

SURAT TUGAS

Nomor: 86-R/UNTAR/Pengabdian/VII/2023

Rektor Universitas Tarumanagara, dengan ini menugaskan kepada saudara:

SUKMAWATI TANSIL TAN, dr., Sp.K.K., Dr.

Untuk melaksanakan kegiatan pengabdian kepada masyarakat dengan data sebagai berikut:

Judul	:	Community Service Activities ? Counseling and Waist Circumference Screening in the Context of Early Detection of Obesity in Adolescent Boys
Mitra	:	SABDA: Jurnal Suara Pengabdian 45
Periode	:	Volume 2/Nomor 2/Juni 2023
URL Repository	:	https://jurnal2.untagsmg.ac.id/index.php/sabda/article/view/718

Demikian Surat Tugas ini dibuat, untuk dilaksanakan dengan sebaik-baiknya dan melaporkan hasil penugasan tersebut kepada Rektor Universitas Tarumanagara

13 Juli 2023

Rektor



Prof. Dr. Ir. AGUSTINUS PURNA IRAWAN

Print Security : bc237f0a5204d96e02556c831b370738

Disclaimer: Surat ini dicetak dari Sistem Layanan Informasi Terpadu Universitas Tarumanagara dan dinyatakan sah secara hukum.

Lembaga

- Pembelajaran
- Kemahasiswaan dan Alumni
- Penelitian & Pengabdian Kepada Masyarakat
- Penjaminan Mutu dan Sumber Daya
- Sistem Informasi dan Database

Fakultas

- Ekonomi dan Bisnis
- Hukum
- Teknik
- Kedokteran
- Psikologi
- Teknologi Informasi
- Seni Rupa dan Desain
- Ilmu Komunikasi
- Program Pascasarjana

e-ISSN :2964-6588

p-ISSN :2963-7198



Jurnal

suara **ABDIMAS-17**



Jurnal Suara Abdimas-17, Volume 2 No. 2 Juni 2023

Lembaga Pengabdian Kepada Masyarakat (LPM)

Alamat Redaksi :

Gedung Rektorat UNTAG Semarang

Kantor LPM UNTAG Lantai 2 : Jln Bendan Dhuwur, Kecamatan Gajahmungkur, Kota Semarang

Email : lpm.untagsmg@untagsmg.ac.id

Editorial Team

Penangungjawab

- [Dr. H. Agus Wibowo, S.H., M.Si](#), (Kepala LPM Universitas 17 Agustus 1945 Semarang)

Ketua Penyunting (Editor in Chief)

- [Prof. Dr. Emiliana Sri Pudjiarti, M.Si](#) ; Universitas 17 Agustus 1945 Semarang)

Penyunting Bagian (Section Editor)

- [Alif Lombardoaji Sidiq, S.Si., M.Si](#), Universitas 17 Agustus 1945 Semarang

Dewan Penyunting (EDITOR)

1. [Agus Wibowo, SH. M.Si](#), Universitas 17 Agustus 1945 Semarang
2. [Rahmad Purwanto, M.Si](#), Universitas 17 Agustus 1945 Semarang
3. [Hangga Novian, S.AB. M.Si](#), Universitas 17 Agustus 1945 Semarang
4. Muh. Fallah, S.Sos. MA., Universitas 17 Agustus 1945 Semarang
5. [Syaharuddin](#) ; Universitas Muhammadiyah Mataram
6. [Alfian Erwinsyah](#) ; IAIN Sultan Amai Gorontalo
7. [David, M.Cs., M.Kom](#) ; STMIK Pontianak
8. [Moh. Kurdi, SP., MM](#) ; Universitas Wiraraja

Penyunting Pelaksana (Assistant Editor)

