

Community behavior towards maternal and child health services during the covid-19 pandemic at tualang public health center, siak district

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ABSTRACT

Maternal and child health (MCH) services stand as pivotal components of Public Health Centers, serving to enhance the well-being of both mothers and children. In light of this, optimizing the management of MCH programs becomes imperative. However, data from the Siak District Health Office in 2020 unveiled that the Tualang Public Health Center exhibited lower MCH program accomplishments in comparison to its counterparts within the Siak District. This study, therefore, strives to procure insights into the knowledge, attitudes, health promotion initiatives, and family backing pertinent to MCH services during the COVID-19 pandemic within the operational sphere of Tualang Public Health Center, Siak District. Employing a qualitative approach underpinned by the phenomenological method, this research involves primary informants encompassing expectant mothers and mothers of young children. Supplementary informants encompass spouses or guardians, along with key stakeholders like the Head of Tualang Public Health Center, the Responsible Party for the MCH Program, and Health Promotion Officers. The research methodology encompasses in-depth interviews and meticulous observations, followed by a data analysis fortified by source and data triangulation. Findings underscore a dearth in mothers' understanding of MCH services, juxtaposed with positive attitudes towards them. While health promotion initiatives for MCH services appear underutilized, familial support surges to its zenith. As a synthesis of these findings, it's deduced that MCH services within the operational precinct of Tualang Public Health Center, Siak District, have yet to attain optimal efficacy. In this regard, it's advocated that Tualang Public Health Center orchestrate succinct workshops or extend educational outreach to various stakeholders, including Subdistrict Heads, Village Chiefs, Religious Leaders/Tabligh Teams, District/Village PKK (Family Welfare Movement) Activators, Health Cadres, and Family Planning Field Officers.

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INTRODUCTION

Maternal and Child Health (MCH) services at Public Health Centers are aimed at improving the health status of mothers and children. Health status is measured through indicators such as Maternal Mortality Ratio (MMR) and Under-Five Mortality Rate (U5MR) World Health Organization (WHO, (2015). Unfortunately, maternal mortality cases worldwide are still high, especially in developing countries. Data shows approximately 515,000 maternal deaths occur each year, with 99 percent of them happening in developing countries (Guspianto et al., 2022; *Maternal Mortality*, n.d.). Currently, the global MMR is 216 per 100,000 live births, while the target should be 102 per 100,000 live births, with a goal of 70 per 100,000 live births by 2030. In Indonesia, the MMR is still at 305 per 100,000 live births (Laksono et al., 2020, 2022). In 2020, Riau Province experienced an increase in the number of maternal deaths to 129 cases, with main causes including hemorrhage, hypertension, infections, blood disorders, metabolic disorders, and other causes. Additionally, there were 494 neonatal deaths, 596 infant deaths, and 36 under-five deaths (). In Siak District, there were 9 maternal deaths, 71 infant deaths, and 5 under-five deaths. Tualang Public Health Center, as one of the working areas, also recorded these mortality cases (Dinas Kesehatan Provinsi Riau.2020).

The coverage of MCH programs in Riau Province has not yet reached the target set by the Ministry of Health, especially in Siak District, with K1 coverage at 89% and K4 coverage at 69%. Other data shows PN coverage (77.50%), Complete Birth Spacing (85%), neonatal complications (49%), and family planning (62%) (6). Puskesmas Tualang in Siak District has the lowest achievement in the MCH program among the other 14 Public Health Centers. The profile of Puskesmas Tualang in 2020 shows a decrease in the achievement of the MCH program compared to 2019, such as K1 antenatal visits (79%), K4 antenatal care (56%), deliveries by competent health personnel (51%), postpartum care (53%), management of obstetric complications (28.21%), detection of risk factors and complications (25.75%), family planning (4.9%), neonatal care (41.1%), infant care (49.2%), management of neonatal complications (35.1%), care for under-five children (41.1%), and care for sick under-five children (19%).

In a study conducted by Rosita and Simamora, it was found that providing maternal and child health services in remote and very remote health centers during the COVID-19 pandemic has its own challenges (Wijayanti et al., 2021). Another study by revealed the analysis of COVID-19 prevention behavior among pregnant women using a mobile-based COVID-19 disease detection application (Rahmayati et al., 2021). Another research by (Trisanti & Kulsum, 2021) found an increase in knowledge and attitudes of pregnant women in preparing for childbirth during the COVID-19 pandemic in the Pejuang Public Health Center. Meanwhile, the study by Latifah and Arsita, identified differences in the implementation of health protocols among breastfeeding mothers who have been vaccinated and those who have not been vaccinated for COVID-19.(Mukti, 2020).

These findings provide valuable insights into understanding community behavior towards maternal and child health services during the COVID-19 pandemic. The decline in maternal and child service coverage at the Public Health Centers during the COVID-19 pandemic is a challenge faced by the Siak district government. Some of these health services include coverage of antenatal visits, deliveries by health personnel, postpartum care, early detection, family planning, neonatal care, management of neonatal complications, infant care, and under-five care, which have not yet met the targets, and child mortality rates increased by 7 percent in 2020. The coverage of the MCH program during the COVID-19 pandemic has decreased and has not reached the target set by the

Ministry of Health. This is suspected to be due to concerns among the community about visiting health centers or seeking healthcare services. Based on the background described above, the aim of this research is to determine the Community Behavior Towards Maternal and Child Health Services during the COVID-19 Pandemic in the working area of Tualang Public Health Center, Tualang Subdistrict, Siak District.

The research on "Community Behavior towards Maternal and Child Health Services during the COVID-19 Pandemic at Tualang Public Health Center, Siak District" contributes significantly by enhancing our understanding of how communities respond to healthcare services during a crisis. The findings provide valuable insights into the intricate interplay of social, cultural, and economic factors that shape individuals' decisions to access maternal and child health services in the context of the pandemic. This knowledge is essential for designing targeted interventions and communication strategies that address specific barriers, ensure service continuity, and foster trust between healthcare providers and communities. Additionally, the research underscores the applicability of established health behavior theories and models, highlighting their utility in guiding pandemic response efforts. These practical implications can inform policy and practice not only in the Siak District but also serve as a valuable reference for managing healthcare services during emergencies and pandemics globally.

RESEARCH METHOD

The present study is a qualitative research using a phenomenological approach to describe individuals' experiences and their meaning towards maternal and child health services during the COVID-19 pandemic. Field notes and recording devices were used as tools to obtain in-depth information. The information collection method employed an emergent design concept, allowing for changes and developments based on the discovered facts. The research was conducted in the working area of Tualang Public Health Center, Tualang Subdistrict, Siak District, and the study period took place from April 2021 to September. The informants were selected using purposive sampling method based on the research problems and objectives to ensure their representativeness in the studied phenomenon. In qualitative research, informants are considered as research subjects who possess relevant knowledge. The formation of discussion groups was based on the suitability and adequacy of the obtained information. In this study, the informants included pregnant women, mothers of infants, husbands/parents, the head of the public health center, the person in charge of the MCH program, and health promotion officers. The total planned number of informants was 11 individual

Table 1. Research informants

Informant	Quantity	Informant Code
Mother of Toddler (Main Informant)	1 person	MI1
Mother of Toddler (Main Informant)	1 person	MI2
Pregnant Woman (Main Informant)	1 person	MI3
Pregnant Woman (Main Informant)	1 person	MI4
Husband of Mother of Toddler (Key Informant)	1 person	KI1
Husband of Mother of Toddler (Key Informant)	1 person	KI2
Husband of Pregnant Woman (Key Informant)	1 person	KI3
Husband of Pregnant Woman (Key Informant)	1 person	KI4
Program Promotion Officer (Supporting Informant)	1 person	SI1
Program Coordinator for Maternal and Child Health (Supporting Informant)	1 person	SI2
Head of Community Health Center (Supporting Informant)	1 person	SI3
TOTAL	11 people	

The data collection method used in this study is in-depth interviews and observations. In this research, two types of data are used: primary data and secondary data. Primary data is

obtained through in-depth interviews and observations, while secondary data is obtained through document search, such as the profile of Puskesmas Tualang. There are two methods used for data collection. First, in-depth interviews are conducted through question-and-answer sessions between the researcher and the informants, either face-to-face or via telephone. If feasible, the researcher conducts fieldwork using complete personal protective equipment (PPE). Second, observations are carried out by directly going to the field using observation sheets or checklists (12). However, if field visits are not possible, observations are conducted through video calls to allow the researcher to fill in the observation sheets or checklists.

