



Cross cultural validity of the Arabic version of Perception of Success Questionnaire (Children' S Version)

KEYWORDS

Cross cultural validity -Goal achievement- task and ego orientation- youth sport

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ABSTRACT

The purpose of this investigation was to examine psychometric proprieties of Tunisia adapted POSQ-CH. This version in Arabic language of the POSQ-CH instrument were elaborated by committee and back translation methods and tested among groups of Tunisian athletes. The sample was comprised 425 Tunisian boys and girls athletes, participating in various sports in Tunisia. The participants were divided into 2 groups considering level of practice: elite level athletes (n=185) and competitive level athletes (n=240). All subjects filled in the two components (6 items for each) of the adapted tool; which evaluate Task orientation and Ego orientation. The results shows that translated version of the POSQ-CH could discriminate elite and competitive athlete in the both sub-scales. Also, the means of Cronbach's alpha were respectively .84 and .83 for Task orientation and Ego orientation. In addition, Confirmatory Factorial Analyze demonstrates an adequate factorial structure and confirms the initial model of the two orthogonal sub-scales.

The development of this version will allow psychologists and coaches in the Arab countries to exploit this preliminary translation for assessing Task and Ego orientation of their athletes.

Introduction

The study of motivation in physical activity and sport has played a significant role in the domain of sport psychology because it illustrates the force that ascertains whether a person starts and commits themselves to a specific activity.

In recent decades, a large number of investigations have sustained two important motivation theories: the achievement goal theory (Nichols, 1989) and the self determination theory (Deci and Ryan 1991, 1985; Ryan and Deci, 2007).

Latest studies into motivation and achievement goal behavior in sport has emphasized on achievement goal theory (Pintrich et al., 2003). This assumption, asserts that two goal orientations manifest themselves in achievement context and impact on the motivation process (See Hulleman et al., 2010; Roberts et al., 2007).

These two goals have been determined as Task and Ego goal orientation. The present study examines the development of the POSQ-CH as a measure of achievement goals developed for the sport context.

The two goal orientation functions as dispositional tendencies to view success according to one concept of ability or the other. Therefore, the goal of the individual is to meet the criteria by which success is estimated.

The achievement goal theory assumes that people can have two important dispositional goal orientations in achievement contexts, like the sport context, which are created by a social effect. Nicholls (1984, 1989) refers to "Task" and "Ego" involvements as two different and independent states regarding how we process activities (Roberts et al., 2007, Duda et al., 1991).

Individuals who are in a state of task involvement believe that ability is demonstrated through improving new skills, pro-

moting levels of competence and exerting maximum effort. Thus, task orientation is focused on personal success and development through effort.

In contrast, an individual who is in state of ego orientation is focused on outperforming others and reaching better results than the rest. Therefore, task orientation was related prosocial and adaptive achievement beliefs about sport participation while ego was related to negative social aspect and maladaptive achievement beliefs about sport involvement.

If the goal orientation of the person is task involving, then the concept of ability is undifferentiated and perceived ability is not relevant, as the individual is trying to demonstrate mastery at the task rather than normative ability (Nicholls, 1989).

On the other hand if the goal orientation of the individual is ego involving, then the concept of ability is differentiated and perceived ability is relevant.

As a matter of fact, sport and other forms of physical activity have a significant positive impact on the lives of children.

Participation in sport has many benefits such as moral development and emotion management within sport as well as better school conduct and accomplishment, also it decreased health troubles. Clearly sport has substantial positive influence on the children. But the rate of the youth participation decreased. That's why, psychologists were considered by the matter and they showed a great interest for studying motivation theories in sport and exercise and elaborating measurements tools. Particularly, theories and instruments of measurement in the motivation context which help specialists to encourage youth participating in sports activities.

To measure the orientations of the goal, the psychologists have developed instruments to evaluate the task and ego orientations (Nicholls et al., 1989).

In this prospect, Roberts and his colleagues (Roberts & Balague, 1989; Roberts et al, 1998; Treasure & Roberts, 1994) developed the "questionnaire of the perception of success" (POSQ) and Duda and its colleagues (Duda & Whitehead, 1998; Chi and Duda, 1995; Duda and Nicholls, 1989) developed the Task and Ego Orientation in Sport Questionnaire (TEOSQ). Both showed validity and a robust structure (Duda & Whitehead, 1998; Roberts et al, 1998).

