# **Athletic Identity And Post Traumatic Growth Following Deselection. A Correlational Study Of Elite Cricketers**

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#### Abstract

The study intends to investigate the relationship of athletic identity and post traumatic growth following deselection. The study adopts the positivistic approach to study the phenomenon and thirty-five (35) elite cricketers were purposively selected for sample. To measure the athletic identity and post traumatic growth, athletic identity measurement scale (AIMS) and post traumatic growth inventory (PTGI) were used in the study. Results revealed that the correlation of total athletic identity and total post traumatic growth inventory (r = -0.046, p = 0.795) was found to be markedly low negative and statistically insignificant (p = 0.795) and total athletic identity showed - 2% variation in post-traumatic growth inventory. Hence it can be stated that total athletic identity of elite cricketers has no significant effect on post traumatic growth but the sub factors of AIMS, exclusivity, (r = 0.339\*, p = 0.046) showed positive and significant effect on personal strength and negative effectivity showed negative effect on spiritual change (r = -0.394\*, p = 0.019) domain of PTGI. It can be concluded that strong and higher athletic identity scores result lower PTGI and vice versa. Results also revealed that elite cricketers were found to be strongly associated with their identity which resulted in strong self-belief, confidence and optimistic to fight against odds and on the other hand increase in negative affectivity decrease the spiritual believes of elite cricketers.

**Keywords**: Athletic identity, Post traumatic growth, Deselection. Elite cricketers.

## Introduction

Sports can help participants physically, socially, academically, and professionally. Athlete is a person or individual who participates in a sport or activity that requires physical strength, stamina, agility, and skill. An athlete is a physically healthy, proficient, skilled, trained, active someone who frequently competes in organized activities with others in a field, either alone or as a team. Athlete introduces himself or herself with a particular persona and has a unique identity. The extent to which a person identifies with the athlete role and seeks validation of that role from others is referred to as athletic identity (Brewer, B. W., Van Raalte, J. L., & Linder, D. E., 1993). I'm a swimmer," or "I'm a cricketer," are some of the unique identities that many athletes in sports claim to be. It indicates that their individuality is important to them and that they desire to be known by their distinct identity (Symes, 2010). Throughout their professional careers, every athlete and sportsmen assumes a variety of identities, each of which has connotations and demands of both them and the world. Sportsmen's success is largely determined by societal standards and audience support, such as the need to be athletic fit. Athletic identity is comprised of two physiognomies: societal and self-identities. An athlete's social identity is judged by others, such as fans and the general public, but an athlete's self-identity is concerned with personal feelings, attitudes, beliefs, and emotions, among other things. Self-identity is further subdivided by two determinants: exclusivity and negative

effectivity. Exclusivity refers to one's belief in social recognition and appreciation, whereas negative effectivity refers to negative feelings related with one's participation in sports.

Social and self-identity are inextricably linked, and this influences athletes' conduct. The strength of an athlete's athletic identity is largely based on how they perceive themselves and how they want to be perceived by others. Athletes frequently rank their many identities in a hierarchy based on their relative importance. Athlete conduct plays a key role in identity choosing in athletics. The athlete's purposeful effort put into a certain competition, the exhibition of their conduct, and ultimately their success is all influenced by their salient identity. The majority of athletes are graded based on their prominence in their respective sports. Athletic identity is defined as "I am a Cricketer, 'I am a Cyclist,' I am a runner" introduction of an athlete. Other athletes notice and understand an athlete's social and self-identity. Athletic identity is critical to the success of any athlete's career. It assists athletes in developing their devotion to sports, fitness, competing at the highest level of sport, i.e. elite level, and achieving greatness through attaining the highest levels of sport (Cote, J., Baker, J., & Abernethy, B, 2007). An athlete's athletic identity can also cause difficulties and difficulty for coaches and other support staff, such as sport physiotherapists and De-selection sport psychologists. phenomenon; players/athletes face somehow or other at some point in their sporting career at elite level. The cause of de-selection could be injury, disciplinary issues or poor performance. In some cases, this de-selection is temporary as deselected players succeed to get their place back into team while in other cases, they fail to make a comeback and their de-selection becomes permanent. Deselection, either temporary or permanent, challenges the athletic identity of elite and as a result becomes a trauma for a player. Deselection has broad repercussions for athletes' careers, lives and their athletic identity.

Literature suggested different trauma survivors have different experience on their lives after certain traumas. Post traumatic growth has different affects and vary from person to person. Its intensity depends upon the nature of trauma and how one perceives the stressful event. Different athletes face different sort of traumas in their professional career and deselection is one of them. Deselection from a team has traumatic effects on athletes and its effect is subjective. The growth after trauma experience is vital for athlete's future endeavors and literature named growth as post traumatic growth. Post traumatic growth is a name of positive psychological occurs. could growth It multidimensional effects depends upon the nature of sport and personal dispositions. PTG may result less growth in one dimension but more growth in another dimensions. Deselection of a player or an athlete from a sport results into the posttraumatic growth which has different sides to it. The conceptualization of this term was provided by two psychologists Richard Tedeschi and Lawrence Calhoun in1995 at University of North Carolina. A traumatic life event results the posttraumatic growth (PTG), which is a "positive psychological change". Every traumatic incident in life like divorce, natural disaster, life threatening illness and major accidents brings some negative and positive changes in the lives of human beings. The positive changes are related to life priorities, goals and beliefs. People readjust their lives altering their views and bring positive changes in life style (Tedeschi, R. G., & Calhoun, L. G., 1996). Posttraumatic growth does not come as chosen fate but some aspects are by coping and choice (Janoff-Bulman, 1992). Calhoun and Tedeschi (1996) have elaborated five major dimensions of post traumatic growth. Athlete experiencing deselection and PTG, could perceive positive and changed spiritual and philosophical thinking. Athletes undergo

pragmatic self-identity and social identity which effects the potential ties with family, relatives, neighbors and friends. The factors which contribute during PTG and personal growth have been studied in diverse theories and models. The theories are stemmed on numerous research models and stress coping strategies (Lazarus. R. S.. & Folkman. S, 1984). The outcome and well accepted model is of Tedeschi & Calhoun, 1995 Posttraumatic growth model. Like the other models of Janoff Bulman, 1992 for posttraumatic growth which theorize that traumatic incident should be seismic and has the ability to destroy or shake the assumptive world of the individual. Cognitive engagement and rumination are the foundation stones of PTG theory

Athletic identity changes with the period of time and particularly these changes are visible nearing retirement. Athletic identity drops following termination of sports career which then smooths the post-career lives of athletes (Lavallee, D., Gordon, S., & Grove, J. R., 1997). The degree of voluntariness to retire is highlighted as an adjustment factor (Cecic Erpic, S., Wylleman, P., & Zupancic, M., 2004; Taylor, J., & Ogilvie, B. C, 1994). Although elite players are expected to go through career transition just like other professionals however mostly this transition process does not go smoothly in case of elite players. It might be due to the facts that since elite players get retired at such young age that they find it difficult to adjust. If athletic identity helps athletes to achieve glory and motivation for intense training and competition at highest level during their career, and on the other hand it causes problems for them when they have to undergo transition period of their life that leads them towards positive growth.

This study aims to track these changes that influence athletic identity of elite cricketers when they get to the deselection phase of their career. Just like existing sport literature, this study considers deselection as challenge to

athletic identity however it also hypothesis that deselection leads to posttraumatic growth, which helps one to get going in their lives which does not make the loss of athletic identity too bad for elites in their post-career lives. This decrease in athletic identity may help them to ponder over other opportunities in post-career life and also lead them towards better social adjustment and ultimately towards life satisfaction (Lisa Anne Martin, Gerard J. Fogarty & Majella J. Albion, 2014). This article considers deselection from team as a trauma and aimed to investigate the relationship of athletic identity and subsequent posttraumatic growth in elite cricketers. It will also provide empirical evidence of, what extent the athletic identity precipitates posttraumatic growth in Pakistani elite cricketers.

#### 2.Material and method

# 2.1Quantitative approach and Positivism

Positivism undertakes that knowledge can be increased through direct observation of the reality and that every phenomenon is an indicator of the truth (Riley, S., Sullivan, C., & Gibson, S., 2012). This approach that is epistemological in nature therefore favors the viewpoint of natural science through proposing and testing the hypothesis, and thus is associated with quantitative research methods (Breakwell, G. M., Smith, J. A., & Wright, D. B., 2012). Quantitative approaches therefore are apprehensive of statistical data that can be measured and analyzed through statistical procedures. Quantitative methods can divulge the extent one variable impacts other and under what conditions.

#### 2.2 Measures

Athletic identity measurement scale (AIMS) and Posttraumatic Growth Inventory (PTGI) were used to collect the data form the participants. Athletic identity is assessed via seven-item Athletic Identity Measurement scale (AIMS) (Brewer, B. W., Van Raalte, J. L., & Linder, D. E., 1993). Aims measures the extent to which an

individual identifies him/herself as an athlete. AIMS offers respondents to their level of agreement through seven items comprising sub factors, social identity, exclusivity, and negative affectivity on a six-point scale ranging from strongly agree to strongly disagree. (See annexure) similarly Posttraumatic Growth Inventory (PTGI) is used to measure PTGI (Tedeschi, R. G., & Calhoun, L. G., 1996). The PTGI scale has been developed to measure positive outcomes reported by participants of a study following traumatic experience/incident. Original PTGI contains 21 items that measure positive growth following traumatic experience in five sub scales/factors given as Relating to Other, New Possibilities, Personal Strength, Spiritual Change, Appreciation of Life. However, in this research PTGI was modified according to the needs of this research as its originally developed items which have been developed to monitor any traumatic incident were converted into specific questions related to trauma of deselection. PTGI scale produces a total tally of 20 and five sub-scale marks: Relating to others, New Possibilities, Personal strength, Spiritual change and Appreciation of life. PTGI distributed for this consisted of a scale ranging from strongly disagree to strongly agree. The data was analyzed on SPSS 23 version and results were accepted at significance level of (p < 0.05).

## 2.3 Participants

This study included elite cricketers who represented Pakistan's men's team international level in all three or at least one format i.e. tests, one day internationals and T20s in last twenty years and experienced de-selection. (80) eighty male cricketers were approached by the researcher, who have experienced deselection while representing Pakistan national team in tests, one day international (ODI, s) and Twenty twenty (T20). Forty-five (45) refused to respond. The questionnaires were sent to these cricketers after they agreed to participate in this study. Participants were given ample time to answer the questionnaires so that they could recall their experiences and reflect on their experiences. and post and also giving them enough time making answering convenient for them.

# 2.4 Procedure

The data was collected in multiple phase. Initially the respondents were contacted by the researcher through phone to acquire their availability and consent of participation. After the initial approval, participants signed a consent form that described the study, risks involved and possible outcomes, granting a written approval for part aking in this study. Ethical approval was granted by Lahore University Research Committee.

In the second phase the respondents were contacted again for their availability, time and location for the data collection Due to Covid 19 pandemic, few respondents had expressed reservations and shown reluctance in providing face to face interaction. In order to cope up their reservations, a mechanism was devised to provide options on mod of interaction. The respondents were offered multiple options for interaction including face to face interview, phone, Skype, Whats App and Zoom meeting application. Respondents have chosen their preferred mode of interaction depending on their reservation and concern. Few participants opted to provide face to face interview on their preferred location and time but majority of the participants preferred to provide on line interaction through zoom and phone calls, Skype and Whats App. In order to ensure the quality, the data, the questionnaires for quantitative data were sent to their email addresses, Whats App and home addresses, a week before so the respondents can make themselves familiar with the questions to answer the questions and recall their memories to express their de-selection experience.

