

THE EFFECT OF CERDIK EDUCATION USING VIDEO MEDIA ON ADOLESCENTS KNOWLEDGE OF OBESITY PREVENTION

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ABSTRACT

Obesity among adolescents has become a significant public health problem due to unhealthy lifestyles, lack of physical activity, and poor dietary habits. Inadequate knowledge regarding obesity prevention may increase the risk of obesity and non-communicable diseases in adolescence. CERDIK is a healthy lifestyle program promoted by the Indonesian Ministry of Health consisting of regular health checks, avoiding cigarette smoke, engaging in physical activity, consuming balanced nutrition, getting adequate rest, and managing stress. This study aimed to determine the effect of CERDIK education using video media on adolescents' knowledge regarding obesity prevention among grade XI students at SMA Negeri 3 Banjar. This study employed a quantitative pre-experimental design using a one-group pretest-posttest approach. The population consisted of 227 students, and 69 respondents were selected using purposive sampling. Data were collected using a validated questionnaire and analyzed using the Wilcoxon test with a significance level of $\alpha = 0.05$. The results showed that the average knowledge score before intervention was 72.39 and increased to 83.30 after the intervention. Statistical analysis showed a p-value of 0.000 ($p < 0.05$), indicating a significant effect of CERDIK education using video media on adolescents' knowledge regarding obesity prevention. Video-based CERDIK education can effectively improve adolescents' understanding of healthy lifestyles and obesity prevention. Health workers and schools are encouraged to implement innovative educational media to support obesity prevention programs among adolescents.

Keywords: CERDIK, education, obesity, adolescents, video media.

INTRODUCTION

Obesity is a condition characterized by excessive fat accumulation resulting in abnormal body weight and increased risk of various non-communicable diseases such as diabetes mellitus, cardiovascular disease, hypertension, and stroke. Obesity has become a global health problem that affects all age groups, including adolescents. According to the World Health Organization (WHO), the prevalence of obesity among adolescents has increased dramatically over the past decades. This condition is closely associated with unhealthy lifestyles, high-calorie food consumption, low physical activity, inadequate sleep patterns, and sedentary behavior.

In Indonesia, obesity prevalence among adolescents continues to increase every year. Data from the 2018 Basic Health Research (Riskesdas) reported that obesity prevalence among individuals aged over 18 years reached 21.8%, while obesity among adolescents also showed a concerning increase. In West Java Province, obesity prevalence reached 23.0%, placing the province among regions with high obesity rates. Furthermore, data from the Banjar City Health Office in 2024 revealed that among adolescents aged 15–17 years, 449 experienced overweight and 644 were categorized as obese.

Adolescence is a critical developmental period marked by rapid physical, psychological, and social changes. During this period, adolescents tend to adopt unhealthy dietary habits, consume fast food frequently, spend more time on electronic devices, and engage in low physical activity. Lack of knowledge regarding healthy lifestyles and obesity prevention contributes significantly to unhealthy behaviors among adolescents.

Knowledge plays an important role in shaping attitudes and behaviors related to health. Adolescents with adequate knowledge regarding nutrition and healthy lifestyles are more likely to adopt healthy habits and avoid obesity risk factors. Therefore, health education interventions are necessary to improve adolescents' understanding regarding obesity prevention.

The Indonesian Ministry of Health introduced the CERDIK program as part of national efforts to prevent non-communicable diseases. CERDIK stands for Cek kesehatan berkala (regular health checks), Enyahkan asap rokok (avoid cigarette smoke), Rajin aktivitas fisik (regular physical activity), Diet seimbang (balanced diet), Istirahat cukup (adequate rest), and Kelola stres (stress management). This program aims to encourage healthy behaviors and reduce disease risk factors, including obesity.

Educational media are important components in delivering health information effectively. Video media are considered effective educational tools because they combine audio and visual elements that can improve attention, understanding, and memory retention among adolescents. Previous studies reported that video-based education was more effective than conventional educational methods in improving adolescents' knowledge and attitudes regarding obesity prevention.

