covid-19 pandemic. It argues that various factors such as the nationwide lockdown, access to health care and proper information, changes in the social and economic settings, gender roles, increase in care work and rise in incidence in violence against women (VAW) during the pandemic impacts maternal mental health. The paper reviews existing study reports and news articles on maternal health, mental health, impact of Covid-19 on women and VAW which were published during the pandemic to support its argument.

The Coronavirus disease 2019 (Covid-19) pandemic which was first identified on December, 2019 amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China has taken the world by storm. In India, as of October 1st 2021, 26,727 new coronavirus infections were reported making the total tally of Covid-19 cases to 3,37,66,707, while death toll climbed to 4,48,3391. The pandemic has affected many aspects of human life, from health to economic losses, consequent loss of income and livelihood, and to various social ramifications worldwide. This present situation brought by the pandemic though have negatively affected almost everyone globally, the impact has not been the same. The poor, women, children and other marginalised section of

the society have always been and even more during a global pandemic at a greater disadvantage. The pandemic has also undoubtedly altered the routine of life and caused unanticipated changes resulting in severe psychological responses and mental health crisis. Consequently, mental health of the population has become a public health concern and few empirical studies related to this pandemic have reported higher prevalence of mental health problems among women compared to men (Thapa et al., 2020). Moreover, pregnant women and new mothers are regarded as a vulnerable group as they face unique challenges during this pandemic that put them at an elevated risk of mental health problems. Maternal mental health problems are a critical public health concern as it not only impacts the affected mothers' overall health and functioning, but also the mother-infant bonding, as well as their children's physical, cognitive and psychological development (Basu et al., 2021). Conditions such as extreme stress, emergency and conflict situations, natural disasters and a pandemic like Covid-19 can inflate the risks of maternal mental health morbidity (Thapa et al., 2020).

Depression and anxiety affect one in seven women during the perinatal period, developing risk of preeclampsia, premature birth and low-birth weight (Ghosh and Sarkar, 2020). It is estimated that 10-35% of perinatal women around the world including India, which is approximately 22% of Indian mothers, suffers from Postpartum Depression (PPD), which also called as „baby blues", disturbing a woman"s ability to take care of her baby and herself (Jungari, 2020). A recent cross-national study on "Factors associated with women's perinatal mental health and well-being during Covid-19 pandemic" by (Basu et al., 2021) showed that there is an increase in rates of mental health problems among perinatal women during the pandemic including depression, anxiety, dissociation, posttraumatic stress systems, as well as loneliness and isolation as compared to perinatal women before the pandemic. Research studies conducted in India on maternal health during Covid-19 have also indicated towards similar concerns, though the number of studies explicitly focusing on maternal mental health is scare. A research article on a pilot survey conducted in Birbhum, West Bengal by (Ghosh and Sarkar, 2020) highlights that the uncertainty surrounding Covid-19 such as sufficient and reliable evidence on the risk of transmission of infection of Covid-19, access to health care services, increasing number of home deliveries without the assistance of trained health workers heightens the distress and depression among perinatal women. The problem of maternal mental health is multidimensional and identifying the factors that influence mental health of perinatal women during the Covid-19 pandemic is critical for both the affected mother"s well-being and her children"s future.

▶ The Nationwide Lockdown:

The World Health Organisation (WHO) declared Covid-19 as a global pandemic on March 11th 2021 and since then starting from March 24th 2021, India has experienced various phases of lockdown either nationwide or at the state level. The lockdown though necessary but the unintended consequences of such kind of preventive measures and others such as quarantine, physical distancing, home isolation, remote consultations

with healthcare professionals was seen to also have negative impact on the mental health of perinatal women (Thapa et al., 2020). Further, the lack of social and family support and inability to obtain expected level of care prenatally as well as during the intrapartum and postnatal periods due to lockdown, has contributed towards an increased risk of psychological problems among pregnant women and new mothers (Kotlar et al., 2021).

