LINGUISTIC VALIDATION OF: ATHLETIC IDENTITY MEASUREMENT SCALE (AIMS-PLUS) IN PAKISTANI ATHLETES

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ABSTRACT:

The variety of the sports athletes worldwide possess a great need for cross-culturally validated research instruments or scales. In the past few years, the AIMS-Plus (Cieslak, 2004) a shorter edition was translated, validated and adapted in different languages, cultures and countries, therefore, we aimed to translate it in Urdu language for Pakistani Athletes. Initially AIMS consisted of 15 items but a recent and most commonly used updated version in this study, AIMS-Plus contained 10 items. This scale measures athlete's social, cognitive and affective/ emotional sports-related identities assessing their opinions, beliefs and routine life. It also evaluates their attachment and association to sports. A high Reliability coefficients was found .82. Each item was assessed on a seven-point Likert scale. AIMS-Plus was utilized in several studies, investigating sports athletes from diverse populations. The present study was validated on Pakistani Athletes (N = 220) with an age range of M=24.35, SD=5.6. A Factor analysis through Structural Equation Modelling SEM-AMOS, was carried out using the confirmatory approach and validated the factorial structure. Results revealed strong psychometric properties of AIMS-Plus which are in line with those of the initial validation studies. These findings imply that AIMS-plus appears to be an acceptable psychometric tool and a good scale to be investigated in athlete's identity-related researches and intervention.

Keywords: *Athletes identity, Athletes (Social, Cognitive and Affective/ Emotional) identities, Structural Equation Modeling, Pakistani Sports Athlete's.*

Background: Sports psychology researchers need to have valid and reliable scales of concepts in their own cultural values, beliefs and languages in order towards carry out multicultural sports-related studies. Even though there are many well-known methodologies of translating, acclimating and validating sports related assessment measures and scales for use in multicultural studies. There are

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countless dissimilarity in the use of these methods in the sports psychology works. This article aimed to analyzed available advice on multicultural validation procedures for AIMS-Plus and propose a simple, effective version for use in sports related research field.

Procedure: The translation and linguistic validation of a scale can be very time-consuming and requires a great deal of planning and the use of reliable, carefully-crafted methodological approaches in order to obtain a valid measure of the concept at hand (in this case, Sports Athletes) is the target population.

Recommendations: Commendations were compiled into a few, easy-to-follow steps. Each step was outlined with its key points highlighted, and an example project illustrating the proposed steps of the guideline was provided in full.

Objective: The AIMS-Plus is a unique tool that assesses an athlete's overall commitment to their sport, and it has been utilized in numerous research studies around the globe. This instrument has already been translated into several languages, yet there is not a validated Pakistani version (in Urdu Language). Thus, our main goal is to create a valid translation of the AIMS-Plus.

Method: Following MAPI guidelines, a forward-backward procedure was put into practice with multiple forward and backward translations created. A group of reviewers then assessed the conceptual and semantic likeness between the original and modified versions. In order to bring more language diversity to the target populations, professional translators with bilingual backgrounds were recruited. Then, the AIMS was administered on 220 Pakistani athletes in sports.

Assessment Measure: In 2004, Cieslak developed AIMS-Plus, a homogenous and psychometrically comprehensive measure to test an athlete's identity. The original AIMS contained 15 items, while the recent and updated version used in this study had 10 items.

AIMS-Plus measured three domains of identity; social, cognitive and affective elements of athletic identity.
Results: Confirmatory factor analysis (CFA) of AIMS-Plus showed similar and almost identical factor loadings of these items and acceptable validation between the original and translated versions. Furthermore, Cronbach's alpha coefficient was high for both versions and for each factor.

INTRODUCTION:

The athletic identity of Pakistani athletes is dependent on various psychosocial factors. To have better comprehension, it is significant to consider how social, emotional, affective and psychological factors interact to modify the experiences of athletes in the country.

Emotional factors such as self-confidence, mental health, and emotional resilience are significant components of the athletic identity of Pakistani athletes. Self-confidence is decisive for any athlete to have, as is the ability to manage their mental health and emotional states. Mental health issues and depression can lead to diminished performance and a lack of enjoyment in the sport.

Social factors, such as the support networks of family and friends, social status, and access to resources, can also affect the quality of life of Pakistani athletes. Family support can be invaluable to an athlete, especially if they are able to access resources such as coaching, equipment, and medical help. Social identity status can also affect the degree of recognition and respect an athlete receives, and having access to the right resources can make a huge difference in the level of success they are able to achieve.

Athletic Identity:

Leary and James (2013), proposed that a person's thoughts, emotions, and feelings are all based on the idea of "self or identity". Psychologists have come up with theories around the concepts of personal versus social or singular versus multiple aspects. It is

believed that one does not choose their identity consciously; it is an unconscious process that changes with an individual's different roles in society (Lankton, 2015). For example, the identities of an athlete, parent, teacher, student and musician can all coexist within one person to form their identity (Syed & McLean, 2017). Additionally, Erickson suggested that it is impossible for someone's identity to develop in isolation; culture and environment play a key role in its development (Syed & McLean 2017).

Social Identity Theory states that an individual's identity is determined by their identification with a particular social group or category, such as a sports team. This preference is based on the perceived benefits they get from being part of the group, which leads to affirmation of their identity. However, this theory suggests that this identity affirmation also depends on acceptance of their role and internalization of it. An example would be Charles Barkley rejecting the title of celebrity athlete given to him by the public. Moreover, due to changing circumstances in life and career, people can move in or out of a group position and their identities can be fluid.

The concept of Athletic Identity was first put forward by Britton Brewer back in the 1990s when research in sports psychology began to gain traction. Athletic Identity is determined by how an individual identifies and relates to their role as an athlete, and how much attention they pay to it as opposed to other activities in life. (Edison, et.al., 2021).

In earlier research, rather than viewing an athlete as an identity category, the primary focus was on how the different personality traits of athletes enabled them to succeed more than others athletes. Athletic identity is not a static feature and is on a continuum for some; it may just be a small aspect of life whereas for others it may encompass much more (Watson, 2016). Factors that may influence athletic identity include relationships, life experiences and how actively an athlete engages in sports or sports-related activities.

Individuals with a strong athletic role identification use various performance enhancing strategies, something that can have damaging effects. These athletes tend to strive for perfection and over-conform to the athlete ethos, while they may even resort to illegal drugs such as steroids or other performance enhancers in order to remain competitive. Furthermore, they are often willing to continue playing through injuries and fatigues (Coker Cranney et al., 2018).

Teenagers and young adults who are part of sports life social networks tend to be less prone to anomie and its negative psychosocial implications (Jayanthi et al., 2015). Anomie is a breakdown of social norms which increases risk factors like psychological problems, social isolation and other mental health disorders (Teymoori et al., 2017). Engaging in different sports has also been found to reduce risk of hopelessness, depression and suicidal ideation among adolescents (Diaz et al., 2019; Eime et al., 2013)

Significance Related to Athletic Identity:

The extent to which athletes identify with their roles as athletes is known as Athletic Identity. It goes beyond this to encompass how the individual views others and seeks their acknowledgment of the role (Heird & Steinfeldt, 2013). In essence, such role identification can be classified as a form of self-schema. Participation in sports provides an opportunity for making societal report about who others will perceive them in future. Athletic-identity also involves mastering certain skills, interacting with teammates during sports and developing confidence - all of which contribute to its cognitive and social aspects (Zanin et al., 2021). Ultimately, it can help athletes cope with potentially career-threatening situations by inspiring them to persevere (Barkoukis, 2015).

Brewer et al. (1993) proposed the concept of athletic-identity, which was connected to both positive and negative consequences.

Subsequent research demonstrated that individuals possessing higher levels of athletic identity are likely to define themselves primarily by their performance in sports and experience heightened self-confidence, meaningful self-identity, and increased social interaction (Weinberg et al., 2013; Watson, 2016; Crisp & Alvarado-Young, 2018). The protective role of strong athletic identity can be especially beneficial during disruptive events (Martin et al., 2014). Additionally, this form of identity is thought to influence the athlete's self-concept, which in turn motivates behavior and shapes self-esteem and affect (Huang et al., 2015; Guerrero & Martin, 2018). Importantly, success within a primary identity also impacts other parts of an individual's life due to feelings of competence (Marcuse 2013; Guerrero & Martin 2018).

Athletes with a high athletic identity have been found to possess numerous benefits, such as decreased anxiety, improved body image and increased motivation. Moreover, these athletes tend to be more self-disciplined than their counterparts who possess a low athletic identity (Reifsteck et al., 2013; Lamont-Mills & Christensen, 2006). Furthermore, they often display healthier lifestyle habits in comparison to those with a lower athletic identity (Fortin et al., 2014). Rhodes and Kates (2015) suggested that physical ability has an important role in predicting an individual's involvement in physical activity.

Nevertheless, developing a strong athletic identity may also come with potential risks associated with it. For instance, participants may become over-invested emotionally and this could result in foreclosed identity (Brewer & Petitpas, 2017; Howe, 2020). Additionally, Weigand et al. (2013) and Lindqvist et al. (2014) have shown that individuals who highly identify themselves by their athlete role can be more likely to suffer from stress when prevented from participating in their desired sport due to external factors.

Identity foreclosure is a commitment to an occupation or ideology without engaging in exploration (Brewer & Petitpas,

2017). It could be argued that athletes devote most of their time and energy in developing their bodies, minds and behavior so they can succeed in sport, leaving them with little time to explore other life facets or different professions (Benson et.al. 2015). On the contrary, (Carless & Douglas, 2013) observed the thing that when it approaches to sprinters this assumption was not supported and they were found to have contented family and social lives. Furthermore, Turton et al. (2017) highlighted the potential psychological risks associated with intensely identifying with one's role as an athlete.

Injury and sports commonly go hand in hand, and athletes with stronger athletic identities might have difficulty coping when they are sidelined or forced to retire. This can result in lowered confidence and may even lead to depression according to Renton et al. (2021). School and college athletes tend to recover faster from injuries due to their exclusive identification with the athlete role, per Podlog et al. (2013). Along with this, those with a strong athletic identity experience increased "stereotype threat" - being at risk of confirming a negative stereotype about one's group - which can contribute to poorer performance in academic arenas (Feltz,et, al. 2013; Yopyk & Prentice, 2005). In 2013 Feltz further discovered an association between athletes' perceptions of how their coach views their academic capabilities and their athletic role identification could be observed; implying that those heavily invested in the athlete role are more likely to see themselves as "dumb jocks" in an academic setting.

Retirement is an unavoidable phase of life for athletes, and it can be especially hard to amend after superannuation and especially when they attached their self's with their respective sports. This transition varies between individuals; athletes with a strong sense of athletic identity tend to find the difficulty the greatest. Female athletes who focus on sports such as gymnastics often struggle the most, as they reach peak performance at a very young age - 16-20. Not planning for life after retirement means

those with a robust athletic identity lack decision making skills necessary for successful post-sport careers. Failing to plan ahead leads to feelings of frustration and displacement later on in life.

Sport figures with a strong athletic identity may be at risk of experiencing certain downsides, such as emotional difficulties or eating and substance abuse disorders (Gapin & Petruzzello, 2011 ; Reardon, & Creado, 2014). This predisposition to continue playing despite injuries is probably have a damaging influence on their wellbeing (Weinburg, et.al. 2013). Additionally, over commitment to sports could lead to restrained development of one's self-concept (Hollings, et.al. 2014) and psychological and physical harm (Nixon, 2014; Griffith & Johnson, 2012). It should however be noted that having an athletic identity is beneficial in promoting regular exercise and is not wholly negative, being present in most elite athletes.

Athletic Identity and Athletic Culture:

Recent studies have examined the overlap between men's expectations and athletic culture. Due to their similarities - competitiveness, sternness and aggression - athletes who subscribe to these values may subsequently struggle with help-seeking behaviors when confronted with emotional issues or troubles in their interpersonal relationships. It is important to be mindful of the use of "masculinity" with respect to sports as it can lead to gender-based bias; for example, in Knoppers & McDonald (2010), it was formerly stated that sports "masculinize" women.

The main problem is the elevation of men above all other genders (Knoppers & McDonald, 2010). This results in an overlap of athletic norms and male role norms which can be detrimental to athletes. Greater adherence to the athletic role may lead to greater gender role conflict (GRC), which is often the result of gender role socialization for men (Steinfeldt et al., 2010; Steinfeldt & Steinfeldt, 2010; Steinfeldt & Steinfeldt, 2012). This can manifest itself in an individual who devalues himself or

others, limiting his own rights or those of others (O'Neil, 2008, p. 362). A high GRC is associated with several adverse effects, including depression and anxiety, difficulties in interpersonal relationships, and decreased willingness to seek help (Reardon et al., 2019; Steinfeldt et al., 2010).

Athletes are impacted by sports culture or athletic culture in a manner that is very similar because the values of these cultures tend to make athletes less sensitive to the effects of their emotions, physical pain, and emotional suffering. Because of this, athletes who strongly identify with and value their athletic identity are quite warmly constrained. (Melendez, 2009-10; Steinfeldt & Steinfeldt, 2010).

Dynamics of Athletic-Identity:

Individuality eliminate the boundaries of self-improvement in the athletes, multidimensional self-involvement in several identities that offer a defensive influence against disappointments in one or many scopes of life. Because of this individuality exclusion, athletes developed a very limited self-approach. Sports personal's and their trainers have argued on limited self-approach and consider it critical for optimal athlete growth. Although this kind of approach has vast and immense adverse significances including social inaccessibility, apprehension, after withdrawal downheartedness, difficulties experienced transitioning careers after superannuation, and professional irresponsibility. Athletes with strong athletic identity under important and certain circumstances are unable to play sports, for example cause of injuries or post-retirement, resultant in reduced self-respect, amplified unease or guilt. Athletes frequently experience individuality crises, as the only thing they bothered and identified with is gone, leaving them with a void (Miller, 2009; Messner, 2018).

METHOD:

The present study is a part of the large correlational study which was designed to assess the psychosocial aspects of perceived quality of life in Pakistani athletes. This study comprised of two phases: (i) Translation and linguistic adaptation of AIMS-Plus; (ii) Validation of its psychometric properties through SEM-AMOS.

Phase-(I) Translation and Linguistic Adaptation of AIMS-Plus:

In this phase detailed translation procedure study was carried out:

Panel of Experts: The professionals for this stage was a sports-psychologist (PhD), a sports-consultant (five years' experience with Pakistan Cricket Board (PCB)), some expert coaches (two men, one woman) from Punjab University of their particular sports (Soccer, Cricket, Track-and-field events) along with at least of a proper coaching experience and certification from their respective sports boards, some scholars (an assistant lecturer& one assistant professors) from the psychology field were on board in the panel. As a matter of fact their vast and critical expertise along with their contribution in their respective relevant areas. Educational professional has in-depth familiarity in the field of psychometrician and evaluation of assessment measures.

Translation of Scale: AIMS-Plus was initially developed in English, this step's goal was to translate it accurately. So that it can be easily understood by Pakistani athletes, it is necessary to assess it properly, improve the Urdu translation of this scale, and make it comparable to the English original. Assessment of this tool was the core aim of this whole translation process.

***Procedure*:** The experts were asked for a detailed review of the representational semantic, of the adverbs and verbs, terminological jargons of the customary or detailed importance of the study. Which experts recognize quite soundly. Few queries and consultations were asked by specialists at the time. Professionals were highly valued and appreciated for sparing their valuable moments for this kind of educational plus research project. The procedure for translating the MAPI guidelines (MAPI Research Trust, 2012) was followed below.

