

Perceptions of Health Workers, Cadres, and Mothers Regarding *Posyandu* Program during COVID-19 Pandemic: A Qualitative Study

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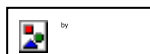
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Abstract

Introduction: The *Posyandu* (Integrated Health Service) program is an effort to improve community-based maternal and child health in Indonesia. However, the implementation was suspended due to the COVID-19 pandemic. **Objective:** The purpose of this research is to find out how the perception of health workers, cadres, and mothers regarding the *Posyandu* program during COVID-19 pandemic. **Method:** This is a qualitative study with phenomenological approach. Participants who were interviewed in this study were 30. Data collection techniques were carried out by semi-structured and in-depth interviews and using Colaizzi analysis methods. **Results:** There are three themes generated after data analysis, namely 1) program development over time, 2) program adaptation during the COVID-19 pandemic, and 3) new hope for the program. Health workers, cadres, and mothers of toddler who are involved in the *Posyandu* program feel the difference between before and after the COVID-19 pandemic. **Recommendations:** These results are expected to be the basis for developing the *posyandu* program in the new normal era so that the health of mothers and children remains optimal

Keywords: COVID-19, child, mothers, perception

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INTRODUCTION

One of the legacy of the health program from the second president of the Republic of Indonesia that is still running today is the *Posyandu* (Integrated Health Service). *Posyandu* began to be developed in 1984. *Posyandu* is a form of community based health efforts that is managed and organized from, by, for and with the community in obtaining basic health services to accelerate the reduction of maternal and infant mortality (1).

The positive implication of the implementation of the *Posyandu* program in the community is the increase in the health status of mothers and children in Indonesia from year to year. Data from the Indonesia Demographic and Health Survey in 2017 stated that there was a decrease in the infant mortality rate from 2012 to 2017, from 24 per 1,000 live births to 24 per 1,000 live births (2). In addition, success indicators of the *Posyandu* program can also be seen from the maternal health rate. The results of the 2012 Indonesian Demographic and Health Survey showed a maternal mortality rate of 359 per 100,000 live births. Meanwhile, the results of the 2015 Intercensus Population Survey stated that the maternal mortality rate was 305 per 100,000 (3). So, the infant mortality rate as well as the maternal mortality rate in Indonesia has decreased from year to year.

Maternal and child health in Indonesia has increased from time to time. However, the condition of the COVID-19 pandemic turned out to have implications for several things related to the health of mothers and children. Previous research stated that immunization services tend to be neglected. Around 8.438 children per day were missing immunisation during the lockdown in Pakistan (4). In addition, the results of another previous studies study stated that there was a decrease in immunisation coverage before and after the pandemic (5,6). The main reason is parents worry to go to health-care centers because of scare for SARS-CoV 2 infection (7). So, the pandemic condition affects the public's interest towards health services for immunization.

The era of new normal that require

workers to Work From Home (WFH) also have an impact on increasing pregnancy rates. Research conducted in Pekanbaru City, Indonesia in 2018 there were 25.678 pregnant women in all health centers. The results of a preliminary study with interviews with six pregnant women, four of whom said the pregnancy was unplanned. In addition, the majority of respondents whose pregnancies were unplanned found that the most common factor causing pregnancy during the COVID-19 period was due to unfulfilled contraceptives as many as 46,7% (8). This result is also supported by the results of other study in India which state that some contraceptive use decreases during the pandemic, namely injectable, pill, and IUD contraception (9). In addition, another study Bangladesh stated that the number of active family planning among currently married women was decrease compared to before pandemic data (10). No related research results have been published in Bali Province.

Posyandu plays an important role in solving the two health issues being faced. However, there are no studies that explain the perceptions and experiences of the *Posyandu* program recipients, cadres and health workers at puskesmas during the COVID-19 pandemic. This view is important as a basis for formulating programs and strategic steps to improve maternal and child health during the pandemic. This attracted the attention of researchers to conduct an in-depth exploration of "Perceptions of Health Workers, Cadres, and Mothers Regarding The *Posyandu* Program during the COVID-19 Pandemic".