# 2.5 Statistical Analysis

Descriptive statistics were used to study

The main aim of the study was to investigate if Athletic identity of elite cricketers has significant effect on their post traumatic growth following deselection. To test the assumption following hypothesis were tested at the significance level of (p < 0.05).

H<sub>0</sub>: There is a significant effect of athletic identity on posttraumatic growth following deselection

H<sub>1:</sub> There is no significant effect of athletic identity on posttraumatic growth following deselection

the variables which include information about mean, standard deviation, Furthermore, normality of data is checked through Shapiro - wilk test of normality. To generalize the results of sample on population, researcher employed correlation and multiple regression analyses techniques. The data was analyzed on SPSS 23.0 version and results were accepted at significance level of (p < 0.05).

**Table 1** Reliability of Scales (n=35)

| Scale                               | Item | Cronbach Alphas |
|-------------------------------------|------|-----------------|
| Post traumatic growth inventory     | 20   | 0.60            |
| Athletic identity measurement scale | 7    | 0.26            |

Table 1 showed the reliability of the instruments used in the study (AIMS) Athletic identity 0.26 and (PTGI) Post Traumatic Growth Inventory remained at 0.60 which is lesser than

0.70. Therefore, the items used to measure all variables are less reliable due to small sample size.

**Table 2** Normality of Data (n=35)

| Variables                           | Shapiro-Wilk |       |  |  |
|-------------------------------------|--------------|-------|--|--|
|                                     | Statistic    | Sig.  |  |  |
| Post traumatic Growth Inventory     | 0.977        | 0.671 |  |  |
| Athletic Identity Measurement Scale | 0.96         | 0.224 |  |  |

Table two (02) presented the findings of Shapiro-Wilk Test which show that all the variables are

normally distributed as the P value of each variable is greater than 0.05.

**Table 3** Descriptive Summary of variables and sub variables

| Variable                            | Mean  | Std. Deviation |
|-------------------------------------|-------|----------------|
| Athletic identity measurement Scale | 5.110 | 0.360          |
| Social identity                     | 4.60  | 0.535          |
| Exclusivity                         | 5.67  | 0.419          |
| Negative effectivity                | 5.31  | 0.676          |
| Post Traumatic Growth Inventory     | 4.001 | 0.496          |
| Relating to Others                  | 3.552 | 1.013          |

| New Possibilities    | 4.652 | 0.679 |
|----------------------|-------|-------|
| Personal Strength    | 4.295 | 0.565 |
| Spiritual Change     | 3.614 | 0.940 |
| Appreciation of Life | 3.942 | 0.944 |

Table 3 reported the descriptive summary of variables based on sampled data. The average score of athlete identity is (5.11 ±0.36) which shows high agreeableness of elite cricketers as they exhibit the strong sense of athletic identity with less variation in mean scores of athletic identities. the mean scores of Social identity (mean  $4.60 \pm .535$ ) shows that most of elite players agreed on their identity as cricketer in society with less variation in mean score. The mean scores of exclusivity (5.67± .419) showed most of the elite cricketers strongly agreed that cricket is most valuable thing in their life and hurt them emotionally with the mean scores of negative effectivity (5.31±676) with less variation in mean scores.

The mean and standard deviation score of post traumatic growth is (4.011± 0.49) which shows elite cricketers agree with post traumatic growth following de-selection experience Furthermore, the researcher has also analyzed post traumatic growth into five dimensions namely: Relating to Others, New Possibilities, Personal Strength, Spiritual Change, Appreciation of Life. The mean and standard deviation score of Relating to Others is (3.55  $\pm 1.01$ ) which shows that elite cricketers are different in source of post traumatic growth. The mean and standard deviation scores of new possibilities is  $(4.65 \pm 0.67)$  which shows that new possibilities are a source of post traumatic growth in majority of elite cricketers. The mean and standard deviation scores of s of Spiritual Change is  $(3.61\pm0.94)$  which shows that elite cricketers are agree on this attribute of post traumatic growth. The mean and standard deviation scores of appreciation of life is  $(3.94\pm0.94)$  which shows elite cricketers have partially agreed to appreciate their life after deselection. The mean and standard deviation scores of Personal Strength is  $(4.30\pm0.56)$  which shows that elite cricketers have personal strength as they have agreed on this attribute with less variation across the sample size.

# 5.9 Correlation Analysis

Correlation is an inferential statistical technique which is employed to gauge a relationship between various pairs of variables. This study employed spearman correlation to gauge the association between variables under study.

To achieve the objective, correlation analysis was employed to gauge the association between athletic identity and post traumatic growth and more over regression analysis was performed to measures the impact of athletic identity on post traumatic growth. The hypothesis devised for test were as under

H<sub>0</sub>. There is a significant effect of athletic identity on posttraumatic growth following deselection in elite cricketers?

H<sub>1</sub>. There is no significant effect of athletic identity on posttraumatic growth following deselection in elite cricketers