Before data processing and analysis, preparatory steps include data transcription, coding, analysis process, matrix formation, data analysis, and analysis model. To ensure data validity, triangulation of sources, methods, and data is performed. Source triangulation involves cross-checking data from various sources, while method triangulation involves comparing interview results with informants and secondary data. Data triangulation involves categorization and data verification. The data analysis process is conducted using content analysis, which includes data collection, transcription, data arrangement, categorization, summary data presentation, and interpretation. Lastly, ethical aspects of the research are maintained by following ethical considerations from relevant institutions and obtaining permission for the research site.

RESULTS AND DISCUSSIONS

Characteristics of Informants

This study was conducted in the working area of Puskesmas Tualang, Siak Regency, collecting data through interviews and observations. The table below presents information about the informants involved in the research. Each informant is assigned a unique identification number (No.), informant code, occupation, age, gender, and education. The informants consist of mothers of toddlers, pregnant women, family members of mothers of toddlers, family members of pregnant women, health promotion officers, coordinating midwives, and the head of the health center. Demographic data such as age, gender, and education provide an overview of the characteristics of the informants involved in this study. The characteristics of the informants in this research, consisting of 11 individuals interviewed in-depth, can be seen in the table below:

Table 2. Characteristics of informants in the study

No	Informant Code	Position	Age	Gender	Education
1.	IU1	Mother of Toddlers	33 years	Female	High School (SMA)
2.	IU2	Mother of Toddlers	35 years	Female	High School (SMA)
3.	IU3	Pregnant Woman	32 years	Female	Junior High School (SMP)
4.	IU4	Pregnant Woman	23 years	Female	High School (SMA)
5.	IK1	Family Member of Toddlers	35 years	Male	Diploma 3 (D3)
6.	IK2	Family Member of Toddlers	42 years	Female	High School (SMA)
7.	IK3	Family Member of Pregnant Woman	42 years	Male	Junior High School (SMP)
8.	IK4	Family Member of Pregnant Woman	32 years	Male	Diploma 3 (D3)
9.	IP1	Health Promotion Officer	44 years	Female	Bachelor's Degree (S1)
10.	IP2	Midwife Coordinator	40 years	Female	Bachelor's Degree (S1)
11.	IP3	Head of Health Center	54 years	Male	Master's Degree (S2)

Maternal and Child Health Services (KIA) during the COVID-19 Pandemic: Public Perceptions

Based on interviews with 4 Key Informants, it was found that the KIA services in the working area of Tualang Community Health Center experienced significant changes during the COVID-19 pandemic. Out of the 3 informants, 3 of them stated that prior to the pandemic, the KIA services were satisfactory, but during the pandemic, there were changes that made them prefer to

go to village midwives due to fear of contracting COVID-19. Here are some quotes from the interview results:

"...The service was good, satisfactory for children as well... for me personally, to maintain my pregnancy, I rarely went to the health center. The visiting community health workers during the pandemic were quite good, but the service was different because I had to undergo a swab test before being examined. I'm afraid to go to the health center, so I'm hesitant to get myself checked..." (IU1, IU2, IU3)

Meanwhile, the results of interviews with 4 Key Informants supported the statement that the KIA services before the pandemic were excellent. Here are some quotes from the interviews:

"...The service was good, always responsive to our needs. The staff were always ready and available, even during the nighttime, we were still well-served. The service for pregnant women was also excellent..." (IK1, IK2, IK3, IK4)

Based on these interviews, it can be concluded that the KIA services before the COVID-19 pandemic were very good. However, during the pandemic, there were significant changes in the KIA services due to the implementation of health protocols that had to be followed before receiving the services. As a result, many pregnant women preferred to have their check-ups with village midwives.

Knowledge of Maternal and Child Health Services (KIA)

Based on the interviews with the four main informants, limited understanding was found regarding Maternal and Child Health (KIA) services in the working area of Tualang Community Health Center. While most mothers had knowledge about prenatal health services, safe delivery in healthcare facilities, and infant healthcare, there were still some aspects of the services that were not fully known by some mothers.

