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Adaptation of the Attitudes to Moral Decision-Making in Youth Sport Questionnaire into Turkish Culture: A Validity and Reliability Study in a Turkish Sample

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Abstract Keywords

The aim of this study is the adaptation of The Attitudes to Moral Decision-Making in Youth Sport Questionnaire to Turkish student sample aged between 11-19. Data was collected from 398 student athletes. Cronbach's Alfa Coefficient of the AMDYSQ was found 0,76, and test retest reliability coefficient was found 0,855. The validity of the AMDYSQ analyzed with confirmatory factor analysis (CFA). Fit indices values for all parameters were found to be good or excellent (Chi-square/df=2,85; GFI= 0,96; AGFI= 0,93; CFI= 0,96; NNFI= 0,94; RMSEA= 0,068; SRMR= 0,047). As a result, it was determined that the data obtained from the Turkish form of AMDYSQ scale was described by the theoretical structure and reliability coefficients were sufficient.

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Introduction

It is said among the people for many years that sport has contribution to the character and moral development. In fact, this idea is related to the development of social morality and behavior. According to Kohlberg (1964), moral development is a part of cognitive development and in this period children will detect and solve ethical dilemmas by evaluating the good and bad behavior. Moral development of students is defined as the most important aim of education in many physical education curriculum of both primary and high school classes, (IPC, 2005; NASPE, 2005). It is also stated that in the development of moral values like honesty, tolerance, cooperation and respect, physical education and sport has an important role (Shields and Bredemeier, 1995).

Researches intended to ethical behaviors in physical education and sport, generally associated with the concepts of sportsmanship, fair play, and these researches in today are the key issues of the philosophy of sport. In this context, many studies have been made by researchers regarding the violations of the principles of sportsmanship and fair play, or the relationship between different concepts of these principles. These studies include issues related to moral decline (Corrion, Long, Smith and Longueville, 2009; Boardley and Kavussanu 2011), moral thinking (Long, Pantaleon, Bruant and Longueville, 2006), moral functioning (Kavussanu, and Spray, 2006), cheating in sport (D'Arripe-Longueville, Corrion, Scoffier, Roussel and Chalabaev, 2010), achievement goals and sportsmanship (Lemyre, Roberts and Ommundsen, 2002; Gano-Overway, Guivernau, Magyar, Waldron and Ewing, 2005), achievement goals and fair play (Río, Gimenez, Cecchini, and Mesa, 2012), goal orientation and

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sportsmanship (Dunn and Dunn, 1999), motivational climate and sportsmanship (Stornes and Ommundsen, 2004; Miller, Roberts and Ommundsen, 2004), doping and sportsmanship (Chantal, Soubranne and Brunel, 2009), antisocial behavior (Sage and Kavussanu, 2008; Boardley and Kavussanu, 2010; Hodge and Lonsdale, 2011; Bortoli, Messina, Zorba and Robazza, 2012), sports education model (Perlman and Karp, 2010). In addition, there are some studies that explain the positive effects of sport on the moral and character development of children. For example, a training program designed for children, named "Fair Play for Kids" has been found to be effective for a good moral development (Gibbons et al., 1995). Woods (2011) stated that, sport and physical activity offer moral dilemmas for people to solve and gives opportunities to develop moral codes such as integrity, honesty, responsibility and fairness. At the same time, there were many instruments developed about the subjects of moral decision making (Lee, Whitehead and Ntoumanis, 2007), moral disengagement in sport (Boardley and Kavussanu, 2007), moral content judgment in sport (Proios, 2010), sportsmanship orientations (Vallerand, Briere, Blanchard and Provencher, 1997), prosocial and antisocial behavior in sport (Kavussanu and Boardley, 2009) and these instrument has been involved in the literature to be used in the field of sport philosophy. These scales include examples of dilemmas occurred in sport environment, possible sports scenarios and attitudes exhibited in this dilemma.

