

## UNDERSTANDING SPORTS STRESS IN ADOLESCENTS THROUGH GENDER AND SOCIAL INTERACTION LENSES

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### **Abstract:**

*This study investigated prosocial behaviour and gender as predictors of coping strategies in response to sports-related stress among adolescents in Ebonyi State, Nigeria. The sample consisted of 640 adolescent athletes (240 males and 200 females), aged 12 to 17 years ( $M = 14.06$ ,  $SD = 4.79$ ), using a cross-sectional design. Data were collected using two standardized instruments. Hierarchical Multiple Regression analysis revealed that prosocial behaviour significantly predicted the use of adaptive coping strategies ( $\beta = 2.02$ ,  $t = 1.12$ ,  $p < .05$ ), but not maladaptive ones. Specifically, prosocial behaviour toward teammates ( $\beta = 1.43$ ,  $t = 1.15$ ,  $p < .05$ ) was a significant predictor of adaptive coping, while prosocial behaviour toward opponents did not predict maladaptive coping. Gender did not significantly predict adaptive coping but was a significant predictor of maladaptive coping ( $\beta = -0.09$ ,  $t = -2.22$ ,  $p < .05$ ), indicating that gender differences influence how adolescents cope with sports stress maladaptively. The study highlights the importance of fostering prosocial behaviour in sports settings and recommends further research into gender-specific interventions for managing stress among adolescent athletes.*

**Keywords:** Prosocial behavior, Gender, Sports stress, Adolescents

### **Introduction**

All over the world, people's fascination with sports continue to increase. In the tremendously varied world of sports, many tend to be either participants or spectators. Often times, people sacrifice much to be involved in sports may be because sports is fast growing as a big business and leisure activities. However, there seem to be a lot of changes regarding sports interest as scope of research widens in both value of sports, purpose of sports and level of awareness (Arnold & Jack, 1996).

Subsequently, many countries tend to increase their level of engagement in sports for various reasons. Generally, sports is seen as an endeavour, a challenge, and an adventure which could be personal and vicarious, universal and have lured many into it (Brasch, 1970).

In this current dispensation, emphasis tend to be on both professional and amateur sports involvement to utilize the

expected values of sports for high achievement among the nations of the world. The expected values of sports for high achievement could generate stress, lead to antisocial sports behaviour, create avenue for age cheat, result to poor emotional arousal, low self-determination, low resilience, lack of self-determination and poor coping strategies if not properly harnessed. Harnessing the expected values of sport especially in Nigeria could help athletes to achieve maximum participation, peak performance, and personal satisfaction, high level of morality, prosocial sports behaviour, competence building, skill

development and adaptive coping strategies. Hence, the need to study in this work the roles of prosocial sports behavior and gender in coping with adolescent sports stress. It is the intention of the researcher to examine how positive expected value of sports could be harnessed to reposition sports performance and participation in Nigeria towards stability of record and peak performance.

The interplay of sports with games, recreation and play is such that sports could not be characterized by a universally accepted definition. Researchers have variously conceptualized sports to reflect its purpose and values. Hence, Zeigler (1973), define sports as an athletic and competitive activity requiring skill and prowess involving stress, diversion, pleasant time and recreation. Nixon (1984) saw sports as an institutionalized competitive activity stressing physical exertion by two or more opponents within a formal organizational frame work and regulatory bodies. However, sports can be seen as one of the social activities which when harnessed is most likely to improve quality of life, longevity, health and well-being, competitive acceptability and yield economic increase. Also, sports could lead to human development, escape from sedentary work, positive mental health, sense of competence and leadership, sense of purpose, morality and sportsmanship. If well organized and harmonized, sports may act as buffer to stress, ensure social support, bridge the gap of social inequality and gender inequality, it could also help in crime control and reduction.

Over the years, no area of sports and physical activity seem to be as controversial and stressful as adolescent sports may be due to the nature of adolescents. Research show that adolescent sports is not devoid of stress because stress is common among athletes, workers, actors, priests, pastors, students, managers, coaches and musicians (Nweze, 2005; Ifeagwazi; 2005; Mefoh, 1998, 2007; Morgan, 1984). Stress has remained a major focus for researchers in sports and practitioners because there has been well-established occurrences of stress in sports arising from people's engagement in sports (Krohne & Hindel, 1988; Goyen & Anshel, 1998). Researchers have defined stress in various dimensions such as biological, job, sports, social, cognitive, personality and psychological definitions of stress as a threat due to change (Krohne & Hindel, 1988; Eliot & Diane, 1995). Hans Selye (1975) defined stress as the nonspecific response of the body to any demand upon it which can be a threat, a challenge or a change that the body should adapt to. Also, Graham (1990) defined stress as mental, physical or emotional demand which tends to destabilize the individual's performance and body homeostasis.

