



Anxiety-Induced Hospital Avoidance Behaviours During The Covid-19 Pandemic.

Haritha B^{1*}, Challapalli Praseeda²

^{1*}Research Scholar Faculty of Management, SRM Institute of Science and Technology - Vadapalani campus, Chennai, ORCID: [id 0000-0003-0919-9012](#)

²Professor, Faculty of Management, SRM Institute of Science and Technology - Vadapalani campus, Chennai, ORCID: [id 0000-0002-9169-3476](#)

Citation: Haritha B (2024) Anxiety-Induced Hospital Avoidance Behaviours During The Covid-19 Pandemic., *Educational Administration: Theory and Practice*, 30(4), 9224-9236, Doi: 10.53555/kuey.v30i4.3421

ARTICLE INFO

ABSTRACT

This research article explores the impact of anxiety levels on hospital avoidance behaviours during the COVID-19 pandemic, focusing on the moderating effect of pandemic-related communication. The study aims to understand demographic factors contributing to anxiety, hospital avoidance, and pandemic-related communication, specifically among new mothers. This research also addresses existing gaps in understanding the relationship between anxiety, hospital avoidance, and the influence of pandemic-related communication. The study used a questionnaire-based data collection method with 448 respondents and a literature review of sources such as the WHO, Massachusetts Medical Society, and the Government of India. Studies show that hospital avoidance behaviour was noticed more in Younger adults and individuals with lower education levels. Those with comorbidities and COVID-19 anxiety also avoid seeking medical care during the pandemic. Clear communication was considered necessary to reduce anxiety and hospitalisations. The study concludes that to address anxiety-induced hospital avoidance; policymakers should prioritise clear communication and specialised support for new mothers and vulnerable populations. Improving healthcare access and investing in mental health services can also help. The study suggests that collaboration with experts is key for evidence-based policymaking, especially due to the nature and expanse of the pandemic. Future studies should explore specific barriers and facilitators of healthcare utilisation during the pandemic to inform targeted interventions and policies. By addressing these gaps, evidence-based strategies can be developed to mitigate anxiety-induced hospital avoidance behaviours and promote timely healthcare utilisation during similar crises in the future. Additionally, expanding the sample size to include diverse demographic factors and conducting longitudinal studies can enhance the comprehensiveness of the research.

Keywords: Anxiety, Healthcare Avoidance, COVID-19 Pandemic, Covid Communication, New Mothers and Situational Crisis Communication Theory.

Introduction:

This study aims to understand individuals' anxiety and hospital avoidance during the Covid-19 pandemic. It also analyses the experiences of new mothers during pregnancy in the context of COVID-19 and delves into how they managed anxiety and fears of approaching medical services during this time. The pandemic in 2019 was highly unpredictable and presented significant challenges for healthcare systems worldwide (El Hayek et al., 2020) resulting in high levels of uncertainty and the feeling of a severe threat among the individuals with health issues (Seeger M, 2003 crossref Liu & Liu, 2020). Yet the fear of getting affected during medical consultation in hospitals led to hospital avoidance behaviour in many (Patel et al., 2020). According to health tracking polls 2020, it has been observed that individuals have either postponed or refrained from seeking necessary medical attention during the COVID-19 outbreak (Hamel et al., 2020). According to studies, 55% of individuals delayed their visits to health centres during the Covid-19 pandemic (ibid). Such behaviour is often rooted in misconceptions regarding the severity of the disease and its

transmission (Lau et al., 2010; Moroni et al., 2020)

Healthcare experts were deeply concerned about individuals who fail to seek medical attention for severe health conditions, which can significantly harm the entire community's well-being (Alsaif et al., 2020). For Example, a 69-year-old male avoided reaching a hospital, saying, "I have been feeling some discomfort in my chest for the past six days. I have not gone to see a doctor yet because I am worried about the pandemic." (Otero et al., 2020). The pandemic created alarming implications for the health of individuals with chronic diseases and mental health conditions. It is crucial to note that delaying medical care during the COVID-19 pandemic increased the risk of morbidity and mortality, underscoring the urgent need for individuals to prioritise their health and seek medical attention promptly (Masroor, 2020). Further assessment is needed to evaluate the extent of delay or avoidance of urgent or routine medical care due to COVID-19 concerns. Recent research indicates that states with high COVID-19 death rates also saw significant increases in deaths related to other underlying conditions, such as diabetes and cardiovascular disease (Woolf et al., 2020).

Most of the literature on care avoidance during the COVID-19 pandemic is based on retrospective analyses of hospital admissions (Birkmeyer et al., 2020) or emergency care visits. For example, hospital admissions patterns from February to April 2020 showed declines of more than 20% for all diagnoses. Heart attack, stroke, and hypoglycemia crisis ED visits fell by 23%, 20%, and 10%, respectively, in the first 10 weeks of the pandemic (Lange et al., 2020). Retrospective research of 162 ED locations revealed decreases in visits for myocardial infarction (AMI), stroke, and sepsis between January 2019 and November 2020, particularly among elderly patients. Emergency medical services (EMS) activations were down 26% in the first half of 2020, according to a report published in June of that year (Lerner et al., 2020). Hospitalisation for myocardial infarction and stroke declined by 14% in 2020 compared to the previous two years, according to a survey of Medicare participants. The drop was 42% among Medicare enrollees with six or more chronic illnesses. The (Centers for Disease Control and Prevention) CDC predicted that 41% of Individuals would forego emergency or regular treatment by the end of June 2020 (Czeisler et al., 2020). Patients started using telehealth services much more often at the same time. For instance, over the course of four weeks in March–April 2020, telehealth visits at one sizable institution increased from less than 1% of all visits to 70% of all visits (Wosik et al., 2020).

Age - Healthcare Avoidance:

In their article, (Prentice & Pizer, 2007) mentioned that avoiding medical care could negatively impact the health of "high-risk" patients, especially older adults who require more physician involvement due to their complex medical and social needs. The study analysed the factors associated with avoidance behaviours in adults over and under 50 years old. Among those over 50, individuals with lower education levels, lower incomes, younger age, lack of health insurance, and high levels of perceived cancer risk and worry were more likely to avoid medical care, according to (Persoskie et al., 2014). As people grow older, their medical needs tend to increase, which makes them more susceptible to the negative impact of avoiding medical attention on their health.

During the initial wave of the pandemic, outpatient specialist appointments were limited and as a result, many appointments were either cancelled, postponed, or shifted to telemedicine. Additionally, some individuals may have avoided visiting their GP or hospitals due to social distancing measures and the fear of contracting COVID-19 (Taylor et al., 2020). Due to the COVID-19 pandemic, older individuals were inclined to postpone or abstain from seeking medical attention, resulting in a notable effect due to the high occurrence of chronic illnesses and multiple health issues in this demographic (Salive, 2013 crossref Schuster et al., 2021). This concerning trend was seen more in patients with acute coronary syndrome who avoided medical care due to fears of contracting severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) if they had to stay in the hospital. This avoidance may have led to severe clinical outcomes that warrant attention (Moroni et al., 2020). The caregivers during the Covid time had to undertake higher responsibility to avoid harm to the health and well-being of those they cared for, by prioritising their responsibilities (Czeisler et al., 2020) and ensuring timely medical treatment. This observation leads to the adoption of the first hypothesis of the study as given below.