**Table 4** Correlation matrix of athletic identity and post traumatic growth inventory

# Correlations

| 0 1 0 0 1 1             |        |       |       |       |        |       |        |       |       |       |
|-------------------------|--------|-------|-------|-------|--------|-------|--------|-------|-------|-------|
| Serial of Variables     |        |       |       |       | _      | _     | _      |       |       |       |
| (Scales and Subscales ) | 1      | 2     | 3     | 4     | 5      | 6     | 7      | 8     | 9     | 10    |
| 1.Athletic Identity     | 1.000  |       |       |       |        |       |        |       |       |       |
| Measurement Scale       |        |       |       |       |        |       |        |       |       |       |
| 2.Social identity       | .769** | 1.000 |       |       |        |       |        |       |       |       |
|                         | .000   |       |       |       |        |       |        |       |       |       |
| 3.Exclusivity           | .481** | .092  | 1.000 |       |        |       |        |       |       |       |
|                         | .003   | .601  |       |       |        |       |        |       |       |       |
| 4. Negative effectivity | .664** | .214  | .202  | 1.000 |        |       |        |       |       |       |
|                         | .000   | .218  | .243  |       |        |       |        |       |       |       |
| 5.Post traumatic        | 086    | 103   | .280  | 041   | 1.000  |       |        |       |       |       |
| growth inventory        | .625   | .556  | .104  | .813  |        |       |        |       |       |       |
| 6.Relating to others    | .174   | .051  | .281  | .275  | .609** | 1.000 |        |       |       |       |
|                         | .316   | .771  | .103  | .109  | .000   |       |        |       |       |       |
| 7.New possibilities     | 015    | .118  | 086   | 074   | .404*  | 007   | 1.000  |       |       |       |
|                         | .931   | .501  | .624  | .673  | .016   | .967  |        |       |       |       |
| 8.Personal strength     | .126   | 118   | .265  | .208  | .297   | .099  | 128    | 1.000 |       |       |
|                         | .469   | .501  | .125  | .231  | .083   | .570  | .462   |       |       |       |
| 9.Spirtual change       | 202    | 087   | .121  | 290   | .605** | .186  | .053   | 019   | 1.000 |       |
|                         | .244   | .621  | .490  | .091  | .000   | .284  | .763   | .914  |       |       |
| 10.Appriciation of life | 086    | 066   | .184  | 053   | .740** | .241  | .500** | .094  | .263  | 1.000 |
|                         | .622   | .706  | .291  | .760  | .000   | .163  | .002   | .591  | .126  |       |

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

 $<sup>\</sup>ensuremath{^*}.$  Correlation is significant at the 0.05 level (2-tailed).

Table 4 showed that total scale correlation of athletic identity measurement scale with its subscales/items (Social identity (r = 0.769\*\*\*, p = 0.00) exclusivity (r = 0.481\*, p = 0.03) and negative effectivity (r = 0.664\*\*\*, p = 0.000), established a high positive relationship with statistical significant value of (p < 0.05). the relationship of social identity, with exclusivity (r = 0.092, p = 0.601) and negative effectivity (r = 0.214, p = .218) was found to be in very low positive negligible association and statistically insignificant value. Similarly, the relationship of exclusivity and negative effectivity was also found to be (r = 0.20, p = 0.243) negligible and insignificant.

Social identity relationship with post traumatic growth inventory was found to be (r = -0.103, p=.0556) markedly low negative and negligible association with statistically insignificant value (p = 0.542) which is (p > .05) that includes the association with other subscales, relating to others, (r = -0.051, p = 0.771), new possibilities (r = 0.118, p=0.501), personal strength (r = -0.118.p=0.501), Spiritual change (r = -0.087, p=.621) and Appreciation of life (r =-0 .066, p = 0.706). hence it can be stated that social identity factor of athletic identity did not significant relationship dimensions of post traumatic growth inventory.

Exclusivity relationship with post traumatic growth inventory was found to be ( $r=0.280\ p=0.104$ , very low positive association with statistically insignificant value of (p=0.104) which is (p>.05). The other subscales, relating to others was found to be (r=0.281, p=0.103), very low positive association with statistically insignificant value of (p=0.103) which is (p>.05), new possibilities ( $r=-0.086\ p=0.624$ ) found to be markedly low negative and negligible association with statistically insignificant p value (p=0.624) which is (p>.05), personal strength (r=0.265, p=0.125) found to be very low positive

with statistically insignificant value of (p=0.125) which is (p>.05). Spiritual change (r=0.121, p=0.490) found in very low positive association with statistically insignificant value of (p=0.490) which is (p>.05) and appreciation of life (r=0.184), p=0.291) was found to be markedly low positive and negligible association with statistically insignificant p value (p=0.29) which is (p>.05). hence it can be stated that exclusivity factor of athletic identity did not find any significant relationship with any dimension of post traumatic growth.

Negative effectivity relationship with post traumatic growth inventory was found to be (r = -0.041, p = 0.813) markedly low negative and negligible association with statistically insignificant value of (p = 0.813) which is (p>.05). the other subscales, relating to others was found to be (r = 0.275, p=0.109), very low association with statistically positive insignificant value of (p = 0.109) which is (p>.05), New possibilities (r=-0.074 p=0.673)found to be markedly low negative and negligible association with statistically insignificant p value(p = 0.673) which is (p > .05), personal strength (r = 0.208.p=0.231) found to be very low positive with statistically insignificant value of (p = 0.231) which is (p<.05), Spiritual change (r = -0.290, p= 0.09) found in low negative association with statistically significant value of (p=.091) which is (p > .05) and Appreciation of life (r = -0.053), p = 0.760) was found to be very low negative association with statistically insignificant p value (p = 0.760) which is (p >.05). hence it can be stated that negative effectivity factor of athletic identity found to be in low negative and insignificant relationship with all dimensions of post traumatic growth.

# 5.10 Regression Analysis

Regression analysis is an inferential statistics technique which is employed to gauge the causal connection among the variables of interest. This study had checked the impact of athletic identity and various personality traits on post traumatic growth. The model for this study is presented in 5 below.

**Table 5** Models of Multiple Regression Analysis of Athletic identity and Post traumatic growth.

| Model 1 | Independent variables | Dependent variable    |
|---------|-----------------------|-----------------------|
| 1       | Athlete identity      | Post traumatic growth |
| 2       | Social identity       | Relating to Others    |
|         | Exclusivity           |                       |
|         | Negative effectivity  |                       |
| 3       | Social identity       | New Possibilities     |
|         | Exclusivity           |                       |
|         | Negative effectivity  |                       |
| 4       | Social identity       | Personal Strength     |
|         | Exclusivity           |                       |
|         | Negative effectivity  |                       |
| 5       | Social identity       | Spiritual Change      |
|         | Exclusivity           |                       |
|         | Negative effectivity  |                       |
| 6       | Social identity       | Appreciation of Life  |
|         | Exclusivity           |                       |
|         | Negative effectivity  |                       |

# 5.10.2. Model 1

Model 1 of regression analysis is about the impact of athletic identity on post traumatic growth. The

results of multiple regression analysis are reported tables below which comprises of model summary, analysis of variance (ANOVA), and coefficient summary.

