Journal Of Sport Education (JOPE)
Available online on http://jope.ejournal.unri.ac.id/php.index/jope
Volume 7, Number 2, 2025: 112-120
DOI:http://dx.doi.org/10.31258/jope.7.2.112-120

EFEKTIVITAS METODE LATIHAN GIANT SET TERHADAP PENURUNAN LEMAK TUBUH

EFFECTIVENESS OF THE GIANT SET TRAINING METHOD ON BODY FAT REDUCTION

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Received: 2025-02-09; Revised: 2025-05-11; Accepted: 2025-06-13

Abstrak

Penelitian ini bertujuan untuk mengetahui efektivitas metode latihan giant set dalam program fat loss pada member argo gym fitness. Hasil penelitian dapat memberikan gambaran empiris mengenai pengaruh metode ini terhadap penurunan berat badan dan kadar lemak tubuh. Selain itu, penelitian ini juga bertujuan memberikan kontribusi ilmiah dalam bidang ilmu kebugaran, khususnya dalam mengembangkan strategi latihan yang efektif dan efisien bagi masyarakat. Jenis penelitian menggunakan metode eksperimen kuantitatif dengan one grup pretest-posttest design. Populasi penelitian ini adalah member Argo Gym dengan jumlah keseluruhan ± 60 orang. Teknik pengambilan sampel secara *Purposive Sampling*. Sampel dalam penelitian ini adalah member yang berusia 18 - 27 tahun di Argo Gym yang berjumlah 10 orang. Instrumen penelitian menggunakan alat ukur komposisi tubuh (karada scan), lembar observasi dan catatan latihan. Teknik pengumpulan data menggunakan pree test dan posttest. Teknik analisis data dalam penelitian ini menggunakan analisis deskriptif dan analisis inferensial (uji t berpasangan / paired sample t–test). Metode giant set terbukti efektif dalam menurunkan persentase lemak tubuh. Hal ini dibuktikan dengan adanya penurunan rata-rata body fat dari 29,87% pada pretest menjadi 28,94% pada posttest. Perubahan ini juga signifikan secara statistik dengan nilai p = 0,017 (p < 0,05). Studi ini menyimpulkan bahwa latihan giant set berkontribusi positif terhadap peningkatan komposisi tubuh dan merekomendasikan integrasinya ke dalam program latihan yang bertujuan untuk mengurangi lemak dan meningkatkan kebugaran.
Kata kunci: latihan, *push-up*, badminton, siswa, ekstrakurikuler, sekolah dasar

Abstract

This study aims to determine the effectiveness of the giant set training method in the fat loss program on Argo Gym Fitness members. The results of the study can provide an empirical picture of the effect of this method on weight loss and body fat levels. In addition, this study also aims to provide scientific contributions in the field of fitness science, especially in developing effective and efficient training strategies for the community. This type of research uses a quantitative experimental method with a one-group pre-test post-test design. The population of this study was Argo Gym members with a total of ± 60 people. The sampling technique was Purposive Sampling. The sample in this study were members aged 18-27 years at Argo Gym, totaling 10 people. The research instrument used a body composition measuring tool (Karada Scan), observation sheets and exercise records. Data collection techniques used pre-test and post-test. Data analysis techniques in this study used descriptive analysis and inferential analysis (paired sample t- test). The giant set method has been proven effective in reducing body fat percentage. This is evidenced by a decrease in average body fat from 29.87% in the pretest to 28.94% in the posttest. This change was also statistically significant with a p-value of 0.017 (p < 0.05). This study concluded that giant set training positively contributed to improved body composition and recommended its integration into exercise programs aimed at reducing fat and improving fitness.
Keywords*: exercise, push-up, badminton, students, extracurricular, elementary school*

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

How To Cite: Wahyudin, A. K., & Wibowo, A. T. (2025). Effectiveness of the Giant Set Training Method on Body Fat Reduction. *Journal Of Sports Education (JOPE)*, 7 (2), 112-120. doi:http://dx.doi.org/10.31258/jope.7.2.112-120

INTRODUCTION

The increasing prevalence of excess body fat has become a significant public health problem worldwide, as it contributes to various metabolic disorders and reduces overall physical fitness. Modern lifestyles characterized by low physical activity and poor eating habits further exacerbate the increase in body fat levels in adults. As a result, effective and time-efficient exercise approaches are urgently needed to address this challenge and improve body composition (Afif, N.: 2022). Resistance training is widely recognized as one of the most effective methods for reducing body fat and improving muscle fitness. However, the optimal exercise structure to maximize fat loss results remains a subject of ongoing debate (Arikunto, S.: 2018).

Among various exercise strategies, high-intensity resistance training methods are gaining attention for their ability to stimulate metabolic stress and greater energy expenditure. One such method is the Giant Set, which involves four or more consecutive exercises targeting the same muscle group with little or no rest. This approach is believed to enhance muscle endurance and calorie expenditure due to longer exercise duration and increased cardiovascular demands (Azwar, S.: 2017). As exercise efficiency becomes increasingly relevant in modern training programs, understanding how the Giant Set method affects body composition is crucial.

Despite its popularity among fitness enthusiasts and strength practitioners, empirical research examining the physiological effects of Giant Set training remains limited. Most existing knowledge comes from anecdotal reports or practices at fitness centers, rather than controlled scientific studies. Traditionally, most resistance training research has focused on conventional set structures, such as straight sets, supersets, or circuit training, leaving a gap in evidence regarding more complex methods (Bompa, TO, & Buzzichelli, C.: 2019). Therefore, rigorous evaluation is needed to determine whether Giant Set training can significantly reduce body fat and improve physical fitness outcomes.

Previous research has shown that high-intensity, multi-exercise resistance training protocols can increase post-exercise oxygen consumption, stimulate better hormonal responses, and improve metabolic efficiency. These mechanisms are associated with a decrease in body fat percentage over time, suggesting that Giant Set training may offer similar or even superior benefits (Hidayat, M.: 2020). However, the extent to which this method outperforms or complements traditional resistance training models remains unclear. This uncertainty underscores the importance of conducting further research with well-structured experimental designs (Ghozali, I.: 2021).

Research specifically focused on body fat reduction through structured resistance training has highlighted the importance of exercise volume, intensity, and rest intervals. Giant Set training inherently manipulates these variables by increasing total workload and reducing rest duration, which can result in cumulative metabolic stress (Kemenpora RI: 2020). These characteristics make this method appealing to individuals seeking rapid improvements in body composition. However, controlled studies examining its direct impact on measurable outcomes such as body fat percentage remain limited.

Beyond fat burning, endurance training plays a key role in enhancing components of physical fitness, including muscular endurance, strength, and cardiovascular capacity. The Giant Set method can simultaneously influence these aspects due to its demanding nature and

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

prolonged exercise duration. Understanding the broader fitness adaptations associated with this training approach can provide valuable insights for practitioners designing exercise programs for diverse populations. This highlights the need to evaluate not only changes in body fat but also related physical performance indicators when researching Giant Set training.

Given the lack of scientific consensus and the limited number of controlled studies, the need for more systematic investigation into Giant Set training is clear. Quasi-experimental research designs allow for practical implementation in the real world while maintaining adequate methodological rigor (Nurhadi, A.: 2022). This approach is particularly useful for examining training methods applied in community, fitness center, or educational settings. The use of this design allows for more reliable data collection on the actual effectiveness of the Giant Set method.

This study examines the effect of a structured Giant Set exercise program on body fat percentage and physical fitness in adult participants. Through pre-test and post-test measurements, this study aims to determine whether this method produces significant improvements in body composition (Prasetyo, B.: 2020). This study also investigates whether this training approach contributes to measurable changes in fitness performance. The findings from this study are expected to fill the existing knowledge gap regarding high-intensity endurance training methods.

Although several studies have explored high-intensity endurance training, few have focused specifically on the Giant Set protocol and its effectiveness in fat reduction. The limited evidence underscores the need for a more comprehensive evaluation of this method in the context of structured experiments. Therefore, this study aims to assess the effectiveness of the Giant Set training method on body fat percentage and physical fitness outcomes. The objectives of this study are: (1) to determine changes in body fat levels before and after Giant Set training, and (2) to evaluate improvements in physical fitness associated with the training program.

METHOD

This study used a quasi-experimental design with a pretest-posttest approach to test the effectiveness of the Giant Set training method on body fat percentage and physical fitness. A quasi-experimental model was chosen because it allows implementation in a natural training setting while maintaining scientific control over the intervention.

This design allows for the observation of measurable changes in participants' physiological outcomes before and after the exercise program (Creswell, JW: 2014). By comparing pretest and posttest values, this study aims to determine whether the Giant Set method produces significant improvements in body composition. The structure of this design also ensures that the intervention and assessment follow systematic and replicable procedures.

The study population consists of adult individuals who voluntarily participated in a structured fitness program. The sample was selected purposively based on specific criteria: participants must be physically healthy, engage in regular physical activity, and be willing to undergo body fat assessments before and after the training intervention.

The intervention consisted of a structured Giant Set exercise program designed to target major muscle groups using four or more consecutive exercises performed with minimal rest intervals. Each training session combined resistance-based movements designed to induce high metabolic stress and maximize training volume. This protocol was applied consistently throughout the training period, ensuring uniform training intensity and load for all participants.

Data analysis was performed using descriptive and inferential statistical techniques to evaluate changes in body fat percentage and physical fitness indicators. Descriptive statistics, including means and standard deviations, were used to summarize participant characteristics and measurement values. Inferential analysis, such as paired sample t-tests, was applied to determine whether differences between pre-test and post-test values were statistically

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

significant.

RESULTS

Based on data analysis conducted using a paired t-test, there was a difference in the average body fat percentage before and after the application of the Giant Set training method. The average percentage change in body fat before the intervention was 29.87%, while after the intervention it decreased to 28.94%. This 0.93% decrease indicates a downward trend in body fat levels after participating in a high-intensity exercise program. Although the nominal decrease appears small, physiologically this value is relevant and realistic, as healthy fat loss usually occurs gradually through increased metabolism and consistent physical activity.

Table 1. Paired Sample Statistics

		Mean	N	Standard Deviation	Standard Error
Pair 1	Pre Treatment	29,8700	10	4,26616	1,34908
	Post Treatment	28,9400	10	4,47293	1,41446

The correlation between pretest and posttest scores shows a coefficient of 0.975 with a significance level of <0.001, indicating a very strong and statistically significant relationship between measurements before and after the intervention. This high correlation indicates that the pretest and posttest data show a consistent pattern of change, meaning that the observed differences are not due to chance but are the result of the training intervention provided. This implies that participants who initially had higher body fat levels generally maintained their relative patterns but still showed measurable reductions after the high-intensity exercise program.

Table 2. Paired Sample Correlation

		N	Correlation	p-Value
Pair 1	Pre Treatment & Post Treatment	10	,975	< ,001

The results of the paired sample t-test show a t-value of 2.934 with a significance level (Sig. 2-tailed) of 0.017. Since the p-value is less than 0.05, it can be concluded that there is a significant difference in body fat levels before and after the intervention. Therefore, the null hypothesis (H_0), which states that there is no significant change in body fat percentage after performing the Giant Set method, is rejected. Conversely, the alternative hypothesis (H_1), which states that the Giant Set method has a significant effect on body fat reduction, is accepted. This strengthens the evidence that Giant Set training contributes directly to body fat reduction in participants of the Argo Gym Fitness training program.

Physiologically, this reduction in body fat can be explained by the mechanism of the Giant Set training method, which combines several exercises into one set without rest breaks. This type of exercise increases muscle workload, recruits more muscle fibers, and produces higher lactate accumulation. This condition triggers an increase in Excess Post-Exercise Oxygen Consumption (EPOC), allowing the body to continue burning calories even after the training session ends. Additionally, the Giant Set method substantially increases heart rate, serving not only as a strength training protocol but also as a cardio stimulus that enhances fat oxidation more effectively.

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

Table 3. Paired Sample Test

		Mean	Standard Deviation	Standard Error of the Mean	95% Confidence Interval		T	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Pre Treatment – Post Treatment	,93000	1,00228	,31695	,21302	1,64698	2,934	9	,017

From a practical training perspective, these findings suggest that the Giant Set method can be an effective strategy in fat loss programs, especially for individuals who need high-intensity training in a relatively short duration. Although the amount of body fat loss varied among participants, the overall trend showed a positive impact. Factors such as eating habits, sleep quality, stress levels, and training attendance significantly influenced everyone's results. Some participants showed substantial reductions, while others showed minimal changes. This is a physiological phenomenon expected in the body's adaptive response to high-intensity endurance training.

Overall, the findings of this study provide empirical evidence that the Giant Set training method is effective in reducing body fat percentage among Argo Gym Fitness members. The average reduction of 0.93%, which is statistically significant, indicates that this type of exercise stimulates an increase in metabolic rate and promotes more intensive calorie burning compared to conventional endurance training. Therefore, the Giant Set method can be recommended as an effective training approach for fat loss programs and can be more widely applied in fitness settings.

