

Perceived Motivational Climate Influencing Injury during Talent Identification and Development Programme of Young Athletes in Nigeria

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Abstract

Injury is an unavoidable aspect of sport participation either at developmental or elite stage. Injury recovery among young athletes can be hastened by various factors that could promote their long-term involvement and also enjoy other accrued benefits of sport participation. This study therefore investigated perceived motivational climate influencing injury recovery of talent identification and development of young athletes in Nigeria. This study employed correlational descriptive research design. The participants were 200 young athletes selected from eight government secondary schools in Ibadan, Ibadan North, Oyo State, Nigeria. Purposive sampling technique was used to select only the student-athletes who regularly participate in sport, had represented their schools in different organised and invited competitions and also engage in organised “catch them young” sport programmes at the State Sport Council, Adamasingba, Oyo State, Nigeria. Behavioural Regulation in Sport Questionnaire (BRSQ), Stressors, Social Support Inventory for Injured Athletes (SSIIA), The Return to Sport after Serious Injury Questionnaire (RSSIQ) were used to collect data. The data were analysed using Pearson Product Moment Correlation (PPMC) and multiple regression to test the hypotheses. Results of the study showed that motivational climates of self-determined motivation, stress and social support was tested significant on injury recovery of talent identification and development of young athletes ($F_{(3,196)}=8.801$, $R=0.345$, $R^2=.119$, Adjusted $R^2=0.105$, $p<0.05$). Relatively, both self-determination and stress were significant [(self-determination ($\beta=0.280$, $t=4.112$); stress ($\beta=0.169$, $t=2.511$), $p<0.05$)], while social support was not significant. It is therefore recommended that, motivational climate intervention programme that improves self-determined motivation, stress and social support be developed and inculcated into TID programme of young athletes in order to aid injury recovery, promote optimum health and develop resilient young athletes.

Keywords: motivational climate, self-determined motivation, stress, social support, injury recovery, talent identification and development

Introduction

Talent identification is about understanding the athletes, their potentials and their potentials, that is, the physical, mental, emotional, spiritual, technical, tactical and cultural aspects of who they are as a human being and as an athlete and systematically developing that potential over time through sport. Talent identification and development (TID) is a

salient topic being discussed among sports stakeholders in countries that aim at improving their competitiveness both at local and international sport levels (Vaeyens et al., 2008). It is a course by which young persons and youths with great potentials in sports or other domains (e.g., music) are discovered and assisted to achieve expertise in areas where their talents are relevant (e.g., Bloom, 1995). TID is mostly important to sporting accomplishment because without talent refinement, it might be difficult if not entirely impossible for performers to get to the peak of their sporting careers (Ifeoma, 2015; Moesch, 2011). According to William (1993), talent identification involves predicting the performance over a period of time by measuring such attributes as physical, physiological, psychological, sociological as well as technical abilities, either in isolation or in combination of an athlete.

Young athletes face a lot of difficulties when undergoing TID programme. Many young athletes experience difficulties such as burnout, lack of motivation, tiredness as a result of overtraining, and injury. Many talented young persons quit or end their career pursuit due to the insufficient, monotonous and overtraining which leads to injury and lack of motivation (Žvan & Čoh, 2018). Studies have found that when sports injuries occur, not all athletes will survive to return to their sports because of the negative factors of risk and fear of re-injury associated with it (Norlin et al., 2016; Heijne et al., 2008; Kvist et al., 2005). Studies also showed that sports injuries can be a serious burden from economic perspective due to the required cost of healthcare (Tranaeus et al., 2017; Krist et al., 2013; Janssen et al., 2012) and psychological aspects during rehabilitation (Covassin et al., 2015).

Recovery time plays a significant role in the overall well-being of the athlete. Injury recovery and a return to sport following injury is often an arduous task for competitive athletes (Podlog, Lochbaum, & Stevens, 2010) especially when an athlete's self-identity is reliant on success, injury shatters the fragile self-esteem [Hart, 2009]. A study showed that some athletes chose another career apart from sport, especially those with slow and challenging recoveries, as a means of job protection (Brewer & Cornelius, 2010). Another study revealed that some athletes originally thought of the injury as a learning phase, while others viewed it as a challenge to their sporting career and these depend on the timing of the injury (Grindstaff, Wrisberg, & Ross, 2010).

Motivational climate helps to predict future occurrences and their outcomes that are meaningful to individuals. Spetch and Kolt (2001) found that motivational climate help athletes to be self-motivated, endure pain and perceived that they worked harder at their recovery. One of the perceived motivational climate keys that affects injury recovery of athletes in sport is self-determined form of motivation. Athletes' self-determined form of motivation becomes indispensable when there is little or no improvement in the healing and rehabilitation process, because this challenges the interest, attention, focus and commitment of athletes whether to continue in sport or call it quit (Arderin et al., 2013; Nordahl et al., 2014). Injured athletes often experience series of psychological problems such as depression, anxiety, fear of re-injury, stress, negative and irrational thoughts, emotional disturbance, setbacks, loss of interest, etc. As a result, these psychological problems may likely reduce their motivation and in turn their recovery process and

adherence. Yet it is presumed that self-determined athletes are self-motivated to respond to treatment during recovery in order to return to sport rightly.

