Original Research

The Injury-Psychological Readiness to return to sport (I-PRRS) scale and the Sport Confidence Inventory (SCI): A cross-cultural validation

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ABSTRACT

Objectives: The purpose of this study was to cross-culturally validate in the Italian language the I-PRRS and the SCI.
Design: Cross-sectional study.
Setting: Injured Italian athletes.
Participants: We recruited male (n = 73) and female (n = 27) athletes who returned to practice after having completed the rehabilitation.
Main outcome measures: The measures comprised the I-PRRS, the SCI, and the Italian Mood Scale (ITAMS). Athletes completed the questionnaires within 1 day before their first official competition following injury. We investigated the construct validity, the internal consistency, and the concurrent validity of the I-PRRS and SCI with the ITAMS.
Results: Confirmatory Factor Analysis supported the two-factor structure of the I-PRRS (Confidence in performance capability and Confidence in recovery) and the three-factor structure of the SCI (SC-Physical Skills and Training, SC-Cognitive Efficiency, and SC-Resilience). The reliability scores of both I-PRRS and SCI subscales indicated good internal consistency. Correlation between the I-PRRS and the SCI ranged in magnitude from weak to moderately high. A similar trend of correlations was found between the subscales of the I-PRRS and the ITAMS, as well as between the subscales of the SCI and the ITAMS.
Conclusions: Study findings showed satisfactory psychometric properties of the Italian version of the I-PRRS and SCI.

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1. Introduction

Sport injuries have been traditionally managed from an exclusively biomedical perspective (Straub, 2012). Nowadays, the conceptual framework of understanding injury events is based on the biopsychosocial approach, which incorporates the intersection of the biological, psychological, and social components of human health (Ardern et al., 2016a; Kolt & Andersen, 2004; Thiel, Schubring, Schneider, Zipfel, & Mayer, 2015). In light of this conceptualization, during the last years the psychological features related to sport injuries have attracted the interest of many researchers and professionals, which resulted in an increased number of publications (e.g., Brewer & Redmond, 2017; Clement, Granquist, & Arvinen-Barrow, 2013; Williams & Andersen, 2007). More recently, psychological characteristics of injuries have been investigated especially in the context of post-injury phase (e.g. Ardern, Kvist, & Webster, 2016b). In particular, qualitative examinations of psychological features dominating post injury phases highlighted a set of psychological factors that can influence the return to pre-injury levels (Conti et al., 2019). More specifically, literature has focused on psychological features involved in the transition between the end of rehabilitation and returning to sport (Podlog, Bahnham, Wadey, & Hannon, 2015; Wiese-bjornstal, Smith, Shaffer, & Morrey, 1998). Scholars highlighted that return to sport following injury is a complex and multifactorial process influenced by a range of physical, psychological, and social factors (Clover & Wall, 2010; Podlog & Eklund, 2006). In making decision to return to sport, the physical parameters have been the center of

attention, but numerous studies suggested that athletes should be also psychologically ready to safely and efficiently return to sport (Ardern et al., 2016a). Moreover, several researchers underlined that the moment of reaching physical and psychological readiness may not always coincide (Podlog et al., 2015; Wadey & Evans, 2011), emphasizing the importance of an assessment of both types of readiness.

Psychological readiness gained increased attention during last years and, in a consensus statement on return to sport, it was identified as one of the essential criteria for clearing athletes to return to sport following injury (Herring, Kibler, & Putukian, 2012). "Athletes can be considered psychologically ready when they possess psychological resources that facilitate a safe, productive and enjoyable return to sport" (Brewer & Redmond, 2017, p. 139). On the contrary, athletes often return to sport even if they are not psychologically ready yet to face the challenges of the transition between the end of rehabilitation and the return to sport (Podlog & Eklund, 2009). Returning to sport when the athlete is not psychologically ready could have negative consequences such as negative emotional states (i.e., anxiety, fear, depression), suboptimal sport performance, or increased risk of re-injury (Brewer & Redmond, 2017; Glazer, 2009; Podlog et al., 2015), leading to a negative impact on athletes' career and well-being (Ardern et al., 2016a; Ivarsson, Tranaeus, Johnson, & Stenling, 2017).

Currently, although there is no widely accepted definition of psychological readiness (Brewer, 2004; Brewer & Redmond, 2017), it is suggested that this psychological state is characterized by low levels or absence of potential impediments (e.g., fear, anxiety), and by the presence of facilitating dimensions (e.g., confidence, functional attention, motivation, realistic expectations; Andersen, 2011; Christakou, Zervas, & Psychountaki, 2012; Czuppon, Racette, Klein, & Harris-Hayes, 2014; Podlog et al., 2015). In particular, confidence is identified as a key component of psychological readiness (Brewer & Redmond, 2017; Carson & Polman, 2012; Conti et al., 2019). This key component includes not only the confidence in the recovery of injured body parts, but also in the capability to perform successfully (Glazer, 2009; Podlog et al., 2015).

Research evidence suggests that confidence changes and tends to increase over the course of the rehabilitation process (Thomeé et al., 2007). Athletes with a high level of confidence return more frequently to sport and to optimal performance levels than athletes with a low level of confidence (Chmielewski et al., 2011). Consequently, the assessment of confidence throughout the rehabilitation process and particularly during the return-to-sport phases is fundamental (Arvinen-Barrow, Hamson-Utley, & DeFreese, 2018) and can serve as a measure of psychological readiness to return to sport (Brewer & Redmond, 2017; Glazer, 2009).

Several questionnaires have been developed to assess the components of psychological readiness, such as the ACL-Return to Sport After Injury (ACL-RSI; Webster, Feller, & Lambros, 2008), the Re-Injury Anxiety Inventory (RIAI; Walker, Thatcher, & Lavallee, 2010), the Tampa Scale of Kinesiophobia (TSK; Miller et al.,1991), and the Return to Sport After Serious Injury Questionnaire (RSSIQ; Podlog & Eklund, 2005). However, to evaluate the level of confidence in injured athletes, one of the most reliable, valid, and sport-specific scale developed and used is the Injury-Psychological Readiness Return to Sport (I-PRRS) scale (Glazer, 2009). This scale can be used to measure athletes' confidence at a particular time of the rehabilitation process and, as also argued in a consensus statement by a panel of experts (Ardern et al., 2016a), it helps professionals to determine the level of the athletes' psychological readiness to return to sport. Despite not specifically developed for the injury context, another instrument useful to measure confidence within sport is the Sport Confidence Inventory (SCI; Vealey &

Knight, 2002). Similarly to the I-PRRS, the SCI assesses the athletes' confidence to achieve certain skill levels successfully (Frischknecht, Pesca, & Cruz, 2016). Both questionnaires have been developed in English. Some studies have tested the cross-cultural validity of the I-PRRS (Naghdi et al., 2016; Slagers, Reininga, Geertzen, Zwerver, &Van den Akker-Scheek, 2019) and the SCI (Frischknecht, Pesca, & Cruz, 2016). Indeed, a cross-cultural adaptation of the scales enables scholars of different countries to devise common research projects and exchange their results. It also provides practitioners with proper measures to assess the athletes' psychological readiness in their own language and cultural context. Currently, a valid and reliable version of the two questionnaires in Italian language is not available. Accordingly, in order to be able to reliably assess Italian athletes with the I-PRRS and the SCI, we translated and adapted these scales into Italian language and examined their factor structure, internal consistency (reliability), and concurrent validity with the Italian Mood Scale (ITAMS; Quartiroli, Terry, & Fogarty, 2017). The ITAMS is a validated Italian version of the Brunel Mood Scale (BRUMS; Terry & Lane, 2010), which is a short version of the Profile of Mood States (POMS; McNair, Lorr, & Droppleman, 1971) designed primarily for use in sport and exercise contexts. A short version of the POMS was used in an earlier study aimed to develop and preliminary validate the I-PRRS scale (Glazer, 2009).