Table 6 Model Summary of Athletic identity and Post traumatic growth

| Model | R     | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|----------------------------|
| 1     | .046a | 0.002    | -0.028            | 0.5034                     |

a. Predictors: (Constant), AIMS

Table 6 showed the summary of the regression model which comprises of R (multiple correlation), R square, and Adjusted R square. The value of R is 0.046 which shows that the correlation among the variables of interest are

4.6%. R square is 0.02 which shows explanatory power of the model. The value of adjusted R square shows - 2% variation in post-traumatic growth because of athletic identity.

**Table 7** ANOVA of athletic identity and Posttraumatic growth

| Model Sum of Squares at Mean Square F Sig. | Model | Sum of Squares | df | Mean Square | F | Sig. |
|--|-------|----------------|----|-------------|---|------|
|--|-------|----------------|----|-------------|---|------|

| 1 | Regression | 0.017 | 1  | 0.017 | 0.069 | 0.795b |
|---|------------|-------|----|-------|-------|--------|
|   | Residual   | 8.362 | 33 | 0.253 |       |        |
|   | Total      | 8.380 | 34 |       |       |        |

a. Dependent Variable: Post traumatic Growth Inventory

Table 7 reports the validity of the model as evidenced by the score of F statistics. F (1,33) =0.069, p>0.05, R<sup>2</sup> = 0.002. This model is not of

good fit at any conventional level of significance as the P value of F statistics is greater than 0.05.

Table 8 Coefficient Summary of Athletic identity and post traumatic growth

| Mo | odel       | Unstandard | lized Coefficients | Standardized Coefficients | t      | Sig.  |
|----|------------|------------|--------------------|---------------------------|--------|-------|
|    |            | В          | Std. Error         | Beta                      | _      |       |
| 1  | (Constant) | 4.333      | 1.228              |                           | 3.529  | 0.001 |
|    | AIMS       | -0.063     | 0.240              | -0.046                    | -0.262 | 0.795 |

a. Dependent Variable: Post traumatic Growth Inventory

Table 8 reports the coefficient summary of athletic identity in relation with post traumatic growth of elite cricketers. There is negative but insignificant influence of athlete identity on post traumatic growth of elite cricketers.

## 5.11. Model 2

Model 2 of regression analysis is about the impact of different factors of athletic identity (social identity, negative effectivity, exclusivity) on relating to other dimension of post traumatic growth. The results of multiple regression analysis are reported in three tables which comprises of model summary, analysis of variance (ANOVA), and coefficient summary.

**Table 9** Model summary of athletic identity subscales on relating to others

# **Model Summary**

| Model | R           | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------|----------|-------------------|----------------------------|
| 2     | $0.335^{a}$ | 0.112    | 0.026             | 0.99935                    |

a. Predictors: (Constant), Negative effectivity, Exclusivity, social identity

Table 9 showed the summary of the regression model which comprises of R (multiple correlation), R square, and Adjusted R square. The value of R is 0.335<sup>a</sup> which shows that the correlation among the variables of interest are 33.5 %. R square is 0.112 which shows

explanatory power of the model. The value of R square showed 2 % of variation in relating to others because of negative affectivity, Exclusivity and Social identity factors of athletic identity.

Table 10 ANOVA of Athletic identity subscales and relating to others

b. Predictors: (Constant), AIMS

| ANO | VA | a |
|-----|----|---|
|-----|----|---|

| '     |            | Sum     | of |             |       |                    |
|-------|------------|---------|----|-------------|-------|--------------------|
| Model |            | Squares | df | Mean Square | F     | Sig.               |
| 2     | Regression | 3.917   | 3  | 1.306       | 1.307 | 0.290 <sup>b</sup> |
|       | Residual   | 30.959  | 31 | 0.999       |       |                    |
|       | Total      | 34.876  | 34 |             |       |                    |

a. Dependent Variable: Relating to others

Table 10 reports the validity of the model as evidenced by the score of F statistics.

F (3,31) = .1.307, p >0.05, R<sup>2</sup>=0.112. This model is not of good fit at any conventional level of significance as the P value of F statistics is greater than 0.05.

**Table 11** Coefficient Summary of Athletic identity sub scales and relating to others

## Coefficients<sup>a</sup>

|       |                      |               |                 | Standardized |        |       |
|-------|----------------------|---------------|-----------------|--------------|--------|-------|
|       |                      | Unstandardize | ed Coefficients | Coefficients |        |       |
| Model |                      | В             | Std. Error      | Beta         | t      | Sig.  |
| 2     | (Constant)           | -0.874        | 2.833           |              | -0.308 | 0.760 |
|       | Social identity      | -0.145        | 0.328           | -0.076       | -0.442 | 0.662 |
|       | Exclusivity          | 0.610         | 0.411           | 0.253        | 1.486  | 0.147 |
|       | Negative effectivity | 0.307         | 0.260           | 0.205        | 1.180  | 0.247 |

a. Dependent Variable: Relating to others

Table 11 reports the coefficient summary of various factors of athletic identity (social identity, effectivity, exclusivity) in relation to relating to others. There is negative and insignificant effect of social identity on relating to others because (p< 0.05) however exclusivity and negative effectivity factor of athletic identity had a positive and insignificant effect on relating to others factor of post traumatic growth.

#### 5.12. Model 3

Model 1 of regression analysis is about the impact of different factors of athletic identity (social identity, negative effectivity, exclusivity,) on new possibilities dimension of post traumatic growth. The results of multiple regression analysis are reported in three tables which comprises of model summary, analysis of variance (ANOVA), and coefficient summary.