Self-determination theory propounded by Deci and Ryan (1985) provides a detailed understanding on rationale of motivated behaviour during sport injury recovery and returning to sport. According to the authors, the theory clarifies the level at which people approve their actions at the highest degree of reflection and involve in a behaviour with complete sense of choice. They suggest that motivational climate subsist along a self-determination continuum, starting from amotivation (lack of behavioural purpose), extrinsic motivation to intrinsic motivation (involving in an activity for personal reasons). An individual athlete's positioning on the continuum can be defined by their optimum healthy living, injury recovery and career needs satisfaction. Self-determined motivation is vital to facilitate and enhance one's overall well-being and resilience when undergoing hardship (injury recovery) (Bejar et al, 2019)

Previous studies have shown that intrinsic and task-oriented motivation may prove to be powerful influential motivational technique demonstrated by an injured athlete (Podlog & Eklund, 2004; Siegert & Taylor, 2004). Spetch and Kolt (2001) found that athletes who concentrate and commit to task-oriented motivation in their sport profession are adherent to treatment programmes, while athletes that are ego-oriented in their sport profession are less cooperative and adherent to their recovery programmes. DiFiori et al, (2014) showed that junior-elite athletes that quitted competitive sport experienced reduced motivational climate, burnout and injury.

Injury recovery can threaten a player's career and as well increase life-stress. Lazarus & Folkman, (1984) refer to stress as an imbalance between a situation and an individual's coping resources. It is expected that young players who are part of a challenging development environment (e.g., talent identification and development) with high expectations both from their surroundings (coaches, teammates, parents and others) may experience pressure and stress related to their own performance and development (Finn & McKenna, 2010; Sæther, & Aspvik, 2016). In their study, Podlog et al. (2013) found that adolescent athletes experience such injury stress as difficulty in dealing with the physical pain, lingered injury recovery, frustrations over missing important games and competitions. Bianco (2001) and Walker et al. (2010) revealed that worries about the effects of sport injury on individual's physical fitness, an inability to improve on sport skills and achieve competitive goals, setback, fear of failure affect players to develop optimally

A study conducted by Reeves and colleagues (2009) among English football academy players found that mistakes and team performance were key stressors, the youngest players between ages 12-14years identified their coaches and selection as the main stressors, while the older adolescent players between the ages 15-18years identified their families as the key stressors (the criticism and pressure from parents). The young players

need to learn to cope easily with various stressors if they have a chance to develop great sports potential career (Holt, & Dunn, 2004), while lack of coping may result to reduced well-being (Ivarsson et al., 2015). Holt and Dunn (2004) asserted that a player who is ambitious to be a professional sportsperson must learn to cope maximally with stressors, inasmuch inability to do so can lead to decreased performance. Brink et al. (2010) stressed that stress-recovery balance is associated with injuries and illnesses among junior elite football players.

The social support as a perceived motivational climate that an athlete receives emanates from a variety of sources which include the athlete's coach, teammates, parents, spouse, friends, the medical team and fans through social media platforms. Social support from significant others helps athletes to deal with the stresses associated with the injury and enhances the prospect of recovery (Black, 2010). Perceived social support received by athletes are categorized into four dimensions which includes emotional support (i.e., providing comfort and security), esteem support (i.e., others bolstering an individual's skills, competence or self-esteem), informational support (providing instruction and guidance) and tangible support (providing concrete instrumental advice) (Freeman & Rees, 2009). Social support has been found to help athletes to cope with injury-related demands, in sustaining motivation to follow rehabilitation protocols and in helping emotional adjustment (Podlog et al, 2013).

Studies have shown the impact of social support on the variations of an athlete's motivational stages especially during the early stage of athletic development (Keegan et al., 2010; Keegan et al., 2014; Huxley et al., 2017). For instance, Thomas et al. (2019) found that social support received from families during the childhood and adolescent stages of athletes was crucial to their athletic development and continued involvement in sport. The authors further acknowledged the substantial role of coaches (their beliefs and coach-athlete relationships) and peers in their athletic development and continued engagement during childhood and adolescence (Thomas et al., 2019). Dubuc et al. (2010) revealed negative impact of unsupportive and controlling parental behaviours on young athletes' development and progression in sport. Similarly, controlling coach behaviours have been shown to reduce athletes' self-determined motivation, while autonomy-supportive behaviours have been shown to enhance it (Gagne, 2003; Amorose, 2007; Gillet et al., 2010). Yang et al. (2010) found that low perceived support of injured athletes can result from pressure to return to sport quickly or being isolated from other teammates, while positive support can eliminate anxiety, risk of depression, distress and increase athlete's improvement throughout injury recovery (Kuhn, 2019)

Recovery from sport injury requires both physical healing and mental rehabilitation, but focus has always been on the physical healing, while ignoring the psychological experience, negative thoughts, feelings and behaviours associated with an injury. Tracey (2003) asserted that in-depth understanding of psychological, emotional and behavioural responses of injured athletes could help to proffer solution to facilitate effective recovery. Effective recovery from injury can be influenced by how an individual athlete experience motivational climate either internally or externally within his or her environment during rehabilitation and return to sport. Motivational climates are thought to affect the

development process of young athletes in sporting milieu and also play a major role in influencing the psychological and physical well-being (both positive and negative) of athletes (Rehoboth & Duda, 2004).