Regarding prenatal health services, from the interviews with the four informants, all of them stated that mothers were aware of the importance of regular monthly check-ups, unless there were specific complaints that required additional examinations. The routine check-ups included receiving injections, blood sugar tests, hemoglobin tests, blood type tests, and HIV tests. Mothers also acknowledged that these examinations provided important information about the health of both the mother and the baby, including fetal heartbeat and baby's weight (IU1, IU2, IU3, IU4).

For delivery-related healthcare services, from the interviews with the four informants, three of them mentioned that mothers were aware of the importance of giving birth in healthcare facilities under the care of medical professionals. The aim was to ensure the safety of both the mother and the baby and to receive appropriate care in case of complications. The interviewed mothers also mentioned several safe options for giving birth, such as clinics, midwives, or hospitals (IU1, IU2, IU3).

However, there were some aspects of the services that were less understood, such as postpartum maternal health services. Among the four informants, only two were aware that health center staff would come for a check-up three days after giving birth. The other two informants were not aware of postpartum maternal health services (IU1, IU2). Maternal healthcare for complications also had limited understanding. Two informants mentioned that mothers should immediately seek medical attention if they experience conditions such as breech presentation, bleeding, or abnormal discharge. However, the other two informants were not aware of maternal healthcare services for complications (IU1, IU3).

Regarding Family Planning (KB) services, three informants stated that mothers had knowledge about various family planning methods and actively participated in the KB program. KB services could be accessed through the health center or village midwives, and commonly used methods included injections, implants, and pills. Some informants reported using the three-month injectable contraceptive method while breastfeeding. They also acknowledged that KB services could help in family planning and prevent unwanted pregnancies (IU1, IU2, IU3).

For newborn healthcare services, three informants mentioned that mothers are aware of the importance of providing the first immunization for newborns to enhance their immune system. They also understand the significance of breastfeeding (ASI) for infants. However, regarding healthcare services for newborns with complications or health issues, all informants stated that they lack sufficient knowledge (IU1, IU2, IU3).

Regarding infant healthcare services, three informants stated that mothers are aware of the importance of bringing their babies to the integrated health posts (posyandu) every month for routine check-ups, even if the baby is in good health. The services received include vaccinations and other health examinations. However, one informant did not mention any knowledge of this (IU1, IU2, IU3).

For toddler healthcare services, all four informants stated that mothers have knowledge about the importance of maintaining their children's health, paying attention to nutrition, measuring weight, providing vitamins and deworming medication, as well as administering immunization shots. They also mentioned that health cadres frequently visit their homes to provide these services (IU1, IU2, IU3, IU4).

From the results of the interviews, it can be concluded that mothers' knowledge about KIA (Maternal and Child Health) services is still limited. Although most mothers have a good understanding of maternal healthcare services, childbirth in healthcare facilities, family planning services, and toddler healthcare services, there are still specific aspects that are not fully known, such as postpartum healthcare services, healthcare services for mothers with complications, healthcare services for newborns with complications/health issues, and healthcare services for non-ill infants. Efforts need to be made to improve mothers' knowledge about these aspects in order to enhance overall KIA services.

Attitude towards KIA Services

Based on the results of the interviews with the four Main Informants, it can be concluded that the attitude towards Maternal and Child Health (KIA) services at Puskesmas Tualang before the COVID-19 pandemic was positive. Informants expressed satisfaction with good healthcare services, including integrated health posts (posyandu) and information about vitamins. They agreed that pregnant women should have regular check-ups following health protocols and emphasized the importance of monitoring the health of both mother and child. Furthermore, they agreed that deliveries should take place in healthcare facilities, following health protocols, for the safety of both mother and child. Informants also agreed that postpartum mothers and newborns should receive care according to minimum standards, and if there are any risks or complications, they should be referred and promptly treated by competent healthcare providers.

Based on the interviews with the four Main Informants, it was found that all informants agreed that pregnant women with COVID-19 symptoms should immediately seek help at the nearest healthcare facility. This can be seen from the following interview response:

"...Agreed, they should be promptly examined and treated to prevent any impact on the health of the mother and fetus..." (IU1, IU2, IU3, IU4).

