IOP Conf. Series: Materials Science and Engineering **180** (2017) 012217 doi:10.1088/1757-899X/180/1/012217

The Effect of Cycling to the Working Mood

M Zaky*, A Suherman, H Subarjah and U Umaran

Department of Health and Recreation, Universitas Pendidikan Indonesia, Jl. Dr. Setiabudhi 229, Bandung 40154 West Java – Indonesia

*zaky@upi.edu

Abstract. Cycling activity is considered to give positive effect to mood. However, there are still less empirical data that support the statement. Therefore, this research aims to get data and facts through the experiment of cycling activity effect to working mood. The research method is Ex-Post facto. The samples were taken from the members of Bike to work (B2W) Bandung with the range of age about 20 to above 60 years old. The instrument in this research is The Brunel Mood Scale (BRUMS). The research was conducted in Taman Cikapayang Bandung. The data analysis in this research is SPSS 22 with some tests such as: Test of Normality with Kolomogorov-Smirnov, Test of Homogeneity with Lavene Statistic, and Test of Independent Sample to observe the average score of sample group. The result of the research shows that the cycling group has different average score of mood compare to the average score of control group. In other words, it can be concluded that cycling activity gives positive effect to the working mood.

1. Introduction

The urban development is increasingly rapidly, in line with the globalization in various fields especially in the technology. The unsettling impact of urban development is the congestion and traffic systems that can spread throughout the region. Many of the problems faced by the metropolitan increasingly difficult to be solved, such as the greater scale distance separating workplaces with shelter, which takes time, energy and greater cost. (Mutakin & Eridiana, 2007: 179). The condition can lead to stress and other psychological disorders that labor productivity has declined.

Another negative impact of the development of the city is the lack of access to green belt or open space such as parks which are the lungs of the city. The high demand for the procurement of new infrastructure, high air pollution, water pollution and noise, resulting in poor quality of healthcare to decrease the level of morality of the population implication result is high levels of urban crime.

Work is a demand that must be executed in meeting economic and social needs. However, not only the fulfillment of economic and social needs are derived from work, but also the pressures. Various kinds of pressures must be faced by the employees, which can cause stress at work that can affect the health of the employee.

About the same thing Selye (1983) revealed: "Work stress is an individual's response to environmental work related stressors. Stress as the reaction of the organism, the which can be physiological, psychological or behavioral reaction. "

In general it can be said that, if a person is faced with job demands exceed the capacity of that person, then that person is said to be experiencing job stress. But, what is included job stress?

Content from this work may be used under the terms of the Creative Commons Attribution 3.0 licence. Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.
Published under licence by IOP Publishing Ltd

According to Rice (2008) that "a person can be categorized as having stress work if the affairs of the stress experienced by involving also the organization or company where people work." But in reality, not only within the enterprise, due to domestic problems and environmental conditions outside the company (such as congestion) has been dragged to the job can also be a cause of job stress.

De Longis and Folkman (1988) explains that: "... the daily stress Increase the likelihood of mood disturbance for at least the day following the occurrence of the stressor." So stress daily that occur will affect a person's mood. Psychological pressure or stress is the main trigger of the onset of a negative mood. Stress is a major trigger from within the individual that can lead to a negative mood.

The problem is how the negative mood can be reduced and turned into a positive mood. Various studies put forward on how to do to be able to increase positive mood. the biochemical changes associated with completing recommended amounts of exercise (ie 150 minutes of moderate exercise per week) is required for mood improvements. Exercise moderately for 150 minutes each week is highly recommended to improve mood. Biochemical changes in the body would occur when there is a change in body temperature as a result of physical activity.

If a person's mood becomes positive, the labor productivity will increase. Because when a person has a positive mood it will be motivated and cooperate with each other, so it will lead to a positive working environment, which benefits the company and the workers themselves financially. A profitable company means a better salary, bonuses, incentives and little chance of workforce reductions. An atmosphere that is comfortable and productive work can extend beyond the workplace and help employees to have a better life because of the stress level decreases.