Despite the general definition of stress, the definition of sports stress seem to agree with the definition of stress by Selye (1976), as pressure from an adverse force or influence which imposes unusual demands on an organism. When there are demands on an athlete, stress occurs which tax or exceed the person's adaptive resources. The dynamic processes of life makes it ever changing and stressful, but people's interpretation of events in their lives determine their stress level and their coping strategies. According to Hindle (1994), sports stress is aroused during the performance of sports activity particularly during the tense moments of every competition, hence the need for relevant coping strategies; gender inclusion and prosocial sports behavior among adolescent athletes. Sports stress can then mean any kind of pressure or threat experienced by an athlete due to training, pain, competition, injuries, illness, conflict with coaches, possibility of being benched, poor display of skills, low resilience, lack of physical fitness, a loss of the "star status", having a red card, losing a penalty kick, loss of confidence due to presence of crowd or expectation and a host of other factors. Studies also suggest that sports participation itself can become an additional stressor to athletes and that stress can affect both the emotional wellbeing of athletes and their physical health as an integral part of our lives (Kinbal & Freysinger, 2003). Adopting

better coping strategies may reduce the impending negative effect of stress on the athlete which may result to death at the exhaustion stage for athletes who may slump and die in the field of play. Stress is therefore the state of increased arousal that is vital for the athlete to defend himself or herself in the field of play when there is impending danger. Orlick (1986) observed that when the cognitive ability of an athlete is disrupted through stress, it affects his/her accuracy, comportsment, performance, use of skill and reaction time which could be debilitating, hence the need for proper coping strategies. Obviously, reducing stressful thinking through proper coping strategies by athletes gives them the opportunity for rational thinking, flexible and logical thinking. But, under stress, athletes tend to think irrationally, are impaired and dominated by worries to become helpless, hence the need for proper coping strategies.

According to Holt and Hogg (2002), coping is the ability to apply a lot of methods for mastering stressful situations. Coping involves a range of skills, motivations, pep talk, confidence for acting on the environment and managing disturbing cognitive, emotional and physiological reactions that hamper adolescent athlete's sports participation and performance. This means that when athletes are able to control their unpleasant stress reactions such as impaired cognitive functioning, negative motions, fear of spectators direction of sport and a general mobilization of body response system to avoid performance slumps and helplessness, such athletes may have learnt to apply appropriate coping strategies for combating sports stress.

Nwankwo and Onyishi (2012) conceptualized coping into two dimensions of adaptive and maladaptive coping strategies. However, sport-specific versions of coping strategies have been used to study coping by researchers such as (Olufemi, 2007; Madden, Summer & Brown, 1990; Crocker, 1992; Lazarus, 1993; & Lazarus, 1990). Adaptive coping strategies can be seen as a response intended to overcome, eliminate, reduce, change or counter the effects of stressors within the sports arena or other types of environment, it is also a response aimed at changing the situation to benefit the individual in a positive and profitable way. Adaptive coping skills as proposed by Rehe and Holmes (2000) include: deep breathing, thought changing, breath relaxations, positive affirmations, planning well, being organized, taking good and balanced diet, playing music to relax, stretching through sports and physical activity, talking to friends, counselling and pep talks, showing positive humour through laughter and seeking meaning and purpose in human existence through prayer and meditation. Adaptive sports stress coping include all constructive, healthy, and positive coping strategies adopted by athletes to combat sports stress and consolidate their cognitive, affective and behavioural domains for effective sports performance.

Maladaptive coping could mean all coping strategies employed by athletes that affect their well being adversely and hinder their performance. Researchers such as Coleman, Butcher and Carson (1980), saw maladaptive coping response as all coping strategies that fail to promote the well being, fulfillment, growth and development of athletes and other individuals, groups, clubs and organizations. Maladaptive sports stress coping strategies involve all risky, negative, destructive and unhealthy coping strategies adopted by athletes to manipulate their stressful situations. Maladaptive coping skills as proposed by Rahe and Holmes (2000) include: drinking, drug use, gambling, sex addition, hanging unto anger, isolation, over or under eating, avoiding responsibilities and creating inappropriate boundaries. Other maladaptive sports stress coping strategies include: lack of interest in physical fitness exercises such as sit up, press up and running on the sport; disobedience to the instructions of the coach, lack of assertiveness, negative relationship between athletes and coaches or among athletes, irregular and

inconsistent attendance to training, sneaking out of training camp without permission, not being open to new ideas or skills and inability to accept corrections from coaches and teammates.