While no Arabic language questionnaire were developed to assess achievement goal orientation among Arabic youth athletes, the objective of the present study is to elaborate a version in Arabic of Perception of Success Questionnaire POSQ-CH and check the psychometric properties in term of sensitivity, internal consistency and factorial structure of the instrument.

Methods

Participants

A total of 425 Tunisian athletes participating in various sports in Tunisia (football, basketball handball, volley ball, Martial art sports, and Fields and track athletes) were recruited at the time of this study. These sportsmen contain males and females athletes (respectively, n=255 and n=177). The sample were divided into elites athletes (n=185) and competitive athletes (n=240) according to their level of performance.

The chronological age of the participants is ranging from 12 to 18 years. The social class of the athlete's parents includes employees, workmen and private functions and the academic and cultural level is diversified.

Measurements

The translated version designed for child of Perception of Success Questionnaire (POSQ-CH) developed by Treasure and Roberts (1994) and confirmed by Roberts et al. (1998) were administrated to collect the data . This tool comprised of 12 items divided in two components: Task Orientation and Ego Orientation. Every sub-scale contains 6 items measured on a 5 points Likert scale.

The psychometric properties of the initial instrument designed showed a robustness of factorial structure, high reliability and a good internal consistency: =0.87 and =0.84 respectively for the tow sub- scales Task Orientation and Ego Orientation.

Procedures

The POSQ-CH tool was subjected to the translation by a formed committee of two English/ Arabic bilingual professors, an Arabic teacher and three academics in sport and exercise psychology. A procedure of back translation to English language was carried out to see the robustness of the adapted version. This procedure was described by Hambleton (1993).

The answers were collected over three weeks period following agreements allocated by the directors of the clubs and the coach's of the selected voluntary athletes.

In what follow we treat, sensitivity, the internal consistency and the factorial structure of the elaborated version.

The sensitivity was demonstrated by the independent Student t-tests for each sub-scales of the tool.

Internal consistency is checked by the coefficient alpha of Cronbach. Tabachnick and Fidell (2007) suggested a value of

0.70 for an acceptable internal consistency.

The factorial structure of the scale was shown by a confirmatory factorial analysis (CFA) on each sub-scale. We exposed 7 index resulting from the confirmatory model: the Chi Square (χ^2), the degrees of freedom (df), Bentler's Comparative FIT Index (CFI), the Goodness of FIT Index (GFI), pclose fit index (PCFI), Tucker-Lewis Index (TLI), and the Root Mean Square of Error Approximation (RMSEA). The suggestions of Hu and Bentler (1999; 1990) and Tanaka (1993) require an index of parsimony χ^2/DDL below than 2 or higher than 5 in order to accept the model. Furthermore, the Values of CFI, GFI, PCFI, and TLI were recommended close to .90, while a value of RMSEA was recommended lower than .50.

Statistical analysis: the statistical data management and computations of statistics were performed using SPSS version 20.0 (SPSS Inc., Chicago, IL, USA) and the confirmatory factor analysis was accomplished with SPSS Amos version 20.0 (SPSS Inc., Chicago, IL, USA).

Results

1. Sensitivity

The sensitivity of the instrument was shown by the comparison of the two groups of Elite and competitive on Task Orientation and Ego Orientation's Means using Student independent t-test.

The statistics revealed significant differences between elite and competitive athletes in the tow POSQ-CH components (see Table 1).

Table 1. Descriptive data, independent t test values and Coronbach's alpha for Task Orientation and Ego orientation

Level of practice		Mean	SD	Standard Error	Mean	α	t
Task Orientation	Elite (n=185)	4.03	0,61	0,70	0.84	7.03**	
	Competitive (n=240)	3.50	0,81	0,85			
Ego Orientation	Elite (n=185)	4,14	0,67	0,06	0.83	4.69*	
	Competitive (n=240)	3,80	0,81	0,05			

* significant with $p < 0.05$; ** significant with $p < 0.01$

2. Internal consistency

The internal consistency of the tool was tested by means of Coronbach's α which is suggested to be higher than .70 (Tabachnick and Fidell ; 2007). The values highlighted were respectively 0.84 and 0.83 for the two POSQ-CH sub-scales : Task Orientation and Ego Orientation revealing a good internal consistency.