OBJECTIVE

The purpose of this study was to find out how an in-depth description of the *Posyandu* program during the COVID-19 pandemic in Tabanan Regency, Bali Province from the point of view of health workers, cadres, and mothers was found.

METHOD

Research Design

This study used a qualitative study method by using descriptive phenomenology to assess the perceptions of health workers, cadres, and mothers regarding the *Posyandu* program during COVID-19 pandemic.

Settings and Time Frame

The place for collecting research data is the work area of the puskesmas in Tabanan Regency, Bali Province. There were three health centers selected, namely Penebel II Health Center, Kerambitan II Health Center, and Tabanan III Health Center. The time of data collection in this study was for one month starting from September to October 2021.

Population, Sampling, and Participants

The population in this study were all health workers, cadres, and mothers who were involved in the *Posyandu* program before and during the COVID-19 pandemic. The sampling technique used is purposive sampling, namely by selecting participants with inclusion and exclusion criteria. The inclusion criteria in this study were 1) health workers, cadres, and mothers who were involved in the *Posyandu* program before and during the pandemic, 2) able to communicate well, 3) willing to become participants after receiving an explanation before collecting research data. The exclusion criteria in this study were 1) mothers who used the *Posyandu* program in their area but their presence was represented by other family members. The number of participants who were interviewed in this study were 30 people, namely ten health workers, ten cadres, and ten mothers who were involved in the *Posyandu* program.

Instrument

Instrument in this qualitative research is three researchers who are assisted by interview guidelines, recording devices, and notes as data collection tools. Data collection instruments in the form of interview guidelines were divided into three types, namely for health workers, cadres, and

mothers. This interview guidelines was then carried out with content validity by involving experts in the field of qualitative research and maternal and child health. The results obtained were that there were nine valid open-ended questions for health worker participants, nine valid open-ended questions for cadre participants, and ten valid open-ended questions for mother participants.

Data Collection Process

The data collection technique was carried out by semi-structured and in-depth interviews with the aim that health workers, cadres, and mothers involved in the *Posyandu* program could share their experiences during the COVID-19 pandemic. The data collection process was carried out by the three researchers. Previously, the lead researcher and the two research members made apperceptions regarding the three types of interview guides used. The three researchers specifically held one type of participant, so that the data obtained were confirmed to saturation. The division of the types of participants is done based on the scientific background of the researcher. The lead researcher with a community nursing background interviewed the cadres. One research member with a nursing management background interviewed health workers, and the other with a pediatric nursing background interviewed mothers. The duration of each interview session lasted from 30 to 45 minutes.

Data Analysis

Analysis of interview results using the Colaizzi method which consists of the following stages: 1) compiling and re-reading interview transcripts, 2) compiling meaningful statements, 3) compiling the meaning of the formulation, 4) determining and compiling categories, sub-themes and themes, 5) in-depth descriptions of the themes, 6) description of the important structure of the phenomenon and 7) validation of the findings to participants.

Ethical Consideration

This research has received ethical approval from the Health Research Ethics Committee of Stikes Bina Usada Bali number 164/EA/KEPK-BUB-2021. The researcher guaranteed confidentiality and explained the research procedures before data collection. Prospective participants who agreed to the data collection process signed an informed consent.

RESULTS

The results of the data analysis obtained three themes regarding the perceptions of health workers, cadres, and mothers who were involved in the *Posyandu* program before and during the COVID-19 pandemic. The themes are 1) program development over time, 2) program adaptation during the COVID-19 pandemic, and 3) new hope for the program. Each theme is composed of sub-themes obtained from several categories as follows.

