

Telehealth Consultation Services Availment among High-Risk Pregnant Women

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ABSTRACT

High-risk pregnancies, defined by complications such as hypertension, diabetes, and preterm labor, require frequent monitoring and timely intervention to ensure the health and safety of both the mother and the fetus. Telehealth consultation services have emerged as a critical component in modern healthcare, particularly in managing high-risk pregnancies. A descriptive study was utilized to determine the effectiveness of telehealth consultation services availed among high-risk pregnant women in the City of Balanga, Bataan, Philippines during the COVID-19 pandemic. The respondents in the study were the high-risk pregnant women in the City of Balanga City Bataan in the year 2021-2022, specifically in the barangays of Puerto Rivas, Dangcol, Bani, and Cataning with total of 266 participated via purposive sampling. Gathered data were then computed using frequency, weighted mean, and ranking. Result revealed that the telehealth consultation services availed among high-risk pregnant women is very high effectiveness ($M=3.35$). Moreover, empathy from telehealth provider ($f=90.2$) considered a concern pertaining to telehealth consultation. These findings highlighted the barriers and opportunities to achieve effective and patient-centered communication with the continued integration of telehealth in prenatal care delivery. It is important to address the unique needs of this population during the pandemic and as healthcare increasingly adopts a telehealth practices in order to improve the extent of services in the community.

Keywords

Consultation, Telehealth, Virtual check-up, High-risk pregnant mothers.

Introduction

Telehealth consultation services have emerged as a critical component in modern healthcare, particularly in managing high-risk pregnancies. These services offer a convenient, accessible, and efficient means for pregnant women to receive necessary medical advice and care without the need to travel to healthcare facilities. High-risk pregnancies, defined by complications such as hypertension, diabetes, and preterm labor, require frequent monitoring and timely intervention to ensure the health and safety of both the mother and the fetus. The COVID-19 pandemic

has accelerated the adoption of telehealth services worldwide, highlighting their importance in maintaining continuity of care during public health emergencies [1].

Telehealth has been trialed in low- and middle-income countries, especially in rural areas where access to antenatal care is difficult. The COVID-19 pandemic has highlighted the critical role of telehealth in antenatal care, as it helps protect vulnerable pregnant women by reducing in-person consultations and facilitating remote access [2]. As such, this services for managing high-risk pregnancies have garnered attention for their beneficial outcomes. Studies indicate that telehealth enhances patient care by enabling continuous monitoring and early detection of complications [3]. This approach allows high-risk pregnant women to access medical

consultations from home, reducing the necessity for frequent and stressful hospital visits, particularly in late pregnancy stages [4]. Moreover, it provides essential maternal care to patients in remote or underserved areas lacking access to specialized healthcare. Remote consultations ensure that high-risk pregnant women receive necessary care regardless of their location [5]. This accessibility is especially important in rural settings where distance to healthcare facilities can hinder regular prenatal care [6].

During the COVID-19 pandemic in the province of Bataan, Philippines, strict quarantines were imposed, particularly affecting pregnant women who were restricted from public places due to their vulnerability particularly for women who were considered high-risk. As such, an alternative way of consultation which is the Telehealth was then initiated since it plays an essential role in the care of high-risk pregnant women. Leveraging telehealth in these pregnancies aligns with advanced expertise, applying practical solutions, and promoting public health goals through improved accessibility and effectiveness in maternal care. This study aimed to assess the extent of effectiveness of the telehealth consultation services availed by high-risk pregnant women situated in the City of Balanga, Bataan, Philippines during the COVID-19 pandemic.

Methods

This study utilized a descriptive study as it is expected to determine the extent of effectiveness of telehealth consultation services availed among high-risk pregnant women in the municipality of City of Balanga, Bataan, Philippines during the COVID-19 pandemic. Descriptive research design is a purposive process of gathering, analyzing, classifying, and tabulating data about prevailing conditions, practices, processes, trends, and cause-effect relationships [7].

The respondents in the study are the high-risk pregnant women in the city of Balanga City Bataan in the year 2021-2022, specifically in the barangays of Puerto Rivas, Dangcol, Bani, and Catanning with total of 266 participated via purposive sampling technique with

the following criteria: 1) high-risk women, 2) having a prenatal check-up in the barangay, 3) recorded in the target client list, and 4) willing to participate. Excluded are those pregnant mothers under the target client list who were not having a complications or those who have check-ups in a private clinic. The profiles of the respondents were taken from the Barangay Rural Health Center where the pregnant women have a medical record.