- Arif Sya'bani, Universitas 17 Agustus 1945 Semarang

TIM REVIEWER

1. [Ir. Heru Kristanto, SE. MT](#), Universitas Duta Wacana, Yogyakarta
2. [Dr. Ir. Widianingsih, M.Sc](#), Universitas Diponegoro, Semarang
3. Dr. Murdiansyah Herman, SSos. MAP, Universitas 17 Agustus 1945 Semarang
4. [Dr. Mulono Apriyanto, STPMP](#) ; Universitas Islam Indragiri
5. LISTIYAWATI, S.Pd.Bio., M.Pd. ; Dinas Pendidikan Kota Depok
6. [Yoyon Efendi, M.Kom](#) ; STMIK Amik Riau
7. [FX. Anjar Tri Laksono, S.T., M.Sc.](#) ; Teknik Geologi Universitas Jenderal Soedirman
8. [Ika Widiastuti, S.IP, M.AP](#) ; Universitas Krisnadwipayana
9. [Ali Ibrahim, S.Kom, M.T](#) ; Universitas Sriwijaya
10. [Drs. Bambang Suhartono, M. Kom](#) ; Universitas STEKOM
11. [Lukman Santoso, S.Pd.I, M.Kom.](#) ; Universitas Stekom

Information Teknologi (Tim IT)

- [Danang, S.Kom., M.T](#), Universitas Sains dan Teknologi Komputer

[Download SK Dewan Redaksi](#)

ARTICLES

Community Service Activities – Counseling and Waist Circumference Screening in the Context of Early Detection of Obesity in Adolescent Boys

Alexander Halim Santoso, Ernawati Ernawati, Sukmawati Tansil Tan, Yohanes Firmansyah, Alicia Sarijuwita, Jasmine Syabania Noviantri

01-08

👁 Abstract View: 44, 📄 DOI : <https://doi.org/10.56444/pengabdian45.v2i2.718>

📄 PDF

Pengaruh Perbaikan Pelayanan Perpustakaan Dalam Peningkatan Minat Baca Siswa-Siswi Di SMP Kartini Taman

Astrid Eka Wahyu Cahya Megananda , Rizky Dwijayanti

09-20

👁 Abstract View: 20, 📄 DOI : <https://doi.org/10.56444/pengabdian45.v2i2.798>

📄 PDF

Komunikasi Informasi Edukasi (KIE) dalam Upaya Pencegahan dan Penanggulangan Anemia

Educational Information Communication (IEC) in Anemia Prevention and Management Efforts

Yuni Fitriani, Sri Tanjung Rejeki, Natiqotul Fatkhiyah

21-26

👁 Abstract View: 16, 📄 DOI : <https://doi.org/10.56444/pengabdian45.v2i2.699>

📄 PDF

Komunikasi Informasi Edukasi (KIE) tentang Senam Hamil dalam Upaya Pencegahan Rupture Perineum pada Ibu Hamil di Desa Bengle Wilayah Kerja Puskesmas Kaladawa Kabupaten Tegal

Educational Information Communication (IEC) about Pregnancy Gymnastics in The Effort To Prevent Perineal Rupture in Pregnant Women in Bengle Village Kaladawa Puskesmas Work Area Tegal District

Ika Esti Anggraeni, Tri Agustina Hadiningsih

27-34

👁 Abstract View: 11, 📄 DOI : <https://doi.org/10.56444/pengabdian45.v2i2.714>

📄 PDF

Peningkatan Kesejahteraan UKM Mulyo Waras melalui Pelatihan Pembuatan Pakan Domba dengan Mesin Pencacah Semi-Otomatis

Improving The Welfare Of UKM Mulyo Waras By Training In Making Sheep Feed Using A Semi-Automatic Chopper Machine

Karminto Karminto, Kaleb Priyanto, Martinus Heru Palmiyanto, Bambang Hari Priyambodo, Suhartoyo Suhartoyo, Nugroho Tritmoko

35-40

👁 Abstract View: 7, 📄 DOI : <https://doi.org/10.56444/pengabdian45.v2i2.762>

📄 PDF

Pengenalan Kurikulum Merdeka Belajar Kepada Peserta Didik di SD Mutiara Indah

Rezeki Putra Gulo, Sariani Hia, Erwin Zai

41-53

👁 Abstract View: 35, 📄 DOI : <https://doi.org/10.56444/pengabdian45.v2i2.853>

📄 PDF

Peningkatan Keterampilan Pengelolaan Proyek Sistem Informasi Melalui Pelatihan Pembuatan Website Bagi Mahasiswa Universitas Muhammadiyah Jambi

Zulfikri Akbar, Muhammad Ikhsan, Helmina Helmina, Rian Dani, Trie Hierdawati

54-65

👁 Abstract View: 0, 📄  DOI : <https://doi.org/10.56444/pengabdian45.v2i2.852>





Community Service Activities – Counseling and Waist Circumference Screening in the Context of Early Detection of Obesity in Adolescent Boys

Alexander Halim Santoso^{1*}, Ernawati Ernawati², Sukmawati Tansil Tan³, Yohanes Firmansyah⁴, Alicia Sarijuwita⁵, Jasmine Syabania Noviantri⁶

¹ Department of Clinical Nutrition, Faculty of Medicine, Tarumanagara University; e-mail: alexanders@fk.untar.ac.id

²Department of Public Health and Family Medicine, Faculty of Medicine, Tarumanagara University; e-mail: ernawati@fk.untar.ac.id

³ Department of Dermatology and Venereology, Faculty of Medicine, Tarumanagara University; e-mail: sukmawati@fk.untar.ac.id

⁴Faculty of Medicine and Health Sciences Atma Jaya Catholic University, Jakarta, Indonesia; e-mail: yohanesfirmansyah28@gmail.com

⁵Faculty of Medicine, Tarumanagara University, Jakarta, Indonesia; e-mail: alicia.405200126@stu.untar.ac.id

⁶Faculty of Medicine, Tarumanagara University, Jakarta, Indonesia; e-mail: jasmine.405200138@stu.untar.ac.id

*E-mail Correspondence: alexanders@fk.untar.ac.id

Article History:

Received: 12 Maret 2023

Revised: 10 April 2023

Accepted: 16 Mei 2023

Keywords:

Waist circumference; teenager; man; obesity; screening; education

Abstract: Counseling activities and waist circumference screening in the context of early detection of obesity in male students aim to increase awareness of the importance of maintaining health and preventing obesity among male students. This activity was carried out using a combination approach between counseling and waist circumference screening. The counseling was conducted to provide a better understanding of the risk of obesity and the importance of measuring waist circumference as an indicator of health. Boys were given information about the negative impact of obesity on physical and psychological health, as well as the importance of a healthy lifestyle and a balanced diet. In addition to counseling, this activity also involves screening waist circumference as a method for early detection of the risk of obesity. Boys' waist circumference was measured using a measuring tape, and the measurement results were compared with a predetermined reference standard. This helps identify students who are in the waist circumference range who are at risk and require further follow-up in obesity prevention and management. The results of this activity show that male students need to understand the importance of maintaining health and managing their



weight well. Waist circumference screening provides useful information in evaluating the risk of obesity in male students. In efforts to prevent and control obesity, collaboration between families, educators and medical personnel is very important to provide the necessary support, understanding and guidance

INTRODUCTION

In an increasing number of nations, adolescent obesity is a growing health concern. Obesity in adolescents occurs when individuals are substantially overweight, which can be detrimental to their physical and mental health. Unhealthy dietary habits, lack of physical activity, inactive lifestyles, genetic factors, and an environment that does not support a healthy lifestyle all contribute to adolescent obesity. The risk of developing chronic diseases, such as type 2 diabetes, hypertension, and heart disease, is one of the negative effects of adolescent obesity. In addition, obesity can result in psychological issues such as low self-esteem, social stigmatization, and sleep disturbances. To combat adolescent obesity, a comprehensive strategy is required that includes lifestyle modifications, such as a healthy diet and regular physical activity, as well as family support and a supportive environment.^{1,2}

The medical condition of obesity is characterized by excess body fat. In addition to body mass index (BMI), measuring waist circumference can be used to assess the risk of obesity and related health concerns. The waist circumference is a straightforward method for determining abdominal fat accumulation. Visceral fat, which accumulates in the abdominal region, can be more detrimental than fat distributed throughout the body. Visceral fat accumulation, which is associated with an increased risk of heart disease, type 2 diabetes, and other health conditions, can be indicated by an excessive waist circumference.^{3,4}