H1 - *There is a definite impact of Age on Hospital Avoidance.*

Research has demonstrated a decline in healthcare utilisation and diagnosis of diseases among older adults during lockdown periods compared to the same time frame (Michalowsky et al., 2021). Such avoidance can hinder positive health-seeking practices, delay necessary care, cause non-compliance with treatment plans, and ultimately result in a complete lack of access to healthcare services (M. Lee & You, 2021) at a future point in time in the event of a similar pandemic situation. Therefore the present study aims to understand the fears of the elderly and the mechanisms to be built and systems to be established to allay such fears. The generation that has faced the Covid 19 will be better prepared to handle a similar medical emergency. Yet there is also a need for the governing authorities to learn from the past pandemic. The present study aims to fulfil this need.

Communication Strategy during Covid – 19:

Emergency risk communication, as defined by the World Health Organization (WHO, 2017), aims to provide individuals at risk with the necessary information to make informed decisions that protect themselves, their families, and the community from potential threats to survival, health, and well-being. Crisis communication, as defined by (Coombs, 2007), involves the exchange of messages in order to mitigate or prevent adverse effects caused by a crisis. The author also explained that communication plans should be tailored based on the specific crisis type, previous crisis events, and the organisation's prior reputation (ibid). The work of the author reflects the "Situational Crisis Communication Theory" (SCCT) which emphasises the impact of communication on how people perceive a crisis, as the government's choice of words and actions can significantly influence public opinion. The Situational Crisis Communication Theory (SCCT) offers a framework based on evidence that aids in maximising protection through post-crisis communication. Unlike case studies, research utilising SCCT relies on experimental methods. This theory highlights how various factors of a crisis situation affect the attributions made about the crisis and the stakeholders' reputations. Gaining insight into how stakeholders will react to a crisis helps guide effective communication during the crisis. In light of the COVID-19 pandemic, informing and guiding the public on necessary measures to minimise its impact was felt crucial. As the situation continues to affect people worldwide even today it is also essential to communicate effectively regarding citizens' resilience, national public leadership, and stakeholders whose businesses were closed or suffered due to lockdown situations (Jong, 2020). The following figure depicts the importance of communication during a crisis.

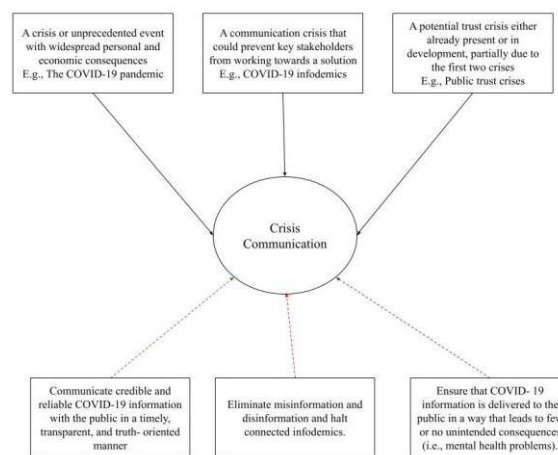


Figure – 1 Antecedents to crisis communication and possible solutions, Author Self Created.

The figure 1 displayed above highlights the importance of crisis communication during the COVID- 19 pandemic. In order to address the negative impacts of media coverage on mental health, it is crucial to achieve three key objectives: Firstly, to communicate accurate and trustworthy information about COVID-19 to the public in a transparent and timely manner. Secondly, to combat false information and prevent the spread of harmful rumours. And finally, to ensure that the delivery of COVID-19 information does not lead to unintended consequences such as mental health issues (Su et al., 2022). In this context the second hypothesis of the study is adopted as given.

H2 – There is an Impact of Communication on Anxiety and Hospital Avoidance.

New Mothers During the Covid Pandemic:

Pregnant women undergo numerous emotional changes that heighten the possibility of anxiety and depression. According to the National Institute for Health and Care Excellence Clinical Guidelines in 2014, these conditions can adversely affect the mother and the developing fetus. The COVID-19 pandemic had added another layer of risk for pregnant women who are already susceptible to depression and anxiety as they were worried not just about their health but also that of born babies, given the risk of infectious diseases (Mei et al., 2021). Studies during the Covid period had shown that pregnant women had experienced increased levels of stress, anxiety, and depression due to the COVID-19 pandemic. A Canadian study (Berthelot et al., 2020) found that pregnant women had higher levels of these symptoms than pre-pandemic times. Similarly, a study conducted in Turkey (Aksu, n.d.) also showed that the pandemic may affect pregnant women psychologically. The study revealed increased anxiety and depression symptoms among pregnant women during the pandemic. Unfortunately, depression, anxiety, and stress often go undetected and untreated during pregnancy (Glover, 2014). However, identifying women who exhibit symptoms and risk factors during pregnancy can lead to improved health outcomes for both mothers and infants (Rasul et al., 2017). There is a scarcity of research on the mental well-being of expectant mothers amidst the SARS-CoV-2 crisis. The purpose of this study is also to assess the levels of anxiety and hospital avoidance among pregnant women during the ongoing pandemic.

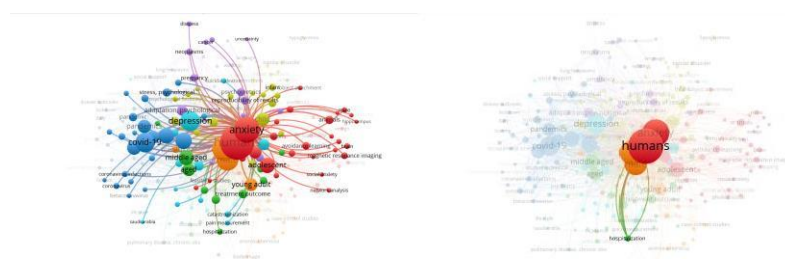
H3 – There is an impact of Anxiety and Hospital Avoidance in New Mothers during COVID-19.

The Objectives of the Study:

- To Examine the impact of anxiety levels on hospital avoidance behaviours during the COVID-19 pandemic.
- Explore the moderating effect of COVID-19 communication on the relationship between anxiety and hospital avoidance.
- To understand demographic factors contributing to anxiety, hospital avoidance, and COVID-19 communication.
- Examine the levels of anxiety experienced by new mothers during the COVID-19 pandemic.
- To assess the extent of hospital avoidance behaviours among new mothers during the pandemic.

Research gap:

The bibliometric analysis is used to identify the gap in literature followed by an in depth review of existing literature published during Covid and Post Covid.

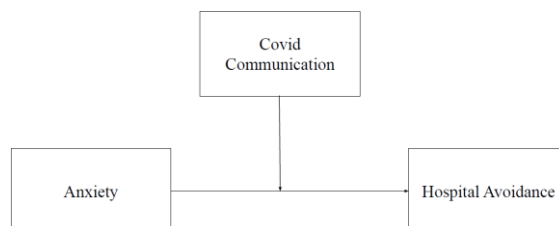


Figures 2&3

- The author's previous bibliometric analysis on Vicarious Traumatization (VT) (Haritha, B praseeda, 2023) revealed a gap in research regarding the impact of anxiety on hospital avoidance during COVID-19. A further exploration revealed a lack of published evidence in the areas of anxiety and hospital avoidance as seen in Figures 2 and 3. Therefore the review of literature successfully proved the need to understand the significance of communication during a crisis in the context of hospital avoidance behaviours observed during the Covid 19. Anxiety; one of the main reasons for hospital avoidance behaviour is examined in relation to its role in influencing hospital avoidance behaviour. The constructs of anxiety and hospital avoidance are also examined from a demographic lens. And finally, the study focuses on the anxiety levels faced by new mothers during this period.

