
Aerobic Exercises for Female Prisoners to Reduce Stress Level

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ABSTRACT

Stress can happen to anyone in life. Stress levels in women are 61% higher than in men. A woman who is forced to live in prison because she is serving a sentence will affect her psychological condition. They will find it difficult to adjust and also have to be separated from their families that impact stress. The solution to this problem is to reduce the level of stress experienced by female prisoners through aerobic exercise. This aerobic exercise was done one time in a week conducted for one month (four meetings) assisted by trained gymnastics instructors. All-female prisoners were measured their stress level before and after a number of aerobic exercises. The stress level experienced by female inmates experienced a 76.2% decline. This is very important because aerobic exercise can improve heart rate and the body's autonomic system which is needed to cope with stress..

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INTRODUCTION

It is undeniable that roles of teachers are essential to their community. A qualified generation is never indispensable from roles of a teacher. Teaching and educating are two core tasks of a teacher. A teacher never passed his days without giving benefits to their students. However, as the era has evolved rapidly, where technology and new advancement increasingly develop, the tasks of a teacher are not merely for teaching and educating. But, they also should be able to do a modest research. a study that may be conducted in their classroom and work environment. This new task is really important for teachers in order to document what is happening and had happened in their classroom. The findings would be really useful to share with their colleagues or those who are interested in conducting the same study.

For a teacher, a classroom is analogously perceived as a mini laboratory in which a scientist spend most of his days. It is a place where the majority of interaction between teachers and students occur. A teaching atmosphere that one teacher experienced in one classroom would be different from that of others. Therefore, it is worthy for a teacher to document any forms of innovation, creativity, and breakthroughs. All the findings and documentation would become resourceful data for other teachers who may have the same problems or those who want to extend the research to another perspective.

It is not doubtful that writing a piece of academic paper would be a daunting task for teachers. Writing an academic writing is not the same with that of popular texts, such as novel, short stories, poems, and other forms of fictive writings. There are rules that should be followed and specific terms that need to be used. A piece of academic writing that is not aligned with the requested rules might be rejected by an editor. One of the crucial things in writing an academic paper is citation. A writer must quote correctly all experts' opinions, ideas, theories, and concepts. A wrongly written citation may lead an academic article to the plagiarism detection. This is because an academic writing is a scientific piece that requires a scientific responsibility from its author.

Many trainings on citation techniques have been conducted in order to tackle the issue of plagiarism. Nonetheless, the majority of trainings were only intended for college students and university professors. Yusdita & Utomo (2019) held a workshop on *Mendeley software* use for an academic citation for college students. The participants were students majoring accounting. They were trained on how to use the software correctly and independently. At the end of workshop, all the participants were asked to use the software in a citation. The result indicated that all participants were able to use it independently. In the same vein, Falah (2019) conducted the same training for college students and the result showed that all students were able to use the software and even they were able to integrate it into online resources.

Despite citation training for university students, several trainings were also given to university lecturers. The ability to write a piece of academic paper is a must to have skill for them. Setiawan, Hamzah, & Arlenny, (2019) conducted a training on citation for lecturers of a university in Sumatera. Although the most of participants were familiar with citation software, they still cite the references manually. Participants, particularly, were not familiar with *Mendeley* software. After training, all participants positively evaluate the result and they show high willingness to share the knowledge with their colleagues and students. Apart from it, citation trainings were also aimed for lecturers who are struggling for a reputable journal publication. It is believed that majority of refusal because of the author fails to quote the sources properly. To cope with the issue, Rahmawati, Meliyana, Yuliana, & Zain (2018) held a training on the use of *Mendeley* for lecturers of a state Islamic University in Aceh Province. Even though dominantly participant know the software, they still have problems in its installation on either on desktop or mobile phones.

Mendeley workshop is not only for students and university professors, but it has been given to school teachers. Sandika, Wijaya, & Pratama, (2019) held a *Mendeley* training for senior high school teachers. They were trained to use this powerful reference software correctly. The result showed that the teachers feel enlightened and they were able to use the software. Similarly, school teachers in a public school in Riau Province were given a *Mendeley* training (Pahmi et al., 2018). The teachers were guided to use and integrate the software directly into their MS Word. The participants enthusiastically took part in that training. The same training, even, was given to elementary school teachers (Isa, Soewito, & Gunawan, 2016). The participants' responses were positive and they wanted to start writing a simple piece of academic paper.

Many *Mendeley* trainings were given to college students and university professors, even though there were still little trainings for school teachers, particularly for senior high school teachers. To fill this void, we held a workshop on the use *Mendeley* software reference for senior high school teachers association in Marabahan district, Batola Regency, South Kalimantan. This is a special workshop, the participants were not only equipped with the citation skill, but they were also guided to write a piece of academic paper published in an online English journal. This program gave a significant outcome where one of the alumni of the workshop successfully published her academic research in an online academic journal. This program was an initiative between English lecturers of Universitas Muhammadiyah Banjarmasin and the association of English teachers in Marabahan District..]

