

**IMPLEMENTASI LATIHAN
MENGGUNAKAN RESISTANCE BAND DAN PUNCHING BALL
UNTUK MENINGKATKAN POWER TENDANGAN SAMPING
PADA ATLET TARUNG DERAJAT PUTRI**

TESIS

**Diajukan Untuk Memenuhi Sebagian Syarat Memperoleh Gelar Magister
Pendidikan Bidang Studi Pendidikan Olahraga Sekolah Lanjutan**



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2022**

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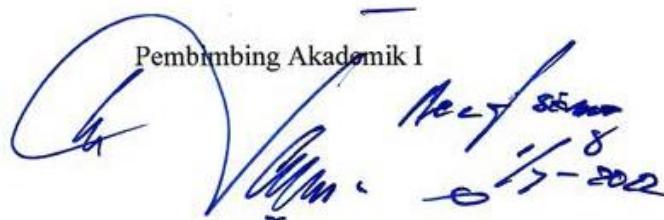
*IMPLEMENTASI LATIHAN MENGGUNAKAN RESISTANCE BAND DAN PUNCHING BALL
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IMPLEMENTASI LATIHAN MENGGUNAKAN RESISTANCE BAND DAN PUNCHING BALL UNTUK MENINGKATKAN POWER TENDANGAN SAMPING PADA ATLET TARUNG DERAJAT PUTRI

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Abstrak

Penggunaan Resistance Band dan Punching Ball sangat membantu latihan yang bervariasi dalam meningkatkan prestasi atlet. Penelitian ini bertujuan untuk mengetahui pengaruh latihan menggunakan Resistance Band dan Punching Ball untuk meningkatkan power tendangan samping pada atlet Tarung Derajat putri. Metode yang dilakukan adalah menggunakan metode eksperimen, dengan desain yang digunakan yaitu Two Group Pretest Posttest Design yaitu dengan adanya pretest-posttest untuk memastikan efektivitas perlakuan yang diberikan. Populasi penelitian adalah atlet Tarung Derajat putri di Kota Bandung. Sampel diambil secara purposive sampling yaitu atlet Tarung Derajat putri yang memiliki kualifikasi sabuk merah di Kota Bandung dengan jumlah 20 orang dan sedang mengikuti persiapan Porprov XIV Jabar tahun 2022. Instrument tes yang digunakan adalah alat ukur ‘KP&P Protector Scoring System’. Pada alat ini dapat diukur beberapa komponen yang dapat dilihat yaitu power dan akurasi. Hasil observasi dibuat menjadi 2 kelompok uji coba dengan 10 orang melakukan latihan dengan menggunakan Resistance Band dan 10 orang menggunakan Resistance Band dan Punching Ball dengan metode ABBA. Hasil kesimpulan penelitian ini menunjukkan bahwa terdapat pengaruh yang signifikan latihan dengan menggunakan Resistance Band dan Punching Ball terhadap peningkatan power tendangan samping pada atlet Tarung Derajat putri.

Kata kunci : Tarung Derajat, tendangan samping, Resistance Band, Punching Ball

**EXERCISE IMPLEMENTATION
USING RESISTANCE BANDS AND PUNCHING BALLS
TO INCREASE THE POWER OF THE SIDE KICK
ON WOMEN'S TARUNG DERAJAT ATHLETES**

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Abstrac

The use of Resistance Bands and Punching Balls is very helpful in various exercises in improving athlete performance. This study aims to determine the effect of training using Resistance Bands and Punching Balls to increase the power of side kicks in female Tarung Derajat athletes. The method used is the experimental method, with the design used is Two Group Pretest Posttest Design, namely with the pretest-posttest to ensure the effectiveness of the treatment given. The research population is female Tarung Derajat athletes in the city of Bandung. The sample was taken by purposive sampling, namely female Tarung Derajat athletes who have red belt qualifications in the city of Bandung with a total of 20 people and are taking part in the preparation of West Java Province XIV in 2022. The test instrument used is the 'KP&P Protector Scoring System' measuring instrument. This tool can measure several components that can be seen, namely power and accuracy. The results of the observations were made into 2 experimental groups with 10 people doing exercises using a Resistance Band and 10 people using a Resistance Band Punching Ball with the ABBA method. The conclusions of this study indicate that there is a significant effect of training using Resistance Bands and Punching Ball on increasing the side kick power of female Tarung Derajat athletes.