**Cognitive-Motivational-Relational Theory (Lazarus, 1990, 1993):**

The cognitivemotivational-relational theory is one of the most widely applied theoretical approaches to sports participation and coping with sports stress. This theory was developed as a major contributor to an understanding of the emotion, sports behavior and coping process in both sports and other areas of research. A cognitive-motivational-relational theory of emotion, sports behaviour and coping is concerned with situational appraisals of athlete's well-being and hierarchy of situational goals through appropriate knowledge, motivation, skills, competence and resilience for adaptive coping strategies (Lazarus, 1993).

The main tenet of the cognitive-motivational-relational theory is the use of cognitive appraisal and coping to explain stress and emotional experience of athletes. Hence, the researcher intends to adopt this theory as the theoretical framework of this study. Appraisal in sports could mean continuing evaluations of the importance of the interaction or relationship between athletes and their sports environment in relation to their coping strategies and wellbeing. Appraisal seems to consist of two patterns which include primary and secondary appraisal of the sports situation. These two patterns of appraisal are intended to determine the type and intensity of emotion and coping in sports. Lazarus (1990) saw primary appraisal as examination of athlete's personal well-being in a specific person-environment relationship. Primary appraisal variables that relate either positively or negatively with adaptive or maladaptive coping by athletes include type of ego-involvement, goal relevance and goal congruence or incongruence. Goal relevance may exist when the involvement of an individual's goals are considered to ascertain whether the situation can facilitate personal goals to produce positive emotions or thwart personal goals to produce negative emotions. Emotional intensity are aroused by the level of importance attached to goals at state. When personal goals are not involved in the sports situation, there may be no emotional attachment. The extent to which a situation is consistent or inconsistent with an individual's goals determine how congruent or incongruent the goals are. The level of involvement of aspects of ego-identity such as self-and social-esteem, ego-ideals, life-goals, moral values, persons and their wellbeing, ideals and meanings may determine type of ego involvement. Various aspects of egoidentity are implicated in different emotions expressed during sporting activities. Secondary appraisal is implicated in various appraisal of variables such as attributions regarding coping potential, blame and credit, and future expectations regarding the relationship between the athlete and his/her environment. In a sports context, blame or credit comes into play when questions are asked about who was responsible for the situation and whether the situation is controllable or not. The simultaneous occurrence of both the primary and secondary appraisal processes due to constant change of emotion may be understood using the likely occurrence of anger in sports. When athletes think of availability or non-availability of coping strategies to deal with stressors, coping potential comes into play.

The cognitive-motivational-relational theory is used as a vital theory in this study because it helps to harmonize the processes of emotion, prosocial sports behaviour and coping strategies in adolescent sports participation, so that adolescent adaptive sports stress coping strategies may be encouraged. According to this theory, coping with sports stress is proposed to mediate strongly in the appraisal and emotion process as a continuity plan of encouraging adolescent sports participation and coping. Also, this theory contends that harmonizing the initial perception of person-environment transaction as



harmful, challenging or threatening which gives rise to emotions; and encouraging the athletes to engage in adaptive coping efforts whenever they experience emotions will influence the coping process, change the nature of the person-environment relationship, and change the nature of appraisal, emotion and coping during sports stress. This will also help the athletes to reduce the discrepancies existing between perceived environmental challenges and perceived personal resources through proper reappraisal of the sports situation by the athlete as demonstrated by the proponents of the cognitive-motivational-relational theory (Lazarus, 1990,1993). Thus, this theory highlighted that coping strategies serve, multiple functions simultaneously. Since sports involve perceptions of emotions, cognitive appraisals and person-environment appraisals and personenvironment interactions, the application of the cognitive-motivational-relational theory in this study will help to encourage adolescent athletes and other stakeholders in Nigerian sports to emphasize the adoption of adaptive sports stress coping strategies during sports stress. This will help to reposition adolescent sports participation and performance in Nigeria.

In this research, two independent variables are to be investigated, such as: prosocial sports behavior and gender as factors in coping with adolescent sports stress.

Sports behaviour (prosocial and antisocial) seem to have been variously conceptualized due to the behaviours adolescents bring to the sporting context and because behaviour appeared to depend on the moral atmosphere of the sporting environment. This study intends to examine the mediating role of adolescent athletes prosocial sports behavior and gender in the sports stress coping process. Prosocial sports behaviour seem to mediate strongly in the sports stress coping process as it ensures high sport morality as a positive psychological measure of sports behaviour. Sportsmanship which is the concept of fair play and playing according to rules seem to depend on the ability to judge, rightly and take right decisions when prosocial sports behaviour is adopted by the athlete. Prosocial sports behaviour seem to be one of the pivots of progressive sports career, consistent sports participation, sportsmanship, sports development and adaptive sports stress coping. Research reveal that sports have been a promoter of moral character and character formation as a socialization agency, so prosocial sports behaviour is emphasized to fulfill this purpose (Arnold, 1994, 2001). Encouraging adolescent athletes to stabilize their prosocial behaviour through proper application of motivational strategies and resilience may help them to adopt adaptive sports stress coping strategies which is paramount in this study.