Forward and Backward Translation: It was mandatory to have multilingual professional fluent expert (Urdu the target language (TL) and English the source language (SL) to interpret the scale. In the first phase of the translation process MAPI guidelines were properly followed. Expert's panel committee composed of bilingual experts with understanding of two languages (Urdu and English), acquaintance of values and cultures (Overseas and Pakistani), and the last but most important skills and knowledge of scale development. A professor from the source language i.e. English department and two assistant professors from the psychology department who were expert in psychometrics were part of that multi-lingual professional team. When translating this content, syntax, tenses, query size, questions were taken into the attention. Standard operating procedures (SOP's) were strictly followed with the help of MAPI guidelines and Urdu translated version of AIMS-Plus were developed. To achieve the best results in the TL, the interpreters used two diverse kind of translation. Each based on a different theoretical procedure for standardized translation. Three experts from the Department of Psychology, sports coaches, and PCB consultants were part of the advanced interpretation team. Finally, the direct translation technique produced the most accurate translations according to member consensus. Various deliberations bring about the final version of Urdu translation of the scale. To evaluate, support and making it worthwhile TL panel of experts used direct translation approach for the translation process. It was pretty much cleared that those who work in the field of language have deep and professional understanding of subject at the hand. Reverse translation procedure was done in the guidelines of previously verified and translated versions in their original languages of the translation. This study clearly indicates that the sole purpose was to get social standardization and conceptual clarity of the scale for desired purposes.

Participants: A group of 220 athletes completed our questionnaires (127 men, 93 women). The participants could be distributed in

different sports modalities (cricket, hockey, football, rugby, badminton, boxing, table tennis, wrestling, karate, gymnastics and swimming), with an average age of 24.32 years old, belonging to different categories of competition (5.1% beginners, 13.1% youngsters, 37.2% trainees, 44.8% pro experts), of three diverse stages of competitions (105 national competitions, 95 national competitions and 20 international competitions). During this research study, athletes with appropriate field experience and knowledge were evaluated.

The forward (English to Urdu) and backward (Urdu to English) translated forms of the assessment measures were practiced twice on the two diverse groups (individual team players and group team players) of athletes, who were also skillful and bilingual, as per the SOP's of the MAPI guidelines in direction to evaluate the validities of each version. This process was controlled in English to Urdu, Urdu to English, English to English and Urdu to Urdu sequence. Athletes was familiarized with the assessment measure in to two different ways and in four groups (n = 55 athletes per group), two groups were given the Urdu-language form and the remaining two were given the English-language version scale and all this process repeated right after one week in exactly the same manner to avoid any experimenter and researcher biasness. After some time they were requested again to answer the assessment measure. In the next phase, the examiner introduced a minor alteration to get the answers and encounter practice effect in the participants. Because the other two groups were given opposite versions of the previous activity and the remaining two groups were given the same previous versions. It was done purely to estimate similarity and also to highlight discrepancies and any variances in outcomes between the two types of assessment measures. The opposing versions distribution exercise helps control the effect of learning on the test and found respondents bias for interpreted forms. This experimental uniformity was estimated grounded on the association of retest and test with in the one week of interval.

RESULTS:

In this research, descriptive statistics were used to summarize the demographic features of the athletes. Reliability analysis were also run to see the psychometric properties of the AIMS-Plus scales used in the present study. Pearson product moment coorelation was carried out to evaluate the association among the subscale of AIMS-Plus.

Table No. 1
Details of demographics descriptive of AIMS-Plus Participants (N=220)

Characteristics	*F*	%	*M(SD)*
Gender			
Male	127	56.6	
Females	93	43.4	
Age (in years)			24.35(5.6)
Marital Status			
Single	159	70.7	
Married	38	17.8	
Engaged	23	11.3	
Nature of Sports			
Individual Sports	87	39.8	
Group Sports	133	60.2	

Table No. 2
Psychometrics and descriptive properties of AIMS-Plus Scale (N=220)

Variables	Ranges						
	M	*SD*	*a*	Min.	Max.	Skewness	Kurtosis
Social Identity	7.99	3.57	.78	2	14	-.18	-1.1
Cognitive Identity	16.20	6.99	.74	4	28	-.16	-1.19
Affective Identity	16.04	7.20	.79	4	28	-.19	-1.30

Descriptive values reveals that the AIMS-Plus sub-scales used in this research shows statistically sound and reliable values.

Table No. 3
Inter-correlations among Study Variables (N=220)

Variables	2	3
1. Social Identity	.83**	.84***
2. Cognitive Identity	-	.91**
3. Affective Identity	-	-

Note: **p*<.05, ***p*<0.01, ****p*<0.001

Above table shows that the person product moment correlation between the sub-domains of the AIMS-Plus scale. Findings show that there is a strong positive relationship between all the sub scales of athletic identity.

The subsequent phase reviews the outcomes of the results:

Table No. 4
Relationships between English and Urdu versions of AIMS-Plus Scale (n=55 for each phase, total N=220)

Scale	R
AIMS-Plus	
Test and retest of English to English version	.74**
Test and retest of English to Urdu version	.90**
Test and retest of Urdu to English version	.88**
Test and retest of Urdu to Urdu version	.86**

***P< .01.*

Table indicates the strong association amongst all tested and retested versions of AIMS-Plus questionnaire. It specifies that entire tested and retested stages of this assessment measure is considerably interconnected with each other and they are quite appropriate to use for the research purposes. Urdu language translated version is accurately equivalent to its original English version.

