

Descriptive Study toward Psychological Factors Affecting Post-severely Injured Athletes to Regain Peak Performance

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Abstract: This research aims to find out the psychological factors that affect the athletes to regain their peak performance after severe injuries. This research's result could become one of references in severe injury athlete's treatment to repossess their peak performance. This study is expected could became the first research that led to further research connecting psychological factors with other variables and for further period it is expected that this study could be continued with advanced research by adding psychological intervention based on prior finding. The determined subject's criteria in this study are athletes who are encountering or have encountered severe injury since severe injury requires more than a month for recovery. Data collection's method that is been utilized is open questionnaire regarding the theme. Data analysis in this research is factor analysis. The factor analysis is utilized to reveal psychological factors emerging in its impact toward the post-severely injured athletes to regain peak performance. After conducting factor analysis, it found that psychological factors affecting the athletes returning to their peak performance after encountering severe injury are self-confident factors, training seriousness factor, following the trainer's advice factor, place/time disoriented factor, and focus factor.

1 INTRODUCTION

Injury is one of many things that is frightened by athletes, in sport the athletes are demanded to reach achievement whether it is in region, national, or even international level competitions, so injury is barely unavoidable things. Garrison (2001) there are two main predictors causing injury which are: (a) Internal factors is covering the tissue infirmity, flexibility, weight excessiveness, biomechanical error, lack of adjustment, body size, performance capability, and playing styles, (b) External factors is involving to: inaccurate gear, other athletes, field surfaces, weather.

Wibowo (1995) divided sport injuries as follows: Light injury or level I, it is signed by a tear that only can be seen beneath the microscope, with minimum plaint and cannot barely interfere sportsman's performance such as, scuffed, bruise, light sprain. Moderate injury or level II, it is signed by noticeable tissue damage, painful, swollen, red-shaded and heated, with real function disorder and could affect athlete's performance, for examples: muscle widening and ligament tear. Severe injury or level III, in this case, the muscle is completely teared, ligament

and fracture on the bones, which requires total rest, intensive treatment, or even surgery. Those things were also being strengthened by sport injury bulletin report (2010) regarding injury classification in USA that accounted 60,15% light injury that led to athlete's absence throughout a week, 26,17% for moderate injury that caused to athlete's absence throughout a month, and 13,67% severe injury that obliged the athlete to rest throughout more than a month. Those numbers might be elevating increasingly due to unregistered injured athletes, in the fact that there are many injured athlete who are not being monitored.

All this time, injury treatment is only being more focused to physical treatment whether through physiotherapist or expert doctor, yet psychological aspects are often being forgotten, and it affect to the increasing amount of athletes who is not be able to regain their peak performance after the injury. This issue is similar to Ricardo Kaka's case where he was the best football player in the world in 2007, after experienced injury he was never be able to return to his peak performance anymore, and in fact that he is been knock out of his club (Gonsaka, 2007). The same case was also experienced by Eduardo da Silva, when he still played for Arsenal. Eduardo was

encountered fibula fractures that caused to his absence for recovery rest for a year. After recovered from the injury, Eduardo's performance was never be as same as he played in his top performance (Pradana, 2018).

There are many athletes who cannot return to their peak performance, however there are still some of them who are still be able to regain their peak performances after encountering severe injury. As experienced by Boaz Solossa although he encountered injury twice which were in 2004 and 2007, Boaz could still rose up and still became an ace for Persipura and national team of Indonesia (Adnan, 2014). As same as, it is experienced by Sony Dwi Kuncoro a Badminton's athlete who possessed bronze medal in Olympic 2004 and third player best world ranking, who experienced setback of achievement after encountered severe injury, and even he was being taken out form 100 world best ranking when he made his comeback after injury recovery. Sony's accomplishment only start to improve when he was being trained and managed by his wife. According to his wife there is no particular formula for Sony's improvement, it is just make him enjoyed the game and training (Fajriningtyas, 2016).

2 THEORETICAL REVIEW

Based on those issues, researcher want to conduct research with title "Descriptive Study toward Psychological Factors Affecting Post-Severely Injured Athletes to Regain Peak Performance".

Before explaining the psychological factors, the definition of psychological is originated from the word of psychology which means behavior and mental process, where behavior is anentity that able to be observed and mental process encompasses cognition, affection, and motivation (King, 2011).

Based on that definition, it can be concluded that psychological factor is a factor that originate from individual either it is observable which is behavior or mental process such as cognition, affection, and motivation.

The definition of sport's injuries are all form of injuries that occur either during the match or training (National Institute of Arthritis and Musculoskeletal and Skin Diseases, 2014). Semi- different definition was explained by Congeni (2004, et.al Sukarmin & Sumaryabti 2017) that sports injury is an injury that occur at the time when somebody is committing an activity such as fitness, training or sport's competition.

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Maslow (1968) introduced the peak performance's concept to illustrate when an individual experienced a truly total feeling, core strength, and as a whole has reached the highest stage in the hierarchy of needs. Williams (1998) clarified that peak performance is an exceptional drive when an athlete be able to perform his skills maximally either it is physical or mental. Then, Privette (1981, at Cowen, Nesti, & Cheetham, 2015) defined peak performance as a behavior that exceed what can be done in normal situation.

Based on several expert's explanation above, it can be deduced that peak performance is an ambiance of individual who feel the highest feeling, and he or she is able to express his or her abilities maximally either it is physic or mental.

3 METHODS

Research design that utilize in this research is Descriptive research design. Azwar (2003) explained that "descriptive research is a research purposing to describe systematically and accurately the facts and characteristic regarding population or a certain field."

Population in this research are all athletes in West Sumatera who establish in West Sumatera's PPLP which account 137 athletes. Purposive sampling technique is the sampling method in this study, which is drawing sample based on specific criteria that has been arranged by researcher (Sugiyono, 2013). The appointed criteria in this research are an experienced severe injured athletes and he or she was able to regain his or her peak performance. Based on purposive sampling technique, it was gathered 78 samples successfully.

In this study, the utilized data collection's technique is psychology scale consisting psychological factors that affect the athletes to return to peak performance after severe injury. The

psychology scale is a list of questions that reveal psychological attributes using behavior's indicators to trigger projective response and it is a projection of individual's personalities (Azwar, 2005).

The method that is used for data's analyzing in this research is descriptive statistical method.

Collected data are added or grouped according to the form of utilized instrument (Arikunto, 2002). The classification of data regarding psychological factors in its influences toward athlete in order to return to their peak performance is using factor analysis.

4 RESULT AND DISCUSSION

4.1 Result

This study aims to investigate what psychological factors are affecting an athlete who could repossess his or her peak performance. In order to find those factors, it is been done factor analysis method. In term of conducting factor analysis the phases that require to be carried out include:

KMO's test and Bartlett's Test of Sphericity.

KMO and Bartlett's Test
Kaiser-Meyer-Olkin Measure of
Sampling Adequacy. .649

Bartlett's
Test of Sphericity Approx. Chi-
Square 588.
815

Df 276
Sig. .000

In KMO's Tes table, it can be seen that KMO's score is $0,649 > 0,5$ and the significance of Bartlett's Test of Sphericity has shown $0,00$ standard, so it can be continued to implement factor analysis.

Measure of Sampling Adequacy (MSA)'s Test

The MSA test purpose to find out which variables are processable further way or being eliminated. Based on the first MSA test, it was obtained 5 items that possessed score $< 0,5$ so those 5 items had to eliminate. After that, MSA test was conducted again so it was found 1 another item that possessed $< 0,5$ score, so that items had to excluded. After excluding those 6 items, the MSA test was performed again and it comes to result that all of the items had $> 0,5$ scores, so it was eligible to continue to the next analysis. When all the variables had exceeding $0,5$ score then the next analysis is PCA test.

The outcome of the PCA test is shown by Eigen score. The Eigen score exhibit the amount of variation that relate to a certain factor. The factor that has Eigen score equal or more than 1 will be held and the factor that has Eigen score less than 1 will be not be included in the model due to variable whose score is less than 1 is not better than the original variable (Supranto 2004).