Prosocial sports behaviour may be regarded as behaviour aimed at helping others and promoting the welfare and participatory ability of other athletes. On the contrary, antisocial sports behaviour may be seen as such sports behaviour aimed at inhibiting sports participation and performance of other athletes. A very strong indicator of adolescent athletes inclination to either prosocial or antisocial sports behaviour is the context in which sports are performed because it influences the athletes behaviour (Endresen & Olwens, 2005). Despite the dimensions of these sports behaviours, the researcher specifically intends to study prosocial sports behaviour to encourage adolescent athletes adopt more adaptive sports stress coping strategies to reduce the conflicting role of antisocial sports behaviour on sports morality which is debilitating; this is supported by reports of previous researchers (Shields, Briedemier, Lavoie, & Poer, 2005).

Studies have shown that prosocial sports behaviour mediates strongly in adolescent sports participation and adaptive sports stress coping strategies as: a voluntary behaviour aimed at benefiting others, an action motivated by empathy and concern about athletes' welfare and an action central to the well-being

of social groups such as sharing, donating and volunteering (Kavussanu, Stanger, & Boardly, 2013; Kavussanu, Seal, & Philips, 2006). Scholars such as Bandura (1999) and Blasi (1980), reported that behaviour is one aspect of sports that is morally bound when inclined towards prosocial as it is needed for proper measurement.

### **Prosocial Sports Behaviour and Coping with Adolescent Sports Stress**

Researchers in sports behaviour and sports participation have dichotomized sports behaviour into prosocial and antisocial behaviour to refer to the proactive and inhibitive aspects of morality that are vital for sports participation (Kavussanu & Spray, 2006; Sage, Kavussanu, & Duda, 2006). Boardley & Kavussanu (2009) adopted achievement goal theory perspective in studying prosocial and antisocial behaviours in sports and demonstrated that both person (goal orientations) and contextual (motivational climate) variables are very vital in the study of sports behaviour and participation as they impact coping resources.

Cote et. al. (2007), in a study discovered that participating in a diversity of sports that focus on deliberate practice is necessary for promoting prolonged participation, encouraging prosocial behaviour and coping strategies and reducing dropout rate and antisocial behaviours. Gilbert et al (2001) investigated the role of coaches in sports behaviour and participation of youth athletes, they observed that youth athletes prefer coaches who demonstrate athlete-involved democratic coaching style. They also observed that dropout and burnout athletes perceived their coaches as not being supportive but adopt more controlled climate thereby subjecting the athletes to several antisocial sport behaviours and maladaptive coping strategies.

Ntoumanis & Standage (2009) examined morality in sports using self-determination theory perspective, 314 British athletes consisting of 170 males and 144 females aged from 18 to 25 years ( $M=19.67$ ;  $SD=1.59$ ) participated in the study. The researchers discovered that adopting autonomy-supportive strategies by coaches significantly satisfies athletes basic psychological needs and directly predicts intrinsic/autonomous motivation. They also observed that autonomous coaching strategy indirectly produces high of sportsmanship and low levels of antisocial moral attitudes through adaptive coping strategies.

### **Gender and Coping with Adolescent Sports Stress**

Kavussanu & Boardley (2009) in a study revealed that participants reported engaging “often” in prosocial behaviour toward teammate on average, “sometimes” in prosocial behaviour toward opponent and “rarely” in antisocial behaviour toward both teammate and opponent. There was gender differences in the frequency of both prosocial and antisocial behaviour and males reported higher frequency of all behaviours, especially antisocial behaviour.

Nwankwo and Onyishi (2012) examined the role of self-efficacy, gender and category of athletes in coping with sports stress among 236 athletes from secondary (high) schools, results of the study indicated that higher mean score in stress coping was reported by female athletes, while their male counterparts reported low mean score in stress coping. However Statistical analysis revealed that gender of athletes was statistically significant,  $F(1,228)= 6.20$ ,  $P<.05$ . Results of this study implicated the vital roles of gender of athletes in coping with sports stress. Additionally, the existence of significant interaction effects between self-efficacy and gender of athletes in their coping strategies demonstrated that high self-efficacy is very critical in athletes’ choice of coping strategies for both males and females during sports.

However, this present study is poised to critically examine the variables of the study, relate them with the positions of other researchers and theorists as posited in both the theoretical and empirical literature with the intention of harmonizing the results of other researchers with what will be the findings of this study and hope to contribute to knowledge to improve on the existing sports situation in Nigeria today.

