

Translation and Adaptation of Athletic Identity Measurement Scale in Urdu

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Abstract

Immersed in the world of sports, athletes invest and use their athletic identity with peers and others around them. To measure this identity, the Athletic Identity Measurement Scale (AIMS; Brewer et al., 1993) has been used worldwide and adapted into different languages. We translated AIMS into Urdu to gauge the athletic identity of Pakistani athletes. The scale comprises 10 items and is divided into social, cognitive, and affective sports-related identities. Each item was assessed on a 7-point Likert-type scale. The present study validated an Urdu-translated version of AIMS on 127 male- and 93 female- ($N = 220$) Pakistani athletes with an average age ($M = 24.35$, $SD = 5.60$) typically observed for young athletes engaged in a variety of sports. A confirmatory factor analysis revealed a three-factor structure identical to the factor structure of AIMS in the English and other language versions. A moderately high internal consistency was found for AIMS ($\alpha = .82$) and slightly lower levels for its subscales, i.e., social athletic identity ($\alpha = .78$), cognitive athletic identity ($\alpha = .74$), and affective athletic identity ($\alpha = .79$). Results suggest, AIMS has acceptable psychometric properties and can be used for Pakistani athletes that use Urdu.

Keywords: *Athletic identity, athletes, social athletic identity, cognitive athletic identity, affective athletic identity, Pakistani athletes.*

Athletic identity is dependent on various social, cognitive, and affective factors. Social factors connect athletes with other peer athletes, family members, and friends; they affect social status and provide access to resources, such as coaching, equipment, and medical help.

These social factors congeal the social identity of athletes and affect their social recognition and respect; similarly, cognitive factors affect the cognitive identity of athletes, where thinking is focused on sports and sports-related performance; finally, emotional factors such as self-confidence, mental health, and emotional resilience are significant components of the emotional identity of athletes.

It is believed that one does not choose their identity consciously; it is an unconscious process that develops in a culture and affects the roles people play in a society (Lankton, 2015). It affects thoughts, emotions, and feelings that are based on "self or identity" (Leary & James, 2013). The human self or identity is not a singular construct but contains other identities like a parent, a teacher, a student, and an athlete, all coexist within one person to form their overall identity (Syed & McLean, 2017).

Social identity theory (Hogg, 2016) states identifying with a social group makes an individual's identity, for example when an athlete subscribes to a sports team part of his or her athletic identity stems from that team. This identity is based on the perceived benefits they get from being part of the team or group and leads to an affirmation of their identity. In addition, the theory also suggests, that identity affirmation depends on accepting the role the team sees fit not others, for example, Charles Barkley, an American basketball player rejected the title of *celebrity athlete* given to him by the public not by his team. Due to changing circumstances in life and career, athletes can move in or out of a group or position which affects their identities and makes identities fluid (Linstead & Pullen, 2005).

The focus of early sports psychology research that looked at success in sports was related to the personality traits of athletes and not on athletic identity as a category. The concept of athletic identity was first put forward by Britton Brewer back in the 1990s when research in sports psychology began to gain attraction. Athletic identity is determined by how an individual identifies, relates, and pays attention to their role as an athlete as opposed to other activities in life (Edison et al., 2021). These roles encompassed how athletes viewed others and how others acknowledged their roles (Heird & Steinfeldt, 2013); this role identification formed a self-schema. Athletic identity also involves mastering certain skills, like interacting with teammates, and developing cognitive and social aspects of confidence in and outside their game (Zanin et al., 2021), which can help athletes cope with career-threatening situations before, during, and after the careers are over (Barkoukis, 2015).

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A strong athletic identity has numerous benefits, such as decreased anxiety, improved body image, and increased motivation. Moreover, it offers better self-discipline than those with low athletic identity (Reifsteck et al., 2013; Lamont-Mills & Christensen, 2006). Furthermore, a strong athletic identity often leads to a healthier lifestyle and habits than those with a lower athletic identity (Fortin et al., 2014). Nevertheless, developing a strong athletic identity may also come with potential risks, for instance, participants may become over-invested emotionally, which could result in a foreclosed identity (Brewer & Petitpas, 2017; Howe, 2020). Identity foreclosure is a commitment to an occupation or ideology without extensive exploration (Brewer & Petitpas, 2017). Athletes devote most of their time and energy to developing their bodies, minds, and behavior so they can succeed in sports, leaving them with little time to explore other life facets or different professions (Benson et al. 2015). Turton et al. (2017) add, that there are potential psychological risks associated with intensely identifying with one's role as an athlete (however see Carless & Douglas, 2013). Additionally, Weigand et al. (2013) and Lindqvist et al. (2014) report, that individuals who engage highly with their athletic roles can suffer from stress when prevented from participating in their sport.