Adolescent waist circumference can be measured with a flexible measuring tape applied around the waist region. The measurement is taken while the adolescent is standing and taking a deep breath at the narrowest location between the hipbone and lower ribs. The measurement results are then compared with age- and gender-specific reference tables to determine whether the waist circumference falls within the normal range or indicates an increased risk of obesity and associated health issues.^{5,6}

Measuring the waist circumference can provide additional information for assessing the risk of obesity in adolescents, particularly for identifying abdominal fat accumulation. It is essential to remember, however, that measuring the waist circumference is only one indicator and cannot stand alone. The diagnosis of obesity and evaluation of health hazards should be based on a comprehensive assessment that includes BMI and waist circumference measurements, as well as

other factors such as the adolescent's medical history and lifestyle.

The community service team is interested in educating male students at Kalam Kudus II Senior High School Jakarta about the significance of maintaining a healthy lifestyle and screening waist circumference.

METHOD

The following are the methods, activity steps, and the PDCA (Plan-Do-Check-Act) cycle for waist circumference counseling and screening activities for male students in senior high schools:

Method:

The method used in this activity is a combination of counseling and waist circumference screening. Counseling is carried out to provide understanding to male students about the importance of maintaining health and the risk of obesity. Waist circumference screening was then carried out to measure and evaluate the status of the student's waist circumference.

Activity Steps:

1. Planning (Plan):
 - a. Identification of activity objectives, for example increasing student awareness about the importance of maintaining health and preventing obesity.
 - b. Plan the time, place and resources needed.
 - c. Form an implementation team consisting of trained health experts, educators and medical personnel.
2. Implementation (Do):
 - a. Conduct counseling sessions on the importance of maintaining health and the risk of obesity for male students.
 - b. After counseling, screen students for waist circumference using an appropriate tape measure.
 - c. Record and document the results of measuring waist circumference for each student.
3. Examination (Check):
 - a. Analysis and evaluation of student waist circumference screening results.
 - b. Identify students in the waist circumference who are at risk or require further follow-up.



4. Action (Act):

- a. Based on the results of the analysis, identify students who need further follow-up such as nutrition counseling or further medical advice.
 - b. Plan follow-up activities to support students in achieving a healthy lifestyle and managing their weight well.
 - c. Evaluate and monitor actions taken to ensure their effectiveness.
2. PDCA (Plan-Do-Check-Act): The PDCA cycle is used to manage and improve the quality of counseling activities and waist circumference screening in male students. In this cycle, after the action has been taken, checks and adjustments will be made to ensure the success of the activity and make improvements if necessary.
- a. Plan: Set goals, plan activities, and determine the steps to be taken.
 - b. Do (Implementation): Carry out activities according to a predetermined plan.
 - c. Check: Evaluate the results and see if the activity objectives have been achieved and whether there are improvements that can be made.
 - d. Act: Carry out corrective and adjustment actions based on evaluation results to increase activity effectiveness



Figure 1. Plan, Do, Check, Act (PDCA) Cycle⁷

RESULTS

All 92 respondents who participated in this community service activity were males in grades 10 through 12 of senior high school. Basic respondent information is presented in Table 1, and

photographic evidence of activities is shown in Figures 2 and 3.

Table 1. Basic Data of Respondents

Parameter	N (%)	Mean (SD)	Med (Min- - Max)
Ages (years)		16,02 (0,83)	16 (15 – 18)
Gender			
• Male	92 (100%)		
Waist circumference (cm)		90,27 (13,04)	89 (67 – 125)



Figure 2. Counseling Process for Students of Kalam Kudus II Senior High School Jakarta



Figure 3. Process of Examination of Waist Circumference in Adolescents

DISCUSSION

Obesity and waist circumference in male students is an important concern in maintaining their health. Obesity in male students is when they are significantly overweight, which can have a negative impact on their physical and psychological health. Excess fat accumulation in the body, especially around the abdominal area, can increase the risk of heart disease, type 2 diabetes, and other health problems.^{8,9}