Conceptual Framework:

Based on the Review of the Literature and the arguments raised, the following conceptual framework is adopted for the present study.



Research Methodology:

Methodology:

- The study uses a descriptive research design. Primary Data was collected using the Questionnaire method. The sample was selected using the non-probability snowball sampling techniques. The critical method was based on the responses collected from the respondents to understand their anxiety and hospital avoidance during the COVID-19 pandemic. Secondary data was also collected using the literature review and the WHO, Massachusetts Medical Society and The Government Of India Publications.

Data Collection:

A pre tested questionnaire was used for the study and was sent to 500 respondents, and after cleaning the errors, 448 valid samples were obtained, which exceeded the required sample size. Participation in the survey was optional, and all responses were anonymous.

Statistical Analysis:

According to the Reliability Statistics, Anxiety has a Cronbach's alpha value of .845 with 4 items, Hospital

Avoidance has a Cronbach's alpha value of .800 with 6 items, Covid Communication has a Cronbach's alpha value of .721 with 9 items, and New Mothers during Covid has a Cronbach's alpha value of .725 with 13 items. Additionally, the data is distributed normally.

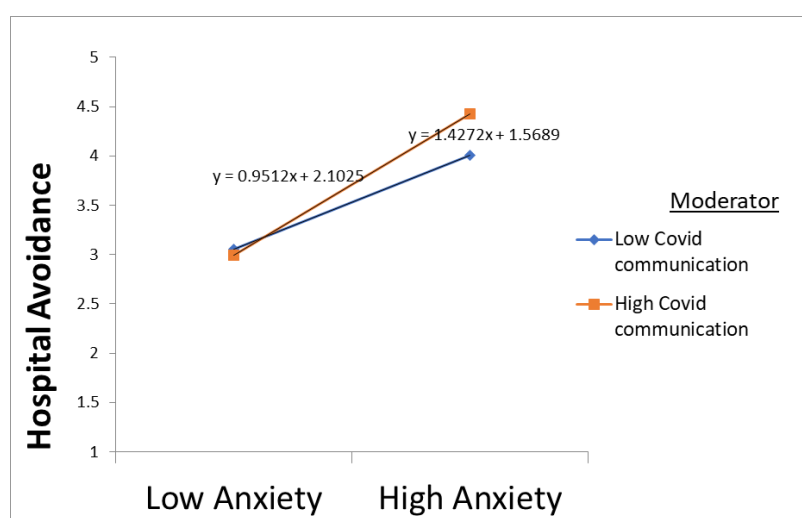
The moderation analysis:

To study the impact of Covid communication as a moderator of the relationship between anxiety and hospital avoidance Hayes Process Macro (2022) was used with the following results.

Table 1. Model Estimates:

| Path | Unstandardised Estimate | S.E. | C.R. | P Value | Result |
|-----------------------------|-------------------------|-------|---------|---------|----------|
| Anx \square HA | .5946*** | .0298 | 19.9577 | Sig | Accepted |
| CC \square HA | .0902*** | .0248 | 3.6355 | Sig | Accepted |
| Inter Anx X CC \square HA | .1190*** | .0396 | 3.0046 | Sig | Accepted |

Note: *** Significant ($p < 0.001$) Anx – Anxiety; HA – Hospital Avoidance; CC – Covid Communication; Sig – Significant.



Source: Process Macro, IBM SPSS software output on research data, 2023.

It is seen that Covid communication strengthens the positive relationship between Anxiety and Hospital Avoidance which suggests a direct relationship between anxiety and hospital avoidance.

The moderation analysis conducted using Hayes PROCESS revealed a significant interaction effect between Anxiety and Covid communication on Hospital Avoidance. The overall model was significant ($F(3, 443) = 159.4230$, $p < .0001$) and accounted for 51.91% of the variance in the outcome variable. Examining the conditional effects of the focal predictor, Anxiety, at different levels of the moderator, Covid communication, the following findings were identified:

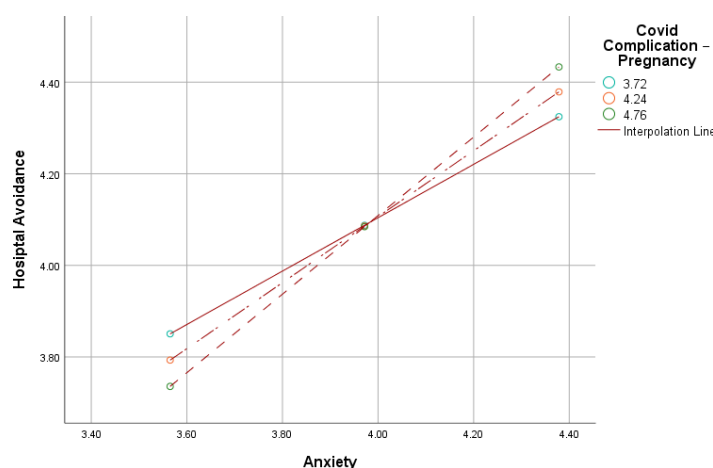
- At a low level of Covid communication (-2.4176 SD below the mean), Anxiety had a small positive effect on the outcome variable Hospital avoidance
- ($b = 0.3068$, $SE = 0.1056$, $t(443) = 2.9067$, $p = 0.0038$, 95% CI [0.0994, 0.5143]).
- At the average level of Covid communication (0.0000), Anxiety had a moderately positive effect on the outcome variable Hospital avoidance.
- ($b = 0.5946$, $SE = 0.0298$, $t(443) = 19.9577$, $p < 0.0001$, 95% CI [0.5361, 0.6532]).
- At a high level of Covid related communication (2.4176 SD above the mean), Anxiety had a more substantial positive effect on the outcome variable Hospital avoidance.
- ($b = 0.8824$, $SE = 0.0948$, $t(443) = 9.3123$, $p < 0.0001$, 95% CI [0.6962, 1.0686]).

These findings indicate that the relationship between Anxiety and Hospital avoidance is moderated by Covid communication. The effect of Anxiety is stronger when individuals have higher levels of Covid communication, while the effect is weaker when individuals have lower levels of Covid communication.

Table 2. Model Estimates:

| Path | Unstandardised Estimate | S.E. | C.R. | P Value | Result |
|------------------------------|-------------------------|-------|---------|---------|----------|
| Anx \square HA | -.4094 | .5613 | -.7294 | No Sig | Rejected |
| CCP \square HA | -1.0610* | .4743 | -2.2372 | Sig | Accepted |
| Inter Anx X CCP \square HA | .2664* | .1208 | 2.2.58 | Sig | Accepted |

Note: * Significant ($p < 0.05$) Anx – Anxiety; HA – Hospital Avoidance; CCP – Covid Complication – Pregnancy; Sig – Significant.