Phase-II AIMS-Plus Scale Linguistic Validation:

In this phase AIMS-Plus scale validation (convergent validity and discriminant validity) and cron beck alpha reliability was confirmed along with other psychometric properties.

Sample: With the help of G power software sample size for the factor analysis phase was assessed. Fiddle and Tabachnick (2007) specified that the estimated sample size of 200-250 is suitable. A sample of N=220 was taken to determine the psychometric properties. Pakistan Higher Education Commission (HEC) age range policy for sports athletes to take part in the inter-university and national level competition was 18-27 years. Age range policy was strictly followed for the unanimity of the sample. Skilled sportspersons with diverse level exposure was taken (domestic, first class and inter-national) from Punjab University Pakistan in this study.

Procedure:

First of all approval form Punjab University Sports authorities was taken for the administration of the Urdu-translated version of AIMS-Plus. Athletes were informed regarding the nature and purpose of the study. Before administering the questionnaire, the athletes had to give their consent, guarantees regarding the confidentiality of their answers and some information on their sporting activity. The athletes were informed that there was no time limit to complete the questionnaire and that it took most athletes 10-12 minutes to complete all questionnaires. Athletes stayed there and a request has been made to them regarding the completion of the questionnaires at the same place and any query or ambiguity regarding the scale asked on the spot. They completed the questionnaire easily. All sports athletes were dealt respectfully and as per the American Psychological Association (APA) ethical standards for test administration.

Determining Psychometric Properties of AIMS-Plus Scale:

In this phase validity and construct of AIMS-Plus and it was divided into furthermore two steps. Step one was to find out the validities (convergent validity and divergent validity) and the step two was to run confirmatory factor analysis (CFA) ensure the Urdu translated version factor structure.

CFAOF AIMS-Plus Scale:

Top most priority of this step was to ensure its factor loading and confirm factor structure of its Urdu-language translated version. Second main objective was model fit indices and to run the tested model which is in detailed explained below run and model fit in dices of the tested model which is described below:-

AIMS Plus fit indices and CFA:

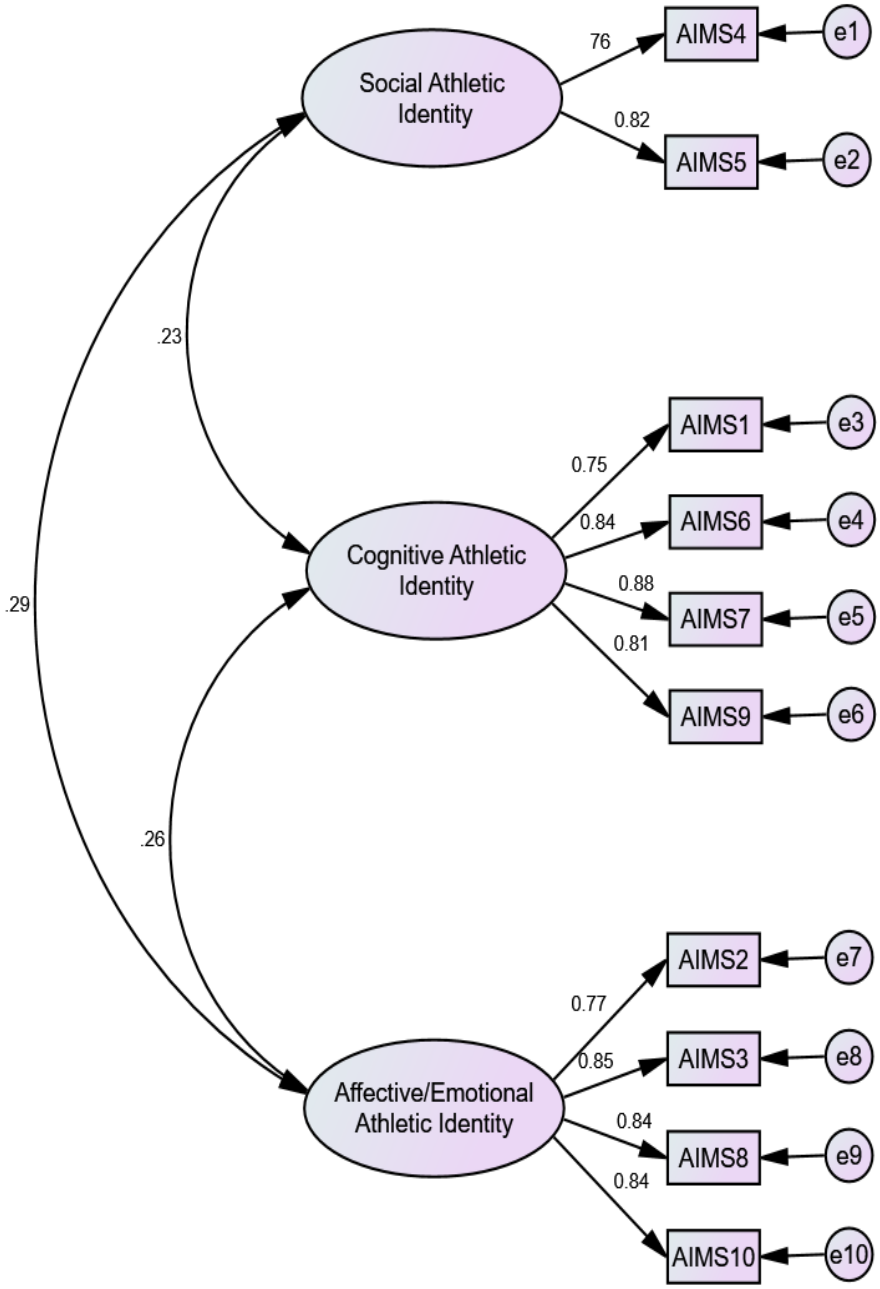
Model	$\chi 2$	*Df*	χ^2/df	*CFI*	*TLI*	*GFI*	*RMSEA*
Model Fit	340.89	80	2.69	.96	.98	.95	*.08*