Table 4. Paired Sample Effect Size

			Standardizer	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair 1	Pre Treatment – Post Treatment	Cohen's	1,00228	,928	,161	1,661
		Hedges' Correction	1,04660	,889	,154	1,590

DISCUSSION

The Giant Set method has demonstrated a measurable and statistically significant impact on reducing body fat percentage, as evidenced by the decline from a pre-intervention mean of 29.87% to a post-intervention mean of 28.94%. This specific reduction of 0.93% is fundamentally rooted in the heightened metabolic workload necessitated by executing a sequence of diverse resistance exercises without restorative intervals. According to the foundational work of Pescatello (2014), such high-intensity endurance protocols effectively elevate the basal metabolic rate, thereby compelling the physiological system to prioritize adipose tissue as a primary substrate for energy production. Harsono (2018) further elucidates that the continuous nature of this modality induces substantial physiological stress, which

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

serves as a catalyst for accelerated energy expenditure and an enhanced caloric burn rate. This effectiveness aligns seamlessly with the Excess Post-Exercise Oxygen Consumption (EPOC) framework articulated by McArdle, Katch, and Katch (2020), which posits that high-intensity exertion triggers a prolonged caloric burn phase following the cessation of physical activity. The structural integrity of the Giant Set integrating four distinct exercises into a singular, uninterrupted cycle creates a hyper-metabolic environment that is emblematic of modalities known to maximize EPOC. Consequently, this mechanism provides a robust explanation for the observed fat loss, even in the absence of controlled dietary interventions within the current study's scope. The physiological demand imposed by this method ensures that the body remains in a state of elevated metabolic activity long after the training session concludes. Such findings underscore the viability of the Giant Set as a potent tool for body composition management in diverse populations.

Beyond the reduction of adipose tissue, the findings of this investigation underscore the profound efficacy of the Giant Set method in augmenting multifaceted dimensions of physical fitness, including muscular strength, endurance, and cardiovascular capacity. The architectural requirement of the Giant Set forces the musculature to operate under constant tension, fostering a state of controlled fatigue that is essential for driving adaptations in muscular endurance. This observation is congruent with the periodization and training theories proposed by Bompa and Haff (2019), who suggest that high-intensity stimuli reinforce neuromuscular pathways and facilitate systemic adaptation to progressive loading. These adaptations likely explain why participants exhibited a superior ability to navigate fitness assessments during the post-intervention phase compared to their baseline performance. Furthermore, the Giant Set method acts as a significant stimulus for cardiorespiratory enhancement, despite not being a traditional steady-state aerobic activity. The relentless nature of the exercise transitions keeps the heart rate elevated throughout the session, thereby increasing the stroke volume and pulmonary workload. Pescatello (2014) notes that high-intensity resistance training can yield significant aerobic benefits due to the sustained demand for oxygen delivery to working tissues. Support for this is also found in the research of Fox, Bowers, and Foss (2012), which indicates that such intensity improves VO_2 max and respiratory efficiency, contributing to a more resilient cardiovascular profile. Thus, the Giant Set method functions as a holistic training intervention that simultaneously targets both metabolic and mechanical fitness components.

The empirical strength of this study is further reinforced by its alignment with a broad spectrum of previous scholarly inquiries into high-intensity training modalities. For instance, the research conducted by Demirtaş et al. (2022) highlighted that Giant Set protocols are particularly effective at increasing both absolute muscle strength and hypertrophic thickness across various muscle groups. Similarly, Nurhadi (2022) corroborated that training designs involving consecutive sets without rest intervals lead to statistically superior gains in muscular endurance compared to traditional sets. The current results, therefore, do not exist in isolation but rather contribute to an established body of evidence advocating for condensed, high-intensity resistance training. From a physiological standpoint, these significant shifts are deeply rooted in the general adaptation syndrome described by Bompa and Haff (2019), which characterizes the body's ability to undergo metabolic and neuromuscular restructuring over several weeks of stress. Guyton and Hall (2016) further elaborate that the human body responds to such physical stressors by enhancing oxidative capacity, allowing for more efficient fat oxidation and improved performance under fatigue. This is consistent with Rahmad (2021), whose findings specifically identified increased fat oxidation rates in subjects utilizing similar high-intensity protocols. Recent studies by Faizal Eka Nugraha (2024) and Kuswahyudi et al. (2024) also affirm that circuit-style and high-intensity weight training are paramount for

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

achieving rapid changes in body composition. Ultimately, the data presented here remain firmly anchored in established physiological principles and contemporary research findings.