2. Methods

2.1. Participants

We recruited 100 participants (73 men, 27 women), aged between 18 and 43 years (M = 25.53, DS = 7.05), who were competing in individual sports (i.e., track & field, n = 7; tennis, n = 4; swimming, n = 2; triathlon, n = 6; combat sports, n = 4; beach tennis, n = 1; karate=1) or team sports (basketball, n = 22; soccer, n = 33; volleyball, n = 10; American football, n = 2; futsal, n = 7; bob = 1). We used the following inclusion criteria: (1) participants aged 18 years or more; (2) male and female participants; (3) competitive level athletes; (4) participants reporting a severe injury during participation in sport/athletic activity. Grounded on specific literature (Fuller et al., 2007; Mountjoy et al., 2015; Pluim et al., 2009; Timpka et al., 2014), we used the number of days missed from sport participation (i.e., >28 days) as a criterion to define a severe injury; (5) participants returning to practice after rehabilitation (including both athletes treated with surgery and athletes treated conservatively); (6) participants not returning to the first official game following injury. Because of these stringent inclusion criteria, the number of participants recruited in this study was not very large. Of note, in a previous cross-cultural validation study in Persian language (Naghdi et al., 2016), the I-PRRS was administered to 100 injured athletes, the same sample size involved in the current study. The athletes in our study used to spend 3 to 12 training session per week and were competing at different levels, namely, regional (n = 61), national (n = 31), and international (n = 8) level. Based on the customary type of injury category (Alonso et al., 2010; Junge et al., 2008; Mountjoy et al., 2015; Timpka et al., 2014), competitors reported fractures (traumatic; n = 15), other bone injuries (n = 7), dislocations (n = 7), subluxations (n = 2), tendon ruptures (n = 2), ligamentous ruptures (n = 18), sprains (injury of joint and/or ligaments; n = 11), lesions of meniscus or cartilage (n = 3), strains/muscle ruptures/tears (n = 30), tendinosis/tendinopathy (n = 3), plantar fasciitis (n = 1), nerve injury/spinal cord injury (n = 1). The number of days missed from sport participation ranged from 30 to 268 days (M = 92, DS = 59). The number of days between the injury and the first official game following injury ranged from 42 to 357 days (M = 132, DS = 80).

2.2. Measures

Injury-Psychological Readiness to Return to Sport (I-PRRS) scale. The I-PRRS was developed by Glazer (2009) to assess the psychological readiness of injured athletes to return to sport. The final version of the questionnaire consists of 6 items scored on a numeric rating scale from 0 (*not confidence at all*) to 100 (*complete confidence*) with intervals of 10. The scale was administered to injured athletes across four-time intervals: 1 day after injury, the day before returning to practice, 1 day before competition, and 1 day after the first competition. Cronbach's alpha reliability coefficients were 0.93 after injury, 0.92 before practice, 0.78 before competition, and 0.80 after competition.

Sport Confidence Inventory (SCI). The SCI (Vealey & Chase, 2008; Vealey & Knight, 2002) is a 15-item scale intended to measure sport confidence in three areas: (1) confidence on being able to train and perform the physical skills necessary to succeed in sport (SC-Physical Skills and Training, 5 items); (2) confidence on the own ability to maintain an optimal focus and make critical decisions necessary to perform successfully (SC-Cognitive Efficiency, 5 items); and (3) confidence on the own ability to refocus after mistakes and overcome adversities (SC-Resilience, 5 items). Each item is rated on a Likert-type scale ranging from 1 (*can't do it at all*) to 7 (*totally certain*). Machida et al. (2016) reported Cronbach's alpha reliability coefficients of 0.89 for SC-Physical Skills and Training, 0.85 for SC-Cognitive Efficiency, and 0.89 for SC-Resilience.

Italian Mood Scale (ITAMS). The ITAMS (Quartiroli et al., 2017) is the culturally and linguistically validated Italian version of the Brunel Mood Scale (BRUMS; Terry & Lane, 2010), which was developed to examine mood responses in sport and exercise domains. The ITAMS comprises 24-items to assess six dimensions of mood, namely, Anger, Confusion, Depression, Fatigue, Tension, and Vigor. Participants indicate their feelings on a 5-point response scale ranging from 0 (*not at all*) to 4 (*extremely*). We used the ITAMS to examine the concurrent validity of the I-PRRS and the SCI according to the preliminary validation of the I-PRRS conducted by Glazer (2009). Cronbach's alpha reliabilities were 0.79 for Anger, 0.85 for Confusion, 0.85 for Depression, 0.82 for Fatigue, 0.86 for Tension, and 0.77 for Vigor.

2.3. Procedures

Translation. The translation and cultural adaptation of the I-PRRS and the SCI was conducted using the forward-backward translation method (Beaton, Bombardier, Guillemin, & Ferraz, 2000) by two Italian English-speaking researchers and a native English speaker with a good command of Italian. All researchers were knowledgeable about sport and clinical psychology. The original version of the scales was translated independently by the researchers and then the translated text was discussed extensively. When a consensus on a pre-version of the questionnaire was reached, the questionnaire was reverse-translated by a native English speaker. The original English scale, the translated and retranslated texts were examined carefully for accuracy. Just a few minor discrepancies on the syntax emerged. These were discussed until agreement on the changes was reached. A convenience sample of injured athletes (n = 20), not part of the final sample, was involved to preliminarily examine the I-PRRS and the SCI versions. Participants reported a full understanding of guidelines, item contents, and response options. The final version of the questionnaires is reported in Appendices 1 e 2.