Keywords: Tarung Derajat, side kick, Resistance Band, Punching Ball

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DAFTAR PUSTAKA

- Aandahl, H. S., von Heimburg, E., & van Den Tillaar, R. (2018). Effect of postactivation potentiation induced by elastic resistance on kinematics and performance in a roundhouse kick of trained martial arts practitioners. *Journal of Strength and Conditioning Research*. <https://doi.org/10.1519/jsc.00000000000001947>
- Adolphs, R., Mlodinow, L., & Barrett, L. F. (2019). What is an emotion? In *Current Biology*. <https://doi.org/10.1016/j.cub.2019.09.008>
- Agopyan, A., Ozbar, N., & Ozdemir, S. N. (2018). Effects of 8-Week Thera-Band Training on Spike Speed, Jump Height and Speed of Upper Limb Performance of Young Female Volleyball Players. *International Journal of Applied Exercise Physiology*. <https://doi.org/10.22631/ijaep.v7i1.218>
- Ahsen, A. (1984). ISM: The Triple Code Model for imagery and psychophysiology. In *Journal of Mental Imagery*.
- Ali Maksum. (2008). Metode Penelitian. *Metode Penelitian*.
- Almy, M. A., & Sukadiyanto, S. (2014). Perbedaan Pengaruh Circuit Training Dan Fartlek Training Terhadap Peningkatan Vo2max Dan Indeks Massa Tubuh. *Jurnal Keolahragaan*. <https://doi.org/10.21831/jk.v2i1.2603>
- Alnedral, Bakhtiar, S., & Umar. (2018). Strategies to improve intelligent characters and fighting ability of self-defense athletes of Tarung Derajat. *International Journal of Mechanical Engineering and Technology*.
- Aloui, G., Hermassi, S., Hammami, M., Gaamouri, N., Bouhafs, E. G., Comfort, P., Shephard, R. J., Schwesig, R., & Chelly, M. S. (2019). Effects of an 8-Week In-Season Upper Limb Elastic Band Training Programme on the Peak Power, Strength, and Throwing Velocity of Junior Handball Players. *Sportverletzung-Sportschaden*. <https://doi.org/10.1055/a-0819-5185>
- Arikunto, S. (2006). Prosedur Penelitian Suatu Tindakan Praktik. *Jakarta: Rineka Cipta*.
- Bedon, B. G., & Howard, D. V. (1992). Memory for the frequency of occurrence of karate techniques: A comparison of experts and novices. *Bulletin of the Psychonomic Society*. <https://doi.org/10.3758/BF03330413>
- Behm, D. G. (1995). Neuromuscular implications and applications of resistance training. *Journal of Strength and Conditioning Research*. <https://doi.org/10.1519/00124278-199511000-00014>
- Bompa, T. O. (1996). Theory and Methodology of Training. In *Orietta Calcina*.
- Bompa, T. O., & Buzzichelli, C. (2018). Periodization-6th Edition: Theory and Methodology of Training. In *Human Kinetics*.

https://doi.org/10.1207/S15327051HCI1523_6

- Callow, N., & Hardy, L. (2001). Types of Imagery Associated with Sport Confidence in Netball Players of Varying Skill Levels. *Journal of Applied Sport Psychology*. <https://doi.org/10.1080/10413200109339001>
- Callow, N., Roberts, R., Hardy, L., Jiang, D., & Edwards, M. G. (2013). Performance improvements from imagery: Evidence that internal visual imagery is superior to external visual imagery for slalom performance. *Frontiers in Human Neuroscience*. <https://doi.org/10.3389/fnhum.2013.00697>
- Callow, N., & Waters, A. (2005). The effect of kinesthetic imagery on the sport confidence of flat-race horse jockeys. *Psychology of Sport and Exercise*. <https://doi.org/10.1016/j.psychsport.2004.08.001>
- Chairad, B. S. H. M. (2019). Load Exercise Implementation Method of Circuit Training on Phase Conversion Power for Unimed Tarung Derajat Athletes Preparation of National Student Sport Weeks. *International Journal of Science and Research (IJSR)*.
- Chairad, M. (2014). Sejarah dan Perkembangan Beladiri Tarung Derajat. *Jurnal Ilmu Keolahragaan*.
- Chelly, M. S., Hermassi, S., Aouadi, R., & Shephard, R. J. (2014). Effects of 8-week in-season plyometric training on upper and lower limb performance of elite adolescent handball players. *Journal of Strength and Conditioning Research*. <https://doi.org/10.1519/JSC.0000000000000279>
- Chuan, C. C., Yusof, A., & Shah, P. M. (2013). Sports involvement and academic achievement: A study of Malaysian university athletes. *International Education Studies*. <https://doi.org/10.5539/ies.v6n2p12>
- Colado, J. C., & Triplett, N. T. (2008). Effects of a short-term resistance program using elastic bands versus weight machines for sedentary middle-aged women. *Journal of Strength and Conditioning Research*. <https://doi.org/10.1519/JSC.0b013e31817ae67a>
- Fukuda, S. (2019). Emotion. In *SpringerBriefs in Applied Sciences and Technology*. https://doi.org/10.1007/978-3-030-26725-4_5
- Glidden, C. E. (1993). Review of How to Design and Evaluate Research in Education (2nd ed.). *PsycCRITIQUES*. <https://doi.org/10.1037/032719>
- Gooyers, C. E., Beach, T. A. C., Frost, D. M., & Callaghan, J. P. (2012). The influence of Resistance Bands on frontal plane knee mechanics during body-weight squat and vertical jump movements. *Sports Biomechanics*. <https://doi.org/10.1080/14763141.2012.654503>
- Gould, D. B. (2016). Emotion. In *Protest Cultures: A Companion*. <https://doi.org/10.5840/philstudies19812835>
- Griffiths, P. E. (2003). Basic emotions, complex emotions, machiavellian emotions.