The research instrument was adapted from the study on patient satisfaction with Telemedicine in the Philippines during the COVID-19 Pandemic [8], but was modified to fit the current study. The survey questionnaire was subjected to a series of content-validation. Prior to this approach, the research co-authors initially assessed the detailed survey questionnaire and it was then validated by experts using face validation. Lastly, it undergone pilot testing which then revealed an overall score of 0.71 using Cronbach's Alpha coefficient. Upon data collection, arrangements were made with the respective respondents covered in the study. The first phase was having a permission letter to the Public Health Office of Balanga City Bataan, the purpose of the letter was to ask permission and sought assistance concerning the data needed for the said research, and to allow the researcher to get the data from the target client list covering the year between 2021 and 2022. Thereafter was to propose a meeting with the Barangay Captain, Barangay Health Midwife, and their Barangay Health Workers to discuss the purpose and aims of the research. The purpose of the letter was to ask for their permission, an ethical review of the study, and confirm their approval to conduct this study in their Barangay. The researchers personally explained to the respondents the content of the questionnaire to eliminate doubts and content misinterpretation. Moreover, the researchers gave two to three weeks' allowance to gather all the data from all respondents who were covered in the research study. The questionnaire was checked and scored accordingly. After that, dataset were given to the statistician to do the computation, to ensure that the results were done scientifically. Gathered data were then computed using frequency, weighted mean, and ranking.

Results

Table 1: The level of effectiveness of the telehealth consultation services availed among high-risk Pregnant women in Terms of Ease of Accessibility.

Ease of Accessibility	Mean				Over All Mean	Descriptive Rating	Rank
	Catanning	Bani	Dangcol	PTO Rivas			
I feel comfortable communicating with the medical provider	3.08	3.55	3.29	3.73	3.35	Very High	1.5
Teleconsultation starts on time	3.16	3.45	3.39	3.53	3.33	Very High	3
It saves me time and money from traveling to a hospital or specialist clinic	2.94	3.48	3.61	3.73	3.31	Very High	4
It is not difficult for me to avail telehealth consultation services	2.98	3.48	3.65	3.34	3.24	High	5
Telehealth consultation gives me the opportunity to reach the doctor even when I am far away	3.11	3.50	3.52	3.61	3.35	Very High	1.5
Overall Mean					3.32	Very High	

Legend:

Scale	Descriptive Rating
3.26 - 4.0	Very High
2.51 - 3.25	High
1.76 - 2.50	Low
1.0 - 1.75	Very Low

Table 2: Issues and Concerns on Telehealth Services.

Issues and concerns on Telehealth Services	Frequency Distribution									
	Catanning		Bani		Dangcol		PTO Rivas		TOTAL	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
I have gadget that allows me to connect with my doctor and obtain telehealth consultation	76.7	23.3	100	0	100	0	96.6	3.4	88.7	11.3
I have an internet connection that makes me to connect for telehealth consultation.	75	25	100	0	96.8	3.2	94.9	5.1	87.2	12.8
I can connect/log in to the telehealth consultation easily	75	25	73.2	26.8	90.3	9.7	93.2	6.8	80.5	19.5
I find interaction with the telehealth provider clear and understandable	77.5	22.5	66.1	33.9	96.8	3.2	94.9	5.1	81.2	18.8
I establish rapport and build a professional relationship with my telehealth provider	74.2	25.8	91.1	8.9	90.3	9.7	96.6	3.4	84.6	15.4
I find telehealth consultation easy to use	78.3	21.7	89.3	10.7	96.8	3.2	96.6	3.4	86.8	13.2
I feel that my telehealth provider has empathy towards me	84.2	15.8	92.9	7.1	96.8	3.2	96.6	3.4	90.2	9.8
I find the cost of telehealth consultation budget-friendly	78.3	21.7	89.3	10.7	96.8	3.2	96.6	3.4	86.8	13.2

Table 1 showed the data from the respondents in terms of the ease of accessibility of the telehealth consultation. The five items have all a descriptive rating of very high (M=3.32). In this table, the items, “I feel comfortable communicating with the medical provider” and “Telehealth consultation gives me the opportunity to reach the doctor even when I am far away” got the highest mean results (M=3.35) which interpreted as “very high.”