**Table 12** Model Summary of Athletic identity sub scales and new Possibilities **Model Summary** 

| Model | R           | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------|----------|-------------------|----------------------------|
| 3     | $0.106^{a}$ | 0.011    | -0.084            | 0.70732                    |

a. Predictors: (Constant), Negative effectivity, Exclusivity, social identity

Table 12 reports the summary of the regression model which comprises of R (multiple

correlation), R square, and Adjusted R square. The value of R is 0.106<sup>a</sup> which shows that the

b. Predictors: (Constant), Negative effectivity, Exclusivity, social identity

correlation among the variables of interest are 10.6 %. R square is 0.011 which shows explanatory power of the model. The value of adjusted R square showed -8 % variation in new

possibilities because of negative affectivity, Exclusivity and Social identity factors of athletic identity.

Table 13 ANOVA Summary of Athletic identity sub scales and new possibilities

# **ANOVA**<sup>a</sup>

|      |            | Sum     | of |             |       |                    |
|------|------------|---------|----|-------------|-------|--------------------|
| Mode |            | Squares | df | Mean Square | F     | Sig.               |
| 3    | Regression | 0.178   | 3  | 0.059       | 0.118 | 0.949 <sup>b</sup> |
|      | Residual   | 15.510  | 31 | 0.500       |       |                    |
|      | Total      | 15.687  | 34 |             |       |                    |

a. Dependent Variable: New possibilities

Table 13 reports the validity of the model as evidenced by the score of F statistics. This model F (3,31) = 0.118, p>0.05, R<sup>2</sup> = 0.011. This model

is not of good fit at any conventional level of significance as the P value of F statistics is greater than 0.05.

Table 14 Coefficient Summary of Athletic identity sub scales and new Possibilities

# Coefficients<sup>a</sup>

|       |                      | Unstandar  | dized      | Standardized |        |       |
|-------|----------------------|------------|------------|--------------|--------|-------|
|       |                      | Coefficier | nts        | Coefficients |        |       |
| Model |                      | В          | Std. Error | Beta         | t      | Sig.  |
| 3     | (Constant)           | 5.515      | 2.005      |              | 2.751  | 0.010 |
|       | Social identity      | 0.046      | 0.232      | 0.037        | 0.200  | 0.843 |
|       | Exclusivity          | -0.134     | 0.291      | -0.082       | -0.459 | 0.649 |
|       | Negative effectivity | -0.060     | 0.184      | -0.060       | -0.325 | 0.747 |

a. Dependent Variable: new possibilities

Table 14 reports the coefficient summary of various factors of athletic identity (social identity, effectivity, exclusivity) in relation to new possibilities dimension of post traumatic growth of elite cricketers. There is positive but insignificant effect of social identity on new possibilities factor of post traumatic growth, however exclusivity and negative effectivity factors of athletic identity were found to be negative and insignificant effect on new possibilities factor of post traumatic growth of elite cricketers.

#### 5.13 Model 4

Model 4 of regression analysis is about the impact of different factors of athletic identity (social identity, negative effectivity, exclusivity) on personal strength dimension of post traumatic growth. The results of multiple regression analysis are reported in three tables which comprises of model summary, analysis of variance (ANOVA), and coefficient summary

b. Predictors: (Constant), Negative effectivity, Exclusivity, social Identity

**Table 15** Model Summary of Athletic identity sub scales and personal strength

# **Model Summary**

| Model | R           | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------|----------|-------------------|----------------------------|
| 4     | $0.386^{a}$ | 0.149    | 0.066             | 0.54558                    |

a. Predictors: (Constant), Negative effectivity, Exclusivity, social identity

Table 15 shows the summary of the regression model which comprises of R (multiple correlation), R square, and Adjusted R square. The value of R is 0.386<sup>a</sup> which shows that the correlation among the variables of interest are 38.6 %. R square is 0.149 which shows

explanatory power of the model. The value of adjusted R square showed 6 % variation in personal strength because of negative affectivity, Exclusivity and Social identity factors of athletic identity.

Table 16 ANOVA of Athletic identity sub scales and personal strength

## **ANOVA**<sup>a</sup>

| Model |            | Sum of Squares | df | Mean Square | F     | Sig.        |
|-------|------------|----------------|----|-------------|-------|-------------|
| 4     | Regression | 1.611          | 3  | 0.537       | 1.804 | $0.167^{b}$ |
|       | Residual   | 9.227          | 31 | 0.298       |       |             |
|       | Total      | 10.838         | 34 |             |       |             |

a. Dependent Variable: personal strength

Table 16 reports the validity of the model as evidenced by the score of F statistics. This model F (3,31) = 1.804, p >0.05, R<sup>2</sup> =0.149 is not of

good fit at any conventional level of significance as the P value of F statistics is greater than 0.05.

Table 17 Coefficient Summary of athletic identity sub scales and personal strength

## Coefficients<sup>a</sup>

|       |                      |             |                   | Standardized |        |       |
|-------|----------------------|-------------|-------------------|--------------|--------|-------|
|       |                      | Unstandardi | ized Coefficients | Coefficients |        |       |
| Model |                      | В           | Std. Error        | Beta         | t      | Sig.  |
| 4     | (Constant)           | 1.788       | 1.546             |              | 1.156  | 0.256 |
|       | Social identity      | -0.151      | 0.179             | -0.144       | -0.847 | 0.404 |
|       | Exclusivity          | 0.449       | 0.224             | 0.333        | 2.003  | 0.054 |
|       | Negative effectivity | 0.124       | 0.142             | 0.148        | .870   | 0.391 |

a. Dependent Variable: personal strength

Table 17 reports the coefficient summary of various factors of athletic identity (social identity, effectivity, exclusivity) in relation to personal

strength dimension of post traumatic growth. There is negative and insignificant effect of social identity on personal strength because (p< 0.05),

b. Predictors: (Constant), Negative effectivity, Exclusivity, social identity

however exclusivity had positive and significant effect on personal strength. negative effectivity factor of athletic identity had positive and insignificant effect on personal strength. Hence it can be stated that only exclusivity had a positive and significant effect on personal strength. rest of the factors had negative and but insignificant effect on personal strength.

### 5.14 Model 5

Model 5 of regression analysis is about the impact of different factors of athletic identity (social identity, negative effectivity, exclusivity) on spiritual change factor of post traumatic growth. The results of multiple regression analysis are reported in three tables which comprises of model summary, analysis of variance (ANOVA), and coefficient summary.