Measurement of waist circumference is important in evaluating the risk of obesity in male students. Excessive waist circumference can indicate the accumulation of visceral fat around the abdomen, which is more dangerous than fat distributed in other parts of the body. This accumulation of visceral fat increases the risk of metabolic disorders and chronic health conditions. By regularly measuring their waist circumference, boys can monitor changes in their body fat distribution and understand the associated health risks.^{5,6,8}

Measures to prevent and control obesity in male students involve a holistic approach that includes lifestyle changes, including healthy eating patterns and regular physical activity. In addition, it is important to increase their awareness of the importance of maintaining a healthy weight and reducing exposure to risk factors such as an unhealthy diet and a sedentary lifestyle. Through education, counseling, and support from the school and family environment, male students can adopt healthy living habits, including a balanced diet, regular physical activity, and effective stress management.^{3,4,6,8}

In tackling obesity and related health problems in male students, it is important to involve families, educators, and trained medical personnel. Collaboration between various parties can provide the support, understanding, and guidance needed to encourage behavior change and create an environment that supports a healthy lifestyle. With this approach, male students can gain a good understanding of the importance of maintaining good health and managing their weight, thus improving their quality of life and overall well-being.

CONCLUSION

The objective of Community Service activities concerning waist circumference and obesity in male students is to raise awareness of the significance of sustaining health and preventing obesity among male students. This activity provides a greater comprehension of the risk of obesity and the significance of measuring waist circumference as an indicator of health through outreach and waist circumference screening.

In this activity, it was determined that male student obesity is a significant concern because it can negatively affect their physical and mental health. Waist circumference measurement is an essential instrument for assessing the risk of obesity and visceral fat accumulation around the abdomen. Male students can monitor changes in their body fat distribution and comprehend the associated health risks through waist circumference screening.

This activity also emphasizes the significance of a holistic approach to the prevention and management of obesity, including healthy lifestyle modifications such as a balanced diet and regular physical activity. In addition, collaboration between families, educators, and medical professionals is essential for providing the necessary support, comprehension, and guidance to motivate behavior change.



REFERENCE

1. Hendra C, Manampiring AE, Budiarmo F. Faktor-faktor risiko terhadap obesitas pada remaja di Kota Bitung. *eBiomedik*. 2016;4(1).
2. Kurdanti W, Suryani I, Syamsiatun NH, Siwi LP, Adityanti MM, Mustikaningsih D, et al. Faktor-faktor yang mempengaruhi kejadian obesitas pada remaja. *J Gizi Klin Indones*. 2015;11(4):179–90.
3. Wahyuni N, Murbawani EA. Hubungan lingkar pinggang dan rasio lingkar pinggang panggul dengan kadar serum high sensitivity c-reactive protein (hsCRP) pada remaja obesitas. *J Nutr Coll*. 2016;5(4):388–92.
4. Widjaja NA, Prihaningtyas RA, Hanindita MH, Irawan R. Lingkar Pinggang dan Adiponektin pada Remaja Obesitas. *Media Gizi Indones*. 2020;15(2):88–93.
5. Rokhmah FD, Handayani D, Al-Rasyid H. Korelasi lingkar pinggang dan rasio lingkar pinggang-panggul terhadap kadar glukosa plasma menggunakan tes toleransi glukosa oral. *J Gizi Klin Indones*. 2015;12(1):28–35.
6. Oviyanti PN. Hubungan antara lingkar pinggang dan rasio lingkar pinggang panggul dengan tekanan darah pada subjek usia dewasa. 2010;
7. Kozai T. Plant production process, floor plan, and layout of PFAL. In: *Plant Factory* [Internet]. Elsevier; 2020. p. 261–71. Available from: <https://linkinghub.elsevier.com/retrieve/pii/B9780128166918000194>
8. Ness-Abramof R, Apovian CM. Waist circumference measurement in clinical practice. *Nutr Clin Pract*. 2008;23(4):397–404.
9. Janssen I, Katzmarzyk PT, Ross R. Waist circumference and not body mass index explains obesity-related health risk. *Am J Clin Nutr*. 2004;79(3):379–84.