Special Issue on

ASEAN Research Reports on Sports & Excercise

ASEAN Scholarly Researches on Health & Exercise Science

This special issue was conceived to provide a platform to disseminate outcomes of researches conducted in ASEAN Universities, employing cutting-edge technologies to investigate on intricate and yet unexplored aspects associated with enhancement in sport performance excellence, and factors associated with management of health risk factors as well. Meta-analytic systematic review studies were included, which examined impacts of exercise and behavioural interventions in reducing the level of HbA1c among Malaysian Type 2 Diabetes Mellitus patients. Apart from that, effects of conventional physiotherapy exercise training regimes in enhancing muscle strength and in reduction of pain among female osteoarthritis patients were also investigated.

Experimental researches included in this special issue, investigated on effectiveness as well as cost-effectiveness of differential exercise intervention programs on improvement in perceived health-status evident among Malaysian diabetic individuals. Differential impacts of isokinetic training and conventional physiotherapeutic exercise intervention on perceived discomfort and pain in osteoarthritis patients was also investigated. Further to that, randomised controlled trials incorporating impacts of isokinetic training regimes, which were introduced following rigorous methodology, were also included in this issue, which investigated extents of improvement in pain management. Further to that, in-depth analyses on facilitative effects of isokinetic training on improvement of proprioception (reduction of active repositioning error) and on increment in peak torque generation were also carried out, which explained intricate processes involved in pain management among osteoarthritic patients of Malaysia.

Psychotherapeutic advancements in modulating performance were also included in this special issue. These experimental trials by virtue of randomization studies investigated on the causal association between psychological and psychobiological interventions introduced in differential regimes, and the resultant impacts on performance excellence of sport skills.

Impact of emotionality, mood and autonomic factors, and impacts of differential biofeedback interventions on mood and emotional regulation, and also impact of autonomic competence and mood factors on reaction performance and other psychomotor abilities were investigated. Furthermore, enhancement in soccer agility, juggling skills and also bilateral shooting performance evident among promising Malaysian soccer players were investigated. Apart from Malaysian participants, researches on Indonesian athletes were also included, which on the basis of structural models revealed significance of concentration, self-confidence and emotional regulation among promising sprinters. Further to all these, empirical evidences on impacts of nutritional supplementation (different dosage of sodium bicarbonate) on freestyle swimming performance evident among Malaysian competitive swimmers was also investigated.

All these researches were critically reviewed and evaluated on the basis of double-blind review and based on suggestions optimal modifications of the original research submissions were adequately ensured. As Guest-editors of this issue, no stone was left unturned by us to warrant quality and validity of the researches, although core integrity of the academic discipline in concern was always upheld. We can vouchsafe that our aspiring attempts were only to contribute to the academic and research milieu of ASEAN communities, in order to encourage further replicated studies enriching the prevailing notions on exercise and health science studies in these regions. Here I am being the Lead Guest-Editor, would like to acknowledge the dedication of all the Guest -Editors and Reviewers, and I would most sincerely like to thank all of them, who relentlessly took care of their responsibilities to ensure validity of the researches and high academic standard of this issue.

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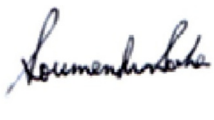

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International Journal of Life science & Pharma Research

CONCENTRATION, SELF-CONFIDENCE AND STUDENT ATHLETE'S PERFORMANCE

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OPEN ACCESS

Received:	**May 2, 2016**
First Review:	**May 11, 2016**
Second Review:	**May 19, 2016**
Revision Received:	**May 28, 2016**
Final Review:	**June 11, 2016**
Final Revision Submitted:	**June 30, 2016**
Accepted:	**July 27, 2016**
In Press:	**September 21, 2018**
Published:	**October 11, 2018**

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COMPETING INTERESTS:
Conflict of interest declared none.

DOI:
http://dx.doi.org/10.22376/ijpbs/lpr.2018.8.4.aseansp.I.1-13

ABSTRACT

The goal of this research was to analyze the appropriateness concentration and self-confidence on individual performance of 100 metres student athlete sprinters. Participants for this research were 51 student athletes, who were regular trainee athletes, who used to engage themselves in 100 metres individual sprint event. This research was carried out employing quantitative method. The BARS (Behaviourally Anchored Rating Scale) was used to evaluate indices of concentration and self-confidence of the trainee athletes. Obtained self-report data were analysed using simple linear regression, correlating the actual individual performance outcomes evident during student athletes' competitions. This research attempt revealed that concentration and self-confidence influence simultaneously toward the individual performance on 100 meters student athlete sprinters. The concentration influenced 18.3% and self-confidence influenced 15% of the student athlete's performance. Based on this research, it is strongly recommended that the 100 metres student athlete sprinters need to avail psychological skill training, in order to develop their concentration and self-confidence to achieve their peak performance.