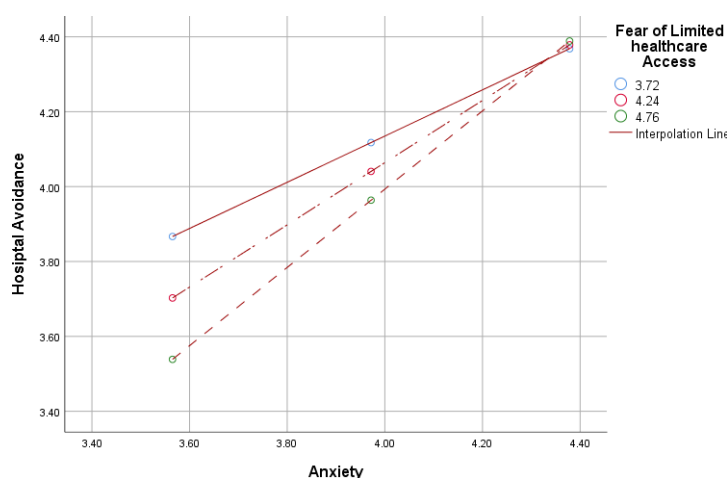
Source: Process Macro, IBM SPSS software output on research data, 2023.

Anxiety along with Covid Complications – Pregnancy Influence Positively on Hospital Avoidance. Initially, there was concern that pregnant women may be at a higher risk of severe COVID-19 complications, similar to what was observed during previous influenza pandemics, like the 2009-2010 H1N1 outbreak (D'Souza et al., 2020; Jamieson et al., 2009). During the pandemic, pregnant women are more susceptible to pregnancy complications (ibid) and tend to increase their level of anxiety. Pregnant women who are experiencing stress and anxiety due to COVID-19 may be worried about the impact it could have on their pregnancy. While some resources have addressed this issue (Allotey et al., 2020; Juan et al., 2020), there is still not enough high-quality data about how SARS-CoV-2 affects pregnancy complications. Many guidelines are based on expert opinions, which can lead to biased conclusions. Medical professionals must address the fears and stressors of pregnant women to manage the emergent nature of potential health issues effectively. While the direct impact of SARS-CoV-2 on perinatal complications is still unclear, heightened anxiety levels have been associated with various factors such as preeclampsia, depression, nausea and vomiting, and potential miscarriage and preterm labor (Sasaki et al., 2013). One way to enhance medical care during pregnancy and reduce the impact of mental factors on complications is through psychological evaluations (Nowacka et al., 2021). According to a study conducted in India during the COVID-19 pandemic, pregnant women who have experienced pregnancy complications in the past or are currently experiencing them are more likely to experience anxiety (Tikka et al., 2021). Severe and systemic COVID-19 illness in pregnant women can lead to complications that pose risks to their fetuses and newborns (Twanow et al., 2022).

Table 3. Model Estimates:

| Path | Unstandardised Estimate | S.E. | C.R. | P Value | Result |
|-------------------------------|-------------------------|-------|---------|---------|---------------|
| Anx \square HA | -.9308 | .5915 | -1.5736 | No Sig | Not Supported |
| FLHA \square HA | -1.7991** | .5408 | -3.3265 | Sig | Supported |
| Inter Anx * FLHA \square HA | .4754** | .1326 | 3.1328 | Sig | Supported |

Note: ** Significant ($p < 0.01$) Anx – Anxiety; HA – Hospital Avoidance; FLHA – Fear of Limited Healthcare Access; Sig – Significant.



Source: Process Macro, IBM SPSS software output on research data, 2023.

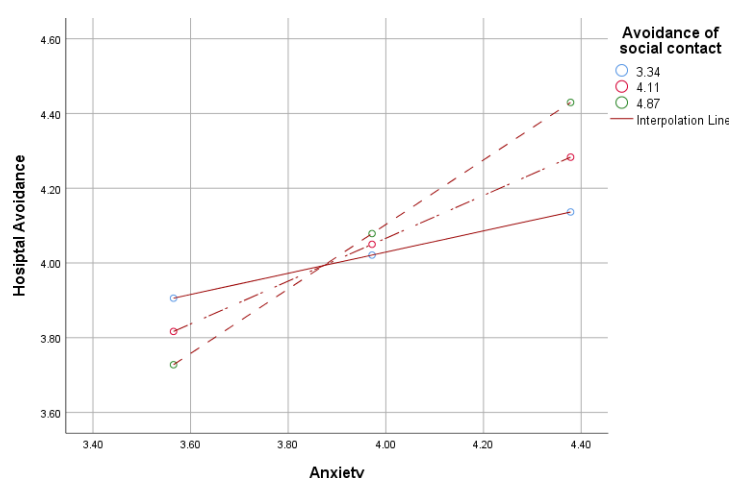
The trend has been of some concern to the obstetricians as lack of information during such pandemic can cause serious repercussions (Evans et al., 2012) leading to adverse impact on the health of the mother and the

baby (Nicoloro-SantaBarbara et al., 2017). Reduced direct interaction between the women in the family way and their doctors during the pandemic was often interpreted by the pregnant and postpartum women as limited healthcare facilities which suggests failure of the health care system (Jago et al., 2020). To mitigate this “plausible perception”, these mothers were encouraged to search for information related to the issues associated with pregnancy and COVID-19 risks on the online portals (T. Y. Lee et al., 2021). Online support groups also sprung up to encourage these women and to limit pandemic-related feelings of isolation (Evans et al., 2012; Jago et al., 2020; T. Y. Lee et al., 2021), thereby reducing the possibility of adverse outcomes on the new mothers and babies (Miller E, 2020 crossref Brislane et al., 2021).

Table 4. Model Estimates:

| Path | Unstandardised Estimate | S.E. | C.R. | P Value | Result |
|------------------------------|-------------------------|-------|---------|---------|----------|
| Anx \square HA | -.9848 | .6259 | -1.5734 | No Sig | Rejected |
| ASC \square HA | -1.4693** | .4976 | -2.9529 | Sig | Accepted |
| Inter Anx X ASC \square HA | .3794** | .1300 | 2.9194 | Sig | Accepted |

Note: ** Significant ($p < 0.01$) Anx – Anxiety; HA – Hospital Avoidance; ASC – Avoidance of social contact; Sig – Significant.

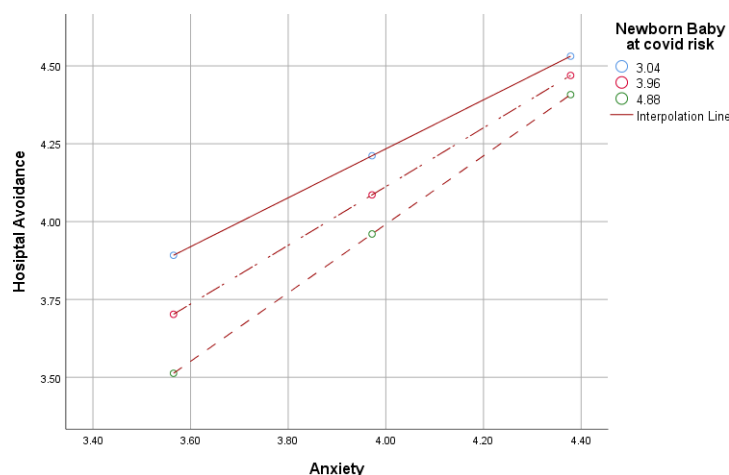


Source: Process Macro, IBM SPSS software output on research data, 2023.