Post conducting the PCA test, the variable in this study was formed into 5 factors. In the Scree Plot graphic, it is noticeable that the Eigen score was being arranged through horizontal way. The amount of factors in this criteria was determined based on the reduction of the plot of Eigen scores. When the Scree begins to level off or evenly distribute, and Eigen scores is shown as above 1, this is where there is a point of the termination of factor's number extraction.

4.2 Discussion

Post-performed all of the phases from every factor analysis, the following phase is naming the variables that have been grouped. The naming process is depend on the variables who formed it so this naming process was done subjectively and there are no certain regulations toward the process.

At the first place, this research had 24 variables then it was formed into 12 which include into the 5 factors. The 5 factors include:

Factor 1

This factor consists of NF 1 variable, which is "I relax when I entered the field", PD 1 variable is "I am confident with my skill", FR 1 is "I think the pre-game pressure is usual thing", SI 1 is "I would rather think about winning the match than becoming champion", TK 1 is "Host Supporter's intimidation will not be able to affect me", PD 2 is "I believe I can beat my opponent", ET 2 is "I did what my coach told me to". Form the seven variables that was formed, the factor 1 is named as self-confident factor.

Factor 2

Factor 2 consists of FK 1 variable which is "I meet all the schedules that have been regulated by coach", KE is "I have always rehears the technique that I am poorly mastered". Based on both variables that formed, factor 2 is named as training seriousness factor.

Factor 3

Factor 3 consists of FK 2 variables which is "I join the championship because of coach's advice". Based on this FK 2 variable, the factor 3 is named as the factor of following the trainer's advice.

Factor 4

Factor 4 consists of DW 1 variable which is “I felt time is so fast when I am trained”. Based on this DW 1 variable, factor 4 is named as the Flow factor.

Factor 5

Factor 5 consists of DW 4 variable which is “spectator yelling is not been heard anymore when I start competing”. Based on this DW 4 variable, factor 5 is named as the focus factor.

5 CONCLUSIONS

Based on data analysis that have been done about factor analysis in psychological factors identification who affect the athletes to regain peak performance post severe injury, it earned result that influencing psychological factors is consisted of self-confident factor, factor of training seriousness, factor of following trainer’s advice, time/place disoriented factor, and focus factor.

Suggestion

Based on the result of analysis and the discussion, this study discuss and conduct factor analysis by using principal component method, which means that there are other methods which are may applicable to conduct analysis factors, so that it could become other references in term of performing factor analysis with same variables.

The studied variable is the factor that affect the athletes to regain their peak performance post severe injury, it is mean that this study discuss about sports generally. In the future, this study could be more focus toward one particular type of sport in term of conducting research regarding peak performance, or conducting correlational research about peak performance, so that peak performance can be discussed and investigate in more detail.

REFERENCES

- Adnas, R. M. (2014, June 1st). Today History 1st June Boaz Solossa’s Severe Injury2007. Retrieved from: <https://www.goal.com/id/news/1387/nasional/2014/06/01/4853268/sejarah-hari-ini-1-juni-cedera-berat-boaz-solossa-2007>.
- Arikunto, S. (2002). *Research Procedure a Practical Approach (Revise Edition V)*. Jakarta: Rineka Cipta
- Azwar, S. (2003). *Research Method*. Yogyakarta: Pustaka belajar.
- Azwar, S. (2005). *Drafting Psychology’s Scale*. Yogyakarta: Pustaka Pelajar.

Cowen, A., Nesti, M., & Cheetham, M. (2015). The psychology of dynamic balance and peak performance in sport: Correction theory. *Quest*, 66, 421-432.

Fajringtyas. C. (2016, May 31th). Sony Dwi Kuncoro and GadingSafitri’s Story: love from the edge of field. Retrieved from: <https://www.femina.co.id/true-story/kisah-sony-dwi-kuncoro-gading-safitri-cintadari-tepi-lapangan>.

Garisson, S. J. (2001). *Basic Therapy & Physical Rehabilitation (Anton C. Widjaja. Terjemahan)*. Jakarta: Hiprokrates.

Gonsaga, A. (2017, Desember 18th). Fakta tentang Ricardo Kaka. Retrieved from: <https://bola.kompas.com/read/2017/12/18/20260078/fakta-tentang-ricardo-kaka>