In *Philosophy and the Emotions: Royal Institute of Philosophy Supplement*: 52. <https://doi.org/10.1017/CBO9780511550270.004>

- Hermassi, S., Chelly, M. S., Tabka, Z., Shephard, R. J., & Chamari, K. (2011). Effects of 8-week in-season upper and lower limb heavy resistance training on the peak power, throwing velocity, and sprint performance of elite male handball players. *Journal of Strength and Conditioning Research*. <https://doi.org/10.1519/JSC.0b013e3182030edb>
- Jamaludin. (2017). Pengaruh Latihan Double Leg Run Ladder Terhadap Kelincahan Tendangan Samping Pada Anggota Taruna Derajat. *Jurnal Pendidikan Olahraga Dan Kesehatan*.
- Jonker, L., Elferink-Gemser, M. T., & Visscher, C. (2009). Talented athletes and academic achievements: A comparison over 14 years. *High Ability Studies*. <https://doi.org/10.1080/13598130902863691>
- Liu, H., Gómez, M. A., Gonçalves, B., & Sampaio, J. (2016). Technical performance and match-to-match variation in elite football teams. *Journal of Sports Sciences*. <https://doi.org/10.1080/02640414.2015.1117121>
- Markovic, P., Suzovic, D., Kasum, G., & Jaric, S. (2016). Effects of training against elastic resistance on jab punch performance in elite junior athletes. *Kinesiology*. <https://doi.org/10.26582/k.48.1.8>
- Mascarin, N. C., de Lira, C. A. B., Vancini, R. L., da Silva, A. C., & Andrade, M. S. (2017). The effects of preventive rubber band training on shoulder joint imbalance and throwing performance in handball players: A randomized and prospective study. *Journal of Bodywork and Movement Therapies*, 21(4), 1017–1023. <https://doi.org/10.1016/j.jbmt.2017.01.003>
- Olado, J. U. A. N. C. C. (2008). *E s -t r p u e b v w m s m -a w*. 22(5), 1441–1448.
- Pendidikan, A., Olahraga, K., Padang, U. N., & Syahrial Bakhtiar, I. (2018). Article ID: IJMET_09_11_102 Cite this Article: Alnedral, Syahrial Bakhtiar and Umar, Strategies to Improve Intelligent Characters and Fighting Ability of Self-Defense Athletes of Tarung Derajat. *International Journal of Mechanical Engineering and Technology (IJMET)*.
- Perloff, R. (1997). Daniel Goleman's Emotional intelligence: Why it can matter more than IQ. *The Psychologist-Manager Journal*. <https://doi.org/10.1037/h0095822>
- Subarjah, H. (2013). LATIHAN KONDISI FISIK. *Educacion*. <https://doi.org/10.1017/CBO9781107415324.004>
- Sugimoto, D., & Blanpied, P. (2006). Flexible foil exercise and shoulder internal and external rotation strength. *Journal of Athletic Training*.
- Metode penelitian kuantitatif, kualitatif,dan R&D, Alfabetika, cv. ____ (2016).
- Suharsimi, A. (2013). Prosedur Penelitian : Suatu Pendekatan Praktik (Edisi Yayan Hartayan, 2022

Revisi). *Jakarta: Rineka Cipta.*
<https://doi.org/10.1017/CBO9781107415324.004>

Tambunan, T. P., Simatupang, N., & Suprayitno, D. (2018). *The Stages of Training In Skills and Methods of Basic Technical Training in Tarung Derajat Martial Arts.* <https://doi.org/10.2991/aisteel-18.2018.70>

Wąsik, J., & Góra, T. (2016). Impact of target selection on front kick kinematics in taekwondo – pilot study. *Physical Activity Review.* <https://doi.org/10.16926/par.2016.04.07>