3. Confirmatory Factorial Analyze (CFA)

A psychometric data have a predisposition to be not normally distributed. Multivariate Mardia coefficient was calculated. In the present study , Mardia value showed that the data were not multivariate normal (multivariate kurtosis = 131.40, $z = 6.24, p < .001$).

In addition, adjustment indexes resulting of the standardized solution of the CFA demonstrates a good factorial structure (see table2) .

Table 2. CFA adjusted index of the POSQ-CH scale

	2	DDL	2/DDL	GFI	TLI	CFI	PCFI	RMSEA
CFA	92.13	53	1.75	0.97	0.97	0.98	0.78	0.042
Acceptable values	-	-	< 2 or >5	Above .90	Above .90	Above .90	Above .70	< 50

The robustness of an item in CFA is given by a high Factor loading weights. Comrey and Lee suggested that a factorial weight higher than .71 is regarded as excellent, higher than .63 is regarded as very good, higher than .55 is regarded as acceptable and inferior than .45 is considered poor.

In the current study, the CFA of the POSQ-CH sub-scales showed good factorial weights. All the parameters are significant on the .05 level. (See Figure1).

Also correlation between Items and latent factors shows adequate data representation.

Table 3. Pearson correlation between Items and latent factors task and Ego

Items in Arabic language	Item code	Task	Ego
نيرخالآاىلع تقوفت انأ	X1	,76**	
حضاو لكشيب لاضفأل انأ	X2	,76**	
لضفأل انأ	X3	,70**	
نيرخالآا نم لاضفأ بعلا انأ	X6	,74**	
نوع يسطتسي ال نيرخالآا عيش تنزجنا مل عف	X10	,74**	
لضفأل اينأ نيرخالآا لتنيب	X11	,75**	
دجج لواحأ	X4		,75**
تنسحت اقح انأ	X5		,74**
يسفنل هتعضو افده تغلب	X7		,73**
تابوعصراىل ع تبيلخت انأ	X8		,76**
هب مايقلا نم نكمتأ مل عيش يف تخجج لبيق نم	X9		,72**
يتاردق نم لضفأل تيدأ	X12		,70**

** . Correlation is significant at the 0.01 level

In addition, Pearson’s correlation coefficient between the two sub- scales, provides a value of $r=0.27$. This last finding confirms that Task Orientation sub-scale and the Ego orientation sub-scale are orthogonal.

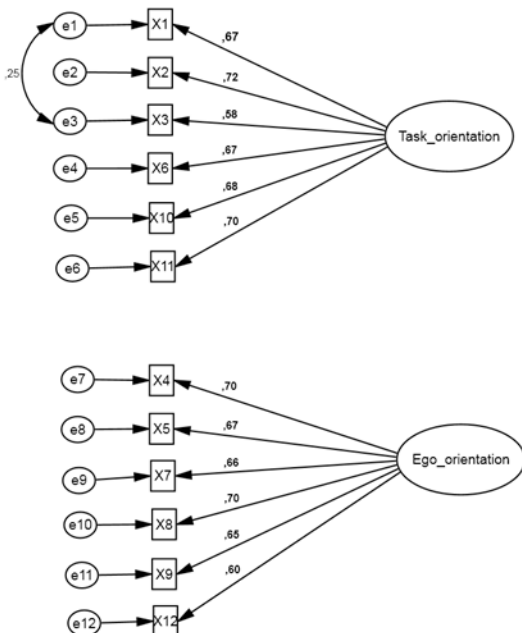


Figure 1. CFA of the Arabic POSQ-CH. version

All parameters are significant at .05 level

Discussion

The aim of this study was to verify the psychometric properties of a version established in Arabic language of the perception of success questionnaire (children’s version) among youth athletes POSQ-CH. Also we have tested: (A) sensitivity, (b) internal consistency, (c) and the factorial structure of the tool. The results highlighted a robustness of measurement which are similar to the origin and adapted versions. In the same perspective, the attempts of cross-cultural validation carried out previously “Perception of Success Questionnaire confirmed the robustnesses of the versions elaborated. The POSQ translated successfully into French (Durand et al., 1996), Finnish (Liukkonen and Leskinen, 1999), Spanish (Cervelló et al, 1999) and Norwegian (Roberts and Ommundsen, 1996).