Recent studies have examined the overlap between expectations male athletes have and their athletic culture. Athletes who see their competitiveness, sternness, and aggression match their athletic culture and lead them to struggle with help-seeking behaviors when emotional issues arise in interpersonal relationships. In addition, it is important to be mindful of using *masculinity* in sports because the construct becomes gender-biased by "masculinizing" women in sports (Knoppers & McDonald, 2010). Greater adherence to a masculine athletic role often results in gender role conflict (GRC) for male athletes (Steinfeldt et al., 2010; Steinfeldt & Steinfeldt, 2010; Steinfeldt & Steinfeldt, 2012); and 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) or constrained (Melendez, 2009-10; Steinfeldt & Steinfeldt, 2010).

A strong athletic identity affects other facets of identity and aids in an enduring sense of self, which can increase self-confidence, self-discipline, and positive social interactions. In addition, a strong athletic identity improves performance, increases resilience (in the face of setbacks), fosters better recovery (from injuries and performance), and boosts team morale. Research has found a link between an upbeat mental state and improved health, including lower blood pressure, reduced risk for heart disease, healthier weight, better blood sugar levels, and longer life. Based on the characteristics of psychological flexibility, we argue that athletes with higher levels of psychological flexibility and strong athletic identities tend to experience decreased emotional exhaustion over time (Bond et al., 2013).

Excessively strong athletic identity leads to individuality, which restricts self-improvement in the athletes, and multidimensional self-involvement in several identities that offer defense against disappointments in one or many scopes of life. In addition, individuality or self-approach aligns with an excessively strong athletic identity; viewed by trainers and athletes as critical for optimal growth that affects social inaccessibility, apprehension, withdrawal of downheartedness, difficulties experienced transitioning careers after superannuation and professional irresponsibility. Athletes with low or weak athletic identities are unable to play sports, incur a lot of injuries, have difficulties handling post-retirement life, experience lower

self-respect, and amplified unease or guilt. Athletes that suffer from strong individuality, experience aggravation and void in their lives (Miller, 2009; Messner, 2018).

Methodology

To run various statistical analyses, especially confirmatory factor analysis (CFA) sample size needs to be adequate, Fiddle and Tabachnick (2007) suggest a sample size of 200-250 is suitable for analyzing the factor structure of a scale with few items. G-Power software was used [3.1.9.7 version], Faul et al., (2009) to estimate the sample size for the factor analysis for this study; the analysis revealed 210 respondents were needed to run CFA. In the present study, N=220 respondents were recruited to run CFA and other statistical analyses. The Higher Education Commission (HEC) of Pakistan has determined the age range for sports athletes between 18-27 years who take part in inter-university sports at the national level competitions; so, all participants were selected within this age range.

Instrument

The Athletic Identity Measurement Scale (AIMS) was developed by Brewer et al., (1993). AIMS was a standardized, psychometrically comprehensive measure that can identify the testing of Athletic Identity (AI). Originally AIMS was comprised of 15 items but a recent and updated version of the AIMS was used in this study which was AIMS-Plus. AIMS-Plus was comprised of 10 items and it measures social identity domain, cognitive identity domain, and affective elements of athletic identity. Cronbach alpha reliability was reported to be .82. Each item was rated on a 7-point Likert scale ranging from (1 = Strongly Agree, 2 = Agree, 3 = Agree Somewhat, 4 = Neither Agree or Disagree, 5 = Disagree Somewhat, 6 = Disagree, 7 = Disagree Strongly). The items evaluated the thoughts and feelings from athletes' daily experiences and their attachment and association towards their games and sports.