### **Statement of the Problem**

The proposed topic of this research emanated from the assumption that adolescent athletes sports participation and coping in Nigeria and the world over are limited and not properly harmonized due to the negative impact of several factors such as sports stress, injuries, lack of self-determination, low resilience, gender, age cheat, perception of poor abilities, low competence, poor and antisocial sports behaviour, poor morality, lack of sportsmanship and performance slumps as supported by various reports of researchers such as (Clufemi, 2007; Centinkalp & Turskoy, 2011; Mefoh, 2007; Bandura, 1999; Hodge & Lonsdale, 2011; Wankel & Mummery, 1990; Deci, Betley, Kahle, Abrams & Porac, 1981). These factors inhibit the functionability and longevity of adolescent sports participation and destabilize the coping strategies of adolescent athletes during sports stress.

The need to study prosocial sports behavior and gender as factors in coping with adolescent sports stress is very vital especially in Nigeria. Considering the nature and functional level of adolescent and youth sports in Nigeria, it is the hope of the researcher that this study will enormously add to knowledge and fill several gaps in literature. The sports participation and performance in Nigeria seem to be devoid of these expectations especially among adolescent athletes (grass root level) which when properly harnessed, organized and harmonized, may produce better results. Sports participation and performance among adolescents in Nigeria seem to lack proper planning due to increasing rate of antisocial sports behavior and gender biases among athletes and organizers. There seem to be inconsistent rising and falling of sport stars in the country for many years now, youth athletes seem to sparingly excel at their adolescent level only to slump or dropout of sport so as not to carry over the value and skill to adult level. It is based on these fall-out that the researcher felt a need to study and provide answers to the following questions:

Would prosocial sports behaviour play significant roles in coping with adolescent sports stress? Would gender play significant roles in coping with adolescent sports stress?

### **Hypotheses**

Considering the inclusive nature of research on adolescent sports participation and coping with sports stress as revealed in the literature reviewed and the statement of the problems in this study, the following hypotheses are postulated:

1. Prosocial sports behaviour will significantly predict adolescent sports stress coping.
2. Gender will significantly predict adolescent sports stress coping.

### **Method**

#### **Participants:**

Participants in this study comprised of 650 (six hundred and fifty) male and female adolescent athletes. The participants were drawn within Abakaliki during Ebonyi State Annual youth sport competition which took place at Abakaliki Township Stadium. The State's competition for year 2018 took place between March and April. Eligibility criteria for participation in the study was adolescent athletes from three[3] local Government Areas that qualified and took part in the competition out of all the participants from the thirteen local government areas that participated in different types of sports. Participants' ages

ranged from 13 to 17 years. Using purposive sampling technique and simple random sampling technique, the athletes were selected from each of the different categories of sports. Example of sporting activities that participants will be selected from includes; football, volleyball, tug of war, athletics [track events eg, 100m, 200m, 400m, 800m] and [field events eg, long jump, high jump, javelin, and discus]. Demographic information about participants such as gender, age, prizes won, number of years of participation, family socio economic status, etc were gotten from the questionnaires.

### **Instruments:**

A questionnaire form comprising four measuring scales will be given to the participants for completion. The scale are Sports Stress Coping Strategies Questionnaire [SSCSQ] and the Pro-social and Antisocial Behaviour in Sport Scale [PABSS].

### **Sports Stress Coping Strategies Questionnaire (SSCSQ)**

The 21-item Sport Stress Coping Strategies Questionnaire (SSCSQ) was developed by Nwankwo and Onyishi (2012) to measure stressful events and situations during sports training and competition. It is a five-point likert scale; and its response options includes; *Never = 5, Rarely = 4, Sometimes = 3, Often = 2, Very Often = 1*. “Exercised more”, “Relaxed with any alcohol drink”, “Worked out solutions to the problem”, “Accepted defeat”, “Refuse to think about failures and weaknesses” etc., are some of the items in the scale. Nwankwo and Onyishi (2012) reported item total reliability coefficient which ranges from .30 to .73; and a Cronbach’s alpha reliability index of .78 using youth athletes.

### **The Pro-social and Antisocial Behaviour in Sport Scale (PABSS)**

The pro-social and antisocial behaviour in sport scale (PABSS) developed by Kavussanu and Boardley (2009) is a five-point likert scale consisting of 20 items and 4 subdimensions. The sub-dimensions of the original PABSS are; Antisocial Opponent (e.g.: Tried to injure an opponent.), Antisocial Teammate (e.g., verbally abused a teammate.), Pro-social teammate (e.g.: Encouraged the teammate), and Pro-social opponent (e.g., Helped an injured opponent.). According to Kavussanu and Boardley (2009) Cronbach Alpha values of the original general scale is .88; while for the sub-dimensions scale are 0.83 for pro-social teammate, 0.79 for pro-social opponent, 0.83 for antisocial team-mate, and finally 0.84 for antisocial opponent (Kavussanu et al., 2013). The degree of these results is considered reliable.

