Available online at: https://wartaandalas.lppm.unand.ac.id/

Warta Pengabdian Andalas

Jurnal Ilmiah Pengembangan dan Penerapan Ipteks

ISSN (Print) 0854-655X | ISSN (Online) 2797-1600

Using Social Media to Improve Female Students' Knowledge of School Health Programs (UKS) for Addressing Adolescent Nutritional Problems

Azrimaidaliza[1]*, Hendrizal Usman[2], Annisa Dwi Apriliani[1], Annisa Nurfitri Risya[1], Afiyah Muthmainah[1], Annisa Apriola[1], Esi Susanti[1]

[1]Department of Nutrition, Faculty of Public Health, Universitas Andalas, Kampus Limau Manis, Padang, 25163, Indonesia

[2]Study Program of Pharmacy, Faculty of Pharmacy, SAINS dan Teknologi, Universitas Dharma Andalas, Jl Sawahan No. 103, Sawahan Timur, Kota Padang, 25000, Indonesia

*Corresponding author: **azrimaidaliza@ph.unand.ac.id**

Submitted: September 1, 2025 Accepted: September 29, 2025 Published: September 30, 2025

ABSTRACT

The adolescent age group is particularly vulnerable to nutrition problems, mainly female adolescent. Therefore, every school, especially Junior High School (SMP), should have a School Health Program (UKS) to enhance healthy living skills and prevent and address nutrition and health issues among adolescents. The program includes extracurricular activities, blood supplement tablets, nutritional status checks, Clean and Healthy Lifestyle Behavior (PHBS) programs, and other health activities. The aim of the activities is to increase students' knowledge about the role of UKS in addressing adolescent nutrition and health issues. The activity was conducted for 10 students from SMP Negeri 21 Padang on Saturday, June 8, 2024. The method involved educational provision using poster and electronic pocketbook media delivered online through a WhatsApp group. The materials covered the definition and objectives of UKS, nutrition and health problems among adolescents, and the role of UKS in addressing these issues. Pre-post test was conducted to examine knowledge improvement after giving nutrition education and was analysed using dependent t-test. The result of this activity showed the positive impact of nutrition education on increasing students' knowledge (mean score pre-post test=52.0 vs 70.0; p-value=0.004). With this increased knowledge, it is hoped that increased the role of female students and being actively involved in UKS activities to overcome nutritional problems among adolescents.

Keywords: adolescent, health, nutrition, UKS

INTRODUCTION

Adolescents, especially adolescent girls, are one of the groups that are vulnerable to nutritional problems. This is because during this period, physiological, social, and emotional changes occur, so adolescents need more nutrients than in previous ages for their growth and development. (Ikadi, 2016) According to data released by the World Health Organization (WHO), approximately one in five adolescents worldwide experience nutritional problems, specifically overnutrition and undernutrition. (WHO, 2020).

Various government efforts have been made to instill, foster, and improve healthy living skills and health levels in schools in an effort to address nutritional and health problems in adolescents, one of which is through the establishment of the School Health Program (UKS).(Directorate of Elementary Schools, 2022) Basically, the implementation of the UKS program can be said to be perfect if the school achieves the full strata that has been

DOI: https://doi.org/10.25077/jwa.32.3.408-414.2025

set in the UKS strata according to the education level. Muktamar study year 2024 found that the UKS implementation of school environmental development has an association with healthy living behavior among students. To realize the School Health Effort program, the most important aspect that must be considered is quality human resources. To achieve this, UKS members must have good knowledge and skills (Priyoto et al., 2021). In 2012, the Ministry of Health conducted an evaluation of the implementation of the UKS program in 10 provinces, focusing on three main aspects: human resources, management, and infrastructure. The evaluation results showed that many UKS supervising teachers had not undergone training, there was a lack of support from school principals and schools for UKS, teachers implementing UKS had low motivation because there were no guidelines on health materials, and there were still health workers who had not been trained in the field of UKS (Indonesian Ministry of Health, 2003). This indicates that the implementation of the School Health Program is still not optimal. In fact, some schools still have difficulty organizing the program properly, and cooperation with relevant parties in the health sector is not yet fully effective.

Knowledge can be obtained through education. Empowerment activities for UKS cadres conducted by Aisah, et al. (2023) showed an increase in knowledge among UKS cadres. (Aisah et al., 2023) In addition, education conducted by Azrimaidaliza, et al. in 2023 in Kuranji District, Padang City, showed that providing information using leaflets can increase the knowledge of pregnant women (Azrimaidaliza et al., 2023). Therefore, it is necessary to empower UKS members to support the UKS program in schools. One form of empowerment that can be carried out is by providing education to students who were the UKS members to increase their knowledge and skills regarding nutritional quality and health. Before implementing the empowerment of UKS members, an investigation into students' understanding of UKS needs to be conducted using social media as a medium that is currently widely used by adolescents.