Procedure

Translation and Adaption of AIMS

The present study is part of a large correlational study designed to assess the psychosocial aspects of perceived quality of life in Pakistani athletes. We translated AIMS (Brewer et al., 1993, see appendix) from English (source language) to Urdu (target language) using MAPI guidelines (MAPI Research Trust, 2012). An Urdu-English bilingual expert panel familiar with Pakistani and Western cultures was asked to translate the scale from English to Urdu. These experts, a professor (English Department) and two assistant professors (Psychology Department), knowledgeable in Urdu and English syntax, vocabulary, and psychometrics used standard operating procedures (SOPs) during translation (MAPI Research Trust, 2012). The translated material was given to three interpreters from the Department of Psychology, a consultant from the Pakistan Cricket Board (PCB), and three sports coaches to align the translations of AIMS to the Pakistani cultural context.

Backward Translation of AIMS

Urdu to English backward translations were then carried out in the same fashion. To test the consistency of these translations the sample was divided into four groups with 55 athletes in each group. Two groups were given English versions of AIMS, and the other two groups translated Urdu AIMS. After 4 weeks, two groups repeated their version of the same version of the test i.e., one group completed the same English AIMS as before and the other the same Urdu AIMS. However, the two other groups completed AIMS that was either in English or Urdu. For instance, the group that had completed the English AIMS now did Urdu AIMS, and the groups that had completed Urdu AIMS

now completed English AIMS. This test-retest process of variously translated versions of AIMS confirmed translation consistency (see Table 3), which is good to excellent.

Table 1
Demographic Characteristics of the Participants (N=220)

Characteristic	F	%
Gender		
Men	127	56.6
Women	93	43.4
Marital Status		
Single	159	70.7
Married	38	17.8
Engaged	23	11.3
Type of Sports		
Individual	87	39.8
Group	133	60.2
Competitions Participated		
National	200	90.1
International	20	9.9
Athletic Cadre		
Beginner	10	5.1
Intermediate	29	13.1
Advanced	82	37.1
Professional	99	44.7

Note. Sample age range (18-27), mean and standard deviation ($M = 24.35$, $SD = 5.60$) in years.

Before collecting data, a team of sports and psychometrics experts was asked to assess the face validity (Polit & Beck, 2004) of the scale. Experts believed the scale highly valid as far as the content of the items was concerned. The collected data was symmetric (.5 to -.5) however slightly platykurtic (-1.10 to -1.82) but usable for all statistical analyses. Internal consistency of AIMS ($r = .82$), Social Athletic Identity ($r = .78$), Cognitive Athletic Identity ($r = .74$), and Affective Athletic Identity ($r = .79$) were moderate as presented in Table 2.

Table 2
Psychometrics Properties of AIMS (N=220)

Scale	M	SD	Range	Cronbach's α
AIMS	40.38	8.45	10-70	.82
SAI	7.99	3.57	2-14	.78
CAI	16.20	6.99	4-28	.74
AAI	16.04	7.20	4-28	.79

Note: AIMS = Athletic Identity Measurement Scale, SAI = Social Athletic Identity, CAI = Cognitive Athletic Identity, AAI = Affective Athletic Identity, M= Mean, SD= Standard Deviation, α = Reliability Coefficient

Permission was obtained from the author (B. W. Brewer) for translating AIMS in Urdu. Followed by approval from the Punjab University Sports Authority to administer the Urdu and other various translated versions of AIMS. Athletes were informed regarding the nature and purpose of the study. Before administering the questionnaire, the athletes gave their consent. We told the participants that their data and their personal information would be kept confidential and anonymous and if publications resulted from the study no information would be revealed in what is publicized. There was no time limit to complete the scale however it took no more than 10-12 minutes

to complete the demographic information sheet and the scale or scales they completed. All participants were dealt with with respect and courtesy (APA, 2002).

Statistical Analysis

SPSS ([Version 24], IBM Corp., 2017) and SEM-AMOS ([Version 23] Arbuckle, 2019) were used to analyze the data using a variety of statistical tests. The regularity of the data was checked thoroughly through descriptive statistics, i.e., kurtosis, skewness, p-p, and q-q plots. Due to this process, some five outliers were removed from the data and 220 were retained. Internal consistency was measured with Cronbach alpha and CFA with SEM-AMOS ([Version 23] Arbuckle, 2019).