Keywords: *Concentration, Self-Confidence, Sprint Performance, Student Athlete*

1. INTRODUCTION

According to Malisoux et al.[1], the performance of sprinters is influenced by physical, technical, tactical, and psychological factors. Theoretically, with better physical, technical, tactical, and psychological readiness, the sprinter is supposed to get accomplished preparation. Physical condition is one of the fundamental factors that ascertain the athlete's accomplishment.[2] However, beside the physical, technical and tactical readiness, the psychological factors are also very important. In a high-level competition, the victory is often determined by psychological factor, mostly when the competing sprinters have the same proficiency.[1]

The ability to control the mind and to concentrate in a confronted task is universally acknowledged as the most important key to get sport accomplishment.[3] Generally, professional athletes should have this ability. According to Cox[4], concentration is an athlete's ability to focus on relevant cues or information associated with performance. Based on that opinion, concentration can be defined as: (a) focused on relevant objects (selective consciousness), (b) maintain focused attention during certain period, and (c) conscious in the competitive situation.

According to Cashmore[5], self-confidence is one of important psychological factors in daily activities. Self-confidence makes someone able to do what is necessary to get his expectations. For example, a sprinter believes that if he keeps on running in the right track and pace rhythm, he will win the race and enjoy the competition. Meta analytic studies by Craft et al.[6] proved that self-confidence has strong influence on sport accomplishment. This is in accordance with Hassmén et al.[7] statement that professional golf athletes have high self-confidence.

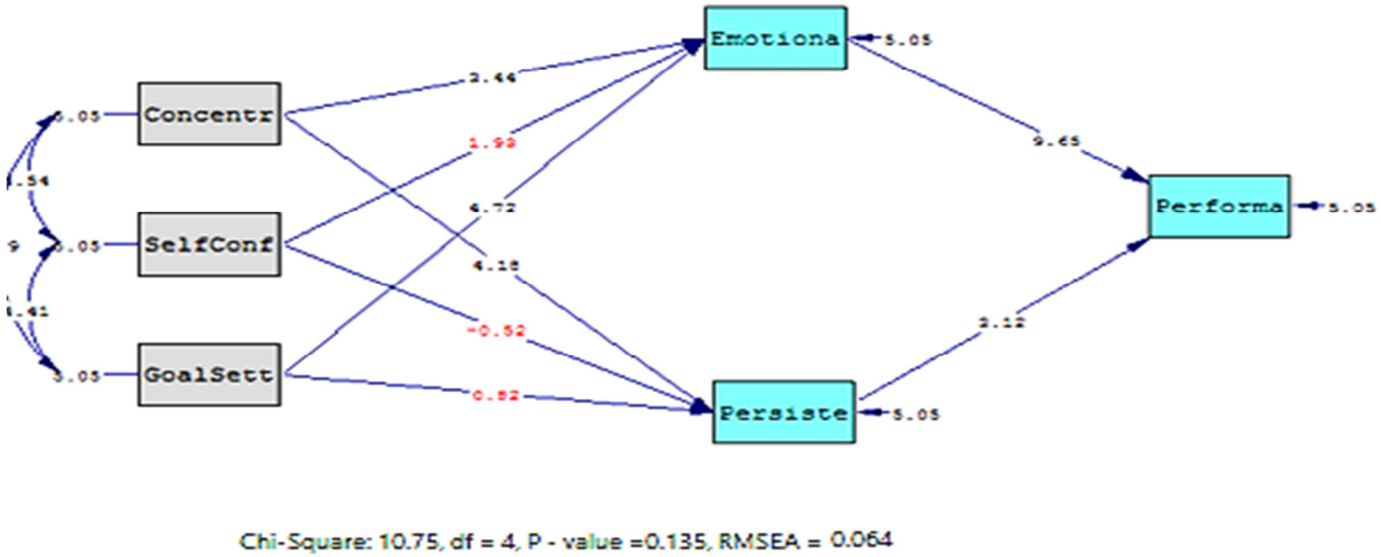
Emotional regulation is an individual conscious and unconscious strategy to maintain, to raise and/or to reduce feelings, attitude, and emotional physiology responds[8] either positive or negative emotions.[9] Emotional regulation reduces negative emotions or unwanted emotions, and at the same time enhances positive emotions. Positive emotions, such as enjoyment in sport is a determining predictor of sport commitment and the main reason to involve in sport activity.[10]