Attitudes to Moral Decision-making in Youth Sport Questionnaire (AMDYSQ) developed by Lee et al. (2007) is an instrument to measure attitudes towards moral decision making in sport among youth populations, with particular focus on the distinction between those actions that could be fairly described as cheating and other classes of actions that might also be described as immoral, instrumental, or antisocial, such as gamesmanship and positive actions as keep winning in proportion. Gamesmanship, as defined in here is the use of dubious (although not technically illegal) methods to win or gain a serious advantage in a game or sport and also use slang language, slowing down the game, tactical foul in order to prevent a goal, point or attack. Cheating is generally used for the breaking of rules to gain unfair advantage in a competitive situation without being catched. İt also includes the actions of trying to take an unfair penalty and goaling with hand (Dixon and Morgan, 2007). In the literature, different types of study can be seen using the AMDYSQ scale. Palou et al (2013) stated that, ego-oriented motivational climate generated by coaches has negative effects on the attitudes to moral decision making of athletes and related to higher acceptance of the acceptance of gamesmanship and cheating. Similarly Fuster-Parra et al. (2014) also indicated that, cheating adversaries and referees is more likely to be accepted when the personal disposition is oriented to the ego, while the acceptance of the gamesmanship is more likely to occur when the motivational climate generated by the coach is oriented to the task. Ponseti et al. (2012) suggested in the study of the Spanish culturel adaptation of the AMDYSQ, that basketball and handball players are more likely to accept cheating and gamesmanship than soccer players. Zengaro (2010) remarked that the Acceptance of sport aggression would be indicated by the acceptance of cheating and the ability to keep winning in proportion.

In Turkey, unethical issues in sport context increases day by day and these problems come up in the media every day. As a result of these problems, sport environment is deteriorating, and starting from the spectator this affected the whole society negatively. In the solution of this problem, the problem must be revealed firstly. None of the scales in the literature directly measures the shameful behavior "cheating and undermining behavior "gamesmanship. In this context, the adaptation of this scale has to be made because the AMDYSQ is one of the scales in the international literature that measures the attitudes to moral decision making with particular focus on the distinction between those actions. At the same time, lacking of an measurement tool based on self-description draws attention. Therefore, the adaptation of this survey is believed to be the first study in this area. In addition with this adaptation, it will be possible to compare the evaluation of the moral issues in different cultures. To that end, AMDYSQ is expected to meet these requirements to a large extent.

Purpose

The aim of this research is to test the validity and the reliability of the AMDYSQ (Lee Whitehead and Ntoumanis; 2007) in order to adapt it into Turkish culture. The psychometric properties of the Turkish version of AMDYSQ is also presented and discussed.

Method

Research Model

This study planned as a scale adaptation study based on a survey method (Büyüköztürk et. al., 2011.

Study Group

The study group consists of student athletes making any sport with license and studying in secondary and high school in Antalya in the academic year of 2012-2013. While choosing the study group, appropriate sampling method was used (Büyüköztürk et.al., 2011). 407 students participated in the study. After being eliminated scales those that do not appropriately marked; 132 female, 266 male, totally 398 students' data were evaluated. The study group's age vary between 11-19 and their average age is 15,85±2,25. The 128 of the study group is student in secondary school and 270 in high school. Students who participated in the study are to be licensed with 18 different sport branches (basketball=76; soccer=175; handball=27; volleyball=65; track and field=6; american football=1; badminton=4; boxing=1; fencing=6; wrestling=9; judo=2; karate=3; kickboks=4; muay thai=1; taekwondo=3; tennis=2; wushu=1 and other=12 person). The study group voluntarily participated to study. Implementation of the scale took approximately 10 minutes.

Attitudes to Moral Decision-making in Youth Sport Questionnaire (AMDYSQ)

Original AMDYSQ is an instrument developed to measure the attitudes to moral decisions makings of young athletes. In this study, the aim was to develop an instrument which provide gender, sex and sport type invariance. In the original study the confirmation of the gender invariance of 3 factor 9 item scale tested among 375 athletes. The original scale is a 5 point likert type scale and scored between strongly disagree (1) to strongly agree (5). The sub dimensions of the scale are cheating (items 2,4 and 6; I would cheat if I thought it would help me win), gamesmanship (items 1,5 and 8; I sometimes try to wind up the opposition) and keep winning in proportion (items 3,7 and 9; Winning and losing are a part of life). Factor loadings for 9 items vary between 0,47-0,89, fit indices values are Chi-square=33,54; df=24; CFI= 0,98; NNFI= 0,98; RMSEA= 0,034; SRMR= 0,052 respectively. With these psychometric properties, original AMDYSQ seems to be a valid and reliable scale.