Recruitment. Participants were recruited by phone, email, or in person using our informal and professional network (i.e., clubs and rehabilitation centers). Coaches, health professionals, sport medicine doctors, and physiotherapists at these locations were informed

regarding the study purpose and methodology. A letter of information was provided to them in order to notify those athletes who may have met eligibility criteria of potential study participation. In some cases we contacted the athletes directly. The study details were explained to the eligible athletes, and if they agreed to participate, they signed an informed consent form in accordance with the Declaration of Helsinki. The study was approved by the ethics committee for biomedical research of Chieti-Pescara University (ID richiam7px, May 16, 2019). Each participating athlete completed the I-PRRS, the SCI, and the ITAMS within 1 day before their first official competition following injury. Assessment took about 15–20 min to complete.

2.4. Statistical analyses

We investigated the construct validity, the internal consistency, and the concurrent validity of the I-PRRS and SCI. To explore the factor structure of the scales we conducted a Confirmatory Factor Analysis (CFA) on all I-PRRS and SCI items. The CFA was performed using AMOS 24 (Arbuckle, 2016). We decided to exclude potentially problematic items based on the following two criteria: (a) factor loadings smaller than 0.30 on at least one latent factor; (b) cross-loadings exceeding 0.30 on more latent factors. Each CFA model was evaluated according to different fit indices: root mean square residual (RMR), root mean square error of approximation (RMSEA), Tucker Lewis fit index (TLI) and comparative fit index (CFI). An acceptable fit was inferred when RMR value was less than 0.05 (Hu & Bentler, 1999) and RMSEA value was less than 0.08 (Hu & Bentler, 1995). TLI and CFI values greater than 0.90 were considered reflective of good fitting models (Tucker & Lewis, 1973). The reliability of the I-PRRS and SCI was assessed in terms of internal consistency using Cronbach' alpha, composite reliability, omega values, and average variance extracted of the latent variables (Watkins, 2017). Furthermore, concurrent validity was assessed using a Pearson product-moment correlation coefficient between the subscales of all measures (i.e., I-PRRS, SCI, and ITAMS).

3. Results

The original one-factor structure of the six-item scale of the I-PRRS (see Appendix 1) did not show acceptable fit indices (see Table 1). A careful inspection of the meaning of the items led us to hypothesize two potential latent factors of three items each that we named Confidence in performance capability and Confidence in recovery. CFA on the resulting two-factor scale yielded satisfactory fit indices (see Table 1 and Fig. 1).

CFA on the SCI items led to the exclusion of six items because of low factor loadings on a latent factor and cross-loadings. CFA on the remaining nine items equally distributed in the three subscales supported the three-factor structure of the questionnaire (see Fig. 2), whereas the one-factor structure was unsupported (see Table 1). Specifically, the latent factors were: SC-Physical Skills and

Table 1
Confirmatory factor analysis fit indices for the I-PRRS and SCI.

I-PRRS	RMR	RMSEA (90% CI)	TLI	CFI
One-factor model	.577	.275 (.220–.333)	.602	.761
Two-factor model	.197	.085 (.000–.159)	.962	.980
SCI				
One-factor model	.332	.287 (.255–.320)	.539	.654
Three-factor model	.076	.021 (.000–.085)	.997	.998