According to several studies, it is known that social media is more effective in improving adolescent nutrition behavior including knowledge (Dwi Aulia Wardhani, et al, 2021; Rahmanita Femyliati, et al, 2023, Soeandi Malik Pratama, et al, 2024). Based on that, the study aims to evaluate the effectiveness of social media-based education in improving female students's knowledge of UKS and its role in addressing adolescent nutritional problems.

METHOD

This study used an experimental design approach. The educational activity involved 10 female students at SMPN 21 Padang on Saturday, June 8, 2024. Female students who participated in this activity were selected through purposive sampling among members of UKS and agreed to follow the activities. This activity consisted of providing education using posters and electronic pocket books conducted online through a WhatsApp group. This activity was carried out in three stages, namely the preparation stage, the implementation stage, and the data processing and analysis stage. School permission was conducted before activities was begun. This activity was also supported by teacher.

The preparation stage began with observations at the school, followed by the drafting of an activity proposal, including the preparation of educational media in the form of posters and electronic pocket books, as well as pre-test and post-test questions, and obtaining permits from relevant agencies such as the Padang City Health Office and SMPN 21 Padang. The implementation stage began by asking 10 female students to join a WhatsApp group (WA). The activity was started with introductions, followed by data collection from respondents and the administration of a pre-test consisting of five

questions aimed at determining the students' level of knowledge about UKS before they received education. Parents characteristics of female students consisted of education level and occupation was also collected to support the result of this activities. Next, participants were given material on the definition and objectives of UKS, adolescent nutrition and health issues, and the role of UKS in addressing these issues. Similar to the pre-test, the post-test also consisted of 5 questions to determine whether there was an effect and increase in the students' knowledge after the education was provided. The questionnaires were based on theory about UKS and taken from the previous study with similar topic. Besides, the number of questions is adjusted to the time available of respondents. The data processing and analysis stage was carried out using computer software with a paired t-test or dependent t-test.

RESULTS AND DISCUSSION

The activity of providing education to female students about the role of UKS aimed to increase their knowledge about UKS and its role in preventing and overcoming nutrition and health problems. Through this activity, it was hoped that the motivation of female students to participate in UKS activities would increase. Education through social media was the initial activity in a series of educational activities that would be carried out directly at the school.

SMPN 21 was chosen as the location for the education because it was one of the locations for the research on the nutritional status of female students and related factors. This school was located in the working area of Puskesmas Lubuk Kilangan, Padang city. The results of the study found that nutritional problems were still quite high in this school, in addition to the data obtained from health institutions. The educational activity through social media was carried out for one day, but prior to that, communication had been carried out with 10 female students who were members of UKS and willing to participate in the activity. Based on the results of the nutrition and health education activities for female students at SMPN 21, it was evident that these activities were carried out well as planned. After introducing the activity objectives, data collection was conducted using a Google Form. The data collected included class, parents' education (father and mother), and parents' occupation (father and mother) The characteristics of the activity targets based on class, occupation, and parents' education are as follows:

Table 1. Student characteristics

Characteristics	F	%
Grade		
VII	8	80.0
VIII	2	20.0
Father's Education		
Elementary School Graduate	2	20.0
Junior High School Graduate	2	20.0
Senior High School Graduate	6	60.0
Mother's Education		
Elementary School Graduate	0	0.0
Junior High School Graduate	3	30.0
Senior High School Graduate	6	60.0
Bachelor's degree	1	10.0
Father's occupation		
Not working	0	0.0

Laborer	7	70.0
Farmers	1	10.0
Prvate Sector Employee	2	20.0
Mother's occupation		
Not working/Housewife	10	100.0
working	0	0.0

Based on Table 1, it is known that most of the activity targets are female students in grade VII (80.0%). More than half of the female students' fathers and mothers have a high school education (60.0%), and more than half of the female students' fathers work as laborers (70.0%), while 100.0% of the respondents' mothers do not work/are housewives. A pre-test was then conducted to assess the students' understanding of UKS, after which education was provided through a WhatsApp group by sharing posters and electronic pocket books. Finally, a post-test was conducted to evaluate whether the educational activities through social media were effective or not by looking at the changes in scores obtained from the pre- and post tests. The results of the activity evaluation can be seen in Graph 1.