6 of the items (items 1, 2, 4, 5, 6 and 8) of the scale have negative meaning and 3 of the items (items 3, 7 and 9) of the scale have positive meaning. While scoring the positive items strongly agree is scored with 5 and strongly disagree is scored with 1. While scoring the negative items strongly agree is scored with 1 and strongly disagree is scored with 5. Receiving high scores from the scale means athlete have high level of moral decision-making; received low scores from the scale means athlete have high low of moral decision-making.

Process

In order to Turkish adaptation process, permission and original scale requested from the corresponding author Jean Whitehead by e-mail and with given permission the translation process started. The traditional approach has been adopted for linguistic equivalence study (Hançer, 2003). The original form of the scale translated English to Turkish by researcher and four other interpreters. These four people are interpreters who know English in a good level. The five different translations analyzed with a translation expert considered that the best expression of each item. The Turkish form also analyzed with three academic members from sport sciences, suitability of each item discussed with them, and at the end Turkish form was created. The final version of the Turkish form translated into English with back translation method by native two speakers. One of these people is a lecturer in the department of English in Australia and the other is a doctorate student in the field of sport sciences in America for four years. The original and the translated forms examined with two lecturers from foreign languages department and reached a consensus that there was no difference between the two forms.

The data used in this study were collected by the researcher. The study group voluntarily participated in the study. Background information about the survey and studies are given to the students. Implementation of the scale took approximately 10 minutes.

Confirmatory (CFA) factor analyze method was used in order to examine whether the factor structure obtained from Turkish sample is suitable with original scale. By CFA, model-data fit statistics calculated on the most commonly used of the Chi-Square Goodness, Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Root Mean Square Residuals (RMR or RMS) and Root Mean Square Error of Approximation (RMSEA) (Cole, 1987; Sümer, 2000). Spearman's correlation coefficients were calculated in order to determine the relationship between two different measurements in linguistic equivalence and test-retest reliability studies. The Kolmogorov-Smirnov test was applied to test for a normal distribution. The data used for analysis in this study does not have any missing observations. In detecting outliers of the data were examined by the Mahalanobis distances. According to calculated values, there is no need to remove observations from the data set because of outliers. In the analysis of the data SPSS 18.0 and Lisrel 8,72 was used.

Results

Linguistic Equivalence Study

With the reference of expert opinion, the obtained Turkish form and the English form applied to 15 people who had a good English knowledge with 2 week gap in order to decide the equivalence. The correlation coefficient between the two forms were found 0,832 (p=0,000). With the expert opinion and the obtained correlation coefficient, parallelism of the scale in terms of translation has been accepted.

Reliability and Internal Consistency

In order to examine the reliability of AMDYSQ, test-retest and internal consistency calculations were made. Whether the scale provides similar measurement values for applications in different time, it was applied to 27 person with a 2 week gap. The normal distribution of the data was determined by Kolmogorov-Smirnov test. Spearman correlation coefficient between the two measurements was 0.855 (p = 0.000), respectively, and were considered to ensure internal consistency. Cronbach alpha coefficients of the sub scales and the correlation values between factors are given in table 1.

Table 1. Cronbach Alpha Values of AMDYSQ Turkish Scale

Subscales	Alpha	AC	AG	KWIP	T
Acceptance of Cheating (AC)(HB)	,776	1			
Acceptance of Gamesmanship (AG)(YB)	,676	,483**	1		
Keep Winning in Proportion (KWIP)(AKK)	,590	,325**	,149**	1	
Total (T)	,760	,841**	,757**	,614**	1

**p<0,01

For the reliability of the sub-scales of AMDYSQ, Cronbach's alpha coefficients ranged between 0.59 and 0.78. Cronbach alpha coefficients, demonstrates that the reliability of the scale is provided. AMDYSQ 's correlations between factor scores ranged from 0.48 and 0.15 while the correlations between total scores on the factors ranged from 0.61 to 0.84.