Table 5. Model Estimates:

| Path | Unstandardized Estimate | S.E. | C.R. | P Value | Result |
|-------------------------------|-------------------------|-------|---------|---------|----------|
| Anx \square HA | .2674 | .2690 | .9942 | No Sig | Rejected |
| NBCR \square HA | -.8138* | .3610 | -2.2544 | Sig | Accepted |
| Inter Anx X NBCR \square HA | .1706* | .0795 | 2.1450 | Sig | Accepted |

Note: * Significant ($p < 0.05$) Anx – Anxiety; HA – Hospital Avoidance; NBCR – Newborn Baby at Covid risk; Sig – Significant.

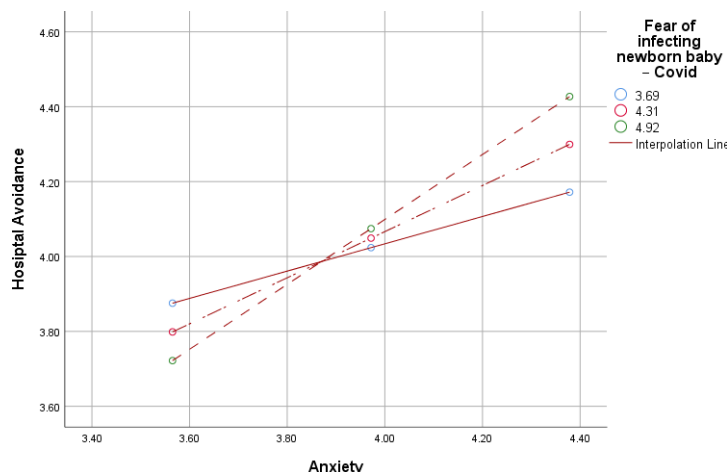


Source: Process Macro, IBM SPSS software output on research data, 2023.

Table 6. Model Estimates:

| Path | Unstandardized Estimate | S.E. | C.R. | P Value | Result |
|--------------------------------|-------------------------|-------|---------|---------|----------|
| Anx \square HA | -1.1450 | .7170 | -1.5970 | No Sig | Rejected |
| FINBC \square HA | -1.5824** | .5675 | -2.7884 | Sig | Accepted |
| Inter Anx X FINBC \square HA | .4088** | .1478 | 2.7667 | Sig | Accepted |

Note: ** Significant ($p < 0.01$) Anx – Anxiety; HA – Hospital Avoidance; FINBC – Fear of infecting newborn baby – Covid; Sig – Significant.

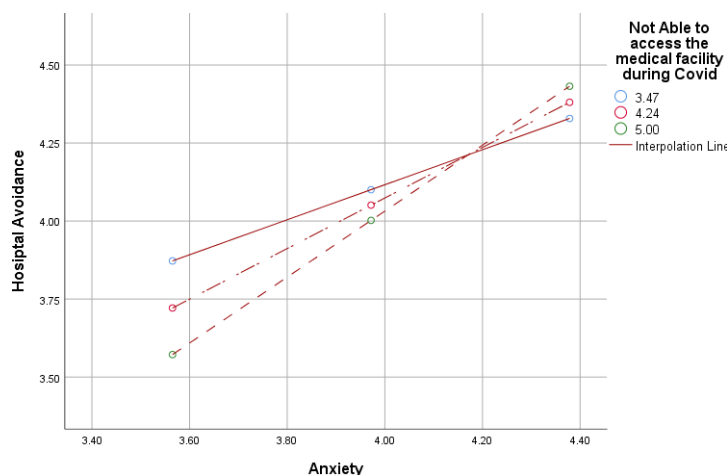


Source: Process Macro, IBM SPSS software output on research data, 2023.

Table 7. Model Estimates:

| Path | Unstandardized Estimate | S.E. | C.R. | P Value | Result |
|---------------------------------|-------------------------|-------|---------|---------|----------|
| Anx \square HA | -.5649 | .5420 | -1.0423 | No Sig | Rejected |
| NAAMFC \square HA | -1.3529** | .4690 | -2.8844 | Sig | Accepted |
| Inter Anx X NAAMFC \square HA | .3244** | .1201 | 2.7008 | Sig | Accepted |

Note: ** Significant ($p < 0.01$) Anx – Anxiety; HA – Hospital Avoidance; NAAMFC – Not Able to access the medical facility during Covid; Sig – Significant.



Source: Process Macro, IBM SPSS software output on research data, 2023.

Discussion:

This study focuses on understanding why patients avoided health care during the phase of the COVID-19 pandemic. We initially hypothesised to have a relationship with healthcare avoidance. According to recent studies, women are more likely than men to avoid seeking medical care. The COVID-19 pandemic has exacerbated this trend, with female gender, ongoing medical conditions, and high psychological distress being the main factors associated with healthcare avoidance (Islam et al., 2022). This pattern is consistent with previous research (Mohal, 2021 Crossref Burch, 2022) that shows women tend to avoid healthcare more than men, although other studies suggest that women actually seek healthcare more often than men. However, the present study contradicts these findings, as gender does not appear to impact healthcare avoidance.

Research on age and healthcare avoidance has produced conflicting results. While some studies suggest that young adults are less likely to end up in a hospital, others indicate that this group's avoidance of healthcare services is prevalent. A recent study examining healthcare avoidance during the COVID-19 pandemic found that many young people avoided seeking medical attention when necessary (Islam et al., 2022; Soares et al., 2021). (Arnetz et al., 2022) notes that while younger age did have some impact on healthcare avoidance, the effect was relatively minor. A study conducted by (Persoskie et al., 2014) examined the factors contributing to avoidance behaviours in adults over and under 50. Studies have shown that individuals with lower education levels, lower incomes, younger age, lack of health insurance, and high levels of perceived cancer risk and worry and were more likely to avoid medical care. The current study discovered the primary difference between those aged 21-40 and those aged 41-60. People in the age group of 21 – 40 displayed more hospital avoidance behaviour.

To reduce the number of deaths caused by COVID-19 in patients with comorbidities, a global public health campaign is necessary to raise awareness. Studies have shown that individuals with one or more comorbidities are at a higher risk of contracting the virus (Sanyaolu et al., 2020). Unfortunately, fear of contracting the virus has prevented many from seeking medical attention, leading to further health complications. The media and other social platforms have increased this fear, making it crucial to communicate accurate information to the public to alleviate their concerns. The present study has successfully indicated that there is a significant association between Co-Morbidity and Hospital Avoidance.

In rural India, women continue relying on public transportation for mobility. However, due to the COVID-19 pandemic, traditional travel methods are no longer viable options for them. According to Alsaif's study in 2020, women are hesitant to travel to hospitals due to the fear of getting infected with Covid-19. This fear is compounded by concerns for their health as well as that of their babies. Interestingly, the study reveals this avoidance behaviour is more common among women. Furthermore, in the present study, a strong correlation is seen to exist between new mothers' Covid-19 anxiety and their tendency to avoid hospitals.