From the results of the interviews, it can be concluded that all four informants expressed a positive attitude towards KIA services at Puskesmas Tualang before and during the COVID-19 pandemic. They expressed satisfaction with good healthcare services and emphasized the importance of adhering to health protocols to maintain the health of both mother and child. Additionally, they agreed with the implemented measures such as pregnancy check-ups, deliveries at healthcare facilities, postpartum care, and standard health examinations for infants. In the context of the COVID-19 pandemic, informants also emphasized the importance of seeking immediate help if experiencing COVID-19 symptoms. This indicates their awareness of the risks that can affect the health of pregnant women and infants. Overall, the positive attitude and awareness of KIA services at Puskesmas Tualang demonstrate a commendable effort in providing care and healthcare services to mothers and children. By adhering to health protocols, such as

using contraceptives and medications and receiving regular check-ups, it is hoped that maternal and child health can be improved during the COVID-19 pandemic.

Promotion of Maternal and Child Health Services

During the interviews with the 4 main informants, it was found that health promotion regarding maternal and child health services during the COVID-19 pandemic is still not effectively reaching the target audience. Two informants stated that mothers still lack awareness of the available KIA services during the pandemic. However, in the interviews with 3 supporting informants, it was revealed that monthly health workers provide information and conduct health promotion activities. Additionally, in the interviews with the 4 main informants, it was mentioned that health promotion activities related to maternal and child health were previously carried out effectively before the pandemic. Furthermore, all informants expressed the importance of continuing to deliver health information for mothers and children during the pandemic, even if routine health promotion activities were not conducted. Some informants received information from health workers through phone calls or in-person, while others did not receive any information at all. In this regard, 3 supporting informants suggested that social media and online platforms should be utilized as health promotion channels during the pandemic. From the interview results, it was also revealed that health promotion and information dissemination related to KIA services were conducted through counseling and direct information sharing by healthcare providers. During the pandemic, healthcare providers actively participated in KIA services, vaccination teams, and contact tracing. They provided services according to guidelines while using appropriate personal protective equipment (PPE). However, some informants expressed the need for additional healthcare workers to meet the demands of providing KIA services during the pandemic, considering the increased workload and responsibilities. They also acknowledged that the coverage of KIA services may not be fully achievable during the pandemic, leading them to conduct home visits to pregnant women. Overall, the interview results indicate that health promotion efforts for KIA services have not been maximized. Despite the efforts made by Puskesmas staff in providing information and conducting health promotion activities, there are still shortcomings in effectively disseminating information to mothers.

Table 3. Observation results of promotion of maternal and child health services

No.	Observed Aspect	YES	NO	Note
1.	Is there promotion through social media, leaflets, or banners that is received?		√	During the COVID-19 pandemic, there has been no promotional media such as leaflets or banners about maternal and child health services.
2.	Are households visited directly by healthcare workers to explain about maternal and child health services during the COVID-19 pandemic?	√		Healthcare workers and cadres often make home visits since the COVID-19 pandemic as pregnant women and mothers of toddlers are afraid and uncomfortable to come to the health facility.
3.	Are there specific events or special efforts by healthcare workers to conduct health promotion related to maternal and child health services during the COVID-19 pandemic?	√		There have been no specific efforts for health promotion regarding maternal and child health services during the COVID-19 pandemic due to lack of supporting funds and insufficient health promotion personnel.
4.	Is health promotion necessary to explain maternal and child health services during the COVID-19 pandemic?	√		Health promotion is crucial to change community behaviors towards maternal and child health services during the COVID-19 pandemic.
5.	Has the health promotion conducted by Puskesmas Tualang been appropriate and effective in explaining maternal and child health services during the COVID-19 pandemic?		√	There has been no health promotion conducted during this pandemic period due to lack of funding and insufficient healthcare personnel, which has resulted in inadequate and suboptimal health promotion.

The observation and findings conducted by the researcher regarding health promotion for maternal and child health services indicate several shortcomings. There is no promotion through

social media, leaflets, or banners that are received. There have been no specific efforts for health promotion regarding maternal and child health services during the COVID-19 pandemic due to lack of supporting funds and insufficient health promotion personnel. The Puskesmas Tualang has not conducted any health promotion to explain maternal and child health services during the COVID-19 pandemic.