2. METHOD

In this research, variables associated with performance of 100 metres sprint-event, level of concentration and self-confidence of the individual trainee atheles were evaluated. Behaviourally Anchored Rating Scales (BARS) was used for assessment of concentration and self-confidence indices of the participants. Data on 100 metres sprint-event performance outcomes were also obtained. Subjects of this research were 51 promissing student athletes of Indonesian, who engage themselves in training of 100 metres sprint-event. Criterion for selection of participants, was participation in official championship by PB PASI. Data was analysed using simple linear regression method.

3. RESULT

Concentration was evident to have positive effects on sprinter's accomplishment, with 0.183 coefficient and 2.300 t-statistics value. Self-confidence also had positive effect with 0.150 coefficient and 2.355 t-statistic value. Further to that, path regression analysis was carried out employing LISREL, which revealed a valid model of relationship.



Number of Iterations = 6,
LISREL Estimates (Maximum Likelihood)

Figure 1
Structural Equations on Behavioural Observation and Performance

3.1 Structural Equations

Emotionality = 0.360*Concentration + 0.179*Self-Confidence + 0.453*Goal-Setting, Errorvar.= 0.127 , R^2 = 0.873

Standerr	(0.108)	(0.0952)	(0.0989)	(0.0259)
Z-values	3.334	1.875	4.580	4.899
P-values	0.001	0.061	0.000	0.000

Persistence = 0.747*Concentration - 0.0820*Self-Confidence + 0.135*Goal-Setting, Errorvar.= 0.367 , R^2 = 0.633

Standerr	(0.184)	(0.162)	(0.168)	(0.0750)
Z-values	4.057	-0.506	0.799	4.899
P-values	0.000	0.613	0.424	0.000

Performance = 0.733*Emotionality + 0.237*Persistence, Errorvar.= 0.144 , R^2 = 0.854

Standerr	(0.0783)	(0.0783)	(0.0294)
Z-values	9.363	3.029	4.899
P-values	0.000	0.002	0.000

NOTE: R^2 for Structural Equations are Hayduk's (2006) Blocked-Error R^2

3.2 Lisrel Outputs

Root Mean Square Error of Approximation (RMSEA)	0.064
Comparative Fit Index (CFI)	0.974
Incremental Fit Index (IFI)	0.975
Root Mean Square Residual (RMR)	0.0248
Standardized RMR	0.0249
Goodness of Fit Index (GFI)	0.969

4. DISCUSSION

Outocmes of this exploratory study was basically an observational research, based on performance outcomes, which explored associated between the performance and self-report subjective transitory state of psychological states. In order to validate the outcomes of the regression analysis, structural path regression analysis was carried out, which revealed valid relationships. Based on the outcomes of that analysis, it is revealed that, concentration, self-confidence and goal-setting ideas of the particpants, as they reported, together could predict 87.3% variances of their emotional make-up, and 63.3% of their persistence in their actions. As it was evident in the actual performance, and as the participants reported, emotionality and persistence in actions could predict 85.4% of vairances of changes in the actual performance observed among the trainee athletes.

This research showed that concentration and self-confidence, had positive effect on student athlete sprinters' accomplishment. This was in accordance with cognitive approach. 100 meters sprinters' accomplishment is a manifestation of a series of proper understanding towards what has to be done, the appropriate skill needed and proficiency to efficiently apply the solution during the competition.[11-12]

Concentration is supposed to have positive effects on 100 meters student athlete sprinters' accomplishment. Perkins-Ceccato et al.[13] reported that concentration had facilitative effects on athlete's accomplishment. The ability to control the mind and concentrate on presented tasks is universally acknowledged as the most important key to reach sport achievement.[3] Generally, athletes have optimal ability and energy to focus their attention on whatever needed to be done in specific sport that they do.[14]