Program Development Over Time

1) Service

History and formation of the program

"...isn't it from his era... the reign of Suharto? yes... President Soeharto..." (Participant 1, Health Worker, 43 years old)

"...by President Soeharto, I know from the beginning because I was in high school, the school got help because my mom used family planning, she got a gift first..." (Participant 19, Cadre, 46 years old)

"...Soeharto" (Participants 28, Mother, 39 years old)

Improvement of service quality and capacity of service providers

"The program is almost the same, the 5-table system is still exist, but maybe now it is more optimally implemented because the cadres are more active..." (Participant 10, Health Worker, 41 years old)

"Registration desk, weighing, data collection, education... if what I used to see was working cadres in the

records, they just kept on recording. Now the *Posyandu* cadres must be good so that whenever we are asked for data, we are ready." (Participant 18, Cadre, 44 years old)

2) Support service

Budget and rewards for cadres

"The funding is amazing nowadays from this village, then for facilities such as weight scales is always provided... The cadre incentives, including the highest in Tabanan..." (Participant 6, Health Worker, 29 years old)

"Now that their hard work is rewarded, there is a reward from the village, there is funds... there is a reward from the Tabanan Regional Government for cadres to be given free Gardasil vaccination for cervical cancer..." (Participant 9, Health Worker, 47 years old).

Weight scales

"There are some, such as body length scale, some *posyandu* have it, but some are not, usually we facilitate from the puskesmas" (Participant 6, Health Worker, 29 years old)

"In the past, using hanging weight scales, children were afraid in that pockets, now they use digital scales..." (Participant 11, Cadre, 35 years old)

Supplementary feeding

"...now the cadres are more creative in giving supplementary food than before, it's just green beans, now they have a lot of creation..." (Participant 9, Health Worker, 47 years old)

"Unlike in the past, where there was only 1 type of supplementary food, maybe it has been varied and has changed every month. It means it's not monotonous, what kind of this month is this, next month what kind..." (Participant 8, Health Worker, 49 years old)

"Yes, thanks, with the change in the supplementary food menu, most of the children are increasingly happy to go to the *Posyandu*..." (Participant 2, Health Worker, 38 years old)

Recording and reporting

"In the past, we only did it manually...manually, so we count..calculate...how much is the target, how much is the NTOB, how much is it, we are re-assessing how it is manually... we only know this e-PPGM program from 2018... it's very helpful for inputting data online..." (Participant 2, Health Worker, 38 years old)

Program Adaptation During The COVID-19 Pandemic

1) Service change

Door to door service

"But we recommend them to go door to door. From house to house, each cadre in the area brings supplementary foods each month while bringing measuring instruments to each of the toddler's homes. It was also the door to door *posyandu*, especially when the vitamin A was given yesterday, it was still not allowed to go out. So we suggest door to door..." (Participant 4, Health Worker, 38 years old)

"During the pandemic period, we visited the toddler's house by limiting people too... we brought our weight scales while the health protocol was maintained. Still holding it with a faceshield and masks..." (Participant 18, Cadre, 44 years old).

Immunization

"..at the beginning of the pandemic, we had a break first, because it was not allowed to provide immunization services for a month, but only for a month. Only at the beginning of the pandemic we carried out outside, in the yard. So in the yard, we put up a tent in front because it's just outside..." (Participant 3, Health Worker, 39 years old)

"Sometimes there are those who want to go to the doctor directly or they want to join the program, we give the schedule at the *puskesmas*. So, on average, there are not lose their immunization here. They are curious like, when will the immunization be available. If not, there is a cadre who chats them about the schedule..." (Participant 4, Health Worker, 38 years old)

Pregnancy and family planning

"Maybe because they are afraid to come to the facility they delay too so they continue to use family planning so maybe they don't plan to get pregnant this year because of the pandemic. In fact, it was found that there were fewer pregnant women during this pandemic..." (Participant 4, Health Worker, 38 years old)

"It's quite an increase, but actually there is a tendency to be afraid that they are actually pregnant..." (Participant 18, Cadre, 44 years old)

2) Change of communication method

Online monitoring

"Yesterday, we went to the village midwife, we informed the village midwife even though we did not carry out the *posyandu* but monitoring the growth and development of toddlers, they are still monitored by cadres. The cadres have WhatsApp, call their mothers, from there, we look for data on the growth and development of their children." (Participant 5, Health Workers, 38 years old)

"...during the pandemic in 2020, we didn't go down to the *Posyandu*, only via WhatsApp... there is an online group named WARUNG KOPI... talks about maternal and child health issues.." (Participant 9, Health Worker, 47 years old)