N=220, every change within Chi Square Value calculated in the model

RMESA=Root Mean Square of Approximation, GFI=Goodness of Fit Indices, CFI=Comparative Fit Indices, >.05.

Results of CFA demonstrated in above table, value of χ^2 (340.89) =3.63, p>.05 which is absolute fit. After drawing covariance, RMSEA was .08 for the model-fit, whereas, value of the GFI was .94 and for the CFI was .96. However, the Fit indices values was as per the cut of score (Hair, Gabriel, M.,&Patel,2010; Hu&Bentler,1999).

Values of fit indices existed sufficient enough for the generalization of the given model and adequately enough to fit the model as it is demonstrated below:-



Pictorial Representation of CFA for AIMS-Plus

AIMS-Plus CFA:

(Three Sub Scales Factors)	*AIMS Plus*			
	Ω	***AVE***	***MSV***	***Λ***
Athletes Social-Identity	.78	.63	.13	
AIMS-Plus 4				.756
AIMS-Plus 5				.823
Athletes Cognitive-Identity	.83	.68	.16	
AIMS-Plus 1				.754
AIMS-Plus 6				.841
AIMS-Plus 7				.882
AIMS-Plus 9				.810
Athletes Affective/ Emotional Identity	.84	.65	.19	
AIMS-Plus 2				.765
AIMS-Plus 3				.851
AIMS-Plus 8				.841
AIMS-Plus 10				.844

AVE=Average Variance Extracted, MSV=Maximum Shared Variance, ω=McDonald's Reliability, λ(Lambda)=Standardized Factor Loadings≥.5.

CFA was administered to extract the construct validity and reliability for the factors and also to determine its psychometric properties. Standards of AVE, Composite reliability estimated all the Alpha-Coefficients which were above the cut off scores i.e 0.7, 0.5 and 0.7 respectively. This made AIMS-Plus suitable and acceptable for this research purposes (Henseler, Hubona, Ray & P.A. 2016; Hair, Gabriel, M., & Patel, 2010).

Factor loading of the AIMS-Plus items in their respective construct were measured to assess convergent and divergent validity. Almost all items loading was overhead the standard i.e .50, which makes it appropriate to use in the study (Hair.et al.,2010).

Ethical Considerations:

Permission was obtained from concerned author for the desired purpose. Written consent of all the participants were taken with the privilege to leave the study at any stage and interested participants were also given feedback at the end. Confidentiality of the information provided was assured as well.

Statistical Analysis:

All of the data was evaluated through SPSS-24th and SEM-AMOS 23rd Version. Regularity of the data was checked thoroughly through descriptive stats. i.e Kurtosis, p-p plots, q-q plots and Skewness. Due to this process all the outliers were highlighted and extracted from the data. After that the Cronbach alpha coefficient reliability was checked. In the last and most important step Analysis of Moment of Structure (AMOS) was run for the CFA.

DISCUSSION:

Translation, validation, and testing of its appropriate psychometric properties were the main objectives of this study. When competing or participating in sports activities that can alter their athletic identities, athletes may experience physical, psychological, emotional, and social difficulties (Birrer and Morgan, 2009). All of this study's attention was directed toward linguistic and psychological validation.

In light of the available literature, theoretical framework, and sociocultural context, the results of this study were therefore evaluated. To gauge their actual constructs and concepts, this questionnaire was translated and validated. Based on the chosen theories, these questionnaires were created.

The study was carried out to ensure that the statements in the questionnaire were understandable by conducting psychometric cleansing of the items (removing the unclear, redundant, or overlapping items). Shapiro wilk-test applied for measuring that the data were normally distributed in the groups. W (30) = .93, p .05, was used as a result to confirm this.

Sports Athletes didn't report any abstruseness and trouble in understanding the items.

The factorial structures of the AIMS-Plus were validated. Psychometric measurements, development and properties led to satisfactory estimates of reliability and validity according to the standardized criteria, as mentioned above. At the end the questionnaire, the CFA, validities (Convergent validity and discriminant validity) Cronbach alpha reliability of the scale were verified. Which surpassed the equivalent cutoffs scores .50 for AVE and .70 for the composite reliability (Hubona, Henseler, & Ray 2016; Hair. et.al,.2010). All article uploads were found to exceed thresholds of 0.50 (Haire et. al., 2010).