### **Reliability of the instruments in the present study**

Two hundred adolescent athlete volunteers (122 males and 78 females) with age ranges from 13 to 17, from six secondary schools in Abakaliki, Ebonyi State were used to explore the reliability of the SSCSQ and the PABSS scales, as well as PABSS four dimension sub-scales. The athletes were selected during an inter-house sports involving the schools. For the pro-social and antisocial behaviour in sport scale the researcher realized a Cronbach’s alpha coefficient reliability of .80 for the general scale (see Appendix E). The subscales however yielded better alpha coefficients when considered individually. Alpha coefficient values of 0.70 for pro-social team-mate, 0.63 for pro-social opponent, 0.79 for antisocial team-mate, and finally 0.77 for antisocial opponent (see Appendix E).

Reliability analysis showed a relatively high Cronbach's alpha ( $\alpha = .83$ ) on the SSCSQ (see Appendix E). This confirms the reliability of SSCSQ among the population of interest.

### **Procedure:**

The researcher with an introductory letter from the department got permission from the director of Ebonyi State youth sport competition that was used for the study. Two research assistants were recruited to assist the researcher in administering the questionnaires to the athletes. One of the research assistants



was a staff of Ebonyi State youth sport competition Board, while one was a fellow Psychologist. The researchers assistants were coached and guided by the researcher on how to administer the questionnaire, so that enable them guide the athletes properly. The choice of choosing a staff from the sport Board as a research assistant is for easy accessibility as well as to enable the participants respond truthfully and confidently in filling the questionnaires. Afterwards, the researcher created rapport with the participants before administering the questionnaires. Participants equally were assured that their responses are treated with confidentiality. The questionnaires were administered with the help of the research assistants. A total of Seven hundred questionnaires were administered in the study, taking cognizance that not all questionnaires distributed are always returned. Properly filled questionnaires were collected back after the participants had filled them correctly. Participation in the study was voluntary as no participant was forced to participate. Participants were encouraged or informed of the need to fill all the details of the questionnaires. At the end of data collection, participants were debriefed on the motive for the study and encouraged to aim higher in sports participation and performance. Participants were also informed on how they have helped in advancing knowledge. Finally, the participant's were reinforced with entertainment.

### Design/Statistics:

The study adopted a cross sectional survey design. Hierarchical multiple regression will be used for data analysis. Statistical package for Social Sciences (SPSS) will be employed for data analysis.

### Result

**Table 1: Table of Mean, Standard Deviation, correlations of demographic variable-age, gender, pro-social behaviour, and coping with adolescent sports stress**

	Variables	M	SD	1	2	3	9	10	11	12
1	<b>Cop. With sports stress</b>	69.39	13.29							
2	<b>Gender</b>	1.46	.50							
3	<b>Age</b>	14.98	1.49							
9	<b>Pro_Soc_Beh</b>	17.30	3.64							
1	<b>Pro_soc_team</b>	9.08	2.50							
0										
1		8.22	2.67							
1	<b>Pro_soc_opp</b>									

\*\*\*p< .001, \*\*p< .01, \*p< .05; (Pro-social beh = Pro-social behaviour; Pro-socbeh Team = Pro-social behaviour Team; Pro-socbeh Opp = Pro-social behaviour Opponent)

The correlation table show that coping with adolescents sports stress was positively significantly related to gender ( $r = -.05$ ,  $p < .05$ ); pro-social behaviour ( $r = .01$ ,  $p < .01$ ); prosocial behaviour team ( $r = .03$ ,  $p < .05$ ) and pro-social behaviour opponent ( $r = -.04$ ,  $p < .01$ ). Gender was not significantly related to pro-social behaviour. Age was significantly related to pro-social behaviour ( $r = .10$ ,  $p < .01$ ); and pro-social opponent ( $r = .08$ ,  $p < .01$ ). However, prosocial behavior was equally found to be related to the two dimensions, pro-social behaviour team ( $r = .68$ ,  $p < .001$ ) and pro-social behaviour opponent ( $r = .73$ ,  $p < .001$ ). To test the hypotheses stated in the study, data was further fitted to regression model in hierarchies/steps. Result of this was shown in table below.

**Table 2: Hierarchical multiple regression showing the prediction of ‘Coping with Adolescent Sports Stress’ from gender, pro-social behaviour and the dimensions of prosocial behaviour.**

	R	R <sup>2</sup>	R <sup>2</sup> Δ	B	Beta(β)	T
<b>Step 1</b>	.218***	.048***	.048***			
Gender				-1.065	-.04*	-1.02
<b>Step 2</b>	.250**	.062**	.014**			
Pro-social Behaviour				8.81	.42**	1.35
Pro-social Behaviour Team				8.99	.69**	1.38
Pro-social Behaviour Opponent				-8.75	-.76	-1.34

\*\*\*p < .001, \*\*p < .01, \*p < .05.