▶ Access to health care services:

The Ministry of Health and Family Welfare (MoHFW) had released the guidelines on "Enabling Delivery of Essential Health Services during the Covid-19 Outbreak" on April 14th 2020, where provision for essential services for Reproductive, Maternal, Newborn, Child, Adolescent Health Plus Nutrition (RMNCAH+N) were included. However, the

temporary closure of outpatient clinics during the lockdown left many women without access to time-sensitive maternal and reproductive health care, from routine gynecological check-ups to prenatal care to abortion. In India, a week before the lockdown was imposed from March 25, provision of clinical family planning services including sterilization and intra uterine contraceptive devices (IUCD) were suspended. Subsequently, the MoHFW issued a guidance advising that sterilizations and IUCD services should not be resumed till further notice2. How did this hurdle in access to basic reproductive health care services translate for maternal mental health?. Last year (2020), UN projected India would lead nations that will see post-pandemic baby boom which was largely attributed to breakdown of contraceptive services during lockdown. However, news articles and empirical research studies have indicated that that has not been the case in India. In a recent article on "ThePrint" by Gosh,2021, several doctors from notable hospitals across the country and specially from the Capital have stated that their hospitals are performing fewer deliveries compared to pre-pandemic; quoting the article "sources in the Union Ministry of Health & Family Welfare said data from the National Health Mission had shown a dip in deliveries too, but urged caution in interpreting the data as a trend"3. Empirical studies conducted across various states in the country have also reported decrease in institutional deliveries during the pandemic (Ghosh and Sarkar, 2020; Goyal et al., 2021; Singh et al., 2021). While various factors such as difficulties in accessing and availing health care facilities were cited as major contributors. Psychological factors such as worries and distress were also reported which caused many women from visiting health care facilities. According to (Basu et al., 2021) the most commonly reported worries related to pregnancy and delivery were: family being unable to visit after delivery, the baby contracting Covid-19, lack of a support person during delivery and Covid-19 causing changes to the delivery plan.

▶ Social and economic factors:

This lockdown or stay-at home policy has also affected the population economically, leading to loss of employment, income and reduced purchasing power of society. Emerging evidence on the impact of Covid-19 suggests that women‟s economic and productive lives will be affected disproportionately and differently from men. A recent

report on "State of Working India 2021" by the Center for Sustainable Employment at Azim Premji University in India showed that during the first lockdown in 2020, only 7 per cent of men lost their jobs, compared to 47 per cent of women who lost their jobs and did not return to work by the end of the year. According to a UN policy brief on "Impact of Covid on Women", across the globe, women earn less, save less, hold less secure jobs, and are more likely to be employed in the informal sector: they have less access to social protections and are the majority of single-parent households (UN, 2020). Their capacity to absorb economic shocks is therefore less than that of men. As women take on greater care demands at home, their jobs will also be disproportionately affected by cuts and lay-offs. Such impacts risk rolling back the already fragile gains made in female labour force participation, limiting women‟s ability to support themselves and their families, especially for female-headed households. Further, the health of women will also be adversely impacted through the reallocation of resources and priorities, including sexual and reproductive health services and delay in seeking healthcare facilities. When examined on a larger scale, such a major fall has challenged international safe motherhood programs. The reduced number of antenatal visits and institutional deliveries will lead to a marked increase in pregnancies with complications and the need for intensive care (Goyal et al., 2021).

▶ Violence Against Women and Maternal Health during Covid-19:

