

Effectiveness of use *Whatsapp* Groups in Implementation of Classes for Mothers Toddlers Aged 0-1 Years Against Knowledge of Mothers Toddlers in the Technical Implementation Unit, Barong Tongkok Community Health Center in 2022

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Abstract

Introduction: Children are valuable assets of the nation as the successor of the nation. Efforts to realize the need for an environment that is conducive to quality growth and development from an early age. One of the government programs is the establishment of a class of toddler mothers. However, during the COVID-19 pandemic, the implementation of the toddler mother class was postponed until the conditions were free from the COVID-19 pandemic. The solution to this problem is to conduct an online toddler mother class using WhatsApp Group media. **Objective:** The purpose of this study is to determine the effectiveness of using WhatsApp Grub in the implementation of classes for toddlers aged 0-1 years in increasing the knowledge of toddler mothers. **Method:** This study used Quasi experimental design with a two-grub pretest-posttest design approach. This study compared the knowledge of toddler mothers before and after treatment. **Results:** The results of the study obtained a p value of 0.000 or < 0.005 which means that the use of WhatsApp Group in the class of toddler mothers is effective in increasing the knowledge of toddler mothers. **Discussion:** Various factors that can influence knowledge are the sources of information obtained. The class of toddler mothers both using WhatsApp media and conventionally helps mothers to increase knowledge. **Conclusion:** Online classes for mothers of toddlers can improve the knowledge of mothers of toddlers. From the results of this study, it can be seen that we can improve knowledge and skills even though not through face-to-face learning, especially during the COVID-19 pandemic.

Keywords: Toddler Mother Class; WhatsApp; Knowledge;

How to Cite

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Introduction

Infant Mortality Rate (IMR) is the number of infant deaths in the first 28 days of life per 1000 live (Amalia, 2020). The infant mortality rate according to WHO (Organization, 2015) in ASEAN countries (Association of South East Asia Nations) such as Singapore 3 per 1000 live births, Malaysia 5.5 per 1000 live births, Thailand 17 per 1000 live births, Vietnam 18 per 1000 live births, and Indonesia 27 per 1000 live births. The Infant Mortality Rate (IMR) in Indonesia is still high compared to the 2015 MDGs (Millennium Development Goals) target of 23 per 1000 live births. (BUDIARTI, 2018)

The Infant Mortality Rate (IMR) in East Kalimantan itself consecutively from 2016 to 2020 was 638 cases in 2016, 605 cases in 2017, 671 cases in 2018, increased in 2019 to 688 cases, and 662 cases in 2020 (East Kalimantan Provincial Health Profile, 2020). Meanwhile, the infant mortality rate in West Kutai from 2017 to 2021 was 40 cases in 2017, 37 cases in 2018, increased in 2019 to 54 cases, and in 2020 there were 45 cases of infant deaths (West Kutai Health Office, 2020).

The Infant Mortality Rate (IMR) itself is also a scourge at the Barong Tongkok health center, this can be seen in the data obtained where the IMR at the Barong Tongkok health center from 2017 to 2021, namely 9 cases in 2016, 13 cases in 2017, 17 cases in 2018, 14 cases in 2019, 13 cases in 2020, and increased to 14 cases in 2021 (Profile of the Barong Tongkok Health Center).

Infant Mortality Rate (IMR) is one of the targets in the MDG's. The group of pregnant women, maternity, babies during the perinatal period is the most vulnerable group to health, therefore this group is the main focus of health development (Ministry of Health, 2017). In an effort to reduce IMR and AKABA in Indonesia, the government needs to intensify promotive and preventive efforts. Promotive and preventive efforts are carried out so that there is a change in the increase in knowledge, attitudes, skills of mothers and families in providing care to babies and toddlers.

Promotive efforts are closely related to the function of primary health services such as puskesmas. The government program implemented by the Puskesmas to carry out this function is the toddler mother class program (Siahaan, 2022). This toddler mother class program is not a new program, this program coincides with the implementation of the mother class for pregnant women and the toddler mother class is a continuation of the pregnant women's class (Sulisnadewi & Labir, 2020). The toddler mother class program is a class where mothers who have children aged 0-5 years together discuss, exchange opinions, experience the fulfillment of health services, nutrition and stimulation of growth and development, disease, guided by facilitators (health workers) (Virgian et al., 2022) (Ministry of Health, 2017)(Kemenkes, 2017)

In West Kutai, the toddler mother class program has existed since 2012 but not all puskesmas have implemented toddler mother classes. In 2020, the number of Puskesmas that carry out the Toddler Mother class is 8 Puskesmas from 19 puskesmas in West Kutai regency or has only reached 42.10% (Dinkes Kubar, 2020), and the Barong Tongkok

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health center is one of the puskesmas that has carried out class activities for toddler mothers.