In the first step, gender ( $\beta = -.04$ ,  $t = -1.02$ ,  $p < .05$ ) significantly predicted coping with adolescents' sports stress. It accounted for 22% as a factor of coping with adolescents sports stress. In the second step, pro-social behavior ( $\beta = 2.42$ ,  $t = 1.35$ ,  $p < .01$ ) was a significant predictor of coping with adolescents' sports stress. However, among the subscales of pro-social behaviour, only pro-social behaviour team ( $\beta = 1.69$ ,  $t = 1.38$ ,  $p < .01$ ) was a significant predictor of coping with adolescent's sports stress. Collectively, all forms of sports behaviour aimed at promoting well fare and participatory ability of team members (pro-social behaviour team) appears to increase coping with sports stress among adolescents. The second dimension of prosocial behaviour - Pro-social behaviour opponent ( $\beta = -1.76$ ,  $t = -1.34$ ) was not a significant predictor of coping with adolescents' sports stress. Data were equally subjected to further analysis in which each of the two dimensions of sports stress coping strategies (adaptive coping strategy and maladaptive coping strategy) served as dependent variable. Results of further analysis were presented in the two tables below.

**Table 3: Hierarchical multiple regression showing the prediction of ‘Adaptive Coping with Adolescent Sports Stress’ from control gender, pro-social behaviour and the dimensions of pro-social behaviour.**

	R	R <sup>2</sup>	R <sup>2</sup> Δ	B	Beta(β)	T
<b>Step 1</b>	.17	.03	.03			
Gender				.06	.01	.10
<b>Step 2</b>	.21*	.04*	.01*			
Pro-social Behaviour				4.36	.02*	1.12
Pro-social Behaviour Team				4.52	.43*	1.15

Pro-social Behaviour  
Opponent

-4.37      -1.48      -1.12

\*\*\*p< .001, \*\*p< .01, \*p< .05

Gender ( $\beta = .01$ ,  $t = .10$ ) did not significantly predict adaptive coping strategy with adolescent's sports stress. The three demographic variables however contributed 17% as factors of adaptive coping strategy with adolescents sports stress ( $R = .172$ ,  $p < .001$ ). In the second step, pro-social behavior ( $\beta = 2.02$ ,  $t = 1.12$ ,  $p < .05$ ) was found to be a significant predictor of adaptive coping strategy with adolescents' sports stress. However, among the subscales of pro-social behaviour, only pro-social behaviour team ( $\beta = 1.43$ ,  $t = 1.15$ ,  $p < .05$ ) was a significant predictor of adaptive coping strategy with adolescent's sports stress. This implies that sports behaviours aimed at promoting well fare and participatory ability of team members (pro-social behaviour team) appears to increase adaptive way of coping with sports stress among adolescents. Pro-social behaviour opponent ( $\beta = -1.48$ ,  $t = -1.12$ ) was not a significant predictor of coping with adolescents' sports stress. But both pro-social behaviour and the dimensions accounted for 14% variance as factor in adaptive coping strategy with adolescent's sports stress. Table 4 showed the result of maladaptive coping sports stress strategy as dependent variable.

**Table 4: Hierarchical multiple regression showing the prediction of 'Maladaptive Coping with Adolescent Sports Stress' from gender, pro-social behaviour and the dimensions of pro-social behaviour.**

	<u>R</u>	<u>R<sup>2</sup></u>	<u>R<sup>2</sup>Δ</u>	<u>B</u>	<u>Beta(β)</u>	<u>T</u>	
<b>Step 1</b>	.260***	.068***	.068***	Gender	-1.10	-.09*	-2.22
<b>Step 2</b>	.286	.082	.004				
Pro-social Behaviour					-4.46	-.54	-1.44
Pro-social Behaviour Team					-4.49	-.76	-1.45
Pro-social Behaviour Opponent					4.38	.83	1.41

\*\*\*p< .001, \*\*p< .01, \*p< .05

Result of table 4 showed that the demographic variables Gender ( $\beta = -.09$ ,  $t = -2.22$ ,  $p < .05$ ) significantly predicted maladaptive coping strategies of adolescent's sports stress. It contributed 26% as a factor of maladaptive coping with adolescents sports stress ( $R = .260$ ,  $p < .001$ ). Pro-social behavior ( $\beta = 2.02$ ,  $t = 1.12$ ) and pro-social behaviour team ( $\beta = 1.43$ ,  $t = 1.15$ ) were not significant predictors of maladaptive coping of adolescent's sports stress. Prosocial behaviour opponent ( $\beta = -1.48$ ,  $t = -1.12$ ,  $p < .05$ ) was also not a significant predictor of maladaptive coping strategy of adolescents' sports stress.