Previous studies on the process of TID from developed societies such as Europe, Australia and North America have identified some features of effective TID which include understanding the nature of the talent development pathway, features of successful and developing athletes, characteristics of effective coaching and support environments, aspects of effective talent transfer and actual TID policies (Elumaro, 2015). Unfortunately, effective TID in Nigeria is being submerged by such factors as lack of policy implementation, corruption, poverty, family resistance and poor infrastructure for sports development. However, successful development of athletes is mostly by personal interest, autonomy and access to ad hoc nature of coaching in the community. The young athletes attempting to develop their potentials encounter plethora challenges which seem to be a mechanism to build their confidence and resilience that result into athletic success. A study conducted by Adegbesan et al. (2010) on sport TID in Nigeria revealed that, coaches only place emphases on the performance of fundamental motor skills and the combination of the anthropometrical, physical and physiological profiles of the young talented athletes during the TID process. This focus on the part of the coaches only limited the essence and efficiency of TID programme in the country can affect overall and future development of young talented athletes.

Studies have looked into the abrupt motivational influences surrounding the athlete at specific stages of development (Keegan et al., 2010; Keegan et al., 2014), with little or no focus on the young athletes' motivational climate influencing injury recovery. Roe and Park (2018) emphasised promoting player's optimum health, welfarism and holistic development. This affirms the statement of Williams and Reilly (2000) that, "the pursuit of excellence should not occur at the expense of the child's physical, emotional health, growth and development" (p.664- 665). Certainly, injury is an unavoidable aspect of sport participation either at developmental or elite stage, but injury recovery among young athletes can be improved by various motivational factors that can promote long-term involvement, optimum health and enjoy other accrued benefits of sport participation. Young talented athletes suffer from burnout, stress, lack of motivation, injury, experience tiredness with excessive training demand, etc. Many young talented individuals quit sporting career as a result of lack or insufficient motivational climate surrounding them (Stambulova, 2017); and a number of age-related differences have been found with respect to injury responses and rehabilitation (Brewer et al., 2003) with adolescents shown greater preoperative mood disturbances than adults (Udry et al., 2003), while athletes with strong athletic identity may feel a major loss and experience mood disturbance with an injury and recovery (Santi & Pietrantonio, 2013).

From the forgoing, it is noted that holistic TID process encompasses several factors. There are plethora studies on physical, physiological, anthropometrical, nature of TID, and factors influencing injury rehabilitations among young, elite and adult athletes from developed countries while there is little or dearth of studies on perceived motivational climate influencing injury recovery of young athletes in Nigeria. Therefore, it is pertinent to investigate perceived motivational climate influencing injury recovery of TID of young athletes in Nigeria.

Hypotheses

1. Perceived motivational climates (self-determined motivation, stress and social support) will not jointly and significantly determine injury recovery of TID of young athletes of Oyo State, Nigeria
2. Perceived motivational climates of self-determined motivation, stress and social support will not relatively and significantly determine injury recovery of TID of young athletes of Oyo State, Nigeria.

Methods

Participants

The participants in this study were two hundred (n=200) adolescent student-athletes. The respondents were purposively selected from eight government secondary schools in Ibadan North, Oyo State, Nigeria based on the fact that the selected respondents were student-athletes that regularly participate in sport, had represented their schools in different organised and invited competitions and finally engaged in “catch them young” sport programmes at the State Sport Council, Adamasingba, Ibadan, Oyo State, Nigeria. Twenty-five (25) respondents were purposively selected from each school. The respondents were male [n=127 (63.5%)], female [n=73 (36.5%)] with age range 10-12years [(n=52 (26%)), 13-15year [n=70 (35%)], 16-18years [n= 59(29.5%)], 19years and above [n= 19 (9.5%)]. Injury sustained before [muscular n=149(74.5%); bone n=34(17%); ligament n=17(8.5%)]. All the respondents regularly participate in more than one sport.

Research Instruments

Behavioural Regulation in Sport Questionnaire (BRSQ; Lonsdale, Hodge & Rose, 2008). This was used to assess self-determined motivation of the respondents. The BRSQ is a 24-item which includes six 4-item subscales that measure intrinsic motivation, integrated regulation, identified regulation, introjected regulation, external regulation and amotivation. The participants were prompted with the stem. Each item represents various reasons why the athlete may perform in his/her sport. Participants responded to each item using a 7- point likert scale (1= “strongly disagree”, 4= “neither agree nor disagree” 7= “strongly agree”). Previous research has established and supported reliability and validity of the BRSQ survey (Lonsdale, Hodge, & Rose, 2008).

Stressors. This is a 10-item questionnaire developed by Podlog, Dimmock and Miller (2011). This questionnaire was used to assess the motivational climate of stress as it affects the respondents' injury recovery. These were relevant to injured athletes and have been identified as sources of stress (stressors) in previous research (Podlog, Dimmock and Miller, 2011; Wadey and Evans, 2011). The question 'To what extent are these and issue for you as an injured athlete...?' was followed by a list of ten stressors including financial issues, loss of confidence and slowness of progress. Participants were asked to rate how much of an issue these were for them whilst injured. Participants responded to the questionnaire which is self-rated on a 5-point likert scale, with a range of 1 = not at all to 5 = a lot. Reliability value of the instrument was 0.78.

Social support. Social support was assessed using the Social Support Inventory for Injured Athletes (SSIIA; Mitchell, Rees, Evans and Hardy, 2005). This is a 16-item inventory which assessed injured athletes perceived social support availability, using a 5-point likert scale, with responses ranging from 1 (not at all) to 5 (a lot). This questionnaire included questions which represent the three of the functional dimensions of social support identified by Heil (1993). All questions were preceded with initial question 'to what extent do you have...?' Emotional support relates to how others provide comforting gestures which reduce negative emotions and make the individual feel loved and cared for (Finfgeld- Connet, 2005). An example of a question used to assess this function is '...Who gives you moral support when you're feeling down?' Tangible support relates to the practical or material support such as money or transport, this function is assessed with questions such as '...Who helps with transport?' The third function, informational support refers to advice and factual support and is assessed with questions such as '...Who helps setting sessions in training?' This questionnaire has been used in previous studies to assess perceived social support availability (Rees, Mitchell, Evans and Hardy, 2010) and was deemed as having acceptable validity and reliability

The Return to Sport after Serious Injury Questionnaire (RSSIQ; Podlog & Eklund, 2005) is a questionnaire that deals majorly with the recovery stage of athletes. It was used for a retrospective examination of motivation and psychological outcomes. This is a 10-item questionnaire that is measured on 7-point likert scale from 1 (Does not correspond at all) to 7 (Correspond Exactly). The statements of the items include 'my understanding about how to train/compete has been better', 'my motivation for sport has been greater during rehabilitation', my confidence in performing challenging skills and techniques has been lower. Internal consistency score in the present study was $\alpha = .83$

Procedure

After securing ethical clearance, the researchers were permitted by the respective authorities from the selected government secondary schools in Ibadan North, Oyo State, Nigeria. The Physical and Health Education teachers in these schools provided adequate information on the targeted group for the study. The rationales for the study were clarified to the participants after which the instruments were administered on the respondents. The participants were informed that participation in the study was voluntary and they have the right to withdraw at any time. The participants were also informed that there were no wrong or right answers for their responses as data collected was assured with great confidentiality. The questionnaire took about 20 minutes to be filled and this was carried out during the free periods and break-time on the school timetable.

Data Analysis

The study employed descriptive statistics of frequency count, percentage and mean to analyse demographic information of the participants. Pearson product moment correlation (PPMC) was used to determine the correlations among the variables, while multiple regression analysis was conducted on the hypotheses of the study

Results

Research Question

What is the relationship between perceived motivational climates of self-determined motivation, stress, social support and injury recovery of talent identification and development (TID) of young athletes of Oyo State, Nigeria?

Table 1: Correlation matrix showing the relationship between perceived motivational climate and injury recovery

Variables	Variables			
	Recovery from sport injury	Self-determined motivation	Stress	Social support
Recovery from sport injury	1			
Self-determined motivation	.291**	1		
Stress	.151*	.030	1	
Social support	.125	.167	.110	1
Mean	39.10	59.63	11.26	34.28
Standard Dev	9.70	8.70	3.43	7.37

**Correlation is significant at 0.01 (2-tailed); *Correlation is significant at 0.05 (2-tailed)

Table 1 showed the inter-correlational matrix of the relationship between the perceived motivational climate and injury recovery. The table revealed that self-determined motivation ($r=0.291$, $p<0.05$) and stress ($r=0.151$, $p<0.05$) had positive and significant correlation with injury recovery of TID of young athletes of Oyo State; while social support ($r=0.125$, $p>0.05$) did not. It means that an increased influence of self-determined

motivation and stress could relatively increase injury recovery of TID of young athletes of Oyo State; while social support did not.

Hypotheses:

H₀ 1: Perceived motivational climates (self-determined motivation, stress and social support) will not jointly and significantly determine injury recovery of TID of young athletes of Oyo State, Nigeria

Table 2: Summary of multiple regression of joint perceived motivational climate influencing injury recovery

R=.345 R ² =.119 Adj. R ² =.105 Std. Error=9.18017						
Model	Sum of Squares	Df	Mean Square	F	Sig. (p value)	Remark
Regression	2225.185	3	741.728	8.801	.000	Significant
Residual	16518.010	196	84.276			
Total	18743.195	199				

As indicated in table 2, it was found that the linear combination of motivational climates of self-determined motivation, stress and social support was tested significant on injury recovery of TID of young athletes of Oyo State, Nigeria ($F_{(3,196)}=8.801$, $p<0.05$). The result yielded a coefficient of multiple regression of $R=0.345$ and multiple R-square of 0.119. The result also revealed the adjusted $R^2=0.105$; indicating that about 10.5% of variance was accounted for by the independent variables. The null hypothesis was therefore rejected. This implies that motivational climates of self-determined motivation, stress and social support jointly and significantly determined injury recovery of TID of young athletes of Oyo State, Nigeria.

Hypothesis 2: Perceived motivational climates of self-determined motivation, stress and social support will not relatively and significantly determine injury recovery of TID of young athletes of Oyo State, Nigeria.

Table 3: Summary of multiple regression of relative perceived motivational climates influencing injury recovery

Variables	Unstandardized Coefficients		Standardized Coefficients β	t	Sig. (<i>p</i> value)	Remark
	B	Std. Error				
(Constant)	10.814	5.652		1.913	.057	
Self-determined motivation	.312	.076	.280	4.112	.000	Significant
Stress	.479	.191	.169	2.511	.013	Significant
Social support	.125	.090	.095	1.391	.166	Not Sig.

Table 3 showed self-determined motivation, stress and social support, the unstandardized regression weight (β), the standardized error of estimate ($SE\beta$), the standardized coefficient, the t-ratio and the level at which the t-ratio were significant. As indicated in the table, self-determined motivation ($\beta=0.280$, $t=4.112$, $p<0.05$) and stress ($\beta=0.169$, $t=2.511$, $p<0.05$) were tested significant on injury recovery of TID of young athletes; while social support ($\beta=0.095$, $t=1.391$, $p>0.05$) did not. The null hypothesis which stated that self-determined motivation and stress would not relatively and significantly determine injury recovery of TID of young athletes was therefore rejected.

Discussion

The purpose of this study was to examine perceived motivational climate influencing injury recovery of talent identification and development of young athletes in Nigeria. The results of the present study revealed significant relationship between the perceived motivational climate and injury recovery of TID of young athletes. The study further revealed that self-determined motivation and stress significantly and positively correlate with injury recovery, while social support did not. This shows that an increased influence of self-determined motivation and reduced stress could relatively increase injury recovery process of young athletes, while social support did not.

In the main analysis, the stated hypothesis was supported. This implies that perceived motivational climates of self-determined motivation, stress and social support jointly and significantly influenced injury recovery of TID of young athlete in Nigeria. This corroborates the study of Spetch and Kolt (2001) who found that motivational climate help athletes to be self-motivated, endure pain and perceived that they worked harder at their recovery. Similarly, Rehoboth and Duda (2004) indicated that motivational climates are thought to affect the development process of young athletes sporting milieu which play a major role in influencing the psychological and physical well-being (both positive and negative) of athletes.

Furthermore, the findings of the study revealed that perceived motivational climates of self-determined motivation and stress were relatively tested significant on injury recovery of TID of young athletes of Oyo State, Nigeria; while social support was

not. This shows that, self-determined motivation and stress independently had significant impact on how the TID young athletes recovered from injury, while social support did not. The outcome of this study showed that self-determined motivation is crucial to young athletes' injury recovery. This could be attributed to the curiosity, love, passion, interest and enjoyment that some of these young athletes have to participate in sport and to be a model like the sports superstars. This could help them to bolster and develop their confidence to recover from injury and return to sport. This was in line with the finding of Spetch and Kolt (2001) who found that, athletes who concentrate and commit to task-oriented motivation in their sport profession are adherent to treatment programmes, while athletes that are ego-oriented in their sport profession are less cooperative and adherent to their recovery programmes. In the same vein, DiFiori et al, (2014) found that junior-elite athletes that quitted competitive sport experienced reduced motivational climate, burnout and injury.

Findings from the present study also showed that stress influenced injury recovery of TID of young athletes. The findings were consistent with previous research that, worries about the effects of sport injury on individual's physical fitness, an inability to improve on sport skills and achieve competitive goals, setback, fear of failure affect players to develop optimally (Bianco, 2001; Walker et al., 2010). This also concurs with the findings of Podlog et al. (2013) that adolescent athletes experience injury stress as difficulty in dealing with the physical pain, lingered injury recovery, frustrations over missing important games and competitions, while Holt and Dunn (2004) asserted that a player who is ambitious to be a professional sportsperson must learn to cope maximally with stressors, inasmuch inability to do so can lead to decreased performance; and Brink et al. (2010) stressed that stress-recovery balance is associated with injuries and illnesses among junior elite football players.

Findings from this study added that social support was not significant. This implies that social support did not influence the injury recovery of TID of young athletes in Nigeria. This could be attributed to the lack of support from significant others such as coaches, parents, peers and others. This has caused some good talented young athletes to quit sport and chose other professions. This agrees with the study of Yang et al. (2010) that, low perceived support of injured athletes can result from pressure to return to sport quickly or being isolated from other teammates, while positive support can eliminate anxiety, risk of depression, distress and increase athlete's improvement throughout injury recovery (Kuhn, 2019). Similarly, Dubuc et al. (2010) revealed negative impact of unsupportive and controlling parental behaviours on young athletes' development and progression in sport. The insignificant of social support in this study was not in support of previous findings. For example, Thomas et al. (2019) found that social support received from families during the childhood and adolescent stages of athletes was crucial to their athletic development and continued involvement in sport. The authors further showed the

substantial role of coaches (their beliefs and coach-athlete relationships) and peers in their athletic development and continued engagement during childhood and adolescence (Thomas et al., 2019). Similarly, Podlog et al. (2013) found social support to be helpful for athletes to cope with injury-related demands, in sustaining motivation follow rehabilitation protocols and in helping emotional adjustment. Black (2010) indicated that social support from significant others helps athletes to deal with the stresses associated with the injury and enhances the prospect of recovery.