The results of the initial study conducted at the Barong Tongkok Health Center obtained data that the number of toddlers at the Barong Tongkok Health Center in 2019 was 1667 toddlers, in 2020 there were 1589 toddlers. The number of babies aged 0-1 years in 2019 there were 392 babies, and in 2020 there were 360 babies. At the Barong Tongkok Health Center, the toddler mother class program began to run since 2017 but the implementation of the toddler mother class, especially in the work area of the Barong Tongkok Health Center, has not been effectively implemented, it can be seen that the percentage of toddler mother class activities only reached 28% in 2017, 28.9% in 2018, 29.2% in 2019, and decreased to 20.18% in 2020, and 22.34 percent in 2021.

The success of the KIB (Toddler Mother Class) program is influenced by several factors such as facilitators who have received toddler mother class training, existing facilities and infrastructure then the motivation of the KIB target, namely mothers who have toddlers according to the age grouping of toddlers. Of course, all of the above factors must support so that the toddler program can run well (Directorate General of Nutrition and Maternal and Child Health Development (Brahim et al., 2011). Based on the results of the evaluation of the child health program in 2020, data was obtained that the cause of the lack of participation of toddler mothers in toddler mother class activities was the factor of parents' lack of knowledge of the importance of participating in toddler mother class activities, geographical factors (places of implementation of activities far from home), parents' working hours, and current conditions during the Covid-19 pandemic (Profile of Puskesmas Barong Tongkok, 2020).

Behaviors related to maternal participation in the class of toddler mothers according to *Lawrence Green's* theory are formed from 3 factors, namely (Agustinawati et al., 2017) *predisposing factors* which include the characteristics of respondents (Age, gravida / pregnancy, complications / problems in pregnancy, parity / number of births, level of education, occupation), maternal knowledge, mother's attitudes in the class of toddler mothers; *enabling factors* includes: distance to the location of toddler mother class activities, the existence of toddler mother classes; *reinforcing factors* include family support (s uami) and midwife/health worker support (Notoatmodjo & Wuryaningsih, 2012)

Based on the problems mentioned above, the Barong Tongkok Health Center innovates in carrying out class activities for toddler mothers by utilizing *the Grub WhatsApp* media. The implementation of the toddler mother class through the *grub WhatsApp* media was carried out in 2021 with the aim that the toddler mother class could still be carried out and still be able to meet the program achievement target even in the conditions of the Covid-19 pandemic. In 2021, the activities of the toddler mother class using *WhatsApp Group* media have been carried out in 2 urban villages, namely Simpang Raya and Barong Tongkok, as well as in 2 villages, namely Rejo Basuki and Sendawar.

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The purpose of implementing the toddler mother class is to improve the knowledge, attitudes and behavior of mothers by using the MCH book in realizing optimal toddler growth and development. One of the factors supporting the success of the toddler mother class is the participation of toddler mothers in the toddler mother class. The results of research by Kartikawati et al (2016) stated that toddler mothers who actively participate in the toddler mother class have an effect on increasing the knowledge, attitudes, and skills of toddler mothers in caring for toddlers (Notoatmodjo, 2012).

The toddler mother class is organized in a participatory manner: meaning that mothers are not positioned to only receive information because passive positions tend to be ineffective in changing behavior (Kusumaningsih & Anggraeni, 2021). Therefore, the toddler mother class is designed with a *participatory* learning method where mothers are not seen as students, but as learning citizens (Aryastuti et al., 2020). In practice, mothers are encouraged to learn from each other's experiences, while facilitators act as directs to correct knowledge. The facilitator is not a teacher or lecturer who teaches, but in a limited scope he can be a source of learning. (Indrayani et al., 2019)

In the implementation of the Toddler Mother class through the *Whatsapp Group* media, discussion activities, exchanging experiences and delivering material by facilitators and resource persons were carried out online by exchanging messages using *the whatsapp group*. With the change in the process and way of learning in the class activities of toddler mothers from *offline* to *online* learning, it certainly does not rule out the possibility of obstacles in achieving the success of the toddler mother's class goal, namely increasing the knowledge, attitudes, and behavior of mother's effort to improve children's growth and development optimally.