Additionally, the approach of the goal achievement helped to understand the motivation in the contexts of sport and physical education. This theory is now well documented and it supports the robustness, the reliability and the validity to evaluate the perception of success in sport.

In fact, the common achievement goal measurement was based on the 2 x 2 model (see: Locke, 2013; Hulleman, 2010; Spray et al., 2006). However, a paucity of recent studies used trichotomous Achievement goal assessment (For example: Murayama and al., 2012; Kavussanu et al., 2009; Elliot and Conroy, 2005; Gernigon et al., 2004; Elliot and McGregor, 2001). Actually, evidence for the validity of 2 x 2 achievement goal measurement is increasing, much of which is based on the psychometric properties of goal scores and their associations with other constructs (see Baranik et al., 2010).

Furthermore, Hardwood (2000) presented the limitation of nomothetic research tools for the idiographic assessment of athletes’ achievement goal orientations. Therefore, Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda & Nicholls, 1992) and the Perceptions of Success Questionnaire (POSQ; Roberts, Treasure, & Balague, 1998) were considered insufficient tools to evaluate achievement goal orientations. Moreover, he recommended the development of appropriate contextual assessment to evaluate the achievement goals at nomothetic and idiographic levels.

In addition, Hanrahan and Biddle (2002) using Confirmatory factor analyses among four achievement orientations measurement tools : Competitive Orientation Inventory (COI; Vealey, 1986), the Sport Orientation Questionnaire (SOQ; Gil, 1988), the Perception of Success Questionnaire (POSQ), and the Task and Ego Orientation in Sport Questionnaire (TEOSQ; Chi and Duda, 1995; Duda and Nicholls, 1989), confirmed that only the TEOSQ is the better instrument for measuring achievement orientations. Supplementary, motivational climate showed that a grand factor affecting goal orientation (Smith et al 2009; Stuntz and Weiss, 2009). For example, Murcia and al., (2010) indicated by structural equation modeling, that the perceived motivational climates predicted dispositional goal orientations. Also, the findings of Kristiansen and al., (2012) support the postulates of achievement goal theory; a mastery climate reduces the perception of stress among athletes, and the converse is true for a performance climate.

Also, in a recent study Bortoli and al. (2011), have examined interactions between competence, goal orientation (task/ ego), and perceived sport motivational climate. Results proved that task orientation were the strongest predictors of pleasant psychobiosocial states.

It’s recommended to study goal orientation in a social interaction context: for example motivational climate athlete-coach interaction, type of sport, age, enjoyment in practice, and social support (Ntoumanis et al., 2012; Van de Pol and

Kavussanu, 2012; Stuntz and Weiss, 2009; Waldron and Krane 2005).

In this perspective, Barkoukis et al., (2010) demonstrated, in an empiric study, that perceived enjoyment will decline with age, while tedium will augment. Also, the findings of Dewar and Kavussanu (2012) with team sport athletes, suggested that task involvement may influence emotions through perceived performance, while the relationship between ego involvement and emotions depends on perceptions of performance and match outcome.

In another hand, the data which emerged from this analysis were very favorable to compare with those other studies published and which announced by confirmatory factorial analysis of the questionnaires specific to the youth sport (For example : Lee et al., 2007 ; Ntoumanis et al., 2005 ; Lee et al., 2000 ; Walling et al., 1993).

However, no scale is perfect (Marsh, 1994), and then, we must continue to submit our questionnaires to rigorous tests,

ensuring thus that we measure what we claim to measure. It is certainly the case of this version of «Perception of Success Questionnaire” (POSQ-CH). Until now, the use of the questionnaire showed that it is a valid and reliable instrument to measure the task and the ego in youth sport. Future researches should concentrate on the determination of the validity and the reliability of the tool to measure the motivational orientations for Arabic Adult sportsmen.

Conclusion

The Arabic version of the Perception of Success Questionnaire (Children’ S Version) showed that it is sensitive according to the level of sport practice, an adequate internal consistency and a factorial structure which confirms the ideal models of the two orthogonal scales.

The development of this version will allow psychologists and coaches in the Arab countries to exploit this preliminary translation for assessing Task and Ego orientation of their athletes in Tunisia and other Arabic countries. However, other empirical work on large diverse samples is needed.

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