One solution is the right solution and could be done to tackle congestion as changing one's mood is the use of bicycles as alternative transportation options. Bicycle imaged back as a means of everyday transportation, especially work, one that is Bike to Work, abbreviated B2W, which raise the popularity of bicycles as cars and motorcycles replacement vehicle to go to work or Kanto. The simple solution is expected to answer the problems of congestion and make a clean environment, free of pollution and create a society that is more healthy and fit.

Physical activity can directly contribute positively to one's mood. Various studies on the effect of physical activity on mood has been much studied, one by Yiannakis et al, (2004: 1) with the title "Effects Of Physical Activity On Mood: A Field Experimental Investigation." The study was conducted by giving the treatment of four sample groups, namely karate, volleyball ball, basketball, and women's football. The nature of the sport in question was a recreational sport. There was also the result of penelitiannnya concluded that, "Multiple significant positive changes were observed in all four sport activities." Of the four types of physical activity they observed the most significant changes occurred in the group of Karate. The study shows that physical activity can contribute greatly to the mood.

The authors are interested in examining that occur in the community bike to work. It is the authors focused research in describing the effect of mood cycling activity against working for the culprit. This study aimed to answer the question: Is there a positive influence on the activity of cycling to work mood ?.

2. Method

2.1. Participants

The study was conducted in a community bike to work. Sample 70 people. volunteer fill out a questionnaire.

2.2. Procedures

This questionnaire was administered to participants. members bike to work were invited to answer the questionnaire in cikapayang park.

2.3. Instruments

The Brunel Mood Scale was developed to serve as a brief measure of mood states among adolescent and adult populations. the BRUMS contains 24 simple mood descriptors. Respondents indicate whether they have experienced such feelings on a 5-point scale (0 = not at all, 1 = a little, 2 = moderately, 3 = quite a bit, 4 = extremely). The standard response timeframe is "How you feel right now?" The BRUMS takes only a couple of minutes to complete.

3. Results and Discussion

Tabel 1. SPSS output of descriptive statistics, *independent sampel t-test*

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	dk	Sig. (2-tailed)
Mood	Equal variances assumed	1,339	0,251	2,521	68	0,014
	Equal variances not assumed			2,521	97,208	0,014

value-t mood among the sample group cycling with the control group is 2.521 with probability (Sig.) 0,014. Because the probability (Sig.) 0.014 <0.05, H0 Rejected. Meaning There are significant differences between the average of the sample group cycling mood to work with the control group. Based on the results of such processing, it can be concluded that, cycling activity has a positive effect on mood work.

Results of research conducted, the authors found a variety of the invention described in the section of this discussion. The results of treatment showed significant differences between sample groups mood cycling with the control group. The average results of the group's mood cycling are lower than the control group who did not cycle to work. This means that, better mood cycling group compared with the control group, because the questions mood questionnaire were given an average negative and only two items are positive.

4. Conclusion.

Cycling activity performed each way to work have the burden and risk is lower compared to using other transportation such as motorcycles and cars. In addition to the risk of accidents, the risk of delays due to congestion is also quite high. Less physical built up well, due to the lack of movement will indirectly affect the psychological condition.

References

[1] DeLongis A, Folkman S and Lazarus R S 1988 Hassles, health, and mood: A prospective study with repeated daily assessments *Journal of Personality and Social Psychology* **54** 486-495
[2] Mutakin A and Eridiana W 2007 *Geografi Perilaku – Keragaman Perilaku Kelingkungan.* Bandung: FPIPS - Universitas Pendidikan Indonesia.
[3] Rice P L 1999 *Stress and Health (3rd ed.).* California: Brooks/Cole Publishing Company.
[4] Selye H 1983 *Selye's Guide To Stress Research (vol. 3).* New York: Van Nostrand Reinhold Company, Inc.

[5] Terry P C and Lane A M 2010 *User Guide for the Brunel Mood Scale (BRUMS)*. Australia.

[6] World Health Organization 2009 *Physical Activity* : *Bennefit of Physical Activity*. WHO [online].Tersedia :http://www.who.int/

[7] Yiannakis, Kane, Han and Lyras 2004 Effects Of Physical Activity On Mood: A Field Experimental Investigation. *Presented at 2004 Pre-Olympic Scientific*