When an athlete's concentration is disturbed during performing sport, moreover in a competition, many problems might be occurred, such as less accurate movements, not able to apply strategy because not knowing what to do. As the result, the athlete's self-confidence declined or even lost. At the end, the athlete cannot reach optimum achievement.[15-16] Moran[17] also stated that concentration is necessary for athletes to reach the top accomplishment. The analysis showed that self-confidence had positive influence on student athlete sprinters' accomplishment. Stolz[18], Craft et al.[6], and Luthan et al[16] also reported that self-confidence influenced athlete's performance. Through symbolizing 100 metres individual sprinter able to predict what action has to be done to reach optimum accomplishment.
According to Cox[4] self-confidence is one of the important personality aspects in daily activities. Self-confidence can make someone behave appropriately to reach desired result. Based on this reseach, we can assume that perhaps concentration and self-confident had beneficial effect on the accomplishment of 100 metres sprint performance. The other outcome of this study pertains to influence of concentration, which was found associated with accomplishment of 100 meters performance. Thus, we can report that, a sprinter who has high concentration ability in a competition, will be able to perform his movement accurately and effectively, which results in optimal accomplishment.

According to the result of this research, there are several suggestions:

1. For the Indonesian Official Athletic Organization which shelters 100 metres individual student athlete sprinters. Training programs for 100 metres individual student athlete sprinters should be based on integrated psychological factor, through:
   a. Concentration enhancement training.
   b. Self-confidence enhancement training.

2. For the next researchers. This research used Behaviourally Anchored Rating Scale (BARS) which is evaluated to get psychological factor data. It is possible that the measurement has limitations, so another approach such as self report is required to complete the data directly from the subject.

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International Journal of Life science & Pharma Research

PSYCHOLOGICAL COMPETENCIES MODEL OF INDIVIDUAL 100 METERS STUDENT SPRINTER'S PERFORMANCE

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OPEN ACCESS

Received:	**May 6, 2016**
First Review:	**May 10, 2016**
Second Review:	**May 17, 2016**
Revision Received:	**May 31, 2016**
Final Review:	**June 14, 2016**
Final Revision Submitted:	**June 30, 2016**
Accepted:	**July 31, 2016**
In Press:	**September 21, 2018**
Published:	**October 11, 2018**

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COMPETING INTERESTS:
Conflict of interest declared none.

DOI:
http://dx.doi.org/10.22376/ijpbs/lpr.2018.8.4.aseansp.I.1-13

ABSTRACT

The goal of this research was to develop one model of performance, which can appropriately analyze the impacts of concentration and self-confidence on individual performance of 100 metres student athlete sprinters. 51 student athletes, who were regular trainee athletes and who engaged themselves in 100 metres individual sprint event, were selected as participants for this research. This research was carried out employing quantitative method. The BARS (Behaviourally Anchored Rating Scale) was used to evaluate indices of concentration and self-confidence of the trainee athletes. Obtained self-report data were analysed using simple linear regression, correlating the actual individual performance outcomes evident during student athletes' competitions. This research attempt developed one model of psychological make-up and athletic performance.

Keywords: *Competency model, Concentration, Self-Confidence, Sprint Performance*

1.INTRODUCTION

According to Cox[1], an athlete is a person who participates in sport competitions to get achievement, a person who does physical exercise to get strength, stamina, speed, agility and balance to prepare long before the competition begins. According to Malisoux et al.[2], the performance of sprinters is influenced by physical, technical, tactical, and psychological factors. Theoretically, with better physical, technical, tactical, and psychological readiness, the sprinter gets better accomplishment. Physical condition is one of the fundamental factors that ascertain the athlete's accomplishment.[3] However, beside the physical, technical and tactical readiness, the psychological factor is also very important. In a high-level competition, the victory is often determined by psychological factor, mostly when the competing sprinters have the same proficiency.[2]

The ability to control the mind and to concentrate in a confronted task is universally acknowledged as the most important key to get sport accomplishment.[4] Generally, professional athletes should have this ability. According to Cox[1], concentration is an athlete's ability to focus his attention to relevant information during a competition. Based on that opinion, concentration can be defined as: (a) focused on relevant objects (selective consciousness), (b) maintain focused attention during certain period, and (c) conscious in the competitive situation.

According to Cox[1], self-confidence is one of important psychological factors in daily activities.

Self-confidence makes someone able to do what is necessary to get his expectations. For example, a sprinter believes that if he keeps on running in the right track and pace rhythm, he will win the race and enjoy the competition. Meta analytic studies by Craft et al.[5] proved that self-confidence has strong influence toward sport accomplishment. This is in accordance with Hassmén et al.[6] statement that professional golf athletes have high self-confidence.