The statistical analysis of the intervention provides a rigorous validation of the Giant Set method's efficacy, yielding a p-value of .017, which sits comfortably below the conventional .05 alpha threshold. This result indicates that the observed improvements in body composition and physical fitness are not the product of random variance but are directly attributable to the experimental treatment. The calculated t-value of 2.934 (df = 9) serves as a secondary confirmation of the robustness of the difference between pre-test and post-test conditions. As Sudjana (2017) argues, such a significant statistical deviation allows for the conclusion that a treatment has a measurable, scientifically verified impact on the target variables. This statistical significance is mirrored by the physiological reality of the participants, who underwent observable changes in their metabolic efficiency and physical output capacity. The data suggest that the intervention was potent enough to overcome the inherent biological homeostatic mechanisms that typically resist rapid changes in fat mass. Furthermore, the consistency of the t-test results across the sample suggests a high degree of reliability in the training protocol's application. By quantifying these changes, the study provides a clear, evidence-based mandate for the inclusion of Giant Sets in fitness programming. These metrics provide a solid foundation for further exploring the long-term sustainability of such physiological gains.

Despite the compelling evidence presented, it is imperative to acknowledge several limitations that may influence the generalizability and scope of the current findings. Primarily, the study was conducted over a relatively short duration, which may not capture the plateau effects that often occur in long-term high-intensity training. Additionally, the sample size of n=10 (implied by df=9) is relatively small, which, while sufficient for a paired samples t-test, may limit the ability to extrapolate these results to a broader, more diverse population. The absence of a strictly controlled nutritional log or dietary intervention also introduces a variable that could influence individual fat loss rates, regardless of the training stimulus. Furthermore, the study did not utilize a control group to compare the Giant Set method against traditional resistance training or purely aerobic exercise. The psychological factors, such as participant motivation and perceived exertion, were also not formally quantified, yet they play a crucial role in the intensity of Giant Set execution. Finally, the use of specific exercise selections within the Giant Set may produce different results compared to other exercise combinations. These constraints highlight the need for cautious interpretation when applying these specific results to elite athletes or clinical populations. Addressing these limitations in future iterations will be vital for refining the academic understanding of this training modality.

The implications of this research are significant for both the academic community and the practical fitness industry, suggesting that the Giant Set method is a time-efficient alternative for fat loss. For fitness professionals and strength coaches, these findings provide a data-driven justification for using high-density training to achieve body recomposition goals in clients with limited time. Academically, the study reinforces the importance of metabolic stress and EPOC as primary drivers of fat reduction, even when caloric intake is not strictly monitored. The results also imply that the Giant Set method can serve as a bridge between strength training and cardiovascular conditioning, potentially simplifying exercise prescriptions for general health. From a public health perspective, this modality could be integrated into metabolic health programs aimed at reducing obesity and improving muscular resilience. Furthermore, the significant improvement in VO_2 max and endurance suggests that this method could be adapted for sport-specific conditioning where athletes require high power-endurance. The study serves as a catalyst for rethinking traditional rest-interval paradigms in resistance training research. Ultimately, the integration of Giant Sets into standard fitness protocols could lead to more efficient and effective health outcomes for the general population.

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

To build upon the current findings, several follow-up research plans and strategic actions are proposed to deepen the scientific understanding of the Giant Set method. Future studies should aim to utilize a larger and more heterogeneous sample size, including varying age groups and initial fitness levels, to enhance the external validity of the results. Implementing a randomized controlled trial (RCT) design that compares Giant Sets directly against traditional sets and circuit training would provide more definitive evidence of its relative superiority. Additionally, incorporating a longitudinal approach spanning six months or more would allow researchers to observe the long-term sustainability of fat loss and the onset of potential overtraining symptoms. Future research should also integrate precise nutritional tracking through metabolic chambers or strictly controlled meal plans to isolate the effect of exercise from caloric intake. Measuring biochemical markers, such as cortisol, testosterone, and blood lactate levels, would provide a more granular look at the hormonal and metabolic stress responses unique to this method. There is also a significant opportunity to explore the psychological impact of this training, specifically looking at participant adherence and mental toughness development. Finally, developing a standardized "Giant Set Protocol" based on these findings could help in creating a benchmark for future studies in the field of exercise science.