Online intervention

"That is, if you switch to technology, I thought about seeing the

community again, so not all facilities that can be implemented have been suggested, for example, virtual pregnant women classes are back in the community." (Participant 7, Health Worker, 45 years old)

"... if after the current pandemic, it's only through groups, it's usually said... Yes, it's via WhatsApp" (Participant 22, Mothers, 25 years old)

3) **Something felt Service provider**

"The only obstacle is anthropometry, then there are still concerns from mothers of toddlers, families of toddlers because there are some of mothers who afraid to take their toddlers to the *Posyandu* during a pandemic.." (Participant 8, Health Worker, 49 years old)

"Better because they must be at home..." (Participant 18, Cadre, 44 years old).

Service recipient

"Does it feel like there is something missing... I'm worried about how it's progressing, whether the weight has gone down or up..." (Participant 22, Mothers, 25 years old)

"I'm happy, even though it's still pandemic, we still served like that..." (Participant 27, Mothers, 31 years old)

"Yes, I'm happy... so continue a month every month even though it's not held in the *Banjar* and I'm visited at home..." (Participant 28, Mothers, 39 years old)

New Hope for The Program

1) **Procurement of facilities and infrastructure Playground**

"There are no toys... Sometimes children want to play..." (Participant 27, Mothers, 31 Years Old)

Anthropometric equipment

"...here's for the anthropometric equipment, if we can suggest that each

Posyandu has a meaning for the equipment so that the equipment is not moved here and there..." (Participant 8, Health Workers, 49 years old)

"...for the tool, if there is a better and more up-to-date tool, we will accept it..." (Participant 16, Cadre, 41 years old).

2) **Improving the quality of *Posyandu* Cadres capacity**

"... to increase book filling, to increase the ability to fill out mother child books from cadres..." (Participant 17, Cadre, 42 years old)

"...The cadres were given education first like this, like this, like this. Toddlers grow and develop well like this later if there are toddlers close to them..." (Participant 18, Cadre, 44 years old).

Community activities

"In the community activity unit, what we definitely want is that the community is really active." (Participant 7, Health Worker, 45 years old)

"Hopefully it may be increased so that the community is happy to come to the *Posyandu*..." (Participant 20, Cadre, 39 years old).

Procurement of health education

"Hopefully in the future it will be even better if it is possible, whether every month or how many weeks, the mothers are socialized on how to take care of their children, how to maintain the nutrition of their food..." (Participant 22, Mothers, 25 years old)

DISCUSSION

The *Posyandu* program is a form of community-based health effort that has been proven to improve the health status of mothers and children. Maternal and infant mortality rates have decreased from year to year (1). This indicates that the role and function of the *Posyandu* is very important in the community.

Several participants knew that the

originator of the *Posyandu* program was Indonesia's second president, Soeharto. This is in line with the history of the existence of the *Posyandu* program based on the Joint Instruction between the Minister of Health, the Head of the BKKBN and the Minister of Home Affairs in 1984. The launching of the *Posyandu*, which is a new form, was carried out for the first time by the Indonesian president in 1986, coinciding with the commemoration of National Health Day (1). So, the community is aware of the establishment of the *Posyandu* program and its originators.

The *Posyandu* program is felt to improve in terms of services and facilities and infrastructure provided. This is felt by the cadres and mothers who are involved in the program. The cadres in this study stated that the reward and reporting system is very good. This is in line with previous research which states that the activity of cadres will be influenced by getting incentive (11,12). In addition, the mothers in this study stated that the measuring instruments for weighing and supplementary food provided at the *Posyandu* were good. This is in line with previous research which states that community-based food supplementation can improve growth of underweight children in Indonesia (13). In addition, other studies also support participants' perceptions that the supplementary food in Indonesia provided by the *Posyandu* program is diverse and made from local food. It can improve the nutritional status of children significantly in rural areas (14). Therefore, the presence of the *Posyandu* program is felt to be very useful in the community, especially in optimizing the health of mothers and children.

