

Training and mentoring of Health Workers and Cadres of Bengkulu City Health Center in Monitoring The Growth and Development of Toddlers with The SDIDTK Application

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ABSTRAK

Pemantauan tumbuh kembang anak merupakan salah satu program dasar yang dilaksanakan oleh Puskesmas sebagai upaya menjamin kehidupan yang sehat dan meningkatkan kesejahteraan anak. Dinas Kesehatan Kota Bengkulu mengidentifikasi adanya keterbatasan SDM dan kurangnya alat dukung sebagai faktor penghambat dalam mencapai target pelayanan SDIDTK. Pengabdian dilaksanakan melalui pelatihan Pemantauan Tumbuh Kembang dengan Aplikasi SDIDTK Berbasis Android dan pendampingan lapangan. Pelatihan dilaksanakan pada tanggal 24-25 Juli 2024 dengan peserta 36 orang yang terdiri dari 17 Nakes, 17 Kader dari 17 Puskesmas dan 2 orang staf Bidang Kesga Dinkes Kota Bengkulu di Aula Kampus 4 Universitas Bengkulu. Hasil pre dan post test pelatihan menunjukkan 94% peserta pengetahuannya meningkat. Hasil penilaian keterampilan penggunaan aplikasi 100% peserta mampu melakukan sesuai petunjuk. Bantuan SDIDTK Kit disampaikan kepada 17 Puskesmas dengan penandatanganan Berita acara oleh Ketua Pengabdian dan staf Bidang Kesga Dinkes Kota Bengkulu. Pendampingan lapangan dilaksanakan selama 2 minggu pasca Pelatihan di 17 wilayah kerja Puskesmas.

ABSTRACT

Monitoring children's growth and development is one of the basic programs implemented by Community health center (Puskesmas) to ensure a healthy life and improve children's welfare. The Bengkulu City Health Office identified limited human resources and a lack of supporting tools as inhibiting factors in achieving SDIDTK service targets. The service was carried out through training on Growth and Development Monitoring with the Android-based SDIDTK Application and field assistance. The training was held on July 24-25, 2024 with 36 participants consisting of 17 health workers, 17 cadres from 17 health centers, and 2 staff from the Family Welfare Division of the Bengkulu City Health Office at the Campus 4 Hall of Bengkulu University. The results of the pre and post-test of the training showed that 94% of participants increased their knowledge. The results of the assessment of skills in using the application showed that 100% of participants were able to do as directed. SDIDTK Kit assistance was delivered to 17 Puskesmas with the signing of the Minutes by the Head of Service implementer and staff of the Health Division of the Bengkulu City Health Office. Field assistance was carried out for 2 weeks after the training in 17 Puskesmas working areas.

INTRODUCTION

Children are the first generation of successors and hope for the nation. Healthy and quality children are the main goal of health efforts by families and the government. There are many challenges and problems in the process of growth and development of children, especially

toddlers. Many factors influence the growth and development process, namely internal factors in the form of genetics, race, age, gender, and family, and external factors, namely prenatal, intranasal, and postnatal factors which include many subfactors including psychosocial and economic factors (Kemenkes, 2016).

Growth and development are two inseparable aspects. Both have a close relationship where growth failure can affect development and cause deviations. UNICEF states that 54% of toddlers who experience growth failure in the form of stunting are in the Asian region 40% are in the African region, while 69% of toddlers with wasting conditions are in Asia and 27% in Africa (UNICEF, 2020). Globally, in 2016, approximately 52.9 million children were reported to have identifiable developmental delays and 95% of the population were in low- and middle-income countries (Khan & Leventhal, 2020). Nationally in Indonesia in 2021, the prevalence of very short toddlers was 1.7% and short toddlers were 5.7%. The province with the highest percentage of very short and short height categories in toddlers is West Sulawesi Province, while the province with the lowest percentage is DKI Jakarta Province. In Bengkulu Province, the prevalence of very short toddlers was 0.9% and short to 2.7% (Kemenkes, 2022). The Ministry of Health states that as many as 16% of toddlers in Indonesia experience developmental disorders, both fine motor development, gross motor hearing impairment, lack of intelligence, and speech delay (Indrayani, Legiati, & Hidayanti, 2019).

Growth and development monitoring in Indonesia is carried out in stages starting from the family/community level using the KIA book development checklist. The results of developmental checks through the KIA book with incomplete interpretation are followed up with growth and development checks by health workers through Stimulation, Detection, and Early Intervention of Child Growth and Development (SDIDTK) activities at the Puskesmas. The percentage of toddlers served by SDIDTK nationally in 2022 is 61.3% with the highest province being West Nusa Tenggara (89.1%) and the lowest being Papua (19.2%), while in Bengkulu Province it is 66.6% (national target 75%) (Kemenkes, 2022).

Growth and development monitoring of under-five children was conducted at all health centers and Posyandu in Bengkulu City. Of the 33,286 reported toddlers, 21,794 (65.5%) received health services. Under-five weighing coverage decreased by 19.2% compared to 2017 where the 2017 achievement was 80.6% and in 2018 it was 61.4%. The Bengkulu City Health Office makes quality basic health services a target but identifies the existence of limited human resources and the lack of supporting equipment for health services as an inhibiting factor (Bengkulu, 2019). In addition, the synergy of health human resources with cadres in these efforts is needed. The existence of training and the role of cadres is associated with the implementation of growth and development monitoring in toddlers in the community (Wahyutomo, 2010).

Digitalization currently facilitates the detection system of health problems and facilitates the rate of information and administration. The android-based SDIDTK application is one of the supporting tools that can facilitate the performance of cadres and health workers in monitoring and even intervening in early growth and development problems in toddlers. Information obtained through an initial survey of several health workers and cadres found that monitoring is still done manually using the KIA book and still faces various obstacles including not many mothers of toddlers who come to the posyandu because of the possibility of less attractive services. Therefore, it is necessary to carry out a service to increase the capacity of health workers and cadres through training in monitoring the growth and development of toddlers through training in monitoring the growth and development of toddlers with Android-based applications in the working area of the Bengkulu City Health Center.

METHOD

Community Service (PkM) serves as a fundamental component of the Tridharma of Higher Education in Indonesia, emphasizing the importance of academic institutions contributing positively to society (Rusli & Boari, Yoseb; Amelia, 2024). This service aims to increase the capacity of health workers and cadres at the Bengkulu City Health Center. The activities carried out are providing training on growth and development monitoring and early intervention of growth and development problems with the android-based SDIDTK application and field assistance. Training and mentoring were conducted in July-August 2024 in Bengkulu City. Participants were health workers and health center cadres in Bengkulu City. The resource persons were the Head 4 members of the service team and 2 external experts. The use of the application is supported by the SDIDTK Kit which is a set of stimulation tools and toys such as dolls, wooden cubes, stationery, E-cards, and E posters. SDIDTK Kit in this activity is provided by Service Implementer as well as given as in-kind assistance to 17 Puskesmas that send participants. Furthermore, post-training field assistance was carried out for 2 weeks in the work areas of the 17 health centers from which the participants came. The following describes the working mechanism of the Android-based SDIDTK application implemented in this service:

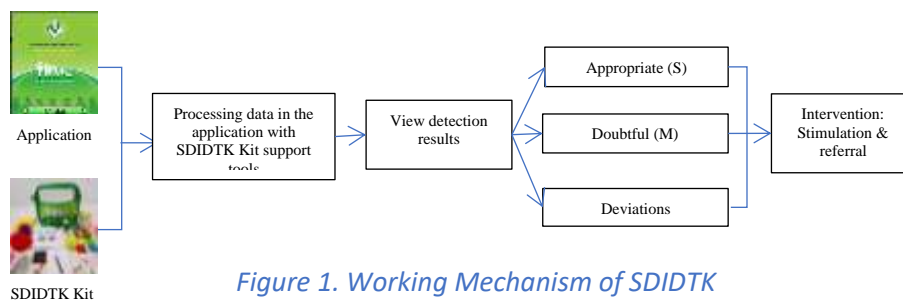


Figure 1. Working Mechanism of SDIDTK

RESULT AND DISCUSSION

Result

This community service activity has been carried out through the provision of training on monitoring and intervening in toddler growth and development problems with the Android-based SDIDTK application. The activity was carried out on July 24-25, 2024 at the Padang Harapan campus 4 hall with 36 participants consisting of 17 health workers and 17 cadres from 17 Bengkulu City Health Centers and 2 staff from the Family Health Division (Kesga) of the Bengkulu City Health Office. This activity was originally to be carried out at the Bengkulu City Health Office hall but the partner confirmed that the hall could not be used optimally considering the city health office's electrical power was in trouble and did not have wifi to facilitate activities related to the process of using the application later so that the activity was transferred to the UNIB campus 4 hall in Padang Harapan.

The activity went smoothly and the participants were quite enthusiastic in following the stages of the activity. The activity began with an opening ceremony, which was preceded by remarks from the representative of the Health Division of the Bengkulu City Health Office as a service partner and the Head of Service Implementer as well as officially opening the activity. The rundown of training activities in general is as follows:

Table 1. Methods of Implementation of Training and Assistance for Monitoring Growth and Development with the Android-Based SDIDTK Application.

No	Material	Outcome Indicator	Method	Instrument evaluation	Source
Day-1					
1	Epidemiology of growth and development problems	Improved cognitive capacity	Lecture Q&A, brainstorming	Pre and post-questionnaire	Vernonia S.K.M.,M.K.M
2	Problems and developmental deviations in toddlers	Improved cognitive capacity	Lecture Q&A, brainstorming	Pre and post-questionnaire	dr.Thesa AJ, M.Ked (Med),Sp.A
3	Referral and care system	Improved cognitive capacity	Lecture Q&A, brainstorming	Pre and post-questionnaire	Novianti, S.ST.,M.Keb Ns Anggana Kastras S.Kep.,M.Kep
Day-2					
4	eEffective Communication and Counseling for Mothers of Toddlers	Improved cognitive capacity	Lecture Q&A, brainstorming	Pre and post-questionnaire	Fitri Ramadhaniati, S.ST.,M.Keb
5	SDIDTK App	Increased cognitive, affective, and psychomotor capacity	Lecture Questions and Answers, brainstorming practice stages of use with players media (SDIDTK Kit)	Pre and post-questionnaire Checklist	Neng S.ST.,S.KM.,M.Tr.Keb Kurniati,
6	SDIDTK Kit Delivery	goods assistance	Assignment of implementation to target audience of health workers or cadres	Documentation of the signing of the minutes of the handover of tool assistance	Service Team

Evaluation of activities through questionnaires was conducted through form to assess the understanding and success of training for participants. The results of the training evaluation showed that there were 34 participants (94%) with an increased understanding of the overall material assessed through pre and post-tests. Evaluation of skills in using the application showed that 100% of participants were able to do well according to the instructions for use. On July 25, 2024, at the end of the training session, the team handed over the SDIDTK Kit to 17 Puskesmas of Bengkulu City. The handover of assistance began with the signing of the minutes of the handover of goods by the Division of Family Welfare of Bengkulu City Health Office and the Head of Service Implementer. In addition, training participants received training kits, modules, and certificates.



Figure 2. Documentation of Training Activities

During the 2 weeks post-training, coordination and field assistance were carried out in the work areas of 17 health centers that participated in the training, namely: Puskesmas Penurunan, Puskesmas Lingkar Barat, Puskesmas Anggut Atas, Puskesmas Lempuing, Puskesmas Jalan Gedang, Puskesmas Jembatan Kecil, Puskesmas Beringin Raya, Puskesmas Sukamerindu, Puskesmas Lingkar Timur, Puskesmas Muara Bangka Hulu, Puskesmas Nusa Indah, Puskesmas Kandang, Puskesmas Sawah Lebar, Puskesmas Kampung Bali, Puskesmas Pasar Ikan, Puskesmas Telaga Dewa and Puskesmas Sidomulyo. Assistance begins with coordination to determine the schedule and place of assistance at Posyandu or Growth and Development Monitoring activities at the local Early Childhood Education (PAUD).



Figure 2. Field Assistance Activities

This mentoring activity initially experienced a few obstacles where many of the Puskesmas were renovating buildings, implementing the PIN program, and various other activities, but this could be overcome by coordination carried out both offline and online. Within 2 weeks of the mentoring activity, it is known that health workers and cadres have applied the results of the training in the field and said that this application is quite helpful because it can reduce the pile of documents and intervention instructions for the results found. Furthermore, health workers hope that this application can be developed in the future with a recapitulation feature of measurement results and integrated with the reporting system at the Puskesmas.

Discussion

Growth and development monitoring and early intervention of problems found has become a mandatory program at the primary health care level in Indonesia. This includes aspects of growth where monitoring is seen from physical measurements through anthropometry, namely Body Weight (BW), Body Length/Height (PB/TB), Upper Arm Circumference, Head Circumference, chest and abdomen. General measurements are taken through BW and TB to assess the child's growth rate. Assessment in this aspect is aimed at assessing the nutritional status of children. Posyandu is the smallest unit that conducts routine weighing for toddlers with high weighing achievements and its services are assisted by local cadres. The weighing results will be included in the growth curve on the KMS and MCH book as a track record of growth monitoring

assessed by health workers for further intervention steps if problems are found, whether normal, overweight, or malnourished.

Growth monitoring is done by plotting the measurements onto a growth chart and comparing them with previous measurements. Children with special conditions, such as very low birth weight (Down's, chondroplasia, and other dysmorphic syndromes) use different growth curves. Four growth curves are used by the WHO: length/height by age, weight by age, weight by length/height, and body mass index (BMI) by age. Each curve has an X-axis (horizontal) showing age or length/height and a Y-axis (vertical) showing length/height, weight, or BMI. The measurement results will be plotted by bringing the two lines together. On each curve, there is a line labeled 0 or median which is the standard/mean. There is also a Z line, which is numbered 1, 2, 3 (above the median) and -1, -2, -3 (below the median) (Pulungan, 2020).

Experimental studies of Posyandu cadres conducted to see the difference between standardized training interventions for monitoring the growth and development of toddlers and the provision of modules alone showed significant differences so that standardized training for monitoring the growth and development of toddlers, knowledge, skills, and compliance of cadres increased significantly compared to only being given a module (Evita, Mursyid, & Siswati, 2016). A qualitative study revealed that there are still many cadres who do not plot the results of weighing on KMS (card to health), interpretation of weight changes has not been done correctly and counseling has not gone well. This study also addressed the need to reposition posyandu as a means of monitoring toddler growth and efforts to increase knowledge about routine growth monitoring for health workers and cadres (Aditianti, Luciasari, Permanasari, Julianti, & Permana, 2019).

Many studies have also shown that the educational medium used influences the results obtained. In this era, educational media and even assessment tools, referrals, and even medical actions have been transformed into digitalization. Service by providing education on growth and development monitoring using KPSP has been shown to increase participants' knowledge (Jaya & Dalle, 2024). The service we have done, namely providing training on monitoring and early intervention of growth and development with the Android-based SDIDTK application, makes it easier for health workers and cadres to carry out monitoring intervention and referral mechanisms.

Based on the results of the training evaluation through pre and post-tests, there was a significant increase in knowledge and additional skills for health workers and cadres in monitoring and intervening in the growth and development of toddlers. Randomly in the field when conducting post-training assistance, it was found that health workers conveyed the positive impact of the training results on the ability of health workers to provide higher-quality monitoring services. In addition, this application can certainly replace the paper-based KPSP method so that it is paperless and supports environmental health.

CONCLUSION

Service activities through training and field assistance in the Monitoring and Early Intervention of Toddler Growth and Development Problems program with the Android-based SDIDTK application can increase the capacity of health workers and cadres and help the monitoring process in the field. This application can be socialized by health workers or cadres with colleagues or even mothers of toddlers so that growth and development monitoring and early intervention of growth and development problems in The Puskesmas working area can run optimally.

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