A preliminary study conducted at SMA Negeri 3 Banjar showed that many students frequently consumed high-calorie foods and had limited understanding regarding obesity prevention. Based on these findings, this study aimed to analyze the effect of CERDIK education using video media on adolescents' knowledge regarding obesity prevention among grade XI students at SMA Negeri 3 Banjar.

METHOD

This study used a quantitative pre-experimental design with a one group pretest-posttest approach. The study was conducted at SMA Negeri 3 Banjar in 2025. The target population consisted of grade eleven students enrolled at the school.

The study population consisted of 277 students. Sample were selected using purposive sampling based on inclusion criteria, namely students willing to participate, present during the study and able to complete all study procedures. A total of 69 respondents participated in this study.

The sample size was determined based on the on the inclusion criteria and feasibility of conducting educational intervention in the selected school setting. All selected respondents completed the study procedures from pretest to posttest.

Data were collected using a structured questionnaire measuring adolescents' knowledge regarding obesity prevention and CERDIK behavior. The questionnaire consisted of multiple-choice questions covering obesity definition, risk factors, healthy eating patterns, physical activity, and healthy lifestyle practices.

Educational intervention was conducted using a CERDIK educational video developed based on obesity prevention materials from the Ministry of Health. The intervention explained healthy lifestyle behaviors and obesity prevention strategies using attractive audio-visual presentations.

Respondents completed a pretest questionnaire before receiving the educational intervention. Afterward, respondents watched the CERDIK educational video. Following the intervention, respondents completed the posttest questionnaire to assess changes in knowledge.

Data were analyzed using univariate and bivariate analyses. Univariate analysis was used to describe respondent characteristics and knowledge scores before and after intervention. Bivariate analysis was performed using the Wilcoxon signed-rank test because the data were not normally distributed. Statistical significance was determined at $p < 0.05$.

RESULTS AND DISCUSSION

Table 1
Respondents Characteristics

No	Age	Frequency	Persentation(%)
1	16 Tahun	19	27,5
2	17 Tahun	50	72,5
	Total	69	100

The respondents in this study were grade XI students at SMA Negeri 3 Banjar. Most respondents were aged 16–17 years and predominantly female. Adolescence is considered a vulnerable period for obesity development because adolescents often experience lifestyle changes, including unhealthy eating habits and limited physical activity.

Table 2
Average Pretest and Posttest Scores

Score	Frequency (Pre Test)	Frequency (Post Test)
Lowest	49	54
Highest	91	97
Average	72,39	83,30

Before receiving CERDIK education, respondents had an average knowledge score of 72.39, categorized as sufficient knowledge. Several respondents demonstrated limited understanding regarding obesity risk factors, balanced nutrition, and the importance of physical activity.

Limited knowledge among adolescents may be influenced by inadequate access to health information and low awareness regarding obesity prevention. Adolescents often consume fast food and sugary beverages without understanding their health impacts. These findings are consistent with previous studies reporting that adolescents commonly lack adequate knowledge regarding healthy lifestyles and obesity prevention.

After receiving CERDIK education using video media, respondents' average knowledge score increased to 83.30, categorized as good knowledge. Respondents showed better understanding regarding balanced nutrition, regular physical activity, obesity risk factors, and healthy lifestyle practices.

Video media provide attractive visual and auditory stimulation that can improve learning effectiveness. Educational videos are easier to understand because they combine images, text, sound, and animation, making information delivery more interactive and memorable. Adolescents tend to be more interested in audio-visual learning methods compared to conventional lectures.

Table 3
Normality Test

Knowledge	P scores	Description
<i>Pre Test</i>	0,008	Not normally distribution
<i>Post Test</i>	0,002	

The results of the normality test using the Kolmogorov-Smirnov test showed that the pretest and posttest data were not normally distributed ($p < 0.05$), therefore the hypothesis testing in this study was conducted using the Wilcoxon test.