**Table 18** Model summary of athletic identity subscales and spiritual change

| Model | R                  | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 5     | 0.448 <sup>a</sup> | 0.200    | 0.123             | 0.88030                    |

Predictors: (Constant), Negative effectivity, Exclusivity, social identity

**Table 19:** ANOVA of Athletic identity subscales and spiritual change

| ANO | VAa |
|-----|-----|
|-----|-----|

|       |            | Sum     | of |             |       |                    |
|-------|------------|---------|----|-------------|-------|--------------------|
| Model |            | Squares | df | Mean Square | F     | Sig.               |
| 5     | Regression | 6.020   | 3  | 2.007       | 2.590 | 0.071 <sup>b</sup> |
|       | Residual   | 24.023  | 31 | 0.775       |       |                    |
|       | Total      | 30.043  | 34 |             |       |                    |

a. Dependent Variable: spiritual change

Table 19 reports the validity of the model as evidenced by the score of F statistics.

F(3,31) = 2.590, p > 0.05,  $R^2 = 0.200$  This model is not of good fit at any conventional level of significance as the P value of F statistics is greater than 0.05.

**Table 20:** Coefficient summary of athletic identity subscales and spiritual change.

Coefficients<sup>a</sup> Unstandardized Standardized Coefficients Coefficients Model В Std. Error Beta Sig. 5 (Constant) 4.823 2.495 1.933 0.062 Social identity -0.1730.289 -0.098-0.5980.554 0.436 0.362 0.194 1.204 0.238 **Exclusivity** -0.5430.229 -0.391Negative effectivity -2.3710.024

b. Predictors: (Constant), Negative effectivity, Exclusivity, social identity

a. Dependent Variable: spiritual change

Table 20 reports the coefficient summary of various factors of athletic identity (social identity, effectivity, exclusivity) in relation to spiritual change dimension of post traumatic growth. There is negative and insignificant effect of social identity on spiritual change, negative effectivity with negative but statistically significant because (p< 0.05) on spiritual change, however exclusivity factor of athletic identity was found to be positive and insignificant effect on spiritual change. Hence it can be stated that negative

effectivity decreases the spiritual change dimension of post traumatic growth.

# 5.15 Model 6

Model 6 of regression analysis is about the impact of different factors of athletic identity (social identity, negative effectivity, exclusivity) on appreciation of life. The results of multiple regression analysis are reported in three tables which comprises of model summary, analysis of variance (ANOVA), and coefficient summary.

**Table 21:** Model summary of athletic identity subscales and appreciation of life

|       |        |          | Adjusted | R                          |
|-------|--------|----------|----------|----------------------------|
| Model | R      | R Square | Square   | Std. Error of the Estimate |
| 6     | 0.227a | 0.051    | -0.040   | 0 .96336                   |

a. Predictors: (Constant), Negative effectivity, Exclusivity, social identity

Table 22 showed the summary of the regression model which comprises of R (multiple correlation), R square, and Adjusted R square. The value of R is 0.227<sup>a</sup> which shows that the regression model correlation among the variables of interest are 22.7%. R square is 0.05 which

shows explanatory power of the model. The value of adjusted R square showed - 4 % variation in appreciation of life because of negative affectivity, Exclusivity and Social identity factors of athletic identity.

**Table 22** ANOVA of athletic identity subscales and appreciation of life **ANOVA**<sup>a</sup>

| Model |            | Sum of Squares | df | Mean Square | F     | Sig.        |
|-------|------------|----------------|----|-------------|-------|-------------|
| 6     | Regression | 1.560          | 3  | 0.520       | 0.560 | $0.645^{b}$ |
|       | Residual   | 28.770         | 31 | 0.928       |       |             |
|       | Total      | 30.330         | 34 |             |       |             |

a. Dependent Variable: appreciation of life b. Predictors: (Constant), Negative effectivity, Exclusivity, social identity

Table 22 reports the validity of the model as evidenced by the score of F statistics. This model F (3,31)=.560, p >0.05, R<sup>2</sup>=.051 is not of good fit at any conventional level of significance as the P value of F statistics is greater than 0.05.

Table 23 Coefficient summary of athletic identity subscales and appreciation of life

#### Coefficients<sup>a</sup>

|       |                      |                                    |            | Standardized |        |       |
|-------|----------------------|------------------------------------|------------|--------------|--------|-------|
|       |                      | <b>Unstandardized Coefficients</b> |            | Coefficients |        |       |
| Model |                      | В                                  | Std. Error | Beta         | t      | Sig.  |
| 6     | (Constant)           | 4.015                              | 2.731      | <del>-</del> | 1.470  | 0.152 |
|       | Social identity      | -0.019                             | 0.316      | -0.011       | -0.059 | 0.953 |
|       | Exclusivity          | 0.267                              | 0.396      | 0.118        | 0.674  | 0.505 |
|       | Negative effectivity | -0.282                             | 0.251      | -0.202       | -1.126 | 0.269 |

a. Dependent Variable: appreciation of life

Table 23 reports the coefficient summary of various factors of athletic identity (social identity, effectivity, exclusivity) in relation to appreciation of life dimension of post traumatic growth. There is negative and insignificant effect of social identity and, negative effectivity with negative but statistically insignificant because (p< 0.05) on appreciation of life, however exclusivity factor of athletic identity was found to be positive and insignificant effect on appreciation of life. Hence it can be stated that social identity, exclusivity and negative effectivity have no significant effect on appreciation of life dimension of post traumatic growth.