Emotional regulations are referred to as conscious and unconscious strategies followed by an individual to maintain, to raise and/or to reduce feelings, attitude, and emotional physiology responds[7] either positive or negative emotions.[8] Emotional regulations are intended to reduce negative emotions or unwanted emotions, and at the same time to raise positive emotions. Positive emotions such as enjoyment in sport is a determining predictor of sport commitment and the main reason to involve in sport activity.[9]

There are pre and post emotional regulations. Pre-emotional regulation is the process to maintain the athlete's reaction with others, locations or certain situations by controlling emotions to reach the goal. The goal of pre-emotional regulation includes reducing negative emotions while preserving positive emotions. Post emotional regulation is reducing the expression of negative and positive emotions that influence social interactions which tend to negative reaction toward others.[10-11] 100 meters individual sprinters need others' social support for emotional regulations strategy.[12-13]

Goal setting ability can be defined as the ability to design or to determine a goal that will be achieved.[14] Achievement target is goal that must be reached by 100 meters individual sprinter. Achievement target is more effective when the athlete is involved in determining the target.[14-15] Athletes are hoped to have the ability in determining their target in order to maximize their effort to accomplish it. Achievement target gives an obvious direction to activities during their training program. According to Locke and Latham[16], the way to motivate individuals to raise their performance achievement is by determining an obvious target, what must be done in the beginning and what actions should be done continuously. Goal setting is one of the developments of motivation theory. This goal describes what must be done and what efforts needed to reach it.[16-17] High goal setting can lead someone increase his performance in finishing task. Robbins[18] said that purposes to aim the goal are the main source of work motivations. That means the goal lead someone to do what need to be done and make necessary efforts to reach it. Weinberg and Gould[19] stated that an athlete who has specific goal will perform better than athlete who does not have goal or has unspecific goal.

Persistency is needed to maintain motivation in order to reach the achievement target.[20] Persistence is an attitude which is done continuously to reach the goal.[21] According to Snyder[22], willingness precedes persistence. Willingness is important because willingness is the motor of motivation which make someone has energy to reach his goal. Willingness can push individuals to carry on and to persist in his effort to reach the desired goal.

Gunarsa[23] stated that persistency is one of the factors to measure motivation, besides energy and direction. To gain a certain goal, the attitude has to have persistent. A sprinter has to exercise every day willingly for an ideal goal. This persistence preceded by energy which give strength on an attitude. Direction is the element which guides an attitude. By directions, the attitude has certain goal, where the ending can be seen clearly.

2. METHOD

In this research, there are some variable that are the achievement of 100 meters individual sprinter, concentration, self-confidence, emotional regulation, goal setting ability, and also persistence. All variables are latent because they are not directly measured, and they are measured based on indicators or manifest variable.[24] The measurement used was Behaviorally Anchored Rating Scales (BARS).

Subjects of this research are 51 athletes of 100 meters sprinters who had criteria as Indonesian's 100 meters sprinter, who participate in official championship by PB PASI when this research occurred. Data was analysed using Partial Least Square model (PLS). Consideration of using this method because the research model indicates more than 1 dependent variable, small samples (less than 100 samples), also because of the abnormally multifarious data.

3. RESULT

3.1 Outer model (measurement model)

According to Götz et al.[25] loading value AVE recommends at least 0.5. Loading value AVE which is bigger than 0.5 indicates that the value of construct at least 50 percent of variance. If the loading value AVE is less than 0.5 the result variance caused by error is bigger than the variance of construct.

The result of convergent validity test showed that there was no item in each variable has less than 0.5 factor loading which the AVE values were between 0.579 to 1.000. Based on the result of loading values, it can be concluded that convergent validity was fulfilled.

According to Henseler et al.[26] discriminant validity occurs if two different instruments which measure two constructs with no correlation predicted give result scores which indeed no correlation. According to Götz et al. [25] discriminant validity on the PLS measurement model is determined on the cross-loading value. Correlation coefficient in the construct must have bigger value than correlation value between another pair of constructs.

Indicator KO1.1 (0.819), KO1.2 (0.808), KO1.3 (0.722), KO2 (0.875), indicator PD1.1 (0.875), PD1.2 (0.877), indicator RE1.1. (0.816), RE1.2 (0.751), indicator GS1 (0.788), GS2 (0.734) also indicator PE (1,000) and PS (1,000) have bigger value than the other construct. Based on the cross-loading result, all correlation indicators with their higher construct, the discriminant validity was fulfilled.