Validity

Crowley and Lee (1992) indicate that, 100 participants insufficient for factor analysis, 200 "average, 300" good reputation, 500 "reputation is very good and 1,000 participants excellent (Multitude et al., 2012). Therefore, the number of participants in the study could be said to be sufficient for factor analysis. Confirmatory (CFA) factor analyze method was used in order to examine the factor structure obtained from Turkish sample. Standardized solutions and the path diagram of the structural model obtained from the CFA (the validity for AMDYSQ) are given in Figure 1.

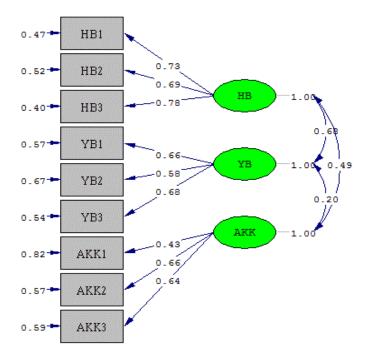


Figure 1. For 3 Factor Model of AMDYSQ: Standardized Solutions of CFA

Many fit indices are used in order to determine the adequateness of the tested model in CFA. To assess whether the model is verified, all indices should be evaluated together rather than a single index (Cole, 1987). Fit Indices statistics are given in Table 2.

Table 2. Fit Index Statistics for AMDYSQ

Index	Value	Girls	Boys
Chi-square	68,39	65,38	57,75
Chi-square DF	24	24	24
P	0,000	0,000	0,000
Chi-square/df	2,85	2,72	2,41
GFI	0,96	0,90	0,95
AGFI	0,93	0,81	0,91
CFI	0,96	0,94	0,95
NNFI	0,94	0,91	0,92
RMSEA	0,068	0,115	0,073
SRMR	0,047	0,079	0,057

With DFA, whether the compliance of the scores obtained from Turkish sample were tested. These results show that the model has a good fit or perfect fit in parameters.

Discussion, Conclusion and Suggestions

In this study, it is aimed to make the Turkish cultural adaptation of the attitudes to moral decision-making in youth sport questionnaire which was developed by Lee et.al (2007). The three factor model of the original scale was tested with CFA and reliability coefficients were calculated. To examine test-retest reliability and the linguistic equivalence of the scale, the Pearson Correlation Coefficient results were interpreted as linguistic equivalence and reliability is provided. Factor 1 can be named "acceptance of cheating", factor 2 can be named "acceptance of gamesmanship" and factor 3 can be named "keep winning in proportion" as in the original scale. The Cronbach alpha reliability coefficient was found 0.776, 0.676, and 0.590 respectively. Alpar (2010) stated that if the Cronbach alpha coefficient is between 0,80-1,00, the scale has a high reliability; if it is between 0,60-0,79, the scale has a notably reliability; if it is between 0,40-0,59 the scale has a low reliability and if it is between 0,00-0,39, the scale has no reliability. Based on these information, it can be said that Cronbach's alpha coefficients are in acceptable limits.

The construct validity of the scale was also tested with CFA. As a result of CFA fit indices were examined. Fit indicies values are: Chi-square/df=2,85; GFI= 0,96; AGFI= 0,93; CFI= 0,96; NNFI= 0,94; RMSEA= 0,068; SRMR= 0,047. If the chi-square/df value smaller than 3 for big samples and smaller than 2,5 for small samples, it shows an excellent fit (Kline, 2011). If GFI and AGFI are bigger than 0,90 this shows good fit, if it is bigger than 0,95 this shows excellent fit (Hooper et.al., 2008; Sümer, 2000). Being of the NNFI and CFI values above 0.95 indicates excellence of the model's adequacy (Thompson, 2004; Sümer, 2000; Hu and Bentler, 1999). If the RMSEA value less than 0.07 it indicates that the model fit is good (Steiger, 2007). SRMR values vary between 0 and 1, if the value is smaller than 0.05, the data show that the model is a perfect fit (Brown, 2006). Based on this information fit index values in almost all the parameters are seen to be good or excellent. By looking the fit indices, it can be said that the original three factor structure of the AMDYSQ showed a very good fit for the sampling group.

Consequently, because the items are with the desired characteristic, the validity and the reliability scores are high, we can say that the Turkish researchers can used this scale when they want to measure the attitudes toward decision making of the young athletes.

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