Based on the above, researchers feel interested in researching the effect of using *Whatsapp groups* in the implementation of toddler mother classes on increasing the knowledge of toddler mothers aged 0-1 years at the Barong Tongkok health center in 2022.

Method

Quasi *experimental* design type of research with a *nonequivalent control grub design* approach. The population is 360 people from toddlers aged 0-1 years who ada in the working area of the Barong Tongkok health center in 2021. The study sample with a total sampling of 36 respondents. 18 Respondents of the Experimental group, and 18 Respondents of the Control group. The inclusion criteria in this study were respondents who had toddlers aged 0-1 years registered, recorded cellphone numbers of toddlers, used the *Whatsapp* application, and were willing to be samples and participate in class activities for toddler mothers. While the esclusion criteria are responden / Toddler mothers who cannot read.

The measuring instrument in this study is a questionnaire used in the form of a multiplechoice test and is divided into two, namely pretest and posttest where the pretest is used to find out or measure the extent to which the material to be studied has been

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mastered by toddler mothers, while the posttest is used to measure the increase in knowledge of toddler mothers as a whole the material that has been taught. Their questionnaire used in the experimental group using google form link while in the control group used a questionnaire sheet that was distributed directly to participants before and after the toddler class activity. Furthermore, data analysis uses descriptive tests and *paired t-tests*.

Results and Discussion

Result

1. Analyzes Univariate

Use of WhatsApp Grub

Table 1

Frequency Distribution of *WhatsApp Group* Users in class activities for mothers of toddlers aged 0-1 years

Alternative Answers	Frequency	Presented (%)
Using <i>WhatsApp</i>	36	100
Not Using <i>WhatsApp</i>	0	0
Total	36	100

Source: calculation result data using SPSS statistics 26

Table 1 above shows that all respondents have smartphones that support the use of the WhatsApp Groups application.

Toddler Mother's Knowledge

Table 2

Descriptive Statistics class Experiments in class activities for mothers of toddlers aged 0-1 years

Toddler mother's Knowledge Variables	N	N. Min	N. Max	Mean	Std Deviation
<i>Pretest</i> Experimental Class	18	45	75	64.44	7.454
<i>Posttest</i> Experimental Class	18	70	95	84.44	7.048

Table 3

Descriptive Statistics class Control in class activities for mothers of toddlers aged 0-1 years

Toddler mother's Knowledge Variables	N	N. Min	N. Max	Mean	Std Deviation
<i>Pretest</i> Experimental Class	18	45	70	57.78	8.085
<i>Posttest</i> Experimental Class	18	70	100	82.78	8.613

Tables 2 and 3 above show that known by the number of data (N as many as 18 for the experimental class and 18 for the control class, have a maximum *pretest* score of 75 for the experimental class and 70 for the control class, while the minimum *pretest* score has a score of 45 for the experimental class and 45 for the control class with an average of 64.44 for the experimental class and 57.78 for the control class, and a standard deviation of 7,454 for the experimental class and 8,085 for the control class. And on the score *Posttest* explained that it is known by the number of data (N as much as 18 for the experimental class and 18 for the control class, having a maximum *posttest* score of 95 for the experimental class and 100 for the control class, while the minimum score has a score of 70 for the experimental class and 70 for the control class with an average of 84.44 for the experimental class and 82.78 for the control class, and a standard deviation of 7,048 for the experimental class and 8,613 for the control class.

2. Bivariate Analysis

Table 4.

Hypothesis Test of Toddler Mother's Knowledge in control classes and experimental classes in class activities for toddler mothers aged 0-1 years

Knowledge variables Class	Mean	Lower	Upper	A	P-Value
Experiments (Using <i>WhatsApp</i> Groups)	-20.000	-22.089	-17.911	0.05	.000
Control (Not using <i>WhatsApp</i> /Face-to-Face)	-25.000	-28.191	-21.809	0.05	.000

Source: hypothesis test results using SPSS version 26

Based on the table above, it shows that the *sig* value in the experimental class and control class is 0.000, namely that $0.000 < 0.05$, it can be concluded that it is rejected and accepted H_0 . H_1 This shows that the use of *WhatsApp* Groups in the implementation of

classes for toddler mothers aged 0-1 years is effective in increasing the knowledge of Toddler Mothers

Discussion

Based on the results of research that has been carried out, it is known that the signification value of the use of *WhatsApp Groups* in class activities for Toddler Mothers to increase the knowledge of toddler mothers by 0.000 is smaller than 0.05 thus rejected and accepted. This means that the use of H_0H_1 *WhatsApp Groups* in class activities for toddlers aged 0-1 years is effective in increasing the knowledge of toddler mothers.