Conclusion

The present study examined perceived motivational climates influencing injury recovery of talent identification and development of young athletes in Nigeria. Findings of this study showed that self-determined motivation and stress significantly and positively correlate with injury recovery of TID of young athletes, while social support did not. It was further shown that motivational climates of self-determined motivation, stress and social support jointly and significantly influenced injury recovery of TID of young athletes. Besides, self-determined motivation and stress significantly influenced injury recovery of TID of young athletes in Oyo State, Nigeria; while social support did not. Overall, this study shed light on importance of perceived motivational climates as this influenced injury recovery of TID of young athletes and provide insight on the key motivational factors that can promote young athlete interest in talent identification and development programmes despite unavoidable sport injuries in order to promote adequate well-being, peak performance and constancy at local, national and international sport competitions.

Limitations

The sample size for this study was not large enough in order to generalize the results of the findings. Future studies should consider larger number of participants. Also, this study considered young athletes in government secondary schools in Oyo State, Nigeria alone. Further research should consider the inclusion of private secondary schools' athletes and more schools, and more participants should be considered in other regions in the country. This study made use of correlational descriptive design. An intervention programme that aids quick recovery of young athletes should be fostered in further studies.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Motivational climate intervention programme that improves self-determined motivation, stress and social support be developed and inculcated into TID programme of young athletes in order to aid injury recovery, promote optimum health and develop resilient young athletes.
2. Efforts be made to ensure that young athletes are sensitized and educated periodically about impact of motivational climates of self-determined motivation, stress and social support on injury recovery.

3. Sports psychologists should be involve in the teaching of the young athletes' various psychological skills training that can aid their development and injury recovery process and also compliment the sport skills training programme fostered by coaches.
4. Physiotherapist should work harmoniously together with other medical team members to instil confidence and autonomy support for the young athletes. Coaches should disengage from embarking on controlling leadership style, but supportive leadership style as this foster good coach-athlete relationship, adequate well-being and fast recovery. Parents and guardians should provide adequate support and care, likewise the peers should encourage each other.
5. Different sport stakeholders and investors should focus on holistic talent and identification development programme rather than focusing on improving the sport skills of the young athletes at the detriment of their overall well-being

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Conflicts of Interest

The author declares no potential conflicts of interest with respect to the research

References

- Adegbesan, O. Mokgwathi, M., Mokgothu, C., Omolawon, K. & Oladipo, I. (2010). Sport talent identification and development in Nigeria: A preliminary investigation. *International Journal of Coaching Science*. 4(2), 3-13
- Amorose, A. J. (2007). "Coaching effectiveness: Exploring the relationship between coaching behaviour and self-determined motivation," in intrinsic motivation and self-determination in exercise and sport, eds M. S. Hagger and N. L. D. Chatzisarantis (Champaign, IL: Human Kinetics), 209-27, 347–351. doi: 10.5040/9781718206632.ch-014
- Arden, C. L., Taylor, N. F., Feller, J. A., & Webster, K. E. (2013). A systematic review of the psychological factors associated with returning to sport following injury. *Br J Sports Med*. 47:1120-1126
- Bejar, M. P., Raabe, J., Zakrajsek, R. A., Fisher, L. A., & Clement, L. (2019). Athletic trainers' influence on National Collegiate Athletic Association Division I Athletes' basic psychological needs during sport injury rehabilitation. *Journal of Athletic Training* 54(3):245–254 doi: 10.4085/1062-6050-112-18.