Shortly after the initial declaration of Covid-19 as a global pandemic on March 11th 2020, the United Nations released a statement on March 27th 2020 warning of increased risks of intimate partner violence (IPV). It is estimated that over 30% of women have experienced IPV in their lives11 and 3%–9% of individuals experience perinatal IPV, defined as violence or abuse that occurs 12 months prior to pregnancy, during pregnancy and up to 1 year post- partum (Muldoon et al., 2021). According to (Thibaut and Cremers, 2020) drawing lessons from previous crisis situation such as Hurricane Katrina, which occurred in 2009 in the United States and the earthquake in New Zealand in the year 2010, risk factors usually associated with intra-family violence are increased during such situation. They highlighted that there were increase in cases of physical violence against pregnant women in those regions. In India, the National Commission for Women (NCW) received a total of 19,730 complaints of crimes against women in 2019 as compared to 23,722 in 2020, according to official data. A year after the lockdown, the NCW continues to receive over 2,000 complaints every month of crimes against women with nearly one-fourth of them related to domestic addressing maternal mental health cannot work in isolation, it has to consider the social, economic and gender aspects of the woman and the community in formulating action plans.

The nationwide lockdown was imposed on March 25 last year to curb the spread of the Covid-19 pandemic, but it also trapped many domestic violence victims with their abusers. Data suggest that there is an increase in violence against women (VAW) during the pandemic in our country. And existing pre-pandemic empirical studies have provided evidence that there is a high prevalence of perinatal IPV in our country (Khosla et al., 2005; Priya et al., 2019). Perinatal IPV does not only impact physical health such as delayed prenatal care, low birth weight (LBW), intrauterine growth retardation,

preterm labour, or even miscarriage; psychological implications of IPV during the perinatal period may be of particular importance because they may also bear adverse consequences for the mother, the child and the entire family. Depression, post-traumatic stress disorder (PTSD), anxiety, panic disorders, and substance abuse disorders have been documented as the most common psychological consequences of IPV for mothers during their pregnancy and postpartum (Mojahed et al., 2021). However, with regards to gender based violence faced by perinatal women to date, there are limited data on the prevalence and risk factors of perinatal IPV during the Covid-19 pandemic, despite the rising global concern for both pregnant people and the increase in violence.

Conclusion:

In this unprecedented time, every country in the world is struggling and trying its best to join forces to combat an unfamiliar disease. The importance of surveillance for emerging threats to pregnant women and infants during times of crisis cannot be overemphasized. However, mental health needs are currently overshadowed by other, more pressing issues in healthcare. It may take time to generate sufficient and sound evidence, but we can safely speculate that pregnant women are at increased risk of developing mental health problems such as depression, anxiety, and post-traumatic stress symptoms. There appears to be a substantial knowledge gap, but also a reluctance to accept that the psychological wellbeing of pregnant women is important to care for during such a crisis. Hence, it is important to proactively develop appropriate strategies to alleviate stress by screening, identifying and managing perinatal mental health disorders during the pandemic, without delay. Moreover, strategies

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Psychological Impact Of Covid-19 On the Maternal Health

- Dr. Arti Anand, Clinical Psychologist
Sir Ganga Ram Hospital

- ⇨ Prevelanc of depression & mood disorders
- ⇨ Fear of contracting the disease
- ⇨ Anticipation of negative economic consequences
- ⇨ Preoccupied about getting infected during pregnancy
- ⇨ Heightened anxiety about the health if their older children & their unborn baby
- ⇨ Reduced social support. Social isolation & disruption in normal routine impacted the mental health of pregnant women.
- ⇨ Risk of intimate partner violence for women who are in abusive relationship - leading to its increase in frequency of severity during pregnancy
- ⇨ Intimate partner violence has significant affect on woman's physical & mental health especially during antenatal period

Self care: Home-based physical activity, Mind-body interventions such as yoga mindfulness, and relaxation exercises.

Social Support: Care providers can actively mobilize the support system for pregnant women.

Government Organisations: Throught health education programs can reduce the risk perception level of perception level of pregnant women in relation Covid-19.

Lastly Non Governmental Organisations: Play an important role in providing immense social support to important maternal health.

Impact of Covid-19 on Maternal and Child Health

- Azhar Khan,
Doctors For You

▶ Background:

❖ Every year, roughly 26 million children are born inindia, making it one of the leading countries wherechild health is a serious issue.