Note. I-PRRS = Injury-Psychological Readiness to Return to Sport scale, SCI = Sport Confidence Inventory, RMR = Root Mean Square, RMSEA = Root Mean Squared Error of Approximation, TLI = Tucker Lewis fit index, CFI = Comparative Fit Index.
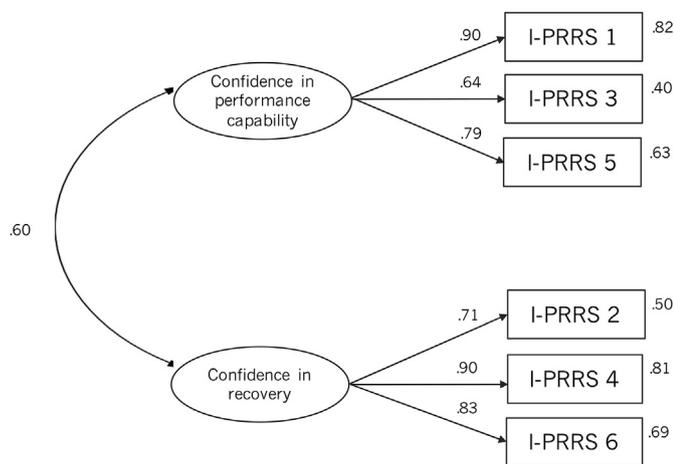
Fig. 1. Standardized Factor Loadings, Error Variances, and Correlations between Latent Constructs of the six-item I-PRRS scale based on Confirmatory Factor Analysis. All Factor Loadings are significant at $p < .001$.
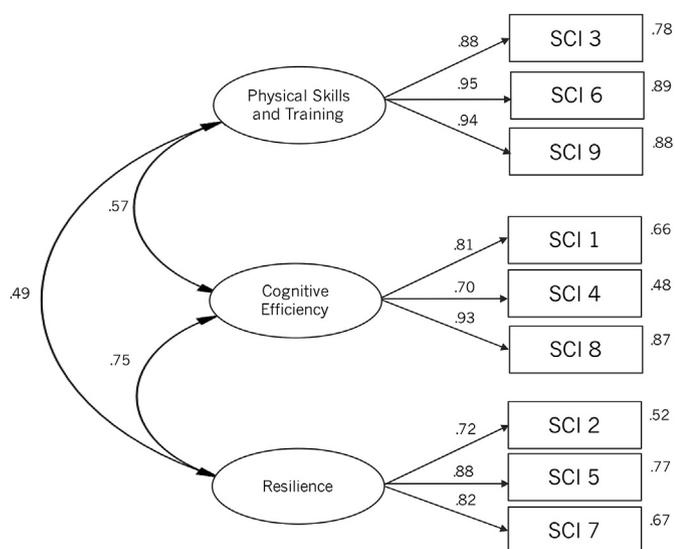
Fig. 2. Standardized Factor Loadings, Error Variances, and Correlations between Latent Constructs of the nine-item SCI based on Confirmatory Factor Analysis. All Factor Loadings are significant at $p < .001$.

Training (items 3, 6, and 9 of the Italian scale), SC-Cognitive Efficiency (items 1, 4, 8), and SC-Resilience (items 2, 5, 7; see Appendix 2).

Internal consistency values of the two questionnaires are reported in Table 2. To assess concurrent validity, we examined the correlations among the I-PRRS, SCI, and ITAMS subscales using the

Table 2
Reliability values of I-PRRS and SCI subscales.

I-PRRS	α	CR	ω	AVE
Confidence in performance capability	.808	.746	.716	.615
Confidence in recovery	.848	.749	.709	.668
SCI				
SC-Physical Skills and Training	.944	.751	.685	.854
SC-Cognitive Efficiency	.857	.748	.708	.670
SC- Resilience	.849	.749	.712	.655

Note. I-PRRS = Injury-Psychological Readiness to Return to Sport scale, SCI = Sport Confidence Inventory, α = Cronbach's Alpha Values, CR = Composite Reliability, ω = Omega Values, AVE = Average Variance Extracted.

Pearson product-moment correlation coefficient (see Table 3). Correlation between the I-PRRS subscales and SCI subscales were positive and ranged in magnitude from weak to moderately high (see Table 3). Correlations between the I-PRRS subscales and the Anger, Confusion, Depression, Tension, and Fatigue subscales of the ITAMS were negative and ranged in magnitude from weak to moderately high. A moderate positive correlation was found between the I-PRRS subscales and the Vigour subscale of the ITAMS. A similar trend of correlations was found between the subscales of the SCI and the ITAMS (see Table 3).

4. Discussion

The purpose of this study was to provide the validation of the Injury-Psychological Readiness to Return to Sport (I-PRRS) scale and the Sport-Confidence Inventory (SCI) in Italian language and culture. As above mentioned, cross-cultural adaptations allow scholars of different countries to develop and share research projects and exchange results. Additionally, practitioners could assess athletes' psychological readiness in their own cultural context.