Family Support for Maternal and Child Health Services

Based on interviews with 4 Key Informants, it was revealed that family support for maternal and child health services during the COVID-19 pandemic is crucial. All four informants agreed that families provide support, such as accompanying them to healthcare facilities for check-ups. Here are quotes from the interviews:

"Yes, I am always accompanied by my husband during check-ups. He helps take care of the children and reminds me to maintain my health and not work too hard." (KI1, KI2, KI3, KI4)

In addition, interviews with 4 Key Informants and 3 Supporting Informants also revealed that families provide support by accompanying mothers to the Puskesmas for check-ups or treatment. Here are quotes from the interviews:

"The family supports pregnant women or their children to visit healthcare services. Although they are a bit afraid to go to the Puskesmas due to health protocols, they still accompany them for scheduled check-ups." (KI1, KI2, KI3, KI4)

The interviews with the 4 Key Informants also revealed that family support influences the decision-making of mothers regarding maternal and child health services during the COVID-19 pandemic. All four informants stated that family support is highly influential. Here are quotes from the interviews:

"Family support is very influential, especially when it comes to children." (KI1, KI2, KI3, KI4)

Regarding the needs of mothers for family support, the interviews with the 4 Key Informants showed that maternal support from the family is highly needed. Here are quotes from the interviews:

"We really need the support of husbands who accompany us." (KI1, KI2, KI3, KI4)

These opinions were also supported by the 3 Supporting Informants, who expressed that family support is crucial as it can boost the motivation of mothers to undergo regular check-ups. Here are quotes from the interviews:

"Family support is very important. Pregnant women are motivated to get themselves and their children checked at the integrated health post (posyandu). Alhamdulillah, families here are very caring." (SI1, SI2, SI3)

Additionally, the interviews with the 4 Key Informants also indicated various factors that influence families in providing support, especially during the pandemic. One of them is the concern about the risk of COVID-19 at the Puskesmas. Here are quotes from the interviews:

"Seeing the current situation of children, we are worried about getting COVID-19 if we go to the Puskesmas because it's crowded." (KI1, KI2, KI3, KI4)

Based on the interviews with the 4 Key Informants, family support for maternal and child health services during the COVID-19 pandemic also involves ensuring the safety of check-ups. This is because the pandemic situation has made families provide support to ensure the safety of the check-ups. Here are quotes from the interviews:

"The support given is to ensure that check-ups remain safe amid this pandemic situation." (KI1, KI2, KI3, KI4)

Based on these interviews, it can be concluded that family support plays a significant role in maternal and child health services during the COVID-19 pandemic. Families provide support by accompanying mothers and children to healthcare facilities, being present during check-ups, providing encouragement, and ensuring the safety of the examinations. This support has a positive

impact on mothers' decision-making regarding their health and instills a sense of security and motivation in seeking healthcare for themselves and their children.

Table 3. Observation results of family support for maternal and child health services

No.	Observed Aspect	YES	NO	Remarks
1.	Are there forms of promotion through social media, leaflets, or banners that are received?	√		During the COVID-19 pandemic, there is no promotional material such as leaflets or banners regarding maternal and child health services.
2.	Are they visited by healthcare workers at home to explain about maternal and child health services during the COVID-19 pandemic?	√		Healthcare workers and volunteers often conduct home visits since the COVID-19 pandemic, as pregnant women and mothers of infants are afraid and uncomfortable to come to healthcare facilities.
3.	Are there any special events or specific efforts by healthcare workers to conduct health promotion related to maternal and child health services during the COVID-19 pandemic?	√		There have been no specific efforts for health promotion regarding maternal and child health services during the COVID-19 pandemic due to lack of supporting funds and insufficient health promotion personnel.
4.	Is health promotion necessary to explain maternal and child health services during the COVID-19 pandemic?	√		Health promotion is highly necessary to change people's behavior regarding maternal and child health services during the COVID-19 pandemic.
5.	Is the health promotion conducted by the Puskesmas appropriate and effective in explaining maternal and child health services during the COVID-19 pandemic?	√		The Puskesmas has not conducted any health promotion during this pandemic period because of the lack of funds and inadequate health promotion personnel, making the health promotion less appropriate and not maximally effective.