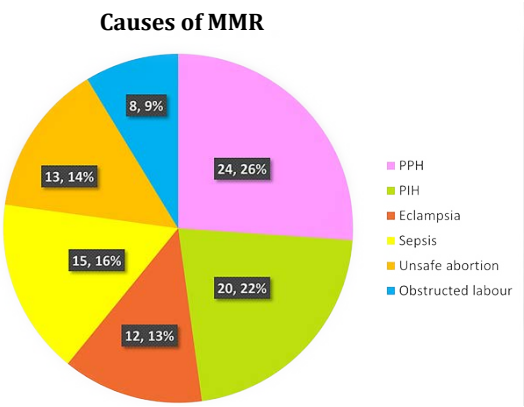
❖ More than 26% of infants are born prematurely asa result of poor maternal care, putting them atrisk of major health problems.

❖ Girls marry at a young age, become pregnantbefore reaching maturity, and have premature orlow birth weight infants.

❖ Majority of the population lives in rural areas,where women suffer from pph, pih, infections, andother diseases due to a lack of proper knowledge,diet, and other factors.

▶ Objective:

❖ To assess impact of coivd 19 on maternal &child health



▶ Methodology:

30 females from marginalized section of the society from Punjab were surveyed.

Survey participants are selected randomly fulfilling criteria -

- Females of age (20-40 Yrs.)
-Socio- economic backward strata

Information about the assessment was explained to theparticipants. A verbal consent of willing participants was takenaccount in the survey/analysis.

Assessment is done using a self developed questionnaire. keyareas focused of the assessment are following domains -

- ❖ Breastfeeding
- ❖ ANC
- ❖ Accessibility to health services
- ❖ Diet
- ❖ Availability of of health workers
- ❖ Number of deliveries at home

The answers of the questionnaire were recorded in Yes/Noformat. Analysis was done using Basic Statistic count or manualcount (as the sample size was small).

▶ Results & Analysis:

S. No.	Key Domain	Yes	No
1.	Misconception/Misinformation about Covid	27	3
2.	No. of Deliveries at Home	17	13
3.	Breastfeeding	12	18
4.	Appropriate/Balanced/Prescribed Diet	6	24
5.	ANC Received	9	21
6.	Easy access to Health Services	9	21
7.	Availability of Health Workers	5	25

90% of women surveyed found to havemisconceptions/misinformation's about Covid-19

57% of women surveyed reporteddeliveries at home

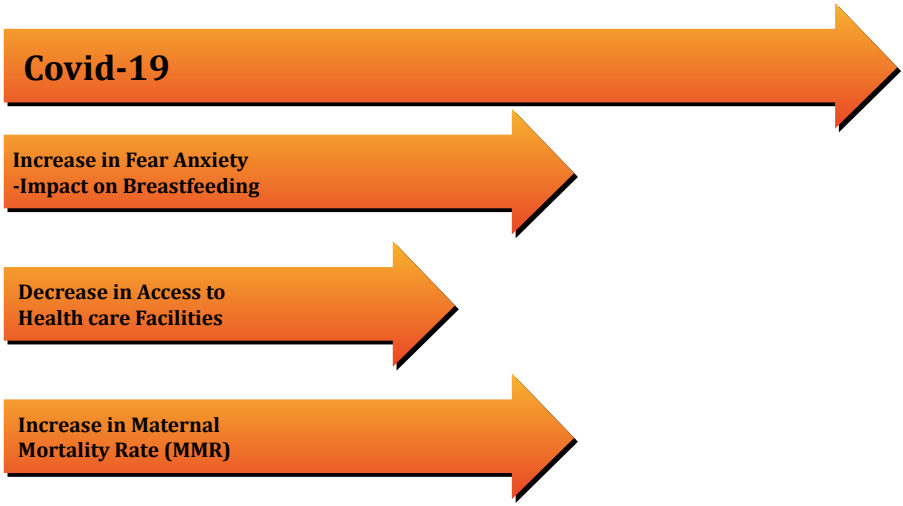
60% of women surveyed said they did notbreastfeed their child