Results

A convenient sample of 127 male- and 93 female- ($N = 220$) Pakistani athletes, part of professional cricket, hockey, football, rugby, badminton, boxing, table tennis, wrestling, karate, gymnastics, and swimming, were taken and categorized as beginners (5.1%), youngsters (13.1%), trainees (37.2%) and pro-expert (44.8%) for competitive sports with an age range of 18 to 27 years ($M = 24.32$, $SD = 5.60$) and had competed in 95 national and 20 international games, see Table 1 for more details about the sample characteristics.

Pearson product-moment correlation was run to assess the correlations between Urdu and English versions of AIMS. R values showed a positive correlation between Urdu and English versions of AIMS as presented below.

Table 3
Correlation between English and Urdu Translations of AIMS (N=220)

Correlation of Translations	R
English to English	.74**
English to Urdu	.90**
Urdu to English	.86**
Urdu to Urdu	.88**

** $p < .01$.

Correlation between the subscales of AIMS was also assessed. Concurrent validities across the scale and its subscales were moderate to high ($r = .83$ to $.91$), suggesting a significant positive relationship between all constructs of athletic identities. These findings reflected that higher athletic identity indicates higher social athletic identity, cognitive athletic identity, and affective athletic identity as presented in Table 4.

Table 4
Correlation of AIMS along with Subscales (N=220)

Variables	1	2	3	4
SAI	-	.87*	.89*	.86*
CAI		-	.83*	.84*
AAI			-	.91*
AIMS				-

Note: AIMS = Athletic Identity Measurement Scale, SAI = Social Athletic Identity, CAI = Cognitive Athletic Identity, AAI = Affective Athletic Identity, * $p < .05$

Confirmatory Factor Analysis

The value of KMO-Bartlett's test of sphericity χ^2 (340.89) = 3.63, was significant ($p < .05$), and the data could be used for factor analysis. After drawing covariance, RMSEA (.08; threshold $< .09$), and other Fit Indices CFI (.96), TLI (.98), and GFI (.94) were higher than the set (.90) threshold (Hair et al., 2010; Hu & Bentler, 1999), for the given model (see Figure 1).

Figure 1
Pictorial Representation of CFA for Urdu AIMS.