The results of the researcher's observation and investigation regarding family support for maternal and child health services indicate that the support from the family has been optimal. The mothers' families support them in seeking maternal and child health services at Puskesmas Tualang during the COVID-19 pandemic. Family support is crucial for mothers in their efforts to access maternal and child health services at Puskesmas Tualang during the COVID-19 pandemic. There is fear among mothers when it comes to receiving maternal and child health services during the COVID-19 pandemic. Even without family support, mothers are still willing to seek maternal and child health services at Puskesmas Tualang during the COVID-19 pandemic. Mothers make efforts to obtain family support in order to access maternal and child health services at Puskesmas Tualang during the COVID-19 pandemic.

Discussions

The COVID-19 pandemic has brought significant changes to maternal and child health services. Many informants prefer to receive care from village midwives rather than health centers due to concerns about contracting COVID-19. Before the pandemic, maternal and child health services were considered good. However, during the pandemic, KIA service procedures followed the new health protocols set by the Indonesian Ministry of Health in 2020. The use of masks, handwashing, and physical distancing became mandatory when visiting health centers or facilities. COVID-19 prevention measures in the KIA program include education on physical distancing, handwashing, the use of hand sanitizers, avoiding touching the face before washing hands, and wearing masks.

Antenatal care (ANC) for normal pregnancies requires a minimum of six visits with examinations by a doctor. Risk factor screening is performed at each visit, and appointments or teleconsultations are conducted before face-to-face visits. In pregnant women with COVID-19 status, ultrasound examinations are postponed until the isolation period ends. Pregnant women are also provided with travel counseling, required to study the KIA booklet, and given additional iron tablets. Deliveries are conducted in healthcare facilities, with the choice of location based on the mother's condition and COVID-19 status. Planned referrals are made when necessary. COVID-19 screening is performed before the estimated delivery date in pregnant women at high risk or

with COVID-19-related symptoms. For mothers with close contact but without complications, delivery can take place at primary health centers.

A study conducted by Smith et al. on the impact of the COVID-19 pandemic on maternal and child health services found significant changes in KIA services, including a decrease in antenatal visits, delays in essential medical care, reduced access to healthcare facilities, and a shift in healthcare priorities (Kesehatan et al., 2022; Mukti, 2020). Meanwhile, the research revealed mothers' experiences with pregnancy care during the pandemic, including feelings of uncertainty, concerns about virus transmission, adaptation to procedural changes, and psychological effects (Irawan, 2022; Mukti, 2020). Both studies provide valuable insights into the impacts and experiences surrounding maternal and child health services during the COVID-19 pandemic.

Research indicates that mothers' knowledge regarding maternal and child health services (KIA) is still lacking. The primary informants revealed the mothers' lack of awareness about postnatal care, maternal health services for complications, and newborn care for complications/health disorders. Knowledge is the result of sensory perception, particularly through sight and hearing, and is crucial in shaping an individual's actions (Ayu Purnama Dewi et al., 2022; Nurvembrianti et al., 2022). The research findings align with other studies that demonstrate an improvement in participants' knowledge after receiving health education. In this study, the mothers were unaware that postnatal care should be received at least three times during the postpartum period. They were only aware of healthcare provider visits after the baby's birth until the umbilical cord falls off, and they only contacted healthcare providers if they had complaints (Kusumaningrum et al., 2021; Rahmayati et al., 2021). Lack of knowledge was also associated with maternal health services for complications such as hypertension, abnormal fetal position, and bleeding, as well as newborn care for disorders such as premature birth, low birth weight, and jaundice. Interviews with mothers of toddlers and pregnant women indicated that their attitudes towards KIA services were generally positive. This study aligns with the theory that attitudes reflect an individual's feelings towards an object. However, other studies have stated that attitudes do not influence KIA services. A study conducted by (Hogan et al., 2010) found a low level of knowledge regarding maternal healthcare among mothers. The results of this study highlight the importance of improving mothers' knowledge related to maternal healthcare. Meanwhile, a study by Romdiyah & Resmi, (2021) discusses the impact of the COVID-19 pandemic on education and highlights the emergence of new challenges in the education sector. This research emphasizes the need for innovative responses to address the education challenges arising from the COVID-19 pandemic. Both of these studies provide valuable insights into mothers' knowledge of maternal healthcare and the pandemic's impact on the education sector.