80% of women surveyed could not getappropriate/prescribed diet

70% of women did not received ANC

70% of women surveyed did not haveaccess to routine health care

83% of women surveyed reported non-availability of health workers



Discussion& Conclusion:

- ❖ We've seen two phases of Covid-19, and it's affected nearlyeveryone. It has a significant impact on maternal and newbornhealth.
- ❖ Because of their fear, most pregnant women are unable to receiveantenatal exams, sufficient nutrition, and other essential services,resulting in poor mother and newborn health. The indirect harmposed by Covid-19 has resulted in a decrease in breastfeeding.Breastfeeding could save over 800,000 children, but the fear of Covid has impacted breastfeeding behaviors as well.
- ❖ Due to a scarcity of competent health workers and women'sreluctance to use the health system, prenatal care, postnatalcare, and facility and community-based lactation counseling maybe underserved.
- ❖ Women were discouraged and newborns were separated fromtheir mothers because to an unsubstantiated concern of Covid-19transmission through breastfeeding.
- ❖ The Covid-19 has had a significant influence on middle-class andlow-income households.
- ❖ Pregnant and lactating mother were not immediately at risk, butthey were affected indirectly and mentally.

Recommendations:

We've seen an upsurge in maternal and newborn deaths as a resultof poor services or a poor nutrition, and the Covid-19 pandemic hasexacerbated the problem for many. Many families are unable tomaintain a healthy diet, so the following steps should beperformed as a matter of course -

1. Breastfeeding exclusively
2. Kangaroo mother care (kmc)
3. A healthy diet
4. Anc on a regular basis
5. Ensure that all institutional deliveries are made.
6. Pnc (regular)
7. Access to qualified and trained healthcare workers
8. Exclusive awareness on Covid-19 amongst the pregnant andlactating

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Supporting CASE STUDY

"Savita Devi, a 26-year-old Bihar native, is currently employedas a laborer in Punjab. She has two kids, one who is one and ahalf years old and the other who is four months old. Herfinancial situation during the second wave was dire and shecouldn't afford her two square meals. When she tried to visithealth facilities, she said she couldn't get any kind of ANC orother services because of Covid-19.

She was terrified of Covid-19 and was unaware of the do's anddon'ts, so she came up with the idea that breastfeeding mayrender her girls Covid-free.

Many people, including Savita Devi, have been misinformedabout Covid, which has had a significant influence onmaternal and neonatal health. Fear of Covid-19 has causedmany people to quit breastfeeding and contact healthfacilities or health workers".

Impact of Covid-19 on Maternal and Child Health

- Abid Faheem
Ph.D. Scholar, JNU

Abstract:

Covid-19 outbreak was declared as a Public Health Emergency of International concern in January 2020. India has saw its first Covid-19 case in Kerala on 30th January 2020. Since then, it has rapidly spread across the country, infecting tens of millions of individuals. The Covid-19 outbreak has thrown us into unprecedented and massive health and humanitarian crisis. Every country adopted the strict and extensive lockdown strategy as a measure to control the spread of deadly coronavirus. However, such a strategy resulted in a significant shift in focus from providing essential healthcare services to primarily providing emergency services and Covid-19 care. This shift in focus from essential healthcare services to merely emergency services in addition to Covid-19 care resulted in an extra health-related burden on vulnerable populations such as women, children, the elderly, and chronically ill people. Women, particularly those from poor socioeconomic origins, have historically been the victims of poverty, ill health, and disparity. Considering this fact, the present paper would be exploring the effect of Covid-19 on maternal health in India.

For the above purpose, a scoping review method will be used to collect information on the pandemic's direct and indirect effects on maternal health and to provide an overview of the most significant results thus far. Working papers and news articles, as well as peer-reviewed publications, will be considered adequate evidence in order to capture constantly evolving changes. Literature in English published between January 2020 and August 2021 will be considered if it relates to the direct or indirect consequences of the Covid-19 pandemic on the physical, mental, economic, or social health and well-being of pregnant women in India.