A Canadian study by (Berthelot et al., 2020) found that pregnant women had higher levels of these symptoms than pre-pandemic times. Similarly, a study conducted in Turkey by (Aksu, n.d.) also showed that the pandemic may affect pregnant women psychologically. The study revealed increased anxiety and depression symptoms among pregnant women during the pandemic. The present study shows a significant positive relationship between New Mothers' Covid and Anxiety.

Throughout the pandemic, numerous governments, including China, Ireland, Finland, Norway, and India, have successfully communicated their COVID-19 strategies to the public (Su et al., 2022). In India, the communication strategy was effectively delivered to the public through various channels such as television, radio, social media, and caller tunes to prevent the spread of fake information. This has helped reduce anxiety levels among citizens. Additionally, visuals aid in news channels, like lining up ambulances in front of hospitals and displaying the number of infected patients, which has decreased hospitalisations.

Suggestion to the Policymakers:

In order to address hospital avoidance behaviours induced by anxiety during the COVID-19 pandemic, policymakers should pay close attention to effective communication strategies that disseminate accurate information. New mothers, in particular, require specialised support programs and resources to address their unique mental health needs during this challenging period. Identifying vulnerable populations and conducting further research to develop targeted interventions that address their specific needs is important. Policymakers should also focus on improving healthcare access and investing in mental health services to alleviate anxiety and avoid hospitalisations. Research findings and data collection efforts should be disseminated and strengthened to encourage evidence-based policymaking. Collaboration with healthcare professionals and mental health experts is crucial to designing targeted interventions and policies. Public health preparedness plans and resources should be invested in to mitigate the psychological impact of future pandemics. Finally, inclusive research that accounts for diverse populations should be encouraged to ensure policies cater to the needs of all individuals.

Conclusion:

This study delved into the effects of anxiety levels on hospital avoidance behaviours among new mothers during the COVID-19 pandemic. It also examined how COVID-19 communication can moderate the relationship between anxiety and hospital avoidance, along with demographic factors that play a role in anxiety, hospital avoidance, and COVID-19 communication. The research findings provided insights into the intricate dynamics between anxiety, hospital avoidance, and demographic variables.

The study revealed significant findings. Contrary to previous research, gender did not significantly impact healthcare avoidance. However, younger adults aged 21-40 were more likely to avoid hospitals and individuals with lower levels of education and occupation in essential sectors. People with comorbidities and new mothers experiencing COVID-19 anxiety also avoided hospitals.

Moreover, effective COVID-19 communication can reduce anxiety levels and hospitalisations. Governments and policymakers should prioritise clear and accurate communication strategies to mitigate anxiety-induced

hospital avoidance behaviours. New mothers, in particular, require support programs and resources tailored to their unique mental health needs during the pandemic.

Overall, this study contributes to understanding the interplay between anxiety, hospital avoidance, and demographic variables during the COVID-19 pandemic. Policymakers can effectively mitigate anxiety-induced hospital avoidance behaviours and ensure the provision of essential healthcare services to those in need by addressing these factors and implementing targeted interventions.

Further Scope:

Although this study offers valuable insights, some areas still require further investigation. Firstly, more research is needed to understand how COVID-19 communication moderates the relationship between anxiety and hospital avoidance. Examining specific communication strategies and their impact on reducing anxiety levels and hospitalisations can provide helpful guidance for policymakers. Moreover, the study can be broadened to include a more diverse and extensive sample to encompass a broader range of demographic factors. Understanding how socioeconomic status, race/ethnicity, and geographic location influence anxiety levels, hospital avoidance, and COVID-19 communication can enhance the comprehensiveness of the research.

Additionally, conducting longitudinal studies to assess changes in anxiety levels, hospital avoidance behaviours, and the effectiveness of communication strategies over time can provide valuable insights into the long-term impact of the pandemic on healthcare utilisation patterns.

Lastly, future research can explore the barriers and facilitators of healthcare utilisation during the COVID-19 pandemic. Identifying the underlying reasons for hospital avoidance and the factors that promote healthcare-seeking behaviours can inform the development of targeted interventions and policies.

By addressing these research gaps and expanding the knowledge base, future studies can contribute to developing evidence-based strategies that effectively mitigate anxiety-induced hospital avoidance behaviours and promote the timely utilisation of healthcare services during similar crises in the future.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Author Contributions Statement

The corresponding author has accepted responsibility for the Conceptualization, Literature Review, Identifying the Research Gap, Methodology, Collecting the data, Performing the analysis, and Writing of the manuscript. The second author has accepted responsibility for validating, designing the data collection tool, reviewing, copy editing and overall advisory role for the manuscript and approve its submission.

Additional information Funding

The author received no direct funding for this research.

Reference:

1. Aksu, F. D. & E. (n.d.). *2020 Durankuş.pdf*.
2. Allotey, J., Stallings, E., Bonet, M., Yap, M., Chatterjee, S., Kew, T., Debenham, L., Llavall, A. C., Dixit, A., Zhou, D., Balaji, R., Lee, S. I., Qiu, X., Yuan, M., Coomar, D., Van Wely, M., Van Leeuwen, E., Kostova, E., Kunst, H., ... Thangaratinam, S. (2020). Clinical manifestations, risk factors, and maternal and perinatal outcomes of coronavirus disease 2019 in pregnancy: Living systematic review and meta-analysis. *The BMJ*, 370. <https://doi.org/10.1136/bmj.m3320>
3. Alsaif, B., Algahtani, F. D., Hassan, S. un N., & Zrieq, R. (2020). Avoiding medical visits even when needed during the covid-19 pandemic: A cross-sectional survey from saudi arabia. *Systematic Reviews in Pharmacy*, 11(12), 649–654. <https://doi.org/10.31838/srp.2020.12.103>
4. Arnetz, B. B., Goetz, C., vanSchagen, J., Baer, W., Smith, S., & Arnetz, J. E. (2022). Patient-reported factors associated with avoidance of in-person care during the COVID-19 pandemic: Results from a national survey. *PLoS ONE*, 17(8 August), 1–16. <https://doi.org/10.1371/journal.pone.0272609>
5. Berthelot, N., Lemieux, R., Garon-Bissonnette, J., Drouin-Maziade, C., Martel, É., & Maziade, M. (2020). Uptrend in distress and psychiatric symptomatology in pregnant women during the coronavirus disease 2019 pandemic. *Acta Obstetrica et Gynecologica Scandinavica*, 99(7), 848–855. <https://doi.org/10.1111/aogs.13925>
6. Birkmeyer, J. D., Barnato, A., Birkmeyer, N., Bessler, R., & Skinner, J. (2020). The impact of the COVID-19 pandemic on hospital admissions in the United States. *Health Affairs*, 39(11), 2010–2017. <https://doi.org/10.1377/hlthaff.2020.00980>
7. Brislane, Á., Larkin, F., Jones, H., & Davenport, M. H. (2021). Access to and Quality of Healthcare for Pregnant and Postpartum Women During the COVID-19 Pandemic. *Frontiers in Global Women's Health*, 2(February), 1–10. <https://doi.org/10.3389/fgwh.2021.628625>
8. Burch, A. E. (2022). Factors responsible for healthcare avoidance among rural adults in the Eastern