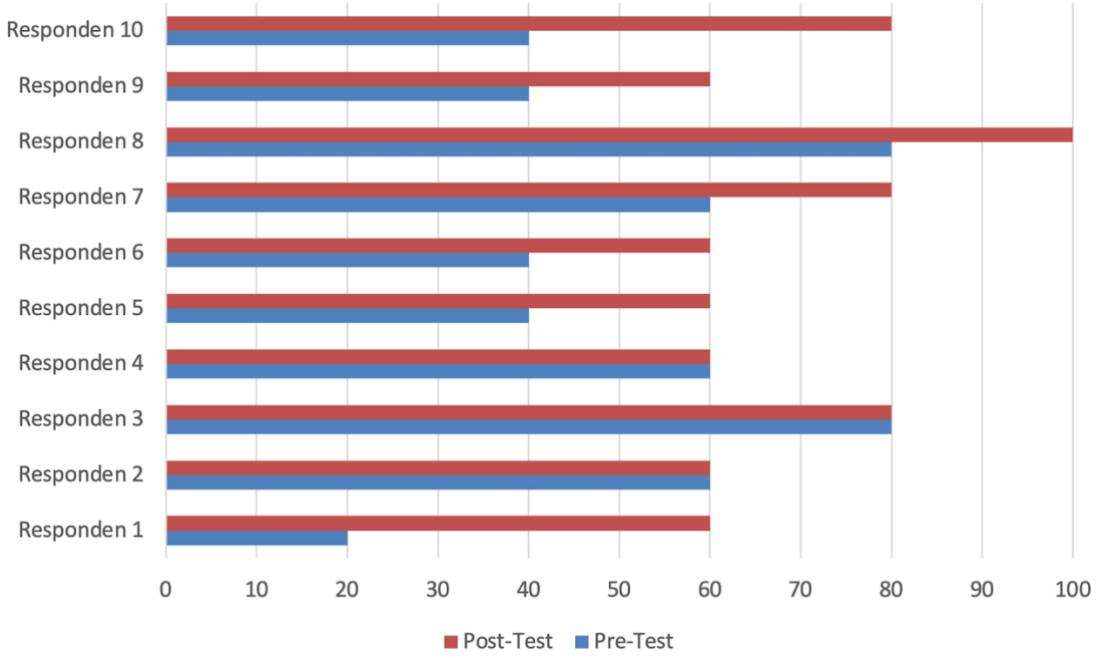


Figure.1 Results of the pre-test and post-test scores of female students

Based on the pre- and post-test results in Graph 1, it was found that almost all of the activity targets showed an increase in the knowledge or understanding of adolescent girls regarding the material that had been provided (70%). From the result, it was also noted that about 3 students had score $\geqslant$ 80. However, there were 3 students who had the same pre- and post-test scores. Then, the data was processed using a dependent t-test to prove whether the education carried out was influential and effective in increasing the students' knowledge. The results of the statistical test analysis can be seen in Table 6.2:

Table 2 The effect of education using posters and electronic pocket books

Variabel	Mean±SD Knowledge Score		p-value
	Pre-Test	Post-Test	
Nutrition Education	52.0±19.32	70.0±14.14	0.004

Based on Table 6.2, it can be seen that there is an increase in female student's knowledge score after being given education through social media (52.0 versus 70.0). However, there is a significant effect on the students' knowledge of the material provided using leaflets and electronic pocket books, as evidenced by the statistical test results with a significance of p-value = 0.004 ($p<0.005$). This educational activity proved to show significant results, supported by active communication between the activity organizers and the students on WhatsApp. At the end of the activity, the target audience was asked again about the role of UKS and several female students answered enthusiastically and correctly.

Posters and electronic pocket books are quite effective educational media in increasing students' knowledge and attitudes. E-posters can visualize information accompanied by attractive images, colors, and words, similar to the characteristics of conventional posters. The advantage of e-posters is that they are not easily damaged and are easier for readers to access because downloaded e-posters can be accessed anytime and anywhere without an internet connection. This can attract readers and improve students' understanding of the material that has been provided (Rosanti & Seman, 2019).

In addition, pocket books can be an educational medium to increase knowledge and understanding of nutrition and health issues in adolescents and the role of UKS in preventing and overcoming them, because pocket books contain simple, practical, and interesting information. (Rosanti & Seman, 2019). Previous studies showed that the effectiveness of using social media to improve female student's knowledge about nutrition (Dwi Aulia Wardhani, et al, 2021; Rahmanita Femyliati, et al, 2023, Soeandi Malik Pratama, et al, 2024).

In order to continue educational activities for students at SMPN 21 Padang, in the future, the community service program will carry out more massive education on the role of UKS in improving the quality of nutrition and health in students while conducting monitoring and evaluation. The education is planned to be carried out directly through training to improve the skills of students, especially UKS cadres, to improve the quality of nutrition and health in adolescents.