Subsequently, the factorial structure of AIMS-Plus was also validated. Evaluation of the psychometric properties of AIMS-Plus has also been validated and resultant in exceptionally precise in the estimation of reliability and validities. While measuring internal consistencies and the measure, the omega coefficient was used in terms of internal consistency. Cronbach alpha is not only the optimal reliability coefficient (Hayes and Coutts, 2020). McDonald Omega (ω) much better reliability metric for CFA. Ranging from 0.70 to 0.96, almost both the reliabilities (Cronbach alpha and Composite reliability) were within the standard range and limit. To determine discriminant validity of the scale, the Fornell and Larcker parameters were considered (Fornell & Larcker 1981).The validity of the tool's appearance and content was validated by a team of sports and psychometrics experts. A panel of experts has examined the validity of the AIMS-Plus content. There are no widely accepted criteria regarding the validity of content. However, CVI is a standard method for assessing content validity (Polit et al., 2007). AIMS-Plus had high content validity, according to the results of this investigation. AIMS-Plus was also found to have good nominal validity. Face validity can be invaluable when developing new tools, although it is not as significant as content, criterion, and construct validity (Polit & Beck, 2004).

CONCLUSION:

Translating, validating and determining the psychometric properties of AIMS-Plus was a challenging task. Which was done successfully soa valid and reliable version was extracted. One more important objective of the current research was to create and produced a dependable translated version of the scale. This questionnaire also provides sports researchers and psychologists with a wealth of information about the athletic identities that influence an athlete's performance throughout their sporting profession and trajectory. This assessment measure can be advantageous for the professional coaches and sports-consultants who are working the sports psychology field. It will also help them to comprehend, accomplish and trained their players in a positive and healthy-way. In the conclusion outcomes of this study sustenance the impression that all the assessment tools that have sufficient validities and reliability are the appropriate tools to measure the athletic identities of Pakistani athletes.

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APPENDICES:

Appendix-A
Translations
(Urdu & English Versions)

TRANSLATIONS

Original Scale	Forward 1	Forward 2	Consensus	Backward Translation
Athletes Identity Measurement Scale AIMS-Plus	**کھیلوں کی شناخت کا پیمانہ**	**کھیلو نکی شناخت کا پیمانہ**	**کھیلوں کی شناخت کا پیمانہ**	**Athletes Identity Measurement Scale AIMS-Plus**
Range from 1-7 1 = Strongly Agree To 7= Strongly Disagree	حدود 1 تا 7 1=بہت زیادہ اتفاق سے 7=بہت زیادہ اختلاف	حدود 1 تا 7 1=بہت زیادہ اتفاق سے 7=بہت زیادہ اختلاف	حدود 1 تا 7 7=بہت زیادہ متفق سے 1=بہت زیادہ غیر متفق	Range from 1-7 1 = Strongly Agree To 7= Strongly Disagree
1. I feel bad about myself when I do poorly in sport	مجھے بُرا لگتا ہے جب میں کسی کھیل میں غیر تسلی بخش کارکردگی دکھاتا/دکھاتی ہوں۔	جب میں کھیل میں بری کارکردگی دکھاؤن تو میں اپنے بارے میں برا محسوس کرتا/کرتی ہوں۔	مجھے برا لگتا ہے جب میں ھیل میں بری کارکردگی دکھاتا/دکھاتی ہوں۔	I feel bad when I show poor performance in sports.
2. I need to participate in sport to feel good about myself	مجھے کھیل میں شرکت کرنا ضروری ہے تاکہ میں اپنے بارے میں اچھا محسوس کر سکوں۔	مجھے اپنے بارے میں اچھا محسوس کرنے کے لئے کھیل میں حصہ لینا پڑتا تھا۔	مجھے اپنے بارے میں اچھا محسوس کرنے کے لئے کھیل میں حصہ لینا پڑتا ہے۔	I have to take part in sports to feel good about myself.
3. I would be very depressed if I were injured and could not compete in sport	مجھے بہت افسردگی ہو گی اگر زخنی ہونے کی وجہ سے میں کسی کھیل میں مقابلہ نہ کر سکا/سکی۔	میں بہت زیادہ مایوس ہوتا/ہوتی ہوں جب میں زخمی ہوں اور کھیل میں حصہ نہ لے سکوں۔	میں بہت افسردہ ہوں گا/گی اگر زخمی ہونے کی وجہ سے میں کھیل میں شرکت نہ کر پاؤں۔	I will be sad if I would be unable to play due to being injured.