- Region of North Carolina. *Journal of Community Health*, 47(5), 737–744. <https://doi.org/10.1007/s10900-022-01106-3>
10. Coombs, W. T. (2007). Protecting Organization Reputations During a Crisis: The Development and Application of Situational Crisis Communication Theory. *Corporate Reputation Review*, 10(3), 163–176. <https://doi.org/10.1057/palgrave.crr.1550049>
 11. Czeisler, M. É., Marynak, K., Clarke, K. E. N., Salah, Z., Shakya, I., Thierry, J. M., Ali, N., McMillan, H., Wiley, J. F., Weaver, M. D., Czeisler, C. A., Rajaratnam, S. M. W., & Howard, M. E. (2020). Delay or Avoidance of Medical Care Because of COVID-19– Related Concerns – United States, June 2020. *MMWR. Morbidity and Mortality Weekly Report*, 69(36), 1250–1257. <https://doi.org/10.15585/mmwr.mm6936a4>
 12. D'Souza, R., Malhamé, I., Teshler, L., Acharya, G., Hunt, B. J., & McLintock, C. (2020). A critical review of the pathophysiology of thrombotic complications and clinical practice recommendations for thromboprophylaxis in pregnant patients with COVID-19. *Acta Obstetrica et Gynecologica Scandinavica*, 99(9), 1110–1120. <https://doi.org/10.1111/aogs.13962>
 14. El Hayek, S., Cheaito, M. A., Nofal, M., Abdelrahman, D., Adra, A., Al Shamli, S., AlHarthi, M., AlNuaimi, N., Aroui, C., Bensid, L., Emberish, A. M., Larnaout, A., Radwan, A., Slaih, M., & Al Sinawi, H. (2020). Geriatric Mental Health and COVID-19: An Eye- Opener to the Situation of the Arab Countries in the Middle East and North Africa Region. *American Journal of Geriatric Psychiatry*, 28(10), 1058–1069. <https://doi.org/10.1016/j.jagp.2020.05.009>
 15. Evans, M., Donelle, L., & Hume-Loveland, L. (2012). Social support and online postpartum depression discussion groups: A content analysis. *Patient Education and Counseling*, 87(3), 405–410. <https://doi.org/10.1016/j.pec.2011.09.011>
 16. Glover, V. (2014). Maternal depression, anxiety and stress during pregnancy and child outcome; What needs to be done. *Best Practice and Research: Clinical Obstetrics and Gynaecology*, 28(1), 25–35. <https://doi.org/10.1016/j.bpobgyn.2013.08.017>
 17. Hamel, C., Ahmadzai, N., Beck, A., Thuku, M., Skidmore, B., Pussegoda, K., Bjerre, L., Chatterjee, A., Dennis, K., Ferri, L., Maziak, D. E., Shea, B. J., Hutton, B., Little, J., Moher, D., & Stevens, A. (2020). Screening for esophageal adenocarcinoma and precancerous conditions (dysplasia and Barrett's esophagus) in patients with chronic gastroesophageal reflux disease with or without other risk factors: Two systematic reviews and one overview of reviews to info. *Systematic Reviews*, 9(1), 1–25. <https://doi.org/10.1186/s13643-020-1275-2>
 18. Haritha, B praseeda, C. (2023). Business, Management and Economics Engineering.
 19. *Business, Management and Economics Engineering*, 21(1), 1142–1157 | <https://creativecommons.org/licenses/by/4.0/>
 20. Islam, M. I., Freeman, J., Chadwick, V., & Martiniuk, A. (2022). Healthcare Avoidance before and during the COVID-19 Pandemic among Australian Youth: A Longitudinal Study. *Healthcare (Switzerland)*, 10(7), 1–15. <https://doi.org/10.3390/healthcare10071261>
 21. Jago, C. A., Singh, S. S., & Moretti, F. (2020). Coronavirus Disease 2019 (COVID-19) and Pregnancy: Combating Isolation to Improve Outcomes. *Obstetrics and Gynecology*, 136(1), 33–36. <https://doi.org/10.1097/AOG.0000000000003946>
 22. Jamieson, D. J., Honein, M. A., Rasmussen, S. A., Williams, J. L., Swerdlow, D. L., Biggerstaff, M. S., Lindstrom, S., Louie, J. K., Christ, C. M., Bohm, S. R., Fonseca, V. P., Ritger, K. A., Kuhles, D. J., Eggers, P., Bruce, H., Davidson, H. A., Lutterloh, E., Harris, M. L., Burke, C., ... Wu, K. H. (2009). H1N1 2009 influenza virus infection during pregnancy in the USA. *The Lancet*, 374(9688), 451–458. [https://doi.org/10.1016/S0140-6736\(09\)61304-0](https://doi.org/10.1016/S0140-6736(09)61304-0)
 23. Jong, W. (2020). Evaluating Crisis Communication. A 30-item Checklist for Assessing Performance during COVID-19 and Other Pandemics. *Journal of Health Communication*, 25(12), 962–970. <https://doi.org/10.1080/10810730.2021.1871791>
 24. Juan, J., Gil, M. M., Rong, Z., Zhang, Y., Yang, H., & Poon, L. C. (2020). Effect of coronavirus disease 2019 (COVID-19) on maternal, perinatal and neonatal outcome: systematic review. *Ultrasound in Obstetrics and Gynecology*, 56(1), 15–27. <https://doi.org/10.1002/uog.22088>
 25. Lange, S. J., Ritchey, M. D., Goodman, A. B., Dias, T., Twentyman, E., Fuld, J., Schieve, L. A., Imperatore, G., Benoit, S. R., Kite-Powell, A., Stein, Z., Peacock, G., Dowling, N. F., Briss, P. A., Hacker, K., Gundlapalli, A. V., & Yang, Q. (2020). Potential indirect effects of the COVID-19 pandemic on use of emergency departments for acute life- threatening conditions – United States, January–May 2020. *American Journal of Transplantation*, 20(9), 2612–2617. <https://doi.org/10.1111/ajt.16239>
 26. Lau, J. T. F., Griffiths, S., Choi, K. C., & Tsui, H. Y. (2010). Avoidance behaviors and negative psychological responses in the general population in the initial stage of the H1N1 pandemic in Hong Kong. *BMC Infectious Diseases*, 10. <https://doi.org/10.1186/1471-2334-10-139>
 27. Lee, M., & You, M. (2021). Avoidance of healthcare utilization in south korea during the coronavirus disease 2019 (Covid-19) pandemic. *International Journal of Environmental Research and Public Health*, 18(8). <https://doi.org/10.3390/ijerph18084363>
 28. Lee, T. Y., Zhong, Y., Zhou, J., He, X., Kong, R., & Ji, J. (2021). The outbreak of coronavirus disease in China: Risk perceptions, knowledge, and information sources among prenatal and postnatal women.