CONCLUSION

This activity proved that using leaflets and electronic pocket books as education media is effective to increase students' knowledge. Nutrition education through the use of social media should continue to be carried out routinely to improve UKS activities in order to increase the quality of nutrition and health in students. Cooperation between educational institutions, health, and schools needs to be improved in monitoring and evaluating UKS activities, including in developing nutrition materials in the curriculum. Larger respondents and long-term intervention should be conducted to obtain more benefits, not only changes in knowledge but also the application of good behavior in daily life.

ACKNOWLEDGMENT

We would like to express our gratitude to the Faculty of Public Health, Universitas Andalas for providing funding for community service. We also thank the school for granting permission and the students for their willingness to participate in this activity.

REFERENCES

Aisah, S., Della, S., Baidhowy, A. S., Hartiti, T., Hidayati, E., & Samiasih, A. (2023). Pemberdayaan Kader Sekolah Sebagai Upaya Peningkatan Ketrampilan Hidup Sehat di SDN Plamongansari 02 Kecamatan Pedurungan Kota Semarang. SALUTA: Jurnal Pengabdian Kepada Masyarakat, 3(1), 22–31.

Azrimaidaliza, A., Apriliani, A. D., & Siregar, W. L. S. (2023). Edukasi Pola Makan Bergizi melalui Komunikasi Antar Pribadi pada Ibu Hamil di Wilayah Kerja Puskesmas Belimbing. Warta Pengabdian Andalas, 30(4), 685–690.

Diana, F. M., Fitria, N., Jelmila, S. N., & Yulanda, S. (2022). Edukasi Gizi Seimbang, Vaksin dan Protokol Kesehatan bagi Remaja SMP PERTIWI 2 Padang Saat Pandemi Covid-19. Warta Pengabdian Andalas, 29(3), 156–162.

Direktorat Sekolah Dasar. (2022, August 13). Usaha Kesehatan Sekolah. Kemdikbud. https://ditpsd.kemdikbud.go.id/hal/usaha-kesehatan-sekolah

Ikadi. (2016). Ilmu Gizi Teori dan Aplikasi. EGC.

Kemenkes RI. (2003). Usaha Kesehatan Dasar Pedoman di Tingkat Sekolah Dasar. Direktorat Jendral Untuk Kesehatan.

Notoatmodjo, S. (2012). Promosi kesehatan dan perilaku kesehatan. Jakarta: Rineka Cipta, 193.

Priyoto, P., Putri, M. A., & Baroroh, A. (2021). Pemberdayaan Uks (Usaha Kesehatan Sekolah) Untuk Mewujudkan Perilaku Hidup Bersih Dan Sehat Di Smk Arrohmah Tegal Rejo Kabupaten Magetan. Jurnal Bhakti Civitas Akademika, 4(2), 35–41.

Rosanti, S. Y., & Seman, N. A. A. (2019). The effectiveness of posters as a learning media to improve student learning quality. The Journal of Social Sciences Research, 97–103.

Rukmana, E., Fransiari, M. E., Damananik, K. Y., & Nurfazriah, L. R. (2023). Assessment of Knowledge, Attitudes and Behaviors Regarding Balanced Nutrition and Nutritional Status Among Adolescents at the Yayasan Bandung Senior High School, Deli Serdang Regency. Amerta Nutrition, 7.

WHO. (2020). Health for the world's adolescents: a second chance in the second decade. 2014. URL: Http://Apps. Who. Int/Adolescent/Second-Decade/Files/1612_MNCAH_HWA_Executive_Summary. Pdf [Accessed 2015-09-09][WebCite Cache ID 6bPyeGf3i].

Muktamar Umakaapa and Febry Ramadhani Suradji. 2024. The Effect of Implementing the School Health Program (UKS) on Clean and Healthy Living Behavior (PHBS) in Adolescents at SMP Negeri 1 Merauke, Papua Selatan. Jurnal Diskursus Ilmiah Kesehatan, Vol. 2, No. 1.

Dwi Aulia Wardhani, Choirun Nissa, Yahmi Ira Setyaningrum, 2021. Peningkatan Pengetahuan Remaja Putri Melalui Edukasi Gizi Menggunakan Media Whatsapp Group. Jurnal Gizi. Vol. 10, No. 1.

Rahmanita Femyliati, Al Mukhlas Fikri, Eka Andriani, 2023. The Effect of Nutrition Education Through Social Media on Nutritional Knowledge and Menu Selection in Food Delivery Application. Amerta Nutrition. Vol 7, Issue 2.

Soeandi Malik Pratama, et al, 2024. Pemanfaatan Pengetahuan Media Sosial (Online) untuk Edukasi Gizi Menarik dan Inovatif Terhadap Siswa Remaja SMA, SMK serta MA. Jurnal Kesehatan Amanah. Vol. 8, No. 2.

@2025 Azrimaidaliza et al.
This is an open access article licensed under the terms of a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License (http://creativecommons.org/licenses/by-nc-sa/4.0).