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Putting expectant mother and the family in the driving seat to better manage maternal health of the mother, unborn or new born child and prevent avoidable complications!

- Dr. Sparsh, Ankur Agarwal

► Abstract:

Prenatal and postpartum phases are a very privileged and equally stressful time for mothers, unborn or newborn babies and their families. It involves regular visits to doctor, complex mix of pathological and radiological tests, regular monitoring of mother and baby (unborn/new born), treatments if needed, nutrition management, counselling and vaccinations. There are guidelines for all this that could be hard to adhere to, along with results and constant monitoring at scheduled intervals for timely interventions and careful management of nutrition. Covid-19 has further complicated the process and reduced engagement between mother and care teams. Our technology makes it easy for mothers and their families to comply with complex guidelines, test, follow-up, vaccinations and treatments including nutrition. Technology enables connectedness remotely between care teams and mother for constant monitoring using all digital channels. It also allows real-time interventions by care teams and stores all medical records digitally at one spot for mothers and care teams to refer to at any time. Sum of all this ensures that complications for mother and unborn/new born baby that arise because of non-adherence to various guidelines are minimised for better outcomes for the mother, baby and their families.

Increasing the effectiveness of adherence interventions may have a far greater impact on the health of the population than any improvement in specific medical treatment. - R Brian Haynes (2001)

Microsoft for Startups #startupindia

Prenatal

On average 9 appointments and 6 tests, symptoms, questions, anxiety, mental health

1
A referral to your preferred or nearest maternity hospital, initial antenatal tests,

2
Visit with hospital doctor

3
Visit with hospital doctor

4
Visit with hospital doctor

Confirmation of pregnancy

16 Week

22 Week

15-18 Week

1

Down Syndrome test if not already done, Additional antenatal tests, as required

18-20 Week

2

Ultrasound of your baby

28 Week

3

Test for diabetes, full blood examination, blood antibodies* If Rh negative blood type, anti D injection

Compliance, complication and

5
Visit with hospital doctor

6
Visit with hospital doctor

7
Visit with hospital doctor

8
Visit with hospital doctor

9
Visit with hospital doctor

32 Week

34 Week

4

if you are Rh negative blood type (for anti-D injection) and vaginal swab for group B Strep

36 Week

5

for vaginal swab for group B Strep OR
if you are Rh negative and had a hospital visit and anti-D injection at 34 weeks

38 Week

41 Week

6

If you have not had your baby, a doctor will see you at the hospital.

intervention at right time.....

Postpartum (WIP)

On average 9 appointments and 6 tests, symptoms, questions, anxiety, mental health

1	2	3	4
A referral to your preferred or nearest maternity hospital, initial antenatal tests,	Visit with hospital doctor	Visit with hospital doctor	Visit with hospital doctor
Confirmation of pregnancy	16 Week	22 Week	

15-18 Week	18-20 Week	28 Week
1	2	3
Down Syndrome test if not already done, Additional antenatal tests, as required	Ultrasound of your baby	Test for diabetes, full blood examination, blood antibodies* If Rh negative blood type, anti D injection

Compliance, complication and

5
Visit with
hospital doctor

6
Visit with
hospital doctor

7
Visit with
hospital doctor

8
Visit with
hospital doctor

9
Visit with
hospital doctor

32 Week

34 Week

4

if you are Rh negative blood type (for anti-D injection) and vaginal swab for group B Strep

36 Week

5

for vaginal swab for group B Strep OR
if you are Rh negative and had a hospital visit and anti-D injection at 34 weeks