Composite reliability is estimated approach to reliability with multiple indicator. This approach assumed that the items are a group of indicators of a set of latent psychological construct. The composite reliability value can be seen from the variants' mutual value which showed how big the correlation between the items. The suggested value is at least 0,70.[26]

The analysis result showed that the composite reliability of all construct had satisfying values, each variable value had more than the minimum 0,70 that was between 0,733 to 1,000. Based on the values, all instrument showed a very high consistency and stability. In other words, it can be concluded that the instrument reliability is fulfilled.

3.2 Inner model (structural model)

Based on the Q-square calculation, more than 0.99 value means bigger than 0.00. This result showed that the model fulfilled the qualification of the goodness of fit, model can be accepted. See figure 1 below. Measurement towards inner weight can be done by looking at direct relation between latent construct with consideration of the estimated coefficient result of path parameter and the significance level. Inner weight can also show result of hypothesis test. The t-statistic value can be used to test the applied hypothesis. If the t statistic value > t tabel (for N=51, t tabel=2.008), the hyphothesis can be accepted. Concentration has positive effects on sprinter's accomplishment, with 0.183 coefficient and 2.300 t statistic value. Self-confidence also has positive effect with 0.150 coefficient and 2.355 t statistic value. Emotional regulation also has positive effect with 0.331 coefficient and 6.862 t statistic value. Goal setting ability has positive effect with 0.204 coefficient and 2.448 t statistic value. Persistence has positive effect with 0.155 coefficient and 3.138 t statistic value.

Self-confidence and emotional regulation have positive effect through concentration of 100 meters sprinters' accomplishment. Goal setting ability also has positive effect towards the sprinters' accomplishment through persistence. The intervening influence test showed that total influence > direct influence, so that intervening is necessary to be done.