Table 3
Effect of CERDIK Education Using Video Media

Knowledge	Mean	Value
<i>Pre Test</i>	72,39	0,000
<i>Post Test</i>	83,30	

The Wilcoxon test showed a p-value of 0.000 ($p < 0.05$), indicating a significant effect of CERDIK education using video media on adolescents' knowledge regarding obesity prevention. The results indicate that educational interventions using video media effectively improve adolescents' knowledge. Increased knowledge occurs because educational videos facilitate information delivery in an engaging and understandable manner. Audio-visual media can stimulate multiple senses simultaneously, improving information retention and comprehension.

The findings of this study are consistent with previous studies conducted by Kurnia et al. (2023), which reported that short-film educational media significantly improved adolescents' knowledge and attitudes regarding obesity prevention. Similarly, research by Pertiwi (2021) found that CERDIK health promotion through YouTube significantly improved students' knowledge regarding obesity prevention.

The CERDIK program emphasizes healthy lifestyle behaviors, including regular health checks, physical activity, balanced diet, adequate sleep, and stress management. These behaviors are essential in preventing obesity among adolescents. Educational interventions delivered through engaging media can encourage adolescents to adopt healthier behaviors.

The success of educational interventions is influenced by educational methods, media selection, and participant engagement. Video media are considered highly effective because they can present real-life illustrations and practical examples that are easier for adolescents to understand and imitate.

This study demonstrates the importance of innovative health education strategies in addressing adolescent obesity. Schools and health workers should collaborate in implementing continuous educational programs using attractive educational media to improve adolescents' awareness and healthy lifestyle behaviors.

CONCLUSIONS AND SUGGESTIONS

CERDIK education using video media significantly improved adolescents' knowledge regarding obesity prevention among grade XI students at SMA Negeri 3 Banjar. The average knowledge score increased from 72.39 before intervention to 83.30 after intervention, with a significant statistical result ($p = 0.000$).

Video-based educational interventions can be effective strategies for improving adolescents' understanding regarding healthy lifestyles and obesity prevention. Schools are

encouraged to incorporate CERDIK educational programs into school health activities, while health workers should continue developing innovative educational approaches using attractive media.

Further studies are recommended to include control groups, larger sample sizes, and long-term follow-up evaluations to assess behavioral changes related to obesity prevention.

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CONFLICT OF INTEREST STATEMENT

The authors declares no conflict of interest in this study.

REFERENCES

- Abidin, M. (2022). Urgensi Komunikasi Model Stimulus Organism Response (S-O-R) Dalam Meningkatkan Kualitas Pembelajaran. *Jurnal Komunikasi Dan Bahasa*, 3(1), 74–90.
<https://doi.org/https://doi.org/10.53565/nivedana.v3i1.335>
- Alfonsius, L. (2024). Mencegah Stress Eating. Retrieved December 21, 2024, from https://yankes.kemkes.go.id/view_artikel/3765/mencegah-stress-eating
- Alfora, D., Saori, E., & Fajriah, L. N. (2023). Pengaruh konsumsi makanan cepat saji terhadap gizi remaja. *FLORONA : Jurnal Ilmiah Kesehatan*, 2(1), 43–49.
<https://doi.org/10.55904/florona.v2i1.688>
- Anniza, M. (2024). Pengaruh Pemberian Sit- Up Exercise Dan Bicycle Crunch Exercise Untuk Penurunan Lingkar Perut. *Journal Of Applied Health Research And Development*, 4(1), 76–85. <https://doi.org/10.58228/joahrd.v4i1.39>
- Annurullah, G. A., Jasmine, M. S., Saraswati, N. A., & Rizka, Y. (2021). Faktor Risiko Obesitas Pada Pekerja Kantoran: a Systematic Review. *Jurnal Kesehatan Tambusai*, 2(2), 80–88. <https://doi.org/10.31004/jkt.v2i2.1795>
- Arhianti, F. (2022). Efektifitas Penggunaan Video Sebagai Media Pembelajaran Untuk Siswa Sekolah Dasar. *Nautical : Jurnal Iliah Multidisiplin*, 1(1), 6. Retrieved from <https://core.ac.uk/download/pdf/267023793.pdf>
- Asyia, A. D. N., Sinurat, G. D. N., Dianto, N. I. S. A., & Apsari, N. C. (2022). Pengaruh Peer-Group Terhadap Perkembangan Self-Esteem Remaja. *Jurnal Penelitian Dan Pengabdian Kepada Masyarakat (JPPM)*, 3(3), 147–159.
- Az-Zahra, A., Muyassar, I., & Maharani, S. (2022). Pengaruh Gaya Hidup Terhadap Kejadian Obesitas di Indonesia. *Researchgate.Net*, 4(December),
- Basri, M., & Praditya, M. A. (2023). Pengaruh Pelatihan Manajemen Sinkope Terhadap Tingkat Pengetahuan dan Keterampilan Pertolongan Pertama Pada Siswa SMAN 14 Maros. *Jurnal Mitra Sehat*, 13(1), 322–333.
- Butar Butar, M., Izhar, M. D., & Wardiah, R. (2022). Edukasi Cegah Penyakit Tidak Menular Dengan Perilaku CERDIK Di SMAN 11 Kota Jambi. *Jurnal SalamSehat*