## Results

The study had two objectives. Primary to investigate the relationship of athletic identity and post traumatic growth following deselection and secondary to what extent athletic identity precipitate the PTGI following deselection in elite cricketers. Results revealed athletic identity measurement scale (AIMS) assessing athletic identity is not correlated with post traumatic growth inventory (PTGI) at any significant level, although it showed the inversely proportional relationship trend, explaining that higher AIMS scores were indicators of decreased post traumatic growth while lower athletic identity measurement scale (AIMS) scores indicated the increased post traumatic growth. It has also found that some of athletic identity factors have significant relationship with domains of post traumatic growth. The other sub factors and domain of growth were also tested and found to be in relationship as reported in table five 5. On the basis of these finding Ho is rejected and  $H_1$  is accepted that there is no significant effect of athletic identity on post traumatic growth of elite cricketers.

#### **Discussion**

The study aimed to investigate the relationship of athletic identity and post traumatic growth following deselection in elite cricketers of Pakistan. Results revealed that athletic identity measurement scale (AIMS) assessing athletic identity is not correlated with total post traumatic growth inventory (PTGI) at significant level, although it showed the inversely proportional relationship trend, explaining that higher AIMS scores are indicators of decreased post traumatic growth while lower athletic identity measurement scale (AIMS) scores indicated the increased post traumatic growth. Hence it can be stated that total athletic identity of elite cricketers has no significant relationship with post traumatic growth but the sub factors of AIMS, exclusivity, showed positive and significant relationship with personal strength and negative effectivity showed negative relationship with spiritual change domains of PTGI. It can be concluded that strong and higher athletic identity scores result lower PTGI and vice versa. Elite cricketers may have

been associated with their identity which resulted in self-belief, confidence and optimism to fight against odds and on the other hand increase in negative affectivity decrease the spiritual believes of elite cricketers or vice versa.

This study finding suggested that deselection by different causes e.g. injury, bad disciplinary performance, issues and voluntary/involuntary retirement that results into trauma can have positive posttraumatic growth for players as posttraumatic repercussions. Trauma that initially creates negative consequences including coping issues and mental challenges as well as challenges to athletic identity, later on, could be a blessing in disguise that offers athletes with opportunities of growth within and outside the framework of sport. A key factor is the age of cricketers and the level of athletic identity and most importantly at what age they experience the deselection trauma. Cricketers at relatively young age may have adopt strong athletic identity and have different interpretation and subsequent reaction to deselection in terms of coping mechanism and behavior pattern. They found to be over committed towards training and practice with increased level of motivation and discipline and prone to a potential risk which can lead to burnout and overtraining habits. Over training of an athlete can cause emotional conditions and behavioral patterns, which leads to anxiety and trauma like situations when not training. The athlete with strong athletic identity are more likely to captivate in risk taking activities which include performance enhancing drugs during deselection, injury and rest periods. These finding supported the proposition of Brewer et al., 2000 that deselection appeared to represent a threat to the adolescents' identity and sense of self. While a strong athletic identity has been associated with an over commitment to the athletic role—a potential risk factor for emotional difficulties during transitions away from sport—it can also provide the motivation and discipline necessary for intense training that is often a prerequisite condition for success in competitive sport.

On the other hand, cricketers who have experience deselection trauma at the later stage or nearly end of their career seems to thinking about switching towards other opportunities like other associated roles namely coaching, officials, management. These findings endorsed the findings of Lavallee.et.al 1997 that athletic identity decrease as the result of deselection in those, who experienced this trauma later stage of their career. It triggers and enforce the athletes to thinking of exploring other opportunities within and outside the frame work of sports. Most of the cricketer get involved in supporting roles like coaching, officiating and other sports related This study establishes businesses. deselection by different causes e.g. injury, bad performance, disciplinary issues voluntary/involuntary retirement that results into trauma can have positive posttraumatic growth for players as posttraumatic repercussions but it is domain specific. The study findings suggested personal strength and spiritual change are significant effected by the athletic identity .it can be concluded that deselection, initially creates negative consequences including coping issues and mental challenges as well as challenges to athletic identity, later on, could be a blessing in disguise that offers athletes with opportunities of growth within and outside the framework of sport

There are a number of strong points and limitations that might be taken into account while inferring the findings. Limitations of this study include a relatively small sample size that was mostly homogenous and findings cannot be generalized to any other sport or population. The findings are only pertinent to elite male cricketers and growth process could be different if study was conducted with a different population and participants from different socio-economic background. Participants' predispositions and reflective recall are also limitations of this study.

It is likely that responses could be subjected to the memory bias and social appeal. In order to deal with memory bias and social appeal, participants were provided with the opportunity to give responses through questionnaires. Despite the limitations this study the findings provide new insights into the deselection process and offer a few practical implications for people linked to the game of cricket may be required to better assist and help the deselected players and understand the process of deselection.

The findings of this study suggest that trauma related growth has potential to be an informative area of future investigation. Although this study investigated the impact of deselection of Pakistani male cricketers from national team on players however another study should be conducted with a long term perspective as most of these players were deselected in recent past. Many of these were trying to get back to team that could be considered as a limitation as far as the scope of this study is concerned. A follow up research could be executed with different set of participants from relatively old players who are on different stages of their life (having been permanently deselected for a long time). Thus, they could share their perspective on not only their deselection and coping experience but how they applied these experiences in other domains of life after sports. Moreover, future research should also incorporate the experience of those players who have been deselected for so long that they are totally disengaged from sport to study the impacts of permanent deselection. Moreover, although this study took certain measures in form of data collecting instruments to measure posttraumatic growth however PTG may vary depending on the levels of athletic identity as with lower or higher athletic identity. PTG could fluctuate. Furthermore, future investigation probing differences in positive growth by sport type (e.g. individual vs. team) may shed more light on the nature and relevance of social interactions across different sport formats.

There are a number of other pathways for future studies in the domain of posttraumatic growth that can be deduced from this study. It would be worth researching to investigate the role of deselection related awareness plays in deselected cricketers' psychological response towards being deselected. More specifically, it might be beneficial to explore whether this process could be branded as denial/refusal. This aspect of research would also be helpful to ascertain what psychological models elaborate psychological responses and adjustments to athletic identity.

Moreover, research results and findings will help people attached to sports to support PTG in cricketers who then can benefit from guidance for the experience they are likely to counter in their career and life.

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