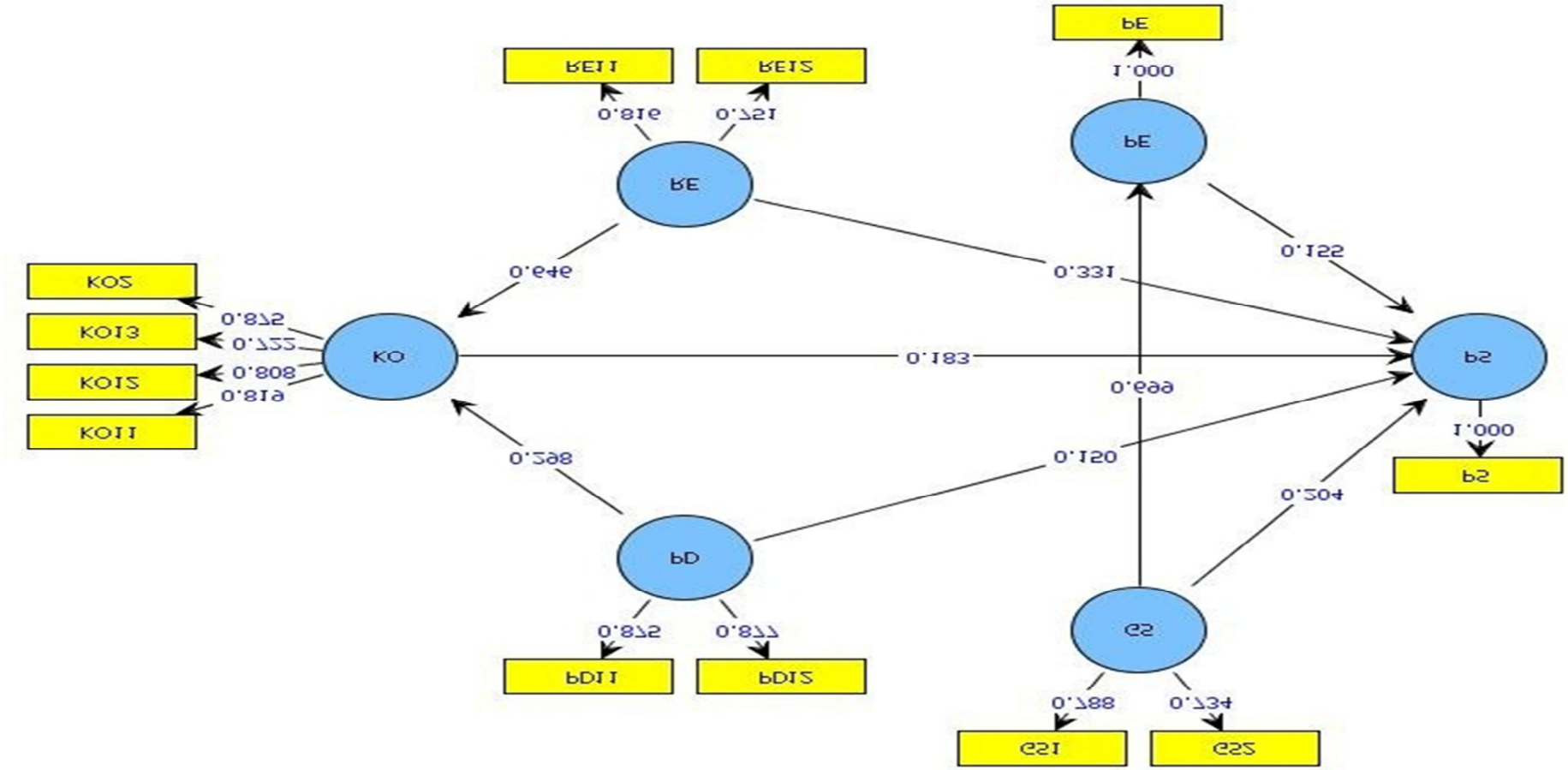

Figure 1

Individual Performance on 100 Meters Sprint Model

4. DISCUSSION

This research is able to give empirical proof that there is a match between theoretical model and empirical data. The result of the first hypothesis test showed that concentration, self-confidence, emotional regulation, goal setting ability and persistence have positive effect on sprinters' accomplishment. This was in accordance with cognitive approach. 100 meters sprinters' accomplishment is a manifestation of a series of proper understanding towards what has to be done, the appropriate skill needed and proficiency to efficiently apply the solution during the competition.[10,27]

Concentration has positive effect on 100 meters sprinters' accomplishment. This is in accordance with Perkins-Ceccato et al.[28] who said that concentration has an effect on athlete's accomplishment. The ability to control the mind and concentrate on presented tasks is universally acknowledged as the most important key to reach sport achievement.[4] Generally, athletes have optimal ability and energy to focus their attention on whatever needed to be done in specific sport that they do.[29]

When an athlete's concentration is disturbed during performing sport, moreover in a competition, many problems might be occurred, such as less accurate movements, not able to apply strategy because not knowing what to do. As the result, the athlete's self-confidence declined or even lost. At the end, the athlete cannot reach optimum achievement.[30] Moran[31] also stated that concentration is necessary for athletes to reach the top accomplishment.

The analysis shows that self-confidence has positive influence on sprinters' accomplishment. Stolz[32], Craft et al.[5] and Luthan et al.[33] also said that self-confidence influenced athlete's performance. Through symbolizing 100 meters individual sprinter were able to predict what action s/he need to adopt to reach up to optimum level of accomplishment.

In accordance with long term athlete development (LTAD) training program developed by Balyi and Hamilton[34], the base for maintaining an athlete's career is to enjoy becoming an athlete. In other words, to present positive emotions in the training activity.

According to Cox[1] self-confidence is one of the important personality aspects in daily activities. Self-confidence can make someone behave appropriately to reach desired result. This research proves that the ability to manage emotions before competition has positive effect on sprinter's accomplishment. The ability to manage emotion is an effort to change good or bad valence that occurs between the individual and the environment, in the forms of coping, mood regulation, and psychological defence.[35] A sprinter needs a good emotional regulation to reduce negative emotion and tension appeared from many situations in a competition. This ability can help the sprinter to control emotion from various situations, either internal or external. In a competition, a good emotional regulation will affect the sprinter's movement. Besides, an athlete needs social support from others for emotional regulation strategy.[12-13] The sprinter's ability to control his emotion is necessary. The condition at the start point, beside concentration, sprinters also have to be able to control his emotions. Sprinters have to relax, able to control his anxiety, build and raise his self-confidence, so he could match all his movement with the command to make the accurate start.

This result is the same line as the research made by Deaner and Silva[36] also Orlick[37], which concluded that emotional regulation has influence on an athlete's accomplishment. Emotional regulation can be meant as a process to activate the thoughts, attitude and emotions continuously in order to reach the target. Emotional regulations is often described as a cycle from the feedback of previous behaviour which is used to make adaptation in recent efforts.