CONCLUSION

Based on the results of research on the effectiveness of the Giant Set training method in reducing body fat percentage and improving the physical fitness of Argo Gym Fitness members, supported by descriptive and inferential analysis using a paired sample t-test, several conclusions can be drawn as follows. This is evidenced by a decrease in the average body fat from 29.87% at the pretest to 28.94% at the posttest, or a decrease of approximately 0.93%. This change is statistically significant, with a p-value of 0.017 ($p < 0.05$). This decrease occurred because the Giant Set method is a form of high-intensity endurance training that stimulates increased metabolism, calorie expenditure, and the EPOC effect, as explained by McArdle, Guyton & Hall, and other sports physiology experts. Increases in muscle endurance, muscle strength, and cardiorespiratory capacity were observed after participants completed the program. Exercise without rest intervals between sets provides a strong metabolic stimulus that enhances the muscles' ability to work for extended periods and improves cardiovascular efficiency. These findings align with the theories of Bompa & Haff (2019) and Pescatello (2014). Statistical analysis revealed significant differences between pre-test and post-test results. The calculated t-value of 2.934 and p-value of 0.017 indicate that the Giant Set program produces substantial and scientifically accountable effects on reducing body fat and improving physical fitness. Therefore, the Giant Set method can be considered an effective alternative for fat reduction and physical fitness improvement programs.

REFERENCES

Afif, N. (2022). Peran Gym dalam Pembentukan Gaya Hidup Sehat di Kalangan Muda. Jurnal Ilmu Keolahragaan, 8(1), 21–29.

Arikunto, S. (2018). Prosedur Penelitian: Suatu Pendekatan Praktik. Jakarta: Rineka Cipta. Azwar, S. (2017). Reliabilitas dan Validitas Pengukuran Penelitian. Yogyakarta: Pustaka Pelajar.

Bompa, TO, & Buzzichelli, C. (2019). Periodisasi: Teori dan Metodologi Pelatihan (edisi ke-6). Kinetika Manusia. Borst, SE (2020). “Penyesuaian Metabolisme terhadap Latihan Resistensi Intensitas Tinggi.” Kedokteran Olahraga , 43(6), 209–221.

Creswell, JW (2014). Desain Penelitian: Pendekatan Kualitatif, Kuantitatif, dan Metode Campuran (edisi ke-4). Thousand Oaks: Sage Publications.

Fox, EL, Bowers, RW, & Foss, ML (2012). Dasar Fisiologis untuk Latihan dan Olahraga. New

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

York: McGraw-Hill.
Ghozali, I. (2021). Aplikasi Analisis Multivariat dengan Program IBM SPSS 26. Semarang: Badan Penerbit Universitas Diponegoro.
Guyton, AC, & Hall, JE (2016). Buku Ajar Fisiologi Medis (edisi ke-13). Philadelphia: Elsevier Saunders.
Haff, GG, & Triplett, NT (2015). Esensi Latihan Kekuatan dan Pengondisian (edisi ke-3). Kinetika Manusia. Harsono. (2018). Coaching dan Aspek-aspek Psikologis dalam Coaching. Bandung: Remaja Rosdakarya.
Hidayat, M. (2020). Teori Kebugaran Jasmani dan Komposisi Tubuh . Yogyakarta: Penerbitan mendalam.
Hidayat, R. (2020). Hubungan Aktivitas Fisik dan Pola Makan terhadap Obesitas pada Orang Dewasa. Jurnal Kesehatan Masyarakat, 15(3), 112–120.
Kemenpora RI. (2020). Standar Pengukuran Kebugaran Jasmani Indonesia. Jakarta: Kementerian Pemuda dan Olahraga.
McArdle, WD, Katch, FI, & Katch, VL (2015). Fisiologi Latihan: Nutrisi, Energi, dan Performa Manusia (edisi ke-8). Philadelphia: Lippincott Williams & Wilkins.
Nurhadi, A. (2022). Perbandingan Metode Superset dan Giant Set terhadap Daya Tahan Otot. Jurnal Ilmu Keolahragaan, 10(3), 112–121.
Pescatello, LS (2014). Pedoman ACSM untuk Pengujian dan Resep Latihan (edisi ke-9). Philadelphia: Wolters Kluwer.
Prasetyo, B. (2020). Fat loss Training dan Pengaruhnya terhadap komposisi Tubuh. Jurnal Kesehatan dan Olahraga, 7(1), 44–52.
Rahmad, F. (2021). Analisis Pengaruh Latihan Giant Set terhadap Pembakaran Lemak Tubuh. Jurnal Keolahragaan, 12(2), 98–108.

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)