38 Week

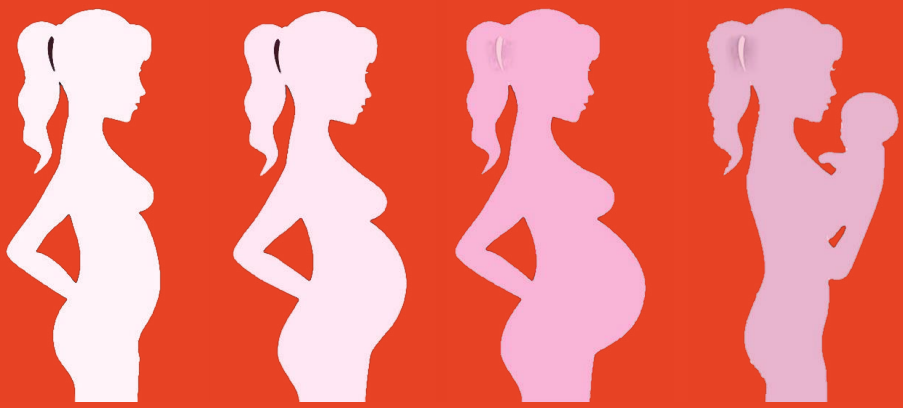
41 Week

6

If you have not had your baby, a doctor will see you at the hospital.

intervention at right time.....

How is our technology solution making it easy for mothers? (WIP)



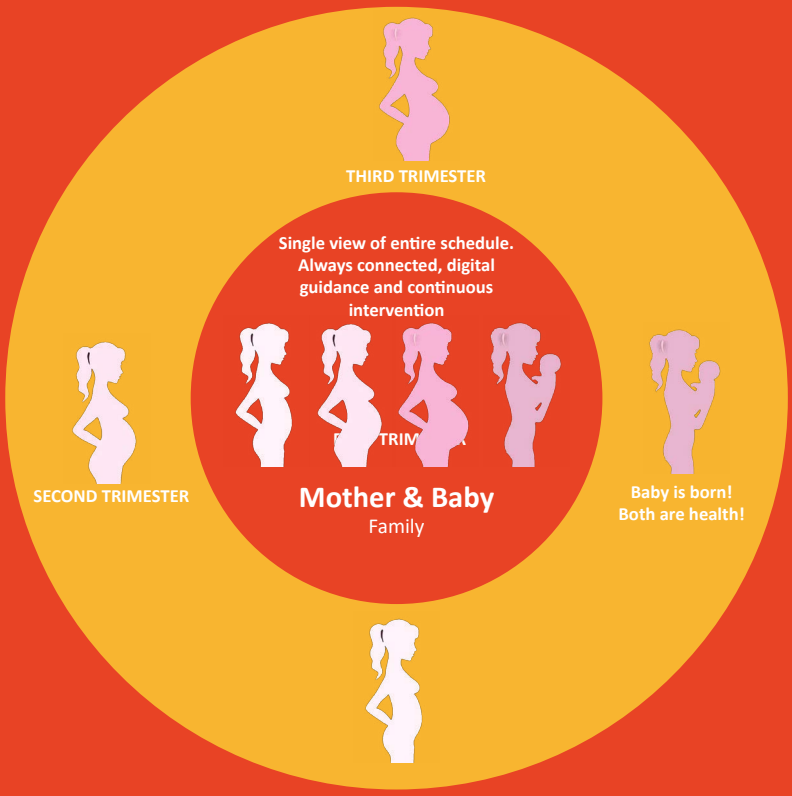
Technology ensure that expectant mothers have a digital guidance for compliance to their entire maternity schedule and tests.

Technology ensure that expectant mothers can record and report symptoms to care teams in real-time and have a digital record of all their test reports all the time

Technology ensure that expectant mothers are remotely connected to care teams at all the times.

How is our technology solution doing this job?

- Our technology platform is a self-empowering patient led, connected, personalised and intelligent activity system
- that drives adherence in patients using treatment algorithms by delivering step-by-step guidance
- keep patients connected to multiple providers and family continuously for reactive or pro-active interventions.
- For effective treatment management outside a clinical set-up at patients' homes.



How is our technology solution doing this job?

1. Mobile app for patients, carer and provider
2. Online portal for provider and carer
3. Cloud enabled, secure and scalable platform

Empowering mothers to manage their health outcomes through technology!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