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Association among cultural orientation, Nunchi, and interpersonal relationships with korean adolescent athletes

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Abstract

Cultural aspects and their relationships with social supporters are important to adolescent athletes. Other skills in communication or perception (e.g. Nunchi) might be helpful in getting along with the supporters. The purpose of this study was to identify the association between cultural orientation, Nunchi, and interpersonal relationships with adolescent athletes. With this aim, we surveyed 462 Korean adolescent athletes. Measurement tools comprised questionnaires on cultural orientation, Nunchi, and interpersonal relationships—including coach–athlete, sports friendships, and parent–adolescent— designed to match the research purpose. We analyzed the data using structural equation modeling. Our results are as follows: first, we verified that collectivism is positively related to Nunchi, and Nunchi is positively associated with interpersonal relationships. But we did not verify that individualism is related to Nunchi. Second, in our final model, excluding individualism, Nunchi showed a mediation effect on the association between collectivism and interpersonal relationships. In conclusion, Korean athletes with high collectivism will be positively related to interpersonal relationships through Nunchi. Additionally, we discussed the issues of culture in sport and exercise psychology.

Keywords: collectivism, individualism, sport, coaches, parents

Sports and exercise psychologists have given significant scholarly attention to the issue of culture and cultural identity (see, e.g. Butryn, 2002; Duda and Allison, 1990; Gill, 2001; Krane, 2001). Schinke, Michel, Danielson, Gauthier and Pickard (2005) first used the term "Cultural Sport Psychology" (CSP) in kinesiology about a decade ago. Since then, the contemporary goal of CSP has been to develop a more comprehensive sport science, creating a bridgehead for cultural study (Schinke and McGannon, 2015).

Much effort in psychology and the social sciences has gone into the pursuit of understanding human behavior within a culture. The dichotomy between individualism and collectivism, for example, is a productive way to explore cultural traits such as social perceptions and emotions within a society (Cahoone, 1996; Hofstead, 2001; Markus and Kitayame, 1991; Triandis, 1994). There are, of course, a myriad of cultures in our society. But even if a society has both cultures, we can see this as a cultural influence, because the main cultural orientation can be strong or active. Thus, many social science studies still use the theory of individualism–collectivism, where it is still accepted for its persuasive power and usefulness as a framework for integrating cultural studies (Kim, 2009).

"Individual society" refers to a society that considers an individual to be a fundamental component for community, emphasizing one's independence and uniqueness as distinct from that of others. "Collective society," on the other hand, refers to a society that considers the group as the fundamental component, highlighting cooperation and self-control shared with others (Triandis, 1995). Within collective society, therefore, the social environment becomes a crucial factor for human behavior; people often go along with the group due to the presence of others. Individuals in a collective society often have a tendency to behave according to what other group members want, and they do not ignore other members' desires or emotions (Bond and Hwang, 1986; Markus and Kytayama, 1991).

Since then, Triandis (1995) has presented vertical/horizontal as a separate dimension by which to distinguish individualism/collectivism theory. Triandis suggests, in other words, the analysis of the culture by adding categories such as emphasizing hierarchy or emphasizing equality in interpersonal relationships. Even where the cultural orientation is the same, a culture may have vertical relationship based on hierarchy in interpersonal relationship, or horizontal relationship based on equality. People in vertical–individualism (VI) are interested in recognizing others while emphasizing their own uniqueness and personality. They want to be socially high position and receive such recognition. They therefore regard their relationships with others as intrinsically competitive. People in horizontal individualism (HI) tend to think of themselves as autonomous individuals rather than as members of a group; they prefer autonomous activities in a relationship of equality with others (Triandis and Gelfand, 1998). People living within vertical collectivism (VC) tend to emphasize the unity of the group and assume the sacrifice of individuals for the group; the hierarchical order between the two is firm and respectful.

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People in horizontal collectivism (HC) regard each other as similar, emphasize community goals, and value interpersonal relationships (Triandis and Gelfand, 1998).

Several studies have suggested that many Asian countries—for example, Korea, China, and Japan—have a distinctly collective culture (e.g. Cahoone, 1996; Hofstead, 2001; Markus and Kitayama, 1991; Triandis, 1994). Nisbett and Masuda (2003) argued that people living in a more collectivist country have a concept of *self* that is associated with others. Not only does Korea follow Confucianism more strictly than do other countries, but it also shows cultural practices that value communal life over individualism (Han and Shin, 1999). Collectivism with a hierarchical structure, as well as a cooperative atmosphere, is common in Korea (Oh, Goth and Min, 2008; Suh, Diener and Updegraff, 2008).

Common features in collectivism include: people's tendency to suppress their negative emotional expressions; a motivation not to upset other people; and an expectation of acknowledgment from others, to have an amicable relationship in society (Ohashi, 2000; Van Rijn, Bahk, Stappers and Lee, 2006). With these features, methods of communication within collectivism consider other people's feelings. Hence, those in a collective society are inclined to use more indirect expression (e.g. tone of voice or gesture) than direct, focusing on context with communicational content (Triandis, 1995). People within collectivism are familiar with indirect communicational skills in noticing the unspoken intentions of others and choosing a rational action according to their circumstance (Gudykunst, Gao, Nishida, Nadamitsu and Sakai, 1992).

Other researchers have defined this unique skill as *Nunchi* in Korea (Heo and Park, 2013), and they consider Nunchi an important skill for intimate relationships in collectivism (Heo and Park, 2013; Jin and Hyun, 2014). It is a dynamic process of inferring others' internal status through indirect evidence and within certain contexts, involving understanding others and taking appropriate actions (Jin and Hyun, 2014). In Korea, Nunchi refers to a skill related to verbal and nonverbal communication, along with body language (Lee, 2012) and is translated as "eye measure," noticing others' feelings (Southerton, 2008). With Nunchi, people in Korea also communicate with others (Heo, Park and Kim, 2012; Heo and Lee, 2013) and maintain intimate relationships (Choi and Choi, 1989; Heo, Park and Kim, 2012). In particular, due to the nature of sports, not only team sports but also individual sports will be centered on teams under the guidance of a few coaches. Therefore, athletes use Nunchi as a conversation skill in their relationships with peers, coaches, and parents. In other words, it is possible to build team collaboration and atmosphere through Nunchi.

Cultural collectivism may affect Korean adolescent athletes, as their social supporters continuously ask them to learn manners, etiquette, and ethics (Lee, Lee and Lee, 2016). They often believe that their coaches' commands are critical, and they regard relationships with teammates as being of great importance (Choi, Choi and Moon, 2002). In this regard, Yoo and Park (2001) suggest that Korean society can be classified as a collectivism culture and vertical society, based on the four-dimensional cultural orientation (VI, HI, VC, HC) proposed by Triandis (1995), explained above. In the same way, Korean athletes also showed strong VC tendency in their 'Sport We-ness' study (Yoo and Park, 2001). In addition, Lee et al. (2016) examined the four-dimensional cultural orientations proposed by Singelis and colleagues (1995) in 502 adolescent athletes in Korea. The results indicate that collectivism is higher than individualism.

Many people regard adolescence as an important transitional period, when people form and develop their egos by interacting with others. Rosenberg (1965) argued that social supporters have a major influence on adolescents' behaviors. For adolescent athletes, the most important supporters are coaches, teammates, and parents. Past studies have suggested the importance of the role of these social supporters. Coaches play a crucial role in improving athletes' cooperation, performance, and motivation (Amorose and Anderson-Butcher, 2007; Levy, Polman and Borkoles, 2008; Reinboth and Duda, 2006). Jