
**IMPROVING THE KNOWLEDGE OF SCHOOL HEALTH AMBASSADOR
(DOKTER KECIL) THROUGH "DINOS" PROGRAM FOR ELEMENTARY
SCHOOL STUDENTS IN THE CATCHMENT AREA OF PUSKESMAS SEBERANG
PADANG**

**Rima Semiarty[✉], Husna Yetti, Refa Rahmaddiansyah, Iqbal Muhammad Helmi,
Ilham Andhika Zulen, Maya Amanda, Nurul Syifa Kurnia, Laila Nur Azizah,
Salsabila Dhiyaa Syifa, Salsa Naudzul Athiyyah**

Faculty of Medicine Universitas Andalas, Padang, Indonesia

Email: rimasemiarty@med.unand.ac.id

DOI: <https://doi.org/10.46880/methabdi.Vol4No2.pp153-160>

ABSTRACT

Health education within schools plays a crucial role in enhancing children's health and establishing a safe and healthy learning environment. Despite this, the risk of illness in schools remains a concern, particularly for elementary school-aged children who are susceptible to sanitation-related health issues. The "Dokter Kecil" (or School Health Ambassador) program is designed to engage students in promoting the health of individuals, families, and their surroundings. This research aims to reintroduce the program in the Puskesmas Seberang Padang area, focusing on a promotive and preventive approach known as DINOS. The program's effectiveness was evaluated using pre-test and post-test questionnaires to assess the knowledge of the student participants. Based on the normality test of pretest and post-test score data using statistical tests, it is found that the Sig value (2-tailed) is $0.002 < 0.05$. Therefore, it can be concluded that there is a significant difference between the results of the DINOS material exposure and simulation on pre-test and post-test data. Data analysis revealed a significant difference between the pre-test and post-test results, indicating the effectiveness of the material presentation and DINOS simulation. These results are expected to help better school health program implementation and more successfully address health issues for Indonesian school-age children, especially in the Puskesmas Seberang Padang area.

Keyword: School Health Ambassador, Puskesmas, Health Promotion, Elementary School.

BACKGROUND

Health education is one way to achieve physical and mental well-being. Schools serve as important and ideal institutions to initiate health education. This is in line with UU No 36 Tahun 2009 Article 79 paragraph 1 on Health, which states that school health is organized to enhance the ability of students to live healthy lives within a healthy environment so that students, particularly children, can learn, grow, and develop harmoniously to become high-quality human resources (Maqfiroh, 2016; Presiden Republik Indonesia, 2009).

Children are regarded as valuable assets for the progress of a nation, requiring education and healthcare to support their growth and

development. The school environment plays a role in the educational process and can also be a significant source of disease transmission, primarily due to physical interactions among children and a lack of awareness about proper hygiene practices (Arend, 2020).

Elementary school-aged children are a vulnerable age group when it comes to health issues, especially those related to the risks of diseases due to hygiene and environmental factors (Rahmaddiansyah, Nurmiati, Rusti, et al., 2023). Therefore, it is important to pay attention to the sanitation conditions in schools and enhance health education for children to prevent the risk of unwanted disease transmission (Aminah et al., 2021). Permenkes Number 25 Tahun 2014 affirms

the fundamental rights of every child to live, grow, and be protected from violence and discrimination. Both the government and society bear the responsibility to provide full attention to children's health, encompassing physical, social, emotional, and psychological aspects (Lestari, 2023).

Efforts to promote child health must be integrated, comprehensive, and continuous, involving active participation from all stakeholders, including the central government, provincial and local authorities, as well as cross-sectoral involvement of both governmental and community sectors. Community participation entails engagement in health programs, awareness campaigns, monitoring, and supervision of child health within their surroundings (Menteri Kesehatan Republik Indonesia, 2014).

The school health ambassador program or in Indonesia known as "Dokter Kecil" program is an initiative aimed at promoting healthy behaviors, including personal hygiene, with active student participation as practitioners. This program aims to improve individual, family, and environmental health. Support from the community, health centers, and government is crucial for the smooth implementation of this program. The community can assist in school health activities and disseminate important information about healthy living. Health centers provide technical support and training for school health ambassadors and teachers supervising the School Health Unit (UKS), while the government provides policies, budgets, and monitors and evaluates the program (Rahmaddiansyah, Nurmiati, & Rusti, 2023; Yaslina et al., 2019).

Synergistic collaboration between the community, health centers, and government is crucial for the success and sustainability of the program of "Dokter Kecil". With active support from all three parties, this program can provide optimal benefits for children's health and school environments. Therefore, the role and implementation of the "Dokter Kecil" program are crucial in advancing the health of the younger generation (Herfanda & Wahyuntari, 2021).

With the "Dokter Kecil" program in place, it is hoped that School Health Efforts (UKS) will

become more active and encourage students' participation in enhancing health education.

GOALS AND BENEFIT

The community service activities aim to provide training and enhance the knowledge of elementary school students about the School Health Efforts (UKS) to improve health standards in Indonesia. Specifically, the launch of this innovation and community service aims to revitalize the "Dokter Kecil" program in the working area of Puskesmas Seberang Padang to maximize a comprehensive health approach in schools, particularly in promotive and preventive efforts. Additionally, the activities are expected to benefit the related community as part of the implementation of the three pillars of higher education by Universitas Andalas in the field of public health and community medicine.

METHOD

Community Service Partners

The activities took place at Bagindo Aziz Chan Building, located at Jl. Bagindo Aziz Chan No. 8, Padang, Indonesia 25211. The partners involved in this event were the School health ambassadors of Community Medicine Faculty of Medicine Universitas Andalas, together with Puskesmas Seberang Padang.



Picture 1. Venue of Program Launching.

Material and Method

The strategies carried out with PAR method (participatory action research). The material provided includes general knowledge of the school health ambassador, the UKS triad, basic medicines, first aid (P3K), bandaging and splinting, immunization, oral and dental health, environmental health, and nutrition science. The program launching and educational activities took place on March 9, 2024, at the Bagindo Aziz Chan Building, Padang. The event also invited stakeholders, including the Chairman of the Indonesian Medical Association (IDI) Padang branch, the South Padang Subdistrict Head, and the Head of the Seberang Padang Community Health Center (Puskesmas). The training activities were facilitated by the school health ambassadors of Community Medicine at the Faculty of Medicine, Andalas University.

The target audience consisted of representatives of elementary school students in the Seberang Padang Community Health Center area, specifically fourth and fifth graders, with four students per school selected as "school health ambassadors" by their respective schools, totaling 31 student participants.

The method of community service activity implementation involved delivering educational lectures using PowerPoint presentations and health education videos. The material was presented using a laptop and projector in front of elementary school students. The community service program was named "DINOS" and was tailored to the target audience with an engaging children's theme.

The outreach activities were divided into three educational sessions. The first session involved the presentation of materials and the "school health ambassador" module by the Chairman of the Indonesian Medical Association (IDI) Padang branch, Dr. Muhammad Riendra, Sp.BTKV(K). The second session consisted of interactive discussions where participants were encouraged to ask questions to the speakers. The third session involved live teaching with the topic of basic first aid introduction and medical management by Dr. Fitrahul Afifah from the

Seberang Padang Community Health Center (Hong et al., 2023).

The evaluation method of the activity is conducted using a knowledge level questionnaire based on the Small Doctor Guidelines of 2011 by the Ministry of Health of the Republic of Indonesia (Direktorat Bina Kesehatan Anak, 2011).

RESULTS AND DISCUSSION

Preparation Phase

The preparation begins by setting the date for the launch event and training for the school health ambassadors through discussions with the head of the community health center and program stakeholders. Based on the discussion's outcome, the DINOS implementation and training are scheduled for Saturday, March 9, 2024, at the Bagindo Aziz Youth Center. Subsequently, the committee holds a meeting to draft the event schedule and training topics.

The next step in the preparation process involves determining the target participants for the activity. Since the topic is about "dokter kecil," the target comprises 2 students from Grade 4 and 2 students from Grade 5 of elementary schools, along with the School Health Unit (UKS) supervisors in the working area of Puskesmas Seberang Padang. There are 10 elementary schools identified to pioneer the school health ambassador initiative: DEK Elementary School, Kalam Kudus Elementary School, SDN 15 Alang Laweh, SDN 08 Alang Laweh, Kartika Elementary School 1—12, SDN 37 Alang Laweh, SDN 13, SDN 41, SDN 38, and SDN 23 Ranah (Anwar, 2023).



Picture 2. Promotion and School Invitation to DINOS Program.

Then, other invited guests who participated in the launch and inauguration of DINOS were all headmasters of elementary schools in the Seberang Padang working area, the head of the local health center, the education coordinator for the Seberang Padang region, and the South Padang district chief. Next, a search was conducted for speakers who would assist in this training activity. We invited speakers from the Indonesian Medical Association (IDI) branch in Padang, namely Dr. dr. Muhammad Riendra, Sp.BTKV (K), as the main speaker for the small doctor training materials. Meanwhile, the speakers for the P3K training and bandaging were Dr. Fitrahul Afifah accompanied by the PKPR program holder from the Seberang Padang Health Center, Dr. Mila.

In addition, a rundown of the event was prepared, as well as snacks for all invited guests and participants, certificates, and souvenirs for the speakers. Pre-test and post-test questionnaires were also prepared for the small doctor participants. Planning in the preparation of pre-test and post-test questionnaires regarding knowledge about small doctor materials was adjusted to be easily understood language to measure the level of knowledge of prospective small doctors.

The questionnaire was composed of questions based on the 2011 Small Doctor Training Guidelines with the technique of answering multiple-choice questions. The pre-test and post-test questionnaires had exactly the same questions to test the level of knowledge of prospective small doctors after being exposed to the counseling. The pre-test and post-test questionnaires consisted of 25 questions to assess the knowledge of prospective small doctors. Each correct answer would be given 4 points, and if wrong, 0 points would be given. The results of the points from both types of questionnaires would be interpreted. Where the category is good if the total score is $\geq 75\%$, the category is fair if the total score is 56-74%, and the category is poor if the total score is $\leq 55\%$ (Rahmaddiansyah, Rusti, & Fetriwanti, 2023).

Action Phase

The activity took place on Saturday, March 9, 2024, from 08:00 to 14:00 WIB at the Bagindo Aziz Chan Building in Padang. According to the data compiled by the organizing committee, there were 50 attendees, consisting of 33 small doctors, 10 UKS supervisors, headmasters, district chiefs, the head of the Seberang Padang Health Center, and speakers. Participants who had signed the attendance sheet would be given 1 snack box and 1 DINOS pin.



Picture 3. Symbolic Installation of DINOS Pins.

The event began with opening remarks by the head of Puskesmas Seberang Padang and the Padang Selatan District Head, along with the introduction of the DINOS program. The inauguration was marked by the symbolic pinning of the DINOS pins to 2 students and was followed by the other participants. Additionally, each school received DINOS modules. Then, launching the DINOS program. It proceeded with a group photo session followed by the distribution of pre-tests to the school health ambassadors regarding their knowledge about being a school health ambassador. The pre-tests, once completed, were collected and checked by the school health ambassadors from the Department of Community Medicine, Faculty of Medicine, Andalas University, as the event committee.



Picture 4. Pre-Test Session.

After the pre-test, the presentation session commenced. The school health ambassadors received their training from Dr. dr. Muhammad Riendra, Sp.BTKV (K), the chairman of the Ikatan Dokter Indonesia (IDI) Cabang Padang. The topics covered included insights into the School Health Unit (UKS), First Aid (P3K), environmental health, and nutrition.

The school health ambassadors listened attentively and took notes during the presentations. After the material was presented, the speakers were presented with certificates and souvenirs.



Picture 5. Session on Providing Insights into School Health Ambassador's Knowledge.

Afterward, it continued with an ice-breaking session and practicing the use of first aid kits and bandages. Here, the school health ambassadors engaged in interactive interactions between the facilitator and other school health ambassadors. Below is documentation of the interactive session on using first aid kits and bandaging.



Picture 6. First Aid Practice and Bandaging.

At the end of the event, a post-test was conducted using the same questions for the school health ambassadors. The results of the post-test were examined by the school health ambassadors from the Department of Community Medicine, Faculty of Medicine, Andalas University, with the pre-test and post-test questionnaire scores presented in the following graph.

The DINOS program event was concluded with a video session and the presentation of prizes to three DINOS participants: one for the most active participant and two for the highest post-test scores. The prizes were awarded by Dr. Milla, the program coordinator. Following this, the participants were allowed to leave, receiving their certificates and lunch provided by the organizers.



Picture 7. Group photo session with invited guests and participants of the event.

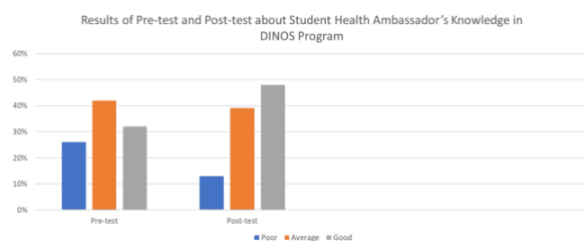
Evaluation Phase

The participants responded positively to the delivery of the materials and training for the school health ambassadors. The Puskesmas

(Community Health Center) fully supported and appreciated the DINOS program, and they expressed their intention to revitalize the school health ambassador program, which was temporarily halted due to the COVID-19 pandemic. The revival of this program is expected to further enhance the knowledge, awareness, and compliance of elementary school students regarding health.

The knowledge level of the participants acting as school health ambassadors was evaluated using a questionnaire based on the 2011 School Health Ambassador Guidelines by the Ministry of Health. The completion of the pre-test and post-test questionnaires proceeded smoothly, with all participants (students from grades 4 and 5) submitting their questionnaires on time. Only the questionnaires completed in full by the participants were included in the data analysis. The questionnaire aimed to assess the knowledge level of the school health ambassadors, consisting of 25 questions where each correct answer was given a score of 2, and incorrect answers were given a score of 0 (Rahmaddiansyah, Nurmiati, & Rusti, 2023).

Here is the data from the pre-test and post-test results regarding the knowledge of school health ambassadors in DINOS program:



Picture 8. Pretest and Posttest Results Diagram of the Student Health Ambassador's Knowledge Level.

Based on the diagram, it is explained that out of 31 participants who took the pretest, 12 individuals (32%) had a good level of knowledge, 12 individuals (42%) had an average level of knowledge, and 7 individuals (26%) had a poor level of knowledge. After the delivery of materials and training, followed by a post-test using the same questionnaire, 15 participants (48%) had a good level of knowledge, 11 individuals (39%)

had an adequate level of knowledge, and 5 individuals (13%) had a poor level of knowledge.

Based on the normality test of pretest and post-test score data using statistical tests, it is found that the Sig value (2-tailed) is $0.002 < 0.05$. Therefore, it can be concluded that there is a significant difference between the results of the DINOS material exposure and simulation on pre-test and post-test data. This is consistent with the findings of Rahmaddiansyah et al., who conducted small doctor mentoring at SDN 21 Limau Sundai, which could improve knowledge about Clean and Healthy Behavior for students, both within and outside the school environment (Rahmaddiansyah, Nurmiati, & Rusti, 2023).

On the other hand, Sutysna et al. also reported that participation in this activity can strengthen the activities of the School Health Unit (UKS) at SD Muhammadiyah and stimulate the spirit of Muhammadiyah cadres from childhood to pursue the goal of becoming doctors with integrity and in line with Islamic values (Sutysna et al., 2021).

Ristante et al. also confirmed that health education using simulation methods can improve the knowledge and skills of school health ambassadors in managing open wounds. The utilization of simulation-based learning approaches has been found to enhance participants' ability to interact socially and build communicative relationships within their groups (Ristante, 2019).

In addition to the importance of Clean and Healthy Living Education (PHBS), research conducted by Failasufa et al. also highlights that community service activities aimed at training young dentists have successfully attracted the participation of 20 cadet participants. In this activity, all cadets could effectively conduct dental health education (Failasufa et al., 2023).

On the other hand, a similar program carried out by Mariyani also experienced similar success, where the community service activities ran smoothly and were able to improve clean and healthy living behaviors among students at Mustikajaya Elementary School (Mariyani et al., 2019).

Education activities can enhance respondents' knowledge levels regarding the

tested material, particularly concerning health. A high level of knowledge is undoubtedly associated with the actions to be taken for its implementation (Putri et al., 2021; Rahmaddiansyah, Nurmiati, & Rita, 2023).

As reported by Febrina et al., their study found a correlation between the knowledge of PMR members and their actions in providing first aid to fainting patients at MTsN 1 Bukittinggi, where most PMR members demonstrated good knowledge and first aid actions for fainting patients (Febrina et al., 2017).

CONCLUSION

The community service activity "DINOS" addresses the issue of achieving health program objectives in the working area of Puskesmas Seberang Padang, namely the low frequency of school mentoring sessions, which should be conducted at least 4 times a year. The COVID-19 pandemic has exacerbated the situation by hindering the training of school health ambassadors and the implementation of Clean and Healthy Living (PHBS) programs. To address this, efforts are being made through the reactivation of school health ambassadors, scheduling of school mentoring sessions, UKS program socialization, organization of UKS attributes, and the formation of WhatsApp groups between UKS mentors and UKS-PKPR program holders.

In recommendation, these steps are expected to enhance the implementation of school health programs and address issues more effectively for school-age children in Indonesia in general, particularly those in the catchment areas of Puskesmas Seberang Padang.

DAFTAR PUSTAKA

- Aminah, S., Huliatusunisa, Y., & Magdalena, I. (2021). Usaha Kesehatan Sekolah (UKS) Untuk Meningkatkan Perilaku Hidup Bersih Dan Sehat (PHBS) Siswa Sekolah Dasar. *Jurnal JKFT*, 6(1).
<https://doi.org/10.31000/jkft.v6i1.5214>
- Anwar, S. D. (2023). *Laporan Kinerja UPTD Puskesmas Seberang Padang Tahun 2023*.
- Arend, S. M. F. (2020). Human rights and childhood: Building the convention on the rights of the child (1978-1989). *Tempo (Brazil)*, 26(3). <https://doi.org/10.1590/tem-1980-542x2020v260305>
- Direktorat Bina Kesehatan Anak. (2011). *Pedoman Pelatihan Dokter Kecil* (K. RI, Ed.; 1st ed.). Kementerian Kesehatan RI.
- Failasufa, H., Fatkhurrohman, F., Kusniati, R., & Wardhana, E. (2023). Pelatihan Dokter Kecil Untuk Peningkatan Status Kesehatan Umum Dan Kesehatan Gigi Mulut Di Wilayah Kerja Puskesmas Pegandan Kota Semarang. *Jurnal Inovasi Dan Pengabdian Masyarakat Indonesia*, 2(2).
<https://doi.org/10.26714/jipmi.v2i2.105>
- Febrina, V., Semiarty, R., & Abdiana, A. (2017). Hubungan Pengetahuan Siswa Palang Merah Remaja dengan Tindakan Pertolongan Pertama Penderita Sinkop di Madrasah Tsanawiyah Negeri 1 Bukittinggi. *Jurnal Kesehatan Andalas*, 6(2). <https://doi.org/10.25077/jka.v6i2.717>
- Herfanda, E., & Wahyuntari, E. (2021). Optimalisasi Peran Dokter Cilik Di Sd Muhammadiyah Karangjajen Yogyakarta. *Jurnal Pengabdian Masyarakat Sasambo*, 2(2), 202.
<https://doi.org/10.32807/jpms.v2i2.772>
- Hong, Y., Wu, J., Wu, J., Xu, H., Li, X., Lin, Z., & Xia, J. (2023). Semi-flipped classroom-based learning interventions in a traditional curriculum of oral medicine: students' perceptions and teaching achievements. *BMC Medical Education*, 23(1).
<https://doi.org/10.1186/s12909-023-04017-6>
- Lestari, P. (2023). Pengembangan Sistem Informasi dalam Mendukung Pendidikan Kesehatan Siswa di Sekolah. *JEID: Journal of Educational Integration and Development*, 2(4).
<https://doi.org/10.55868/jeid.v2i4.149>
- Maqfiroh, E. (2016). Pelaksanaan Program Dokter Kecil Dalam Usaha Kesehatan Sekolah (UKS) Di Sekolah Dasar Se-Kecamatan Pundong Kabupaten Bantul Tahun 2016. *Jurnal Pendidikan Guru Sekolah Dasar Pendidikan Jasmani-SI*, 1(1), 11–56.
- Mariyani, Resi Galaupa, Feva Tridiyawati, & Lucy Amelia. (2019). Edukasi Kesehatan PHBS dan Pelatihan Dokter Kecil Pada Siswa Sekolah Di SD Mustikajaya. *Jurnal Antara Abdimas Kebidanan*, 2(1).
<https://doi.org/10.37063/pengmas.v2i1.476>
- Menteri Kesehatan Republik Indonesia. (2014). *Permenkes Nomor 25 tahun 2014*.