- Masyarakat (JSSM)*, 4(1), 1–6.
<https://doi.org/10.22437/jssm.v4i1.22997>
- Cahyaningtyas, A. A. M., & Huriah, T. (2023). Penerapan Piring Makan Model T Dan Edukasi Aktivitas Fisik Pada Keluarga Dengan Remaja Obesitas. *Nursing Science Journal (NSJ)*, 4(1), Hal 58-66.
- Carolina, M., Puspita, A., & Indriana, S. (2023). Hubungan Pengetahuan Dengan Sikap Orang Tua Dalam Upaya Pencegahan Stunting Di Desa Mantangai Hilir Puskesmas Mantangai. *Jurnal Ilmiah Kedokteran Dan Kesehatan*, 2(2), 50–55. <https://doi.org/10.55606/klinik.v2i2.1251>
- Dahlia, Pribadi, G. S., Martini, S., & Yi-Li, C. (2022). Risk Factors of Central Obesity in Indonesian Men: A Cross-Sectional Data Study of The Indonesia Family Life Survey 5 (IFLS 5). *Folia Medica Indonesiana*, 58(3), 228–233. <https://doi.org/10.20473/fmi.v58i3.35778>
- Dinkes Jabar. (2019). Sekertaris Dinas Kesehatan. (2019) Profil Kesehatan Jawa Barat. Bandung :Dinkes Jabar. *Profil Kesehatan Indonesia Jawa Barat Tahun 2019*, 53(9), 21–25.
- Diskes. (2024). Pola Hidup Sehat Agar Terhindar Dari Obesitas. Retrieved December 21, 2024, from <https://diskes.badungkab.go.id/artikel/55772-pola-hidup-sehat-agar-terhindar-dari-obesitas>
- Fadli, & Reza, M. P. (2022). Tingkat Pengetahuan Pemain Futsal Terhadap Penggunaan Anestesi Spray. *Jurnal Komunitas Farmasi Nasional*, 2(2), 397–408.
- Fatmawati, B. R., Suprayitna, M., Prihatin, K., Albayani, M. I., Arifin, Z., & Zuliardi, Z. (2021). Perilaku Cerdik Di Masa Pandemi Covid-19. *BERNAS: Jurnal Pengabdian Kepada Masyarakat*, 2(4), 907–912. <https://doi.org/10.31949/jb.v2i4.1590>
- Fauzan, M. R., Sarman, Rumaf, F., Darmin, Tutu, C. G., & Alkhair. (2023). Upaya Pencegahan Obesitas pada Remaja Menggunakan Media Komunikasi. *Jurnal Pengabdian Kepada Masyarakat MAPALUS*, 1(2 SE-Artikel), 29–34. Retrieved from <https://e-journal.stikesgunungmaria.ac.id/index.php/jpmm/article/view/39>
- Hafid, W., Hanapi, S., & Dai, S. S. (2020). Frekuensi Makan, Parental Fatness Dengan Kejadian Obesitas Pada Siswa Sekolah Menengah Atas. *Jurnal Promotif Preventif*, 3(1), 30–35. <https://doi.org/10.47650/jpp.v3i1.152>
- Hanifah, R., Oktavia, N. S., & Nelwatri, H. (2021). Perbedaan Efektifitas Pendidikan Kesehatan Melalui Media Video Animasi Dan Power Point Terhadap Pengetahuan Remaja Putri Dalam Menghadapi Menarche. *Jurnal Kesehatan Mercusuar*, 4(2), 74–81. <https://doi.org/10.36984/jkm.v4i2.232>
- Hayya, R. F., Wulandari, R., & Sugesti, R. (2023). Hubungan Tingkat Stress, Makanan Cepat Saji Dan Aktivitas Fisik Terhadap Siklus Menstruasi Pada Remaja Di Pmb N Jagakarsa. *SENTRI: Jurnal Riset Ilmiah*, 2(4), 1338–1355. <https://doi.org/10.55681/sentri.v2i4.751>
- Hidayah, N., Ratnasari, D., Setyaningrum, Y., & Widyawati, I. (2022). Agar-agar Jeruk Nipis Terhadap Obesitas Sentral Ibu Rumah Tangga Dukuh Tapen Ngrandu Geyer Grobogan. *Indonedia Jurnal Perawat*, 7(1), 1–13.
- Ikasari, F. S., Pusparina, I., & Irianti, D. (2024). Media Video Animasi Meningkatkan Sikap Remaja tentang Gizi Seimbang dalam Rangka Mencegah Stunting. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 7(1), 185–193. <https://doi.org/10.56338/mppki.v7i1.4407>
- Kemenkes. (2022). Penyakit Penyerta Akibat Obesitas. Retrieved January 4, 2025, from <https://ayosehat.kemkes.go.id/penyakit-penyerta-akibat-obesitas#:~:text=Penyakit Penyerta Obesitas,Osteoarthritis>