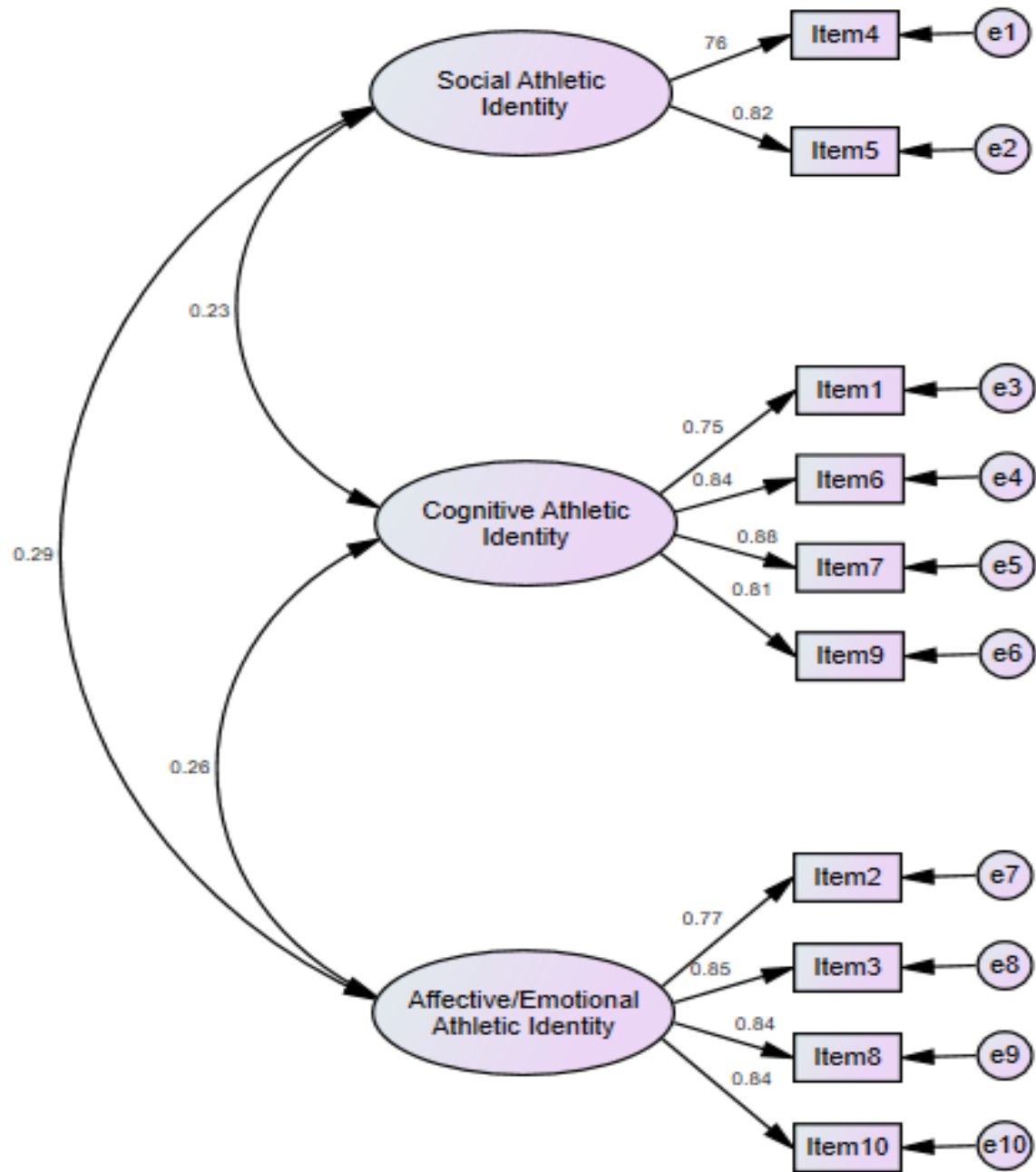


Table 5
Variance and Factor Loadings of AIMS (N=220)

Subscale	Ω	AVE	MSV	Λ
Social Athletic Identity	.78	.63	.13	
Item 4				.76
Item 5				.82
Cognitive Athletic Identity	.83	.68	.16	
Item 1				.75
Item 6				.84
Item 7				.88
Item 9				.81
Affective Athletic Identity	.84	.65	.19	
Item 2				.77
Item 3				.85
Item 8				.84
Item 10				.84

Note. AVE = Average Variance Extracted, MSV = Maximum Shared Variance, ω = McDonald's Reliability, λ = Standardized Factor Loadings $\geq .50$

Average Variance Extracted (AVE), and composite reliability estimates (cutoff as = .70, .50, and .70 respectively) were within the bounds of thresholds that made AIMS an adequate and suitable measure (Hair et al., 2010; Henseler et al., 2016) to test athletic identities. In addition, factor loading ($> .50$) of items within their respective construct was assessed (Hair et al., 2010). The three-factor structure of the English version of AIMS (Brewer et al., 1993) was maintained identically for the Urdu-adapted AIMS.

Discussion

An athletic identity scale AIMS (Brewer et al., 1993) was translated and adapted in Urdu (see appendix) so that the athletic identities of Pakistani athletes could be identified. Urdu translation of AIMS was comprehensible, and athletes did not have any difficulty in understanding the items. The factor structure of Urdu AIMS was identical to the original AIMS (Brewer et al., 1993). Internal consistency (reliability) of Urdu AIMS was low to moderate, however, reliabilities measured by McDonald Omega (ω) were higher and ranged from .70 to .96. The concurrent validity (Hair et al., 2010; Hubona et al., 2016) of the scale was moderate to high observed among scale and subscales.

Athletic identity may be defined as the degree to which an individual identifies with the athlete role (Brewer, 1993). The athletic role is an important dimension of social athletic identity which influences experiences, relationships with others, and pursuit of sports activity (Cornelius, 1995). Past research has indicated that a strong social athletic identity is linked to the greater importance of sports in an individual's life (Brewer, 1993). Those with strong social athletic identities spend more time with teammates and coaches which further strengthens their cognitive and affective athletic identity (Horton, 2000). Family, friends, coaches, teachers, and media may all support an individual's identification as an athlete. Consequently, athletics take on a great psychological significance in an athlete's identification (Brewer, 1993). Strong social, cognitive, and affective athletic identities have been found to correlate with a stronger sense of self-identity, more social interactions, boosting confidence, and more positive athletic experiences.