- Bianco, T. (2001). Social support and recovery from sport injury: elite skiers share their experiences. *Research Quarterly for Exercise and Sport*, 72, 376-388
- Black, K. (2010). Motivational processes involved in the recovery of female athletes from injury. Master's Thesis submitted to the department of Counselling Psychology, University of Pretoria.
- Bloom, B. S. (1995). Developing talent in young people. Ballantke
- Brewer, B. W., & Cornelius, A. E. (2010). Self-protective changes in athletic identity following anterior cruciate ligament reconstruction. *Psychology of Sport and Exercise*, 11(1), 15-28
- Brink, M. S., Nederhof, E., Visscher, C., Schmikli, S. L., & Lemmink, K. A. (2010). Monitoring load, recovery, and performance in young elite soccer players. *Journal of Strength and Conditioning Research*, 24(3), 597-603. doi:10.1519/JSC.0b013e3181c4d38b
- Covassin, T., Beidler, E., Ostrowski, J., & Wallace, J. (2015). Psychosocial aspects of rehabilitation in sports. *Clin Sports Med*. 34:199-212
- DiFiori, J. P., Benjamin, H. J., Brenner, J. S., Gregory, A., Jayanthi, N., Landry, G. L., et al. (2014). Overuse injuries and burnout in youth sports: a position statement from the American Medical Society for Sports Medicine. *Br. J. Sports Med*. 48, 1–15. doi: 10.1136/bjsports-2013-093299
- Dubuc, N. G., Schinke, R. J., Eys, M. A., Battocchio, R., and Zaichkowsky, L. (2010). Experiences of burnout among adolescent female gymnasts: Three case studies. *J. Clin. Sport Psych*. 4, 1–18. doi: 10.1123/jcsp.4.1.1
- Elumaro, L. I. (2015). Understanding the Nature of Talent Identification and Development in the Nigerian Context. PhD Thesis submitted to the Edinburgh Napier University.
- Finfgeld- Connet, D. (2005). Clarification of social support. *Journal of Nursing Scholarsh*. 37(1): 4-9
- Finn, J., & McKenna, J. (2010). Coping with academy-to-first-team transitions in elite English male team sports: The coaches' perspective. *International Journal of Sports Science and Coaching*, 5, 257–279
- Freeman, P. and Rees, T. (2009). How does perceived support lead to better performance? An examination of potential mechanisms. *Journal of Applied Sport Psychology* 21, 429-441
- Gagne, M. (2003). Autonomy support and need satisfaction in the motivation and well-being of gymnasts. *J. Appl. Sport Psych*. 15, 372–390. doi: 10.1080/714044203
- Gillet, N., Vallerand, R. J., Amoura, S., a& Baldes, B. (2010). Influence of coaches' autonomy support on athletes' motivation and sport performance: a test of the hierarchical model of intrinsic and extrinsic motivation. *Psych. Sport Exer*. 11, 155–161. doi: 10.1016/j.psychsport.2009.10.004
- Grindstaff, J. S., Wrisberg, C. A., & Ross, J. R. (2010). Collegiate athletes' experience of the meaning of sport injury: A phenomenological investigation. *Perspectives in Public Health*, 130(3), 127-135.

- Heijne, A., Axelsson, K., Werner, S., & Biguet, G. (2008). Rehabilitation and recovery after anterior cruciate ligament reconstruction: patients' experiences. *Scand J Med Sci Sports* 18:325-335.
- Heil, J. (1993). Psychology of sport injury. Champaign (IL): Human Kinetics.
- Holt, N. L., & Dunn, J.G.H. (2004). Grounded theory of the psychosocial competencies and environmental conditions associated with soccer success. *Journal of Applied Sport Psychology*, (16), 199–219
- Huxley, D. J., O'Connor, D. and Larkin, P. (2017) The pathway to the top: Key factors and influences in the development of Australian Olympic and World Championship Track and Field athletes. *International Journal of Sports Science and Coaching* 12, 264-275
- Ifeoma, O., Purity, N., & Okoye-Nebo, C. (2015). Effective talent management: key to organisational success. *Journal of Policy and Development Studies*, 9(2), 95-106
- Ivarsson, A., Stenling, A., Fallby, J., Johnson, U., Borg, E., & Johansson, G. (2015). The predictive ability of the talent development environment on youth elite football players' well-being: A person-centered approach. *Psychology of Sport and Exercise*, 16, 15–23
- Janssen, K. W., Orchard, J. W., Driscoll, T. R., & van Mechelen, W. (2012). High incidence and costs for anterior cruciate ligament reconstructions performed in Australia from 2003-2004 to 2007-2008: time for an anterior cruciate ligament register by Scandinavian model? *Scand J Med Sci Sports* 22:495-501.
- Keegan, R., Spray, C., Harwood, C. and Lavalley, D. (2010) The motivational atmosphere in youth sport: Coach, parent, and peer influences on motivation in specializing sport participants. *Journal of Applied Sport Psychology* 22, 87-105.
- Keegan, R., Spray, C., Harwood, C. & Lavalley, D. (2014) A qualitative investigation of the motivational climate in elite sport. *Psychology of Sport and Exercise* 15, 97-107.
- Krist, M. R, van Beijsterveldt, A. M., Backx, F. J., & de Wit, G. A. (2013). Preventive exercises reduced injury-related costs among adult male amateur soccer players: a cluster-randomised trial. *J Physiother* 59:15-23
- Kuhn, B. (2019). The road to recovery: injured athlete's perspectives on recovery through social support. Master's Thesis. 652. https://aquila.usm.edu/masters_theses/652
- Kvist, J., Ek, A., Sporrstedt, K., & Good, L. (2005). Fear of re-injury: a hindrance for returning to sports after anterior cruciate ligament reconstruction. *Knee Surg Sports Traumatol Arthrosc* 13:393-397
- Lonsdale, C., Hodge, K., & Rose, E. A. (2008). The behavioural regulation in sport questionnaire (BRSQ): instrument development and initial validity evidence. *Journal of Sport & Exercise Psychology* 30, 323-355

- Moesch, K., Elbe, A., Hauge, M., & Wikman, J. (2011). Late specialization: the key to success in centimeters, grams, or seconds (cgs) sports. *Scandinavian Journal of Medicine & Science in Sports*, 21(6), 282-290
- Nordahl, B., Sjöström, R., Westin, M., Werner, S., & Alricsson, M. (2014). Experiences of returning to elite alpine skiing after ACL injury and ACL reconstruction. *Int J Adolesc Med Health* 26:69-77
- Norlin, T., Tranaeus Fitzgerald, U., & Alricsson, M. (2016). Barriers to and possibilities of returning to play after a severe soccer injury: a qualitative study. *Eur J Physiother* 18:179-184
- Podlog, L., & Eklund, R. C. (2010). Returning to competition after a serious injury: the role of self-determination. *J Sports Sci.* 28(8): 819–31
- Podlog, L., & Eklund, R. (2005). Return to sport after serious injury: A retrospective examination of motivation and psychological outcomes. *Journal of Sport Rehabilitation* 14 (1): 20-24
- Podlog, L., & Eklund, R.C. (2004). Assisting injured athletes with the return to sport transition. *Clinical Journal of Sports Medicine*, 14 (5), 257–259
- Podlog, L., Dimmock, J., & Miller, J. (2011). A review of return to sport concerns following injury rehabilitation: Practitioner strategies for enhancing recovery outcomes. *Physical Therapy in Sport*, 12, 36-42
- Podlog, L., Wadey, R., Stark, A., Lochbaum, M., Hannon, J., & Newton, M. (2013). An adolescent perspective on injury recovery and the return to sport. *Psychology of Sport and Exercise*, 14; 437-446
- Rees, T., Mitchell, I., Evans, L., & Hardy, L. (2010). Stressors, social support and psychological responses to sport injury in high- and low-performance standard participants. *Psychology of Sport & Exercise* 11 (6): 505-512
- Reeves, C.W., Nicholls, A.R., & McKenna, J. (2009). Stressors and coping strategies among early and middle adolescent premier league academy football players: Differences according to age. *Journal of Applied Sport Psychology*, 21, 31–48
- Reinboth, M. & Duda, J. L. (2004). The motivational climate, perceived ability, and athletes' psychological and physical well-being. *The Sport Psychologist*, 18, 237-251
- Roe, C., & Parker, A. (2016). Sport, chaplaincy and holistic support: the elite player performance plan (EPPP) in English Professional Football. *Practical Theology*, 9(3), 169-182
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Am Psychol.* 55(1):68-83
- Sæther, S.A., & Aspvik, N.P. (2016). Norwegian junior football players: players' perception of stress according to playing time. *Sport Science Review*, XXV(1–2), 85–96.
- Santi, G. & Pietrantonio, L (2013) Psychology of sports injury rehabilitation: a review of models and interventions. *Sports Exercise*, 8(4): 1029-1044

- Siegert, R.J., & Taylor, W.J. (2004). Theoretical aspects of goal-setting and motivation in rehabilitation. *Disability and Rehabilitation*, 26, 1, 1–8.
- Spetch, L.A., & Kolt, G.S. (2001). Adherence to sport injury rehabilitation: implications for sports medicine providers and researchers. *Physical Therapy in Sport*, 2, 80–90
- Stambulova, N. B. (2017). Crisis-transitions in athletes: current emphases on cognitive and contextual factors. *Curr. Opin. Psych.* 16, 62–66. doi: 10.1016/j.copsyc.2017.04.013
- Thomas, C. E., Chambers, T. P., Main, L. C & Gastin, P. B. (2019). Factors Influencing the Early Development of World-Class Caribbean Track and Field Athletes: A Qualitative Investigation. *Journal of Sports Science & Medicine* 18, 758-771
- Tracey, J. (2003). The emotional response to the injury and rehabilitation process. *Journal of Applied Sport Psychology*, 15, 279–293. doi:10.1080/714044197
- Tranaeus, U., Heintz, E., Johnson, U., Forssblad, M., & Werner, S. (2017). Injuries in Swedish floorball: a cost analysis. *Scand J Med Sci Sports* 27:508-513
- Vaeyens, R., Lenoir, M., Williams, A., & Philippaerts, R. (2008). Talent Identification and Development Programmes in Sport. *Sports Medicine*, 38(9), 703-714
- Wadey, R., & Evans, L., (2011). Working with injured athletes: Research and practice. In S. Hanton & S. D. Mellalieu (Eds.), *Professional practice in sport psychology: A review* (pp. 107-132). London: Routledge.
- Walker, N., Thatcher, J., & Lavalley, D. (2010). A preliminary development of the Re-Injury Anxiety Inventory (RIAI). *Physical Therapy in Sport*, 11, 23e29. <http://dx.doi.org/10.1016/j.ptsp.2009.09.003>.
- Williams, A. M., & Franks, A. (1998). Talent identification in soccer. *Sports Exercise*.
- Williams, A. M., & Reilly, T. (2000). Talent identification and development in soccer. *Journal of Sports Sciences*, 18(9), 657-667.
- Žvan, M., & Čoh, M. (2018). Identification of young talents in sport. *Journal of the Anthropological Society of Serbia, Niš*, 53, 119–123