This research proves that the ability to set a target has significant influence on 100 meters individual sprinter's accomplishment. This analysis has the same result with the study made by Locke and Latham[16] who had 35 years research on goal setting. They said that 90% of their studies showed that goal setting has positive influence on accomplishment.

Goal setting ability can be defined as an ability to design or to determine a target.[14] Target of accomplishment is more effective when the athlete is involved in determining it.[15] Athletes should have the ability to determine his target in order to optimize his efforts to reach it. The target gives obvious direction during the training activities. According to Locke and Latham[16] to motivate individuals to raise his performance, is to describe the target clearly and what has to be done at the beginning and what has to be done continuously in his training program.

Feedback is necessary to get the determined target effectively. Feedback is useful for 100 meters individual sprinters to know if the efforts and strategy was accurate to reach the target. When the 100 meters individual sprinter found out that he had not been able to reach his target, he would optimize his efforts to fulfill it.[38]

This research shows that training persistence has positive effect on 100 meters individual sprinter's achievement. Locke and Latham[16] also said that persistence efforts need to be done to reach the target accomplishment. 100 meters individual sprinters need to train persistently. Physical and technical training programs made by his coach need to be carried out everyday according to the schedule and instructions. If the athlete refused to carry out the program, it will be surely influence and reduce his movement and technical ability as a sprinter. This is the reason, according to Bompa and Haff [3], professional athletes should perform at least 95% physical exercise of his training program.

Persistence is needed to maintain an athlete's motivation so that he will be able to reach the determined target.[20] Persistence is a continuous attitude needed to accomplishment.[21] According to Snyder[22] persistence is preceded by willingness. Willingness is important because it is the motivation and energy to make someone takes movement to reach his goal. Willingness will push individuals to carry on and persistent in their efforts to reach a target. A 100 meters individual sprinter who is motivated to be the best usually will be able to perform optimally. Also, a motivated athlete will eagerly perform the scheduled training program, he might even gladly add his training portion by himself.

Based on the exploratory study, we can conclude that:

1. Influence model of psychological factor towards 100 meters individual sprinter's achievement, theoretically gives a contribution to the development of training program set to reach higher level of target accomplishment. Concentration, self-confident, emotional regulation, goal setting ability, and persistence effect the 100 meters individual sprinters' accomplishment.
2. Concentration, self-confident, emotional regulation, goal-setting ability, and persistence effect the 100 meters individual sprinters' accomplishment. The most interesting conclusion from this research is that the 100 meters individual sprinters' accomplishment are greatly influenced by concentration. A sprinter who has high constentration ability in a competition, will be able to perform his movement accurately and effectively, which results in optimal accomplishment.
3. Self-confidence and emotional regulation have influence on 100 meters individual sprinter's accomplishment through concentration. The research concludes that concentration is the intervening variable between self-confidence, emotional regulation towards 100 meters individual sprinter's accomplishment.
4. Goal setting ability influence 100 meters individual sprinter's accomplishment through persistence. The conclusion of the research proves that persistence is an intervening variable between goal setting ability and 100 meters individual sprinter's accomplishment. 100 meters individual sprinter who is able to determine goal setting for himself will be motivated to be persistent in training in order to reach his target.

According to the result of this research, there are several suggestions:

3. For the Indonesian Official Athletic Organization which shelters 100 meters individual sprinters. Training programs for 100 meters individual sprinters should be based on integrated psychological factor, through:
   a. The use of psychological factor as construct measurement to identify athlete's ability (to complete physical factor) in the beginning of training intensification.
   b. To place athletes into groups based on psychological factor, to design and recommend appropriate psychological skill for the athletes.
   c. Monitoring the training performance to be able to describe psychological dynamics for competitive situation.
   d. Evaluate the competence of psychological factor to complete physical parameters before and during competition.
4. Training program for sprinters which is based on psychological aspects need to be done to complete physical exercise, nutritious intake, to omtimize the sprinter's accomplishment.

The recommended program is emotional regulation training.

5. Sprinters should understand psychological factors which have influence towards target accomplishment and increase the psychological factors through appropriate training programs.
6. For the next researchers:
   a. This research employed Behaviorally Anchored Rating Scale (BARS) which is evaluated to get psychological factor data. It is possible that the measurement has limitations, so another approach such as self report is needed to complete the data directly from the subject.
   b. The use of partial least square (PLS) as analysis method can be applied to another sample cluster, such as to test psychological factor of junior 100 meters individual sprinters.

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