Table 2 showed the data on issues and concerns on telehealth services. The item, “I feel that my telehealth provider has empathy towards me” got the highest frequency result of Yes (f=90.2), as issues and concern on telehealth services whereas the item, “I feel that my telehealth provider has empathy towards me,” got the lowest frequency (9.80) in terms of No), as issues and concern on telehealth services. Moreover, internet connection is also a concern since the item, “I have an internet connection that makes me to connect for telehealth consultation” revealed a frequency of 87.2 as its overall. The item, “I can connect/log in to the telehealth consultation easily” is considered the highest frequency in terms of NO as issues and concern on telehealth services.

Discussion

During a pandemic, telehealth services for pregnant women are extremely important. Mobile health (mHealth) for pregnant women is different from care provided by more conventional methods. Standard or routine prenatal care is provided in the absence of cutting-edge tools like smartphone-based consults, chatbots, digital communications, smartphone-based video consults, teleconferences, and smartphone-based video instruction on pregnancy, birth, and newborn care [9]. Based on the data extracted, respondents from four Barangays in Balanga City claimed that they had gadgets and internet are considered as concern during the time when telehealth consultation was put into practice. This is something new in the field of medical consultation. In fact, it is convenient on the part of the patients. However, when a physical examination is required, when the diagnosis is unknown, or for patients who had a strong preference to be seen in person, telehealth has been less suitable than traditional methods. There are instances that telehealth is less suitable such as in the case that

a physical examination is required and when the diagnosis of the patient is still unknown [10].

The unanticipated and quick introduction of telehealth services has issues and concerns. One of those is the technological challenges such as connectivity, inadequate internet access or mobile service, a lack of phone credit or data, and familiarity with online tools for both patients and physicians. As such, the turbulent nature of the COVID-19 pandemic has facilitated a swift and significant increase in the adoption of telemedicine and telehealth. Web-based, link-based, or mobile platforms for medicine have continued to trend upward throughout the pandemic, increasing 10-30% in the healthcare setting due to restrictions on in-person visits. The majority of respondents across four barangays find interactions with telehealth providers clear and understandable, a significant minority still face challenges [11]. This suggests that there may be areas for improvement in communication methods or provider-patient interactions to ensure that telehealth services are accessible and effective for all residents. Enhancing clarity in interactions could improve overall patient satisfaction and promote better health outcomes across the communities. To improve healthcare outcomes, physicians must spend more time with patients. The interaction between patient and physician must be enthusiastic, motivated, and responsive to every individual’s needs [12-14]. The majority of respondents across all barangays find telehealth consultation services easy to use, indicating a generally positive reception. This positive perception is crucial for promoting the widespread adoption of telehealth services, as user-friendly interfaces significantly contribute to patient satisfaction and engagement. Identifying and addressing the specific challenges faced by the minority who find it difficult to use the service will be essential in optimizing telehealth consultation for all residents.

Conclusion

The findings highlighted the barriers and opportunities to achieve effective and patient-centered communication with the continued integration of telehealth in prenatal care delivery. It is important to address the unique needs of this population during the pandemic and as healthcare increasingly adopts a telehealth practices in

order to improve the extent of services in the community even with the aid of an internet and technology. Likewise, the results of this paper can be used as a basis for conducting studies about the program about telehealth since it explores the effectiveness of telehealth consultation among high-risk pregnant women in a provincial setting, thus, a city-wide or regional-wide study can be in consideration for further investigation of this concept.

Contributions

M.T.D.M. and S.G.G. conceptualized the topic. M.T.D.M., R.S.M., C.J.S.O. and A.L.D.P. did the literature review searching and methodological processes. A.L.D.P. and M.T.D.M. perform the data collection. M.T.D.M. perform the calculations. M.T.D.M., C.J.S.O. and S.G.G. analyzed the data. Finally, M.T.D.M. S.G.G., R.S.M., C.J.S.O. and A.L.D.P. finalized the overall write-up of the paper.

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