The Italian version of I-PRRS was comprised of six items. Differently from the one-factor structure of the original (Glazer, 2009) and the Dutch versions (Slagers et al., 2019), the items loaded into two factors we named Confidence in performance capability and Confidence in recovery. A two-factor structure of the I-PRRS was also observed in a Persian version (Naghdi et al., 2016) that included two scales comprised of two and four items. It is worth noting that the number of the items of the Italian version is the same for the two subscales. Moreover, the content of the items is well reflected in the constructs of confidence in the own performance and the own recovery (see Fig. 1 and Appendix 1). Regarding the SCI, the Italian version is characterized by nine items included in three factors (i.e., SC-Physical Skills and Training, SC-Cognitive Efficiency, and SC-Resilience) reflecting the original version of the questionnaire. Both I-PRRS and SCI showed good fit and reliability indices.

Concurrent validity analysis between I-PRRS and SCI indicated that the two questionnaires share some common variance, but at the same time they measure different constructs. Moreover, concurrent validity analysis with the ITAMS showed similar results on both the I-PRRS and SCI subscales. The correlations between the I-PRRS and ITAMS subscales are in accordance with the results of a previous study (Glazer, 2009) reporting a negative relationship between the athlete's Total Mood Disturbance (TMD) scores of the POMS and I-PRRS scores, suggesting that mood states and psychological readiness may be related. Moreover, our results are in line with the literature underlining that athletes' confidence tend to increase over the course of rehabilitation eliciting positive emotions such as joy and excitement (Appaneal, Levine, Perna, & Roh, 2009). On the other hand, a negative correlation between confidence and negative emotions, such as anxiety and fear of relapse of injury was found (Arden et al., 2016b; Brewer & Redmond, 2017).

4.1. Implications

A cross-validation of both the I-PRRS and SCI is in line with the growing interest on cognitive and emotional responses of injured athletes and with a holistic, multidisciplinary and multidimensional approach intended to improve the quality and the efficacy of the rehabilitation process and the subsequent return to sport (e.g. Ardern et al., 2016a; Brewer & Redmond, 2017; Conti et al., 2019). From a research point of view, developing an Italian version of the two scales can encourage a validation in a same language of other questionnaires used to evaluate athlete's psychological readiness, such as the Re-Injury Anxiety Inventory (RIAI; Walker, Thatcher, &

Table 3
Pearson Correlation Coefficients among the I-PRRS, SCI and ITAMS subscales.

Scales	I-PRRS		SCI			ITAMS				
	CPC	CIR	PST	CE	Res	Anger	Confusion	Depression	Fatigue	Tension
CPC	–									
CIR	.528**	–								
PST	.634**	.365**	–							
CE	.623**	.311**	.529**	–						
RES	.623**	.407**	.507**	.761**	–					
Anger	-.438**	-.406**	-.456**	-.331**	-.447**	–				
Confusion	-.578**	-.379**	-.457**	-.454**	-.504**	.604**	–			
Depression	-.577**	-.331**	-.603**	-.548**	-.462**	.755**	.694**	–		
Fatigue	-.348**	-.235*	-.338**	-.228*	-.465**	.563**	.606**	.509**	–	
Tension	-.576**	-.533**	-.472**	-.553**	-.673**	.498**	.720**	.565**	.481**	–
Vigor	.449**	.252*	.359**	.481**	.538**	-.334**	-.306**	-.399**	-.272**	-.262**

Note. I-PRRS= Injury-Psychological Readiness to Return to Sport scale, SCI = Sport Confidence Inventory, CPC= Confidence in Performance capability, CIR= Confidence in Recovery, PST= SC-Physical Skills and Training, CE= SC-Cognitive Efficiency, RES = SC-Resilience, * correlation in significant at 0.05 level (2-tailed), ** correlation in significant at 0.01 level (2-tailed).

Lavallee, 2010), the ACL-Return to Sport After Injury (ACL-RSI; Webster et al., 2008) scale, the Knee Self-Efficacy Scale (K-SES; Thomeé et al., 2006), the Return to Sport After Serious Injury Questionnaire (RSSIQ; Podlog & Eklund, 2005), and the Attention Questionnaire of Rehabilitated Athletes Returning to Competition (AQ-RARC, Christakou, Zervas, Psychountaki, & Stavrou, 2012) scale. These have been considered as useful tools to measure confidence, motivation, fear, and anxiety, which are all unidimensional constructs highly related to psychological readiness of injured athletes. Given that psychological readiness is conceived as a multidimensional state (Conti et al., 2019), implementing different scales for a more detailed and complete assessment of this state is fundamental.