- Women and Birth*, 34(3), 212–218. <https://doi.org/10.1016/j.wombi.2020.05.010>
29. Lerner, E. B., Newgard, C. D., & Mann, N. C. (2020). Effect of the Coronavirus Disease 2019 (COVID-19) Pandemic on the U.S. Emergency Medical Services System: A Preliminary Report. *Academic Emergency Medicine*, 27(8), 693–699. <https://doi.org/10.1111/acem.14051>
 30. Liu, C., & Liu, Y. (2020). *Media Exposure and Anxiety during COVID-19 : The Mediation Effect of Media Vicarious Traumatization*.
 31. Masroor, S. (2020). Collateral damage of COVID-19 pandemic: Delayed medical care.
 32. *Journal of Cardiac Surgery*, 35(6), 1345–1347. <https://doi.org/10.1111/jocs.14638>
 33. Mei, H., Li, N., Li, J., Zhang, D., Cao, Z., Zhou, Y., Cao, J., & Zhou, A. (2021). Depression, anxiety, and stress symptoms in pregnant women before and during the COVID-19 pandemic. *Journal of Psychosomatic Research*, 149(9), 965–970. <https://doi.org/10.1016/j.jpsychores.2021.110586>
 34. Michalowsky, B., Hoffmann, W., Bohlken, J., & Kostev, K. (2021). Effect of the COVID-19 lockdown on disease recognition and utilisation of healthcare services in the older population in Germany: A cross-sectional study. *Age and Ageing*, 50(2), 317–325. <https://doi.org/10.1093/ageing/afaa260>
 35. Moroni, F., Gramegna, M., Ajello, S., Beneduce, A., Baldetti, L., Vilca, L. M., Cappelletti, A., Scandroglio, A. M., & Azzalini, L. (2020). Collateral Damage: Medical Care Avoidance Behavior Among Patients With Myocardial Infarction During the COVID-19 Pandemic. *JACC. Case Reports*, 2(10), 1620–1624. <https://doi.org/10.1016/j.jaccas.2020.04.010>
 36. Nicolero-SantaBarbara, J., Rosenthal, L., Auerbach, M. V., Kocis, C., Busso, C., & Lobel, M. (2017). Patient-provider communication, maternal anxiety, and self-care in pregnancy.
 37. *Social Science and Medicine*, 190, 133–140. <https://doi.org/10.1016/j.socscimed.2017.08.011>
 38. Nowacka, U., Kozłowski, S., Januszewski, M., Sierdzinski, J., Jakimiuk, A., & Issat, T. (2021). Covid-19 pandemic-related anxiety in pregnant women. *International Journal of Environmental Research and Public Health*, 18(14). <https://doi.org/10.3390/ijerph18147221>
 39. Otero, D., Singam, N. S. V., Barry, N., Raheja, P., Solankhi, A., & Solankhi, N. (2020).
 40. Complication of Late Presenting STEMI Due to Avoidance of Medical Care During the COVID-19 Pandemic. *JACC: Case Reports*, 2(10), 1610–1613. <https://doi.org/10.1016/j.jaccas.2020.05.045>
 41. Patel, S., Lorenzi, N., Smith, T., Carlson, B. R., & Sternberg, P. (2020). Critical Insights from Patients during the Covid-19 Pandemic. *NEJM Catalyst*, July. <https://doi.org/10.1056/CAT.20.0299>
 42. Persoskie, A., Ferrer, R. A., & Klein, W. M. P. (2014). Association of cancer worry and perceived risk with doctor avoidance: an analysis of information avoidance in a nationally representative US sample. *Journal of Behavioral Medicine*, 37(5), 977–987. <https://doi.org/10.1007/s10865-013-9537-2>
 43. Prentice, J. C., & Pizer, S. D. (2007). Delayed access to health care and mortality. *Health Services Research*, 42(2), 644–662. <https://doi.org/10.1111/j.1475-6773.2006.00626.x>
 44. Rasul, S., Bowen, A., & Muhajarine, N. (2017). Factors That Moderate or Mediate Pregnancy Complications in Women with Anxiety and Depression. *Journal of Pregnancy and Child Health*, 04(06). <https://doi.org/10.4172/2376-127X.1000360>
 45. Sanyaolu, A., Okorie, C., Marinkovic, A., & Patidar, R. (2020). Comorbilidad y su impacto en pacientes con COVID-19. *SN Comprehensive Clinical Medicine*, 2, 1069–1076.
 46. Sasaki, T. K., Yoshida, A., & Kotake, K. (2013). Attitudes about the 2009 H1N1 influenza pandemic among pregnant Japanese women and the use of the Japanese municipality as a
 47. source of information. *Southeast Asian Journal of Tropical Medicine and Public Health*, 44(3), 388–399.
 48. Schuster, N. A., de Breij, S., Schaap, L. A., van Schoor, N. M., Peters, M. J. L., de Jongh, R. T., Huisman, M., & Hoogendijk, E. O. (2021). Older adults report cancellation or avoidance of medical care during the COVID-19 pandemic: results from the Longitudinal Aging Study Amsterdam. *European Geriatric Medicine*, 12(5), 1075–1083. <https://doi.org/10.1007/s41999-021-00514-3>
 49. Soares, P., Leite, A., Esteves, S., Gama, A., Laires, P. A., Moniz, M., Pedro, A. R., Santos, C. M., Goes, A. R., Nunes, C., & Dias, S. (2021). Factors associated with the patient's decision to avoid healthcare during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 18(24). <https://doi.org/10.3390/ijerph182413239>
 50. Su, Z., Zhang, H., McDonnell, D., Ahmad, J., Cheshmehzangi, A., & Yuan, C. (2022). Crisis communication strategies for health officials. *Frontiers in Public Health*, 10. <https://doi.org/10.3389/fpubh.2022.796572>
 51. Taylor, S., Landry, C. A., Rachor, G. S., Paluszek, M. M., & Asmundson, G. J. G. (2020). Fear and avoidance of healthcare workers: An important, under-recognized form of stigmatization during the COVID-19 pandemic. *Journal of Anxiety Disorders*, 75(July), 1–5. <https://doi.org/10.1016/j.janxdis.2020.102289>
 52. Tikka, S. K., Parijal, S., Patojoshi, A., Bagadia, A., Prakash, C., Lahiri, D., Jaiswal, J., Puri, M., Kukreti, P., Behera, R. N., Agrawal, S., Garg, S., Dubey, S., Gupta, V., Bajaj, A., Agrawal, A., Singour, C., Patel, G., Maghade, M., ... Chandra, P. S. (2021). Anxiety among pregnant women during the COVID-19 pandemic in India – A multicentric study. *Asian Journal of Psychiatry*, 66(May). <https://doi.org/10.1016/j.ajp.2021.102880>
 53. Twanow, J. D. E., McCabe, C., & Ream, M. A. (2022). The COVID-19 Pandemic and Pregnancy: Impact on Mothers and Newborns. *Seminars in Pediatric Neurology*, 42, 100977. <https://doi.org/10.1016/j.spenn.2022.100977>
 54. Woolf, S. H., Chapman, D. A., Sabo, R. T., Weinberger, D. M., Hill, L., & Taylor, D. S. D. H. (2020). Excess

- Deaths from COVID-19 and Other Causes, March-July 2020. *JAMA - Journal of the American Medical Association*, 324(15), 1562–1564. <https://doi.org/10.1001/jama.2020.19545>
55. Wosik, J., Fudim, M., Cameron, B., Gellad, Z. F., Cho, A., Phinney, D., Curtis, S., Roman, M., Poon, E. G., Ferranti, J., Katz, J. N., & Tchong, J. (2020). Telehealth transformation: COVID-19 and the rise of virtual care. *Journal of the American Medical Informatics Association*, 27(6), 957–962. <https://doi.org/10.1093/jamia/ocaa067>