- Khoerunnisa, S., & Rizki, L. (2024). Pengaruh Media Leaflet Terhadap Faktor Aktivitas Fisik dan Dampak dengan Kejadian Obesitas Pada Remaja di SMAN 1 PEDES. *Journal Of Social Science Research*, 4, 9382–9393.
- Kurnia, A. E. D., Waryana, & Utami, S. B. (2023). PENGARUH PENGGUNAAN MEDIA EDUKASI FILM PENDEK “CEGAH OBESITAS DENGAN CERDIK” TERHADAP PENINGKATAN PENGETAHUAN DAN SIKAP REMAJA, 2–3.
- Kusumo, M. P. (2020). *Buku Pemantauan Aktivitas Fisik Mahendro Prasetyo Kusumo*. Yogyakarta: The Journal Publishing. Retrieved from http://repository.umy.ac.id/bitstream/handle/123456789/35896/Buku_pemantauan_aktivitas_fisik.pdf?sequence=1
- Losu, A. L., Punuh, M. I., & Musa, E. C. (2022). Gambaran Aktivitas Fisik Siswa Kelas XI Jurusan Kecantikan Sekolah Menengah Kejuruan Negeri SMKN 3 Manado Saat Pembelajaran Jarak Jauh. *Jurnal KESMAS*, 11(4), 75–82.
- Maesaroh, S., Fauziah, A. N., Rokhmatun, P. N., & Zamani, A. (2024). Analisis Karakteristik Wanita Terhadap Obesitas. *Journal of Health Research*, 15(1), 37–48. <https://doi.org/10.36419/avicenna.v7i1.1037>
- Maryam, S. (2024). Efektivitas Media Promosi Kesehatan Dalam Pelayanan Kesehatan Remaja : Literature Review. *Jurnal Kesehatan Tambusai*, 5(4), 11372–11378.
- Maslikhah, & Setyowati, A. (2025). Pengaruh pemberian edukasi terhadap pengetahuan orang tua dalam pencegahan stunting dalam keluarga 1,2. *Jurnal Ilmiah Ilmu Kebidanan Dan Kesehatan*, 16(1), 97–102.
- Profil SMA N 3 Banjar. (2024). Profil Sekolah. Retrieved from https://sman3banjar.sch.id/profil-sekolah#google_vignette
- Putra, B. M., Mareta, D., & Sukma, P. (2024). INTERVENSI GIZI SENSITIF : PERAN IBU DALAM PEMENUHAN GIZI SEIMBANG DAN PENERAPAN POLA HIDUP. *Jurnal Ekonomi Bisnis Dan Manajemen (JISE)*, 2(4), 178–187.
- Qushoyyi, R. R., Ramdhani, M., & Nayiroh, L. (2023). Efektivitas Komunikasi Visual Gambar Peringatan Pada Kemasan Rokok Terhadap Kesadaran Kesehatan. *Jurnal Ilmiah Wahana Pendidikan*, 9(June), 453–462. Retrieved from <https://jurnal.peneliti.net/index.php/JIWP/article/view/4089>
- Rachma, H. A., Ekowati, W., & Kusumawardani, L. H. (2024). Hubungan Antara Stres dengan Perilaku Emotional Eating pada Mahasiswa Semester Satu di Purwokerto. *Jurnal Ilmiah Keperawatan Stikes Hang Tuah Surabaya*, 19(1), 60–66.
- Ramdaniati1, S. N., & Somantri, U. W. (2022). Berdasarkan analisis bivariat pada kelompok video didapatkan hasil bahwa ada pengaruh penyuluhan dengan video dalam peningkatan pengetahuan responden (. *Jurnal Kesehatan Masyarakat*, 10(1), 32–41.
- Riana, Waruwu, A., & Harefa, N. A. J. (2022). Pengembangan Video Pembelajaran Bahasa Indonesia Berbasis Meningful Instructional Design (MID) Pada Materi Menganalisis Isi Drama Kelas XI SMA Negeri 1 Gido Tahun Pembelajaran 2021/2022. *Majalah Ilmiah Warta Dharmawangsa*, 16(4), 968–980. <https://doi.org/https://doi.org/10.46576/wdw.v16i4.2448>
- Riskesdas. (2018). Laporan Riskesdas 2018 Nasional.pdf. *Lembaga Penerbit Balitbangkes*.
- Suwaroyo, P. A. W., & Yuwono, P. (2017). Faktor-faktor yang mempengaruhi tingkat pengetahuan masyarakat dalam mitigasi bencana alam tanah longsor. *University Research Colloquium*, 305–314. Retrieved from <http://journal.unimma.ac.id/index.php/urecol/article/view/1549>
- Syaippudin, & Hasriana. (2021). Perilaku Preventif Covid19 Berdasarkan Karakteristik dan Sikap Masyarakat Puskesmas Pampang, 8153, 306–312.