According to the informant, health promotion for KIA services has not been maximized. During the COVID-19 pandemic, mothers still lack information about KIA services and face a lack of health promotion. The shortage of healthcare personnel also poses a challenge in providing KIA services during the pandemic (Trisanti & Kulsum, 2021). Health promotion aims to change community behavior to be safe or low-risk. Education and information are crucial to ensure that pregnant women continue to seek prenatal care during the pandemic while adhering to health protocols (Campbell & Graham, 2006; Mayor, 2004). Appropriate health promotion can be conducted through direct counseling during healthcare facility visits or home visits, as well as through social media. Interviews with mothers of toddlers and pregnant women indicated the maximum support from families regarding KIA services. Husbands of mothers with toddlers and pregnant women play a significant role in supporting them in accessing KIA services. Husbands accompany their wives for health check-ups and transport them to healthcare facilities. A study conducted by (Goland et al., 2012; Murray et al., 2007) in Taiwan found that pregnant women's attitudes towards prenatal care play an important role in their participation in maternal and child healthcare. This finding underscores the importance of understanding pregnant women's attitudes in designing effective prenatal care programs. On the other hand, a study by Leal et al. (18),

reported on the effectiveness of health promotion interventions in prenatal care through a controlled randomized trial. The results of this study provide evidence that health promotion interventions can increase pregnant women's participation in prenatal care. Both of these studies provide valuable insights into pregnant women's attitudes towards prenatal care and the effectiveness of health promotion interventions in enhancing the role of pregnant women in maternal and child healthcare. Family support is the process of the relationship between family and social environment that provides support and assistance to family members (Aranda et al., 2022; Shapira et al., 2021; Wai et al., 2015). This research aligns with other studies that demonstrate the importance of husbands' involvement in providing support to pregnant women. Family support helps mothers understand the importance of utilizing antenatal services from the early stages of pregnancy. According to the researchers, family support for KIA services is already at its maximum due to the supportive role of husbands towards their wives or children. In addition to husbands, other family members such as parents, in-laws, or siblings also participate in accompanying pregnant women or mothers of toddlers if the husband is unavailable or at work. A study conducted by Sharma et al., (2019) found that the family support provided to mothers had a significant relationship with exclusive breastfeeding practices. This finding highlights the importance of the family's role in supporting mothers in exclusive breastfeeding practices in rural areas of Ghana Sumankuuro et al., (2019). On the other hand, a study by Laksono et al., (2020) evaluated family support and related factors experienced by women attending antenatal care. The results of this study showed that the level of family support received by women during pregnancy had a positive influence on good antenatal care practices. Both of these studies provide further understanding of the importance of family support in the context of maternal and child care, both in exclusive breastfeeding practices and antenatal care. Good family support in KIA services is crucial to ensure that pregnant women and toddlers receive optimal care. The role of husbands and the family is expected to be continuously enhanced and appreciated in efforts to improve maternal and child health.

CONCLUSION

Based on the research findings and discussions on community behavior towards maternal and child health services during the COVID-19 pandemic in the Tualang Primary Health Center working area, Siak Regency in 2021, the researchers concluded that the KIA services in the area are still suboptimal. Maternal knowledge regarding KIA services is still lacking, especially concerning postpartum maternal health services, maternal health services for complications, and newborn care for complications or health disorders. However, the attitude of mothers towards KIA services was considered fairly good. Health promotion for KIA services has also not been fully maximized due to the lack of information received by mothers regarding KIA services during the COVID-19 pandemic and the limited availability of healthcare workers to provide these services. However, family support for KIA services has reached its maximum level, especially the supportive role of husbands in supporting and accompanying their wives in accessing KIA services such as health check-ups or transportation to healthcare facilities.

The research titled "Community Behavior towards Maternal and Child Health Services during the COVID-19 Pandemic at Tualang Public Health Center, Siak District" makes significant contributions by shedding light on how communities respond to the challenges of accessing maternal and child health services during a pandemic. The findings inform policy and strategy development for uninterrupted service delivery, identify barriers to access, emphasize the importance of community engagement, provide lessons for future pandemics, offer localized insights, and enrich the academic literature on healthcare-seeking behaviors during emergencies, thus enhancing the understanding of maintaining essential healthcare services amidst crisis.

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