4.	Most of my friends are athletes	میرے زیادہ تر دوست کھلاڑی ہیں۔	میرے زیادہ تر دوست کھلاڑی ہیں۔	میرے زیادہ تر دوست کھلاڑی ہیں۔	My mostly friends are players.
5.	Other people see me mainly as an athlete	دوسرے لوگ بنیادی طور پر مجھے ایک کھلاڑی کی طرح دیکھتے ہیں۔	دوسرے لوگ مجھے ایک کھلاڑی کی حیثیت سے دیکھتے ہیں۔	دوسرے لوگ بنیادی طور پر مجھے ایک کھلاڑی کی حیثیت سے دیکھتے ہیں۔	Other people basically see me as a player.
6.	I consider myself and athlete	میں اپنے آپ ایک کھلاڑی تسلیم کرتا/کرتی ہوں۔	میں اپنے آپ کو ایک کھلاڑی تسلیم کرتا/کرتی ہوں۔	میں اپنے آپ کو ایک کھلاڑی تسلیم کرتا/کرتی ہوں۔	I accept myself as a player.
7.	I have many goals related to sports	کھیل سے متعلقہ میرے بڑے اہداف ہیں۔	کھیل سے منسلک میرے بہت سے مقاصد ہیں۔	کھیل سے متعلقہ میرے بہت سے اہداف ہیں۔	I have many goals related to sports.
8.	Sport is the most important part of my life	کھیل میری زندگی کا بہت اہم حصہ ہے۔	کھیل میری زندگی کا اہم ترین حصہ ہے۔	کھیل میری زاندگی کا اہم ترین حصہ ہے۔	Sports is very important part of my personal life.
9.	I spend more time thinking about sport than anything else	میں اپنا زیادہ تر وقت کھیل کے بارے میں سوچنے میں گزارتا/گزارتی ہوں۔	میں اپنا زیادہ تر وقت کھیل کے متعلق سوچنے میں گزارتا ہوں۔	کسی اور چیز کی نسبت میں اپنا زیادہ تر وقت کھیل کے بارے میں سوچنے میں گزارتا/گزارتی ہوں۔	I spend my most of the time in thinking about sports rather than other things.
10.	Sport is the only important thing in my life	کھیل میری زندگی میں واحد اہم چیز ہے۔	کھیل ہی میری زندگی کا اکلوتا اہم ترین حصہ ہے۔	کھیل میری زندگی کی اہم ترین چیز ہے۔	Sports is very important for my life.

Appendix-B
(Original Scale English Version)

ORIGINAL SCALE ENGLISH VERSION

Athletic Identity Measurement Scale (AIMS)

(Adapted Version)

Using the scale below, indicate how satisfied you are with the various aspects of your life listed. VD=Very Dissatisfied D=Dissatisfied SD=Slightly Dissatisfied N=Neutral/Undecided SS=Slightly Satisfied S=Satisfied VS=Very Satisfied.

Sr. No	Items	VD	D	SD	N	SS	S	VS
1	I feel bad about myself when I do poorly in sport.	1	2	3	4	5	6	7
2	I need to participate in sport to feel good about myself.	1	2	3	4	5	6	7
3	I would be very depressed if I were injured and could not compete in sport.	1	2	3	4	5	6	7
4	Most of my friends are athletes.	1	2	3	4	5	6	7
5	Other people see me mainly as an athlete.	1	2	3	4	5	6	7
6	I consider myself and athlete.	1	2	3	4	5	6	7
7	I have many goals related to sports.	1	2	3	4	5	6	7
8	Sport is the most important part of my life.	1	2	3	4	5	6	7
9	I spend more time thinking about sport than anything else.	1	2	3	4	5	6	7
10	Sport is the only important thing in my life.	1	2	3	4	5	6	7

Appendix-C
(Original Scale Urdu Version)

ORIGINAL SCALE URDU VERSION

کھیلوں کی شناخت کا پیمانہ

نیچے دیے گئے پیمانے کا استعمال کرتے ہوے، براہ مہربانی نشاندہی کریں کہ مندرجہ ذیل بیانات آپ کس حد تک اتفاق یا اختلاف رکھتے ہیں۔

بہت زیادہ اتفاق	اتفاق	کچھ حد تک اتفاق	غیر جانبدار	قدرے اختلاف	اختلاف	بہت زیادہ اختلاف
1	2	3	4	5	6	7

	بیانات	بہت زیادہ اتفاق	اتفاق	کچھ حد تک اتفاق	غیر جانبدار	قدرے اختلاف	اختلاف	بہت زیادہ اختلاف
.1	کھیل میں بُری کارکردگی پر میں اپنے بارے میں بُرا محسوس کرتا/کرتی ہوں۔	1	2	3	4	5	6	7
.2	میں اس لئے کھیلتا/کھیلتی ہوں کیونکہ اس سے میں اچھا محسوس کرتا/کرتی ہوں۔	1	2	3	4	5	6	7
.3	مجھے بہت زیادہ افسوس ہو گا اگر زخمی ہونے کی وجہ سے میں کھیل میں شرکت نہ کر پاؤں۔	1	2	3	4	5	6	7
.4	میرے زیادہ تر دوست کھلاڑی ہیں۔	1	2	3	4	5	6	7
.5	دوسرے لوگ بنیادی طور پر مجھے کھلاڑی کی حیثیت سے دیکھتے ہیں۔	1	2	3	4	5	6	7
.6	میں اپنے آپ کو کھلاڑی سمجھتا /سمجھتی ہوں۔	1	2	3	4	5	6	7
.7	کھیل سے متعلقہ میرے بہت سے مقاصد ہیں۔	1	2	3	4	5	6	7
.8	کھیل میری زندگی کا بہت اہم حصہ ہے۔	1	2	3	4	5	6	7
.9	میں اپنا زیادہ تر وقت کھیل کے بارے میں سوچنے میں گزارتا/گزارتی ہوں۔	1	2	3	4	5	6	7
.10	کھیل میری زندگی میں واحد اہم چیز ہے۔	1	2	3	4	5	6	7