### Discussion of Findings

It was hypothesized that prosocial sports behavior will significantly predict sports stress coping among adolescent athletes. Regression analysis showed that prosocial sports behavior significantly predicted coping with adolescent sports stress. Prosocial sports behavior and the dimensions accounted for an additional significant variance in coping with adolescent sports stress. The result reveals that prosocial sports behavior enhances adolescent athletes coping strategies during sports stress. This finding is

consistent with the findings of other researchers (e.g Kavussanu et al., 2013) that athletes adopt prosocial sports behavior to cope with sports stress. They are also motivated to participate in sports with discipline, understanding and sportsmanship. The present finding is also consistent with achievement goal theory which stipulates that both goal orientations (person) and motivational climate (contextual variables) are very important in sports behavior and participation because they impact coping resources (Boardley & Kavussanu, 2009). This implies that proper considerations are given to both individual athletes and the environmental factors affecting the participation and performance of athletes to achieve better coping resource. Prosocial sports behavior of athletes which is the proactive aspect of morality is very important for sports participation and coping (Sage et al., 2006).

Prosocial sports behavior team was a significant predictor of adolescent athletes sports stress coping. The result of this study reveal that prosocial sport behavior of athletes toward teammates enhance their coping strategies. This implies that when athletes exhibit prosocial sports behavior towards their teammates, positive sports behavior and morality dominates the athletes coping repertoire to cope. This result is consistent with the findings of Hodge and Lonsdale (2011) that prosocial sports behavior towards teammates align with intrinsic motivation to significantly predict coping with sports stress. This finding corroborates Bandura (1999) and Blasi (1980) who reported that behavior is one aspect of sports that is morally bound when inclined towards prosocial for coping.

Prosocial sports behavior towards opponent was not a significant predictor of coping with adolescent sports stress. The finding of this study reveal that prosocial sports behavior among athletes promote fair play and peaceful coexistence. Also, that adolescent athletes should emphasize prosocial sports behavior towards teammates so that more coping resources will be attracted. This implies that since prosocial sports behavior towards opponent is not a significant predictor of adolescent sports coping, it should be moderately applied while prosocial sports behavior towards teammates should be applied more. The present finding supports the earlier reports of Hodge and Lonsdale (2011) that prosocial sports behavior towards opponent was not a significant predictor of coping with sports stress. Also, the findings of Kavussanu and Boardley (2009) is consistent with the finding of this study that prosocial sports behavior towards opponent did not significantly predict coping with sports stress as it is not inclined towards teammates.

The study showed that gender significantly predicted coping strategy with adolescent's sports stress. Gender did not significantly predict adaptive coping strategy with adolescent's sports stress; but it significantly predicted maladaptive coping strategy with adolescent's sports stress. Previous studies have their opinion on gender and sports stress coping strategy. Burton

(2004) found that males and females appraised stressful situations in a similar manner.

However, females used more social support, venting of emotions, positive reinterpretation, and dissociation. Males used suppression of competing activities and association to cope with the same stressor. Several studies found support for the notion that females are more likely to use social support to cope with stressful situations (Campen & Roberts, 2001; Crocker & Graham, 1995; Kolt, Kirkby, & Lindner, 1995; Philippe, Seiler, & Mengisen, 2004).

More so, both prosocial sports behaviour and prosocial sports behaviour teammate predicted sports stress coping. But prosocial sports behaviour toward opponent did not significantly predict coping. Differences in the dimensions of prosocial behaviour and their direction of flow have revealed the need for harmonization of flow among the dimensions.



## Conclusion

This paper has established the fact that pro-social behavior and gender are predictors of coping with sports stress among adolescents in our society. In order to sustain skills development, competence building and longevity in any nation, sports activities must be taken seriously as a result of its fast growing which has also become a big business and leisure activities among the nations of the world. It is also concluded that the expected values of sports for high achievement could generate stress, lead to anti-social sports behaviour, create avenue for age cheat, result to poor emotional arousal, low self-determination, low resilience, lack of self-determination and poor coping strategies if not properly harnessed among the adolescents in our society.

## Recommendations

In view of the findings of this study, the following recommendations were made:

1. The Ministry of Education should harness the values of sport to help athletes achieve maximum participation, competence building, skill development and adaptive coping strategies.
2. The government through the stakeholders of sports should establish positive value of sports to reposition sports performance and adolescents' participation towards stability of record and peak performance.
3. The Federal Government should harness sports as social activities to improve quality of life, longevity, health and well-being, competitive acceptability which yield to the economic increase of the nation.
4. The stakeholders and teachers at various levels of education should encourage adolescents about the value of sports as activities that lead to human development, positive mental health and sense of competence.
5. Organizing of sports for adolescents in schools will go along way bridging the gap of social inequality, gender inequality and also help in crime control and reduction.

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