Knowledge is the result of knowing obtained from a person doing sensing. Various factors that can influence knowledge are the sources of information obtained (Notoatmodjo & Wuryaningsih, 2012). In accordance with Tarigan's research (Tarigan, 2019) states that the subject's exposure to sources of information is significantly related to the increase in knowledge. Haryanti (2018) added that the sources of information obtained are mostly 27 (50.9%) have good knowledge of the number 17 (32.1%) obtained sources from the internet or online (Haryati, 2018)

During this pandemic, health services in service centers in hospitals and health centers are limited. The advice to postpone children to the hospital unless in an emergency continues to be socialized. In addition, in-person toddler class activities were postponed until conditions were free from the COVID-19 pandemic. However, for the detection of developments, it must still be carried out, in an independent way by family or parents (Ministry of Health, 2020). Classes for mothers of toddlers using WhatsApp This group helps mothers to increase knowledge in detecting and stimulating child development.

In line with the research (Putra, 2020) states that online learning using the zoom application and Whatsapp Group provides convenience and flexibility. Mastery of knowledge and skills is more effective individuals experience it themselves not only waiting for material from the facilitator but must make their own efforts to find new knowledge and skills and then integrate them with knowledge and skills that they already have before (Putra & Nisaurasyidah, 2020)

Other research also revealed Monica & Fitriawati (Monica & Fitriawati, 2020) online learning received very good responses from students because learning is more flexible when using it. Gunawan's research (Gunawan, 2020) added that online learning using the zoom application and WhatsApp Group improves online learning outcomes in thematic learning. Online learning can also have the advantage of fostering learning independence and increasing learning motivation and courage to express opinions (Sadikin & Hamidah, 2020)

Based on the results of this study, the results of the implementation of the toddler mother class both using WhatsApp Group media and through conventional / face-to-face methods were both effective in increasing the knowledge of toddler mothers, but based on the average results of the implementation of the toddler mother class using

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conventional methods has a higher average increase in knowledge, this is due to the implementation of the Toddler Mother Class using *WhatsApp Group* media. There is a shortcoming that the facilitator cannot monitor the development of the respondent directly or the facilitator is difficult to measure the character of the respondent because to measure the character must be by interacting and analyzing directly. Respondents were also unable to ask directly about the toddler's mother's class material that was not yet understood, The process of remote communication is not entirely effective because it is prone to errors in receiving and digesting information.

In conventional / face-to-face classes, respondents can directly ask the facilitator questions and there will be closeness or direct interaction so that it is easy for the facilitator to assess the character of the respondent, not only that, the practicum process will be easier to prepare, organize and assess because respondents can be seen directly the performance and work process by the facilitator.

The above is in line with Ricky Rohmanto's research, Typhoon Setiawan (Rohmanto & Setiawan, 2022), where it was concluded that the offline learning system was considered more effective with a percentage of 64.99% compared to online learning with a percentage of 31.52%, where in the online learning process there were weaknesses including not being able to assess directly, there was no direct interaction, making communication difficult.

Conclusion

Based on the results of the analysis of Toddler Mother's Knowledge before the toddler mother's class activities were carried out with *WhatsApp Group* media, the minimum value of toddler mothers was 45, the maximum value was 75 with an average score of 64.44. Based on the results of the analysis of Toddler Mother Knowledge after conducting class activities for toddler mothers with *WhatsApp Group* media, the minimum value of toddler mothers is 70, the maximum value is 95 with an average value of 84.44. There was an average increase of 20.00 knowledge of mothers before and after the implementation of the toddler mother class. Based on the results of the analysis, it can be concluded that the use of *Whatsapp Group* media in class activities for toddler mothers aged 0-1 years is effective in increasing the knowledge of toddler mothers

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