However, conditions changed during the COVID-19 pandemic. The *Posyandu* program was stopped to reduce crowds in the community, especially for toddlers because they are one of the vulnerable populations. Several participants in this study mentioned that there were door to door visits. This is in line with previous research which stated that there was a modification of the time and method of

conducting the *Posyandu* program during a pandemic(15). In addition, other studies also stated that the community health volunteer gave their service door-to-door (16,17). There are several things mentioned by the participants in this study related to maternal and child health, namely immunization, pregnancy and family planning programs. Participants stated that immunization coverage did not change during the COVID-19 pandemic. This is in line with previous research which stated that there was no effect of the COVID-19 pandemic on immunization visits at the *Posyandu* (18). Pregnancy rates have increased in several parts of Indonesia during the pandemic. However, this condition did not occur in the study area. Participants stated that the pregnancy rate was the same as before the pandemic. In addition, the use of contraceptives is also fixed, so that the pregnancy rate can be suppressed. This is in line with previous research which states that the majority of women of childbearing age use contraception in the Badung area, Bali (19).

Success in immunization coverage, pregnancy, and family planning programs during a pandemic is certainly supported by cadres and health workers. This is confirmed by the results of research that services and communication are still carried out online. The type of platform used by all participants is WhatsApp group. This finding is in line with previous research which stated that the parenting education performed through Whatsapp can improve the level of maternal-paternal and infant attachment in Turkey significantly (20). Whatsapp-based intervention also help to improve maternal social support and maternal-child health (21,22). In addition, Whatsapp group messaging can improve the coordination of measles supplemental immunization activity in Nigeria (23). Technology is a link between service providers and service recipients during this pandemic. Therefore, its use can make it easier for health workers, cadres and mothers to monitor the health status of mothers and children. This study also

explores what health workers and cadres feel as service providers and mothers as *Posyandu* service recipients. There is a fear felt by service providers because toddlers are a vulnerable population. However, on the other hand, there were participants who stated that they were happy with the door to door service because toddlers must be at home. This finding is in line with previous results which stated that the community service by door to door used during a pandemic to improve maternal and child health (24,25). In addition, the mothers as recipients of services in this study were also very happy because they felt cared for by being visited to their respective homes. This is in line with previous research that stated that the experiences of new mothers during the COVID-19 pandemic was both 'blessings in disguise' (26). So, they need nurses and midwives come to understand and help new parents to focus on the blessings of that time (27). In addition, the modified antenatal care service during the pandemic with the technology-based intervention is very enjoyable for pregnant women (28). So, *Posyandu* service providers and recipients during a pandemic in the research area are adaptive to changes that occur.

The adaptation process that has been optimally still requires improvement, especially in the implementation of *Posyandu* in the new normal era. There are several things that are expected by the participants, namely improvements in facilities and infrastructure, as well as the quality of *Posyandu* services. This is in line with several steps that have been taken, especially in terms of increasing the capacity of cadres and the use of technology during the pandemic (29). The results obtained are the implementation of mobile *Posyandu* during the COVID-19 pandemic is quite positive and has been done by rescheduling and delivering tasks and duties into *Posyandu* cadres (30). So, cadre refreshment activities and improving the quality and quantity of infrastructure are very important to optimize the implementation of *Posyandu* in this new normal era.

CONCLUSION

The *Posyandu* program has changed from time to time, especially during the COVID-19 pandemic. The adaptation process must be carried out so that the health of mothers and children remains optimal in the era of new habits. Improvements in the aspects of facilities and infrastructure and the capacity of service providers are needed to maintain the continuity of the *Posyandu* program. The results of this study can be used as a basis for formulating strategic steps in improving *Posyandu* program services during the COVID-19 pandemic.

STRENGTH AND LIMITATION

The strength of this study is to explore the perceptions of all parties involved in the *Posyandu* program, namely health workers and cadres as service providers and parents as service users. The results obtained are more comprehensive and the information provided between participants can complement each other. The results obtained have implications for nursing services, especially pediatric and community nursing. In addition, these results can be used as a reference in developing an ideal *Posyandu* service model in the new normal adaptation period.

The researcher realizes that there are shortcomings in this study. This study has not elaborated the results of the qualitative analysis with the results of the quantitative survey. This can be a suggestion for further researchers to develop research using the mix-method.

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