- Presiden Republik Indonesia. (2009). *Undang-Undang Republik Indonesia Nomor 36 Tahun 2009 Pasal 79 Ayat 1 tentang Kesehatan*.
- Putri, K. D., Semiarty, R., & Linosefa, L. (2021). Perbedaan Efektivitas Media Promosi Kesehatan Leaflet dengan Video TOSS TB Terhadap Tingkat Pengetahuan dan Sikap Masyarakat di Wilayah Kerja Puskesmas Andalas. *Jurnal Ilmu Kesehatan Indonesia*, 1(3). <https://doi.org/10.25077/jikesi.v1i3.85>
- Rahmaddiansyah, R., Nurmiati, N., & Rusti, S. (2023). Peningkatan Program Kesehatan Sekolah Melalui Pembinaan Dokter Kecil Pada Siswa Di SDN 21 Limau Sundai Kabupaten Pesisir Selatan. *Buletin Ilmiah Nagari Membangun*, 6(1). <https://doi.org/10.25077/bina.v6i1.422>
- Rahmaddiansyah, R., Nurmiati, N., Rusti, S., Fetriwanti, F., & Hendra, G. S. (2023). Upaya Peningkatan Pengetahuan Siswa Sekolah Dasar Mengenai Jajanan Sehat dan Makanan Bergizi di SDN 03 Bukit Tambun Tulang. *Jurnal Pengabdian Pada Masyarakat METHABDI*, 3(2), 144–149. <https://doi.org/https://doi.org/10.46880/met habdi.Vol3No2.pp144-149>
- Rahmaddiansyah, R., Nurmiati, & Rita, R. S. (2023). Upaya Peningkatan Pengetahuan Ibu Tentang Stunting Pada Balita di Posyandu Jalamu Kecamatan Batang Kapas. *Al-Amanah: Jurnal Pengabdian Masyarakat*, 5, 12–21.
- Rahmaddiansyah, R., Rusti, S., & Fetriwanti, F. (2023). Description of the Knowledge Level of Students of SMPN 1 Batang Kapas About Adolescent Reproductive Health. *International Journal of Medicine and Health*, 2(1), 164–170.
- Ristanto, R. (2019). Pengaruh Pendidikan Kesehatan Dengan Metode Simulasi Terhadap Pengetahuan dan Keterampilan Dokter Kecil pada Penanganan Luka Terbuka. *Jurnal Kesehatan Mesencephalon*, 5(2). <https://doi.org/10.36053/mesencephalon.v5i2.109>
- Yaslina, Sari, L. M., & Yaswinda. (2019). Edukasi Kesehatan PHBS dan Pelatihan Dokter Kecil Pada Siswa di SDN 15 Nagari Koto Gadang Kecamatan IV Koto. *Jurnal Abdimas Kesehatan Perintis*, 1(1), 8–14.