The Shift of Female Martial Artists Depression Level Resulting from Pre-Menstrual Syndrom Effect

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Abstract: The urgency of this study is to see the stability of achievement as the effect of the exercise. Disorders such

as stress that cause depression to be factors that can affect the robustness of achievement. For female athletes, the pre-menstrual phase can often affect mental balance that may affect their achievement. The research method used is descriptive, to find out how big the level of depression that occurs during the pre-menstrual phase in facing big games. The sample of this research was martial artist of silat, wrestling, tarung derajat, judo, kempo, wushu and karate. They were chosen for these martial arts have throws techniques. The instrument used is a depression measurement questionnaire. The results found that, the depression rate of female athletes in Martial Arts who use throws is at a moderate to high level when facing the game. This can be interpreted that, the pre-menstrual syndrome of women's martial arts, which one of the factors is depression is still a factor inhibiting the stability of their achievement. It is therefore suggested

to provide sport psychological treatment.

1 INTRODUCTION

The study examined whether the pre-menstrual phase as a moderator of the equilibrium depression of female athletes (female individual sport), especially in the face of big games. Another similar study shows that participation in individual sports can increase great depression over team sports (Andreann Perron-Gélinas, Mara Brendgen, Frank Vitaro, 2017). Other results suggest that children involved in team sports have better mental health than those involved in individual sports (Isabelle Doré, Jennifer L. O'Loughlin, Guy Beauchamp, Marc Martineau, Louise Fournier, 2016). Thus higher levels of depression in martial athletes, should be managed so as not to be an indicator that can inhibit achievement, although done during premenstruation.

1.1 Background of the study

Basically martial arts is seen as a form of combat, characterized as a multifunctional sport (Massey, Meyer, and Naylor, 2013), therefore for women martial arts is very important, in addition to the self-defense system (Angleman, Shinzato, Van Hasselt,

and Russo, 2009); also to improve physical fitness (Fong, Fu, and Ng, 2012) and as one of the psychological intervention programs (Bahrami, Movahedi, Marandi, and Abedi, 2012; Hussen, 2010). Currently, more than 14 million people are reported to be suffering from depression, with the majority of these groups is women (Nicole E. Hurt, 2010). This number is significant and needs solution. Basically a well-managed physical activity can reduce symptoms of depression. (Taylor McFadden, Michelle Fortier, Eva Guérin, S. Psychological preparation of women elite athletes should be carefully planned, especially in combat sports, such as; martial arts, wrestling, fighting degrees, judo, kempo, wushu, karate (Boris Blumenstein. Ronnie Lidor and Gershon Tenenbaum, 2011) The purpose of psychological preparation (mental) is intended to be integrated effectively in the physical, technical, and tactical preparation of the program training for all phases (preparation, competition, and transition). The premenstrual phase in girls is a time of critical development associated with deep biological and psychosocial changes, including depression symptoms.

2 METHODS

The method used in this study was descriptive method. The population was martial art athletes of PELATDA PON XIX Jawa Barat 2016 consisting of 5 female pencak silat athletes, 7 female wrestlers, 10 female tarung derajat athletes, 6 female judo athletes, 8 female Kempo athletes, 3 female wushu athletes, and 5 female karate athletes with the total 44 martial artists as the population. All of the were involved as the sample (total sampling) Population selection is also based on menstruation as a process experienced by female athletes, where there is a process of dekuamasi or decay of the inner lining of

the uterus (endometrium) out through the vagina Santoso (2012).

3 RESULTS AND DISCUSSION

The analysis was performed through Statistical Product and Service Solution (SPSS) version 20. The data was obtained from depression symptom questionnaires of PELATDA PON XIX JABAR 2016 Pencak Silat, Wrestling, Tarung Derajat, Judo, Kempo, Wushu and Karate athletes.

Table 1: Athlete data description table.

| Depression | N | Means | Standard | Variance | Minimum | Maximum |
|----------------|----|-------|-----------|----------|---------|---------|
| Indicators | | | Deviation | | Score | Score |
| Pencak Silat | 5 | 33.8 | 6.46 | 41.7 | 28 | 43 |
| Wrestling | 7 | 38 | 5.1 | 26 | 31 | 46 |
| Tarung Darajat | 10 | 35.1 | 5.17 | 26.8 | 28 | 42 |
| Judo | 6 | 32.3 | 3.93 | 15.5 | 28 | 39 |
| Kempo | 8 | 33.1 | 2.17 | 4.7 | 31 | 38 |
| Wushu | 3 | 34.7 | 1.15 | 1.33 | 34 | 36 |
| Karate | 5 | 35.2 | 10.8 | 7.1 | 30 | 38 |

Table 2: Tests of normality.

| Tuble 2. Tests of normanty. | | | | | | |
|-----------------------------|---------------------|----|------|--|--|--|
| Sports | Kolmogorov-Smirnova | | | | | |
| | Statistic | df | Sig. | | | |
| Pencak Silat | .211 | 5 | .200 | | | |
| Wrestling | .101 | 7 | .200 | | | |
| Tarung Darajat | .163 | 10 | .200 | | | |
| Judo | .300 | 6 | .200 | | | |
| Kempo | .221 | 8 | .177 | | | |
| Wushu | .231 | 3 | .200 | | | |
| Karate | .259 | 5 | .185 | | | |

Table 3: Test of homogeneity of variances.

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| .592 | 6 | 37 | 544 |

Table 4: ANOVA test result on depression

| | Sum of | df | Mean | F | Sig. |
|---------|----------|----|---------|-------|------|
| | Squares | | Square | | |
| Between | 2133.621 | 6 | 365.054 | 4.472 | .000 |
| Groups | 2133.021 | | 303.031 | ,2 | .000 |
| Within | 3374.788 | 37 | 73.784 | | |
| Groups | 3374.766 | | | | |
| Total | 5404.331 | 43 | | | |

Table 5: Correlation analysis of menstrual phase toward

| depression. | | | | | |
|------------------------------------------------|-----------------------------|------|----------------------------------|------------------------------------------------|--|
| Variables | Test Result R Squared value | | Testing Criteria | Conclusion | |
| Menstruation on Depression Indicators | 0.79 | .000 | Ho is rejected if Pvalue < =0.05 | Menstruation on Depression Indicators | |

The table shows that from the statistical analysis the menstrual phase effect on depression is Rsquared = 0.79; Pvalue of depression =.000; () = 0.05; the testing criteria is that Ho is rejected if Pvalue < and the conclusion is Pvalue < which means that Ho is rejected. Based on the results of the above analysis concluded there is a relationship between the impact of menstrual phase on depression symptoms of PELATDA PON XIX athletes with strong correlation.

4 CONCLUSIONS

The result showed that there is a significant correlation between the menstrual phase and athletes' depression. It was also found out that the depression level of PELATDA PON XIX Jawa Barat 2016 athletes is categorized as moderate. In relation to the results, the researcher suggests paying special attention to female athletes who have a career in

martial arts, especially those who use dings as a means of obtaining high marks, in order to pay attention to the premenstrual cycle in mental cultivation in the face of big games.

REFERENCES

- Andreann Perron-Gélinas, Mara Brendgen, Frank Vitaro, 2017. Can Sports Mitigate the Effects of Depression and Aggression on Peer Rejection; *Journal of Applied Developmental Psychology* 50, 26–35.
- Angleman, A. J., Shinzato, Y., Hasselt, V. B., Russo, S. A. 2009. Traditional martial arts versus modern selfdefense training for women: Some comments. Aggression and Violence Behavior, 14(2), 89–93.
- Bahrami, F., Movahedi, A., Marandi, S. M., Abedi, A. 2012. Kata techniques training consistently decreases stereotypy in children with autism spectrum disorder. *Research in Developmental Disabilities*, 33(4), 1183– 1193.
- Boris Blumenstein, Ronnie Lidor, Gershon Tenenbaum, 2011. Periodization and planning of psychological preparation in elite combat sport programs: The case of judo. *Journal International Journal of Sport and Exercise Psychology* 3 (1), 7-25.
- Fong, S. M., Fu, S., Ng, G. Y. F. 2012. Taekwondo training speeds up the development of balance and sensory functions in young adolescents. *Journal of Science and Medicine in Sport*, 15(1), 64–68.
- Hussen, S. S. 2010. Use of Tai Chi trainings to development some of the physiological variables and psychological skills for Karate players. *Procedia Social and Behavioral Sciences*, 5, 2063 2066.
- Isabelle Doré, Jennifer L. O'Loughlin, Guy Beauchamp, Marc Martineau, Louise Fournier, 2016, Volume and Social Context of Physical Activity in Association with Mental Health, Anxiety and Depression among Youth. *Journal Preventive Medicine*, 91, 344–350.
- Massey, W. V., Meyer, B. B., Naylor, A. H. 2013. Toward a grounded theory of self-regulation in mixed martial arts. *Psychology of Sport and Exercise*, 14(1), 12–20.
- Nicole E. Hurt, 2010. Disciplining through Depression: An Analysis of Contemporary Discourse on Women and Depression. *Journal Women's Studies in Communication* 30 (3); 284-309.
- Santosa Giriwijoyo, 2012. *Ilmu Faal Olahraga (Fisiologi Olahraga)*. Cetakan pertama. Remaja Rosda Karya. ISBN 978-979-692-114-0
- Taylor McFadden, Michelle S. Fortier, Eva Guérin, 2017, Mental Health and Physical Activity; Investigating the effects of Physical Activity Counselling on depressive symptoms and physical activity in female undergraduate students with depression: A multiple baseline single-subject design; Journal Volume 12, March 2017, Pages 25–36.