Conclusion

Urdu AIMS is largely for Pakistani athletes who use or understand Urdu; however, it is for other athletes who live in other parts of the world and use Urdu as their language for

communication. The measure is useful for athletes, professional coaches sports consultants, and psychologists working in a variety of sports-related fields including sports psychology. Assessment of athletic identity and its sub-components using Urdu AIMS reveals dispositional strengths in an athlete; what they do, if challenged; how consistent is their effort in what they play; what counseling methods could work for them if they have relationship problems or want to improve their game etc.

Implications

It is important to translate and validate different psychological constructs in sports and there should be training programs for athletes, coaches, and officials in helping to deal with athlete's athletic identity and psychologically related problems in sports. This study provides researchers, coaches, and sports psychologists with comprehensive and rich information, regarding an athlete's athletic identity and its subdomains i.e. social identity, cognitive identity, and affective identity. Moreover their personal, social, and professional preferences in life as well as the factors that affect them. This study lays the groundwork for more research to be conducted on athletes regarding their QOL.

Limitations and Recommendations

One limitation of the study is the sample is male athlete biased, an equal representation of men and women in the study would have removed this bias. The reason the sample is like that is based on the fact that more men than women play sports, and it is difficult to equate the sample for gender if participants are conveniently taken. In future studies, a purposive sample should be taken that forces equality in sampling male and female athletes. The authors believe a greater number of sports-related and health-related assessment measures need to be translated and adapted into Urdu for the better evaluation of Pakistani athletes, especially for those athletes who are at schools and colleges. Translation and adaptation of AIMS in Urdu lays the groundwork for future research on athlete identity related to many facets of their sports-related life.

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Appendix
کھلاڑی شناخت کا پیمانہ

بیان	اختلاف						اتفاق	
	بہت زیادہ	کچھ حد تک	تھوڑا	نہ اختلاف	نہ اتفاق	تھوڑا	کچھ حد تک	بہت زیادہ
1- کھیل میں بُری کارکردگی پر میں اپنے بارے میں بُرا محسوس کرتا/کرتی ہوں۔ I feel bad about myself when I do poorly in sports.	①	②	③	④	⑤	⑥	⑦	⑧
2- میں اس لئے کھیلتا/کھیلتی ہوں کیونکہ اس سے میں اچھا محسوس کرتا/کرتی ہوں۔ I need to participate in sports to feel good about myself.	①	②	③	④	⑤	⑥	⑦	⑧
3- مجھے بہت زیادہ افسوس ہو گا اگر زخمی ہونے کی وجہ سے میں کھیل میں شرکت نہ کر پاؤں۔ I would be very depressed if I were injured and could not compete in sports.	①	②	③	④	⑤	⑥	⑦	⑧
4- میرے زیادہ تر دوست کھلاڑی ہیں۔ Most of my friends are athletes.	①	②	③	④	⑤	⑥	⑦	⑧
5- دوسرے لوگ بنیادی طور پر مجھے کھلاڑی کی حیثیت سے دیکھتے ہیں۔ Other people see me mainly as an athlete.	①	②	③	④	⑤	⑥	⑦	⑧
6- میں اپنے آپ کو کھلاڑی سمجھتا /سمجھتی ہوں۔ I consider myself an athlete.	①	②	③	④	⑤	⑥	⑦	⑧
7- کھیل سے متعلقہ میرے بہت سے مقاصد ہیں۔ I have many goals related to sports.	①	②	③	④	⑤	⑥	⑦	⑧
8- کھیل میری زندگی کا بہت اہم حصہ ہے۔ Sport is the most important part of my life.	①	②	③	④	⑤	⑥	⑦	⑧
9- میں اپنا زیادہ تر وقت کھیل کے بارے میں سوچنے میں گزارتا/گزارتی ہوں۔ I spend more time thinking about sports than anything else.	①	②	③	④	⑤	⑥	⑦	⑧
10- کھیل میری زندگی میں واحد اہم چیز ہے۔ Sport is the only important thing in my life.	①	②	③	④	⑤	⑥	⑦	⑧

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