From an applied perspective, the I-PRRS and SCI can be used to assess psychological readiness to return to sport among Italian injured athletes. The questionnaires can be easily administered throughout the rehabilitation process, as well as during the return to practice and the return to competition. Their use allows practitioners to: (1) monitor the confidence of injured athletes during the rehabilitation phases and track athlete's progress considering a high level of confidence as a psychological readiness index; (2) identify those athletes who are lacking confidence and therefore not ready yet to return; and (3) develop suitable programs to make athletes psychologically ready to return to sport at the end of the rehabilitation phase.

4.2. Limitations and future research directions

Additional research is recommended to better examine the psychometric characteristics of questionnaires and to address some limitations of the current study, which includes a not very large sample size and the lack of consideration of important factors (e.g. type of sport) that can influence the return to competitive activity. Thus, future studies should involve a larger number of participants to derive normative data and to classifying participants' readiness to return to sport specifically based on the type of sport, level of competition, type of injury, the duration of the rehabilitation process, and previously experienced injuries.

Funding statement

Declaration of competing interest

My co-authors and I do not have any interest and conflict of interest

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ptsp.2019.10.001.

Appendix 1. The Items of the I-PRRS Scale and the Corresponding Italian translation

Items	Latent Factor
1. My overall confidence to play is …	Confidence in performance capability
La mia sicurezza generale di gareggiare è …	*Sicurezza nelle Capacità Prestative*
2. My confidence to play without pain is …	Confidence in recovery
La mia sicurezza di gareggiare senza sentire dolore è …	*Sicurezza nel Recupero*
3. My confidence to give 100% effort is …	Confidence in performance capability
La mia sicurezza di dare il 100% del mio impegno/sforzo è …	*Sicurezza nelle Capacità Prestative*
4. My confidence in injured body part to handle the demands of the situation is …	Confidence in recovery
La mia sicurezza che le parti del corpo infortunate rispondano alle diverse richieste delle situazioni di gara è …	*Sicurezza nel Recupero*
5. My confidence in skill level/ability is …	Confidence in performance capability
La mia sicurezza nelle mie capacità/abilità è …	*Sicurezza nelle Capacità Prestative*
6. My confidence to not concentrate on the injury	Confidence in recovery
La mia sicurezza di non essere concentrato sull'infortunio è …	*Sicurezza nel Recupero*

Appendix 2. The Items of the SCI and the Corresponding Italian Translation

Items	Latent Factor
1. You can keep mentally focused throughout the competitive event?	SC-Cognitive Efficiency
quanto sei certo di poterti mantenere focalizzato mentalmente durante l'evento?	*SC-Efficienza Cognitiva*
2. You can bounce back from performing poorly to successfully execute your skills?	SC-Resilience
quanto sei certo di poter uscire da una situazione in cui stai eseguendo in modo scadente per tornare ad eseguire con successo le tue abilità?	*SC-Resilienza*
3. Your physical training has prepared you enough to succeed?	SC-Physical Skills and Training
quanto sei certo che il tuo allenamento fisico ti abbia preparato in modo sufficiente per avere successo?	*SC-Abilità e Capacità fisiche*
4. You can successfully make critical decisions during competition?	SC-Cognitive Efficiency
quanto sei certo di poter prendere efficacemente decisioni critiche durante la competizione?	*SC-Efficienza Cognitiva*
5. You can regain your mental focus after a performance error?	SC-Resilience
quanto sei certo di poter ripristinare il tuo focus mentale dopo un errore di prestazione?	*SC-Resilienza*
6. Your physical fitness level will allow you to compete successfully?	SC-Physical Skills and Training
quanto sei certo che il tuo livello di preparazione fisica ti consenta di competere con successo?	*SC-Abilità e Capacità fisiche*
7. You can overcome doubt after a poor performance?	SC-Resilience
quanto sei certo di poter superare l'incertezza dopo una performance scadente?	*SC-Resilienza*
8. You can maintain the mental focus needed to perform successfully?	SC-Cognitive Efficiency
quanto sei certo di poter mantenere la concentrazione mentale necessaria a eseguire con successo?	*SC-Efficienza Cognitiva*
9. You have the physical preparation that is needed to compete successfully?	SC-Physical Skills and Training
quanto sei certo di avere la preparazione fisica necessaria a competere con successo?	*SC-Abilità e Capacità fisiche*

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