METHODS

[The implementation of Community Service Activities was carried out in one of the Second-Class Women's Penitentiaries in South Kalimantan. In the initial stage, prisoners were asked to fill out questionnaires about stress levels according to DASS 42 theory. Then the prisoners were prepared to do aerobic exercises. It starts with warm up, core training and ends with cooling down. The aerobic exercise using music for 40 minutes was carried out in the Prison's field which was assisted by gymnastics instructors. This exercise is held once a week for 1 month (4 times). Then after 1 month the stress level of female prisoners were measured again..]

RESULT AND DISCUSSION

The number of prisoners who participated in this activity was 84 people, they are older than 30 years, 51.8% of them were married and 47% were widowed, 50.6% had 1-2 children and 42.3% had more than 3 children.

The results of stress levels before doing aerobic exercise can be seen in Table 1 and stress levels after aerobic exercise can be seen in table 2.

Table I. Stress Level Results before Aerobic Exercises

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mild	53	63,1	63,1	63,1
	Moderate	22	26,2	26,2	89,3
	Severe	9	10,7	10,7	100,0
	Total	84	100,0	100,0	

Table II. Stress Level Results after Aerobic exercises

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	64	76,2	76,2	76,2
	Mild	20	23,8	23,8	100,0
	Total	84	100,0	100,0	

From the above table, it can be seen that before doing aerobic exercises there were 53 people (63.1%) experienced mild stress, 22 people (26.2%) in moderate level and 9 people (10.7%) experienced severe stress, symptoms that were most felt by inmates were angry, anxious and restless. After doing aerobic exercise once a week for 4 times then measured by post-test stress levels experienced by female prisoners found 64 people (76.2%) no longer experience stress or in other words the prisoners are in normal conditions and only a small portion 20 people (23.8%) experienced mild stress.



Exercise can inhibit the secretion of Adenocorticotropin Hormone (ACTH) and cortisol, exercise causes the heart rates to work faster. These results could increase blood pressure and oxygen levels in the blood which also increases due to rapid breathing. The decreased of ACTH secretion and cortisol levels in the blood will stimulate increased production of serotonin and endorphins in the brain. The results are the feeling of comfort and relaxation. Impulses reaching the brain will affect the brain to produce endorphins, the happiness hormones that react like morphine, which can make you feel calm, comfortable, and relaxed. The work of endorphins is strongly influenced by a neurotransmitter called serotonin. Serotonin can affect most brain functions such as appetite, learning, memory, mood, and social behavior. Without serotonin the effects of endorphin hormones cannot be felt. Someone will be very easily feel stressed (Lim, Khoo and Chir, 2017).

Aerobic exercises can improve heart rate and the autonomic system of the body which is needed to cope with stress. Exercise can be a cure for a variety of psychiatric symptoms, can reduce anxiety, fatigue and confusion and depression. Aerobic movement is directed so that the heart

pumps faster than usual and makes breathing faster. Employing the heart in this way will make the heart stronger and more efficient in helping circulation of the body. Optimal blood circulation throughout the body will help improve the function of organs. In addition, optimal circulation to the brain will help blood flow to bring lots of oxygen and nutrients to the brain so that an increase in metabolism causes an increase in energy produced by mitochondria of nerve cells to synthesize neurotransmitters. Serotonin and norepinephrine in the brain including the limbic system associated with emotional control, instinctive behavior, motivation and feelings (Terbeck et al., 2016)..

CONCLUSION

[Through Community Service activities by conducting physical training in the form of Aerobic exercises which are one of the effective and realistic ways of dealing with psychological problems such as stress can be reduced or overcome.]

REFERENCES

- [Lim, C. T., Khoo, B. and Chir, B. (2017) *Normal physiology of ACTH and GH Release in the hypothalamus and anterior pituitary in man*, *Endotext*, *NCBI Bookshelf*. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK279116/> (Accessed: 23 March 2020).
- Purnamasari, M. W. M., Sukawana, N. M. and Suarnatha, I. W. K. (2011) 'Pengaruh senam aerobik low impact terhadap penurunan tingkat depresi pada narapidana wanita di Lembaga Pemasarakatan Denpasar', p. 10.
- Sukaman, Y. (2018) *Pemerintah kaget lonjakan jumlah napi perempuan*, *Kompas.com*. Available at: <https://nasional.kompas.com/read/2018/05/03/12130321/pemerintah-kaget-lonjakan-jumlah-napi-perempuan> (Accessed: 23 March 2020).
- Terbeck, S. *et al.* (2016) 'Noradrenaline effects on social behaviour, intergroup relations, and moral decisions', *Neuroscience and Biobehavioral Reviews*. Elsevier Ltd, 66, pp. 54–60. doi: 10.1016/j.neubiorev.2016.03.031.
- United Nations Office on Drugs and Crime (2017) 'Hak dan kesehatan perempuan di Lapas/Rutan Indonesia: Tinjauan situasi saat ini', p. 58.
- Villa, M. (2017) *The mental health crisis facing women in prison*, *The Marshall Project*. Available at: <https://www.themarshallproject.org/2017/06/22/the-mental-health-crisis-facing-women-in-prison> (Accessed: 23 March 2020).
- Wijaya, K. A. (2015) *Hubungan antara dukungan keluarga dengan tingkat stress narapidana di Lembaga Pemasarakatan Kelas IIA Kabupaten Jember*.]