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- Trisutrisno, I., Hasnidar, Lusiana, S. A., Simanjuntak, R. R., Hadi, S., Tasnim, E. S., ... Sofyan, O. (2022). *Pendidikan dan Promosi Kesehatan. Pendidikan dan Promosi Kesehatan* (Cetakan 1). Yayasan Kita Menulis. <https://doi.org/10.52574/syiahkualauniversitypress.224>
- Wardani, E. K., Upoyo, A. S., & Alivian, G. N. (2020). Efektivitas Pembelajaran Mandiri Audiovisual dan Booklet Bantuan Hidup Dasar (BHD) Terhadap Pengetahuan dan Keterampilan Perawat di RSUD Wonosari. *Journal of Bionursing*, 2(3), 183–189. <https://doi.org/10.20884/1.bion.2020.2.3.75>
- WHO. (2024). One in eight people are now living with obesity. Retrieved December 21, 2024, from <https://www.who.int/news/item/01-03-2024-one-in-eight-people-are-now-living-with-obesity>
- Yuliyanti, T. (2024). Perilaku CERDIK pada Keluarga Mahasiswa Keperawatan Politeknik Kesehatan Bhakti Mulia. *Indonesian Journal on Medical Science*, 11(1), 51–57. <https://doi.org/10.55181/ijms.v11i1.464>
- Zamzami Hasibuan, M. U., & Palmizal. (2021). Sosialisasi Penerapan Indeks Massa Tubuh (IMT) di Suta Club. *Jurnal Cerdas Sifa Pendidikan*, 10(2), 19–24. <https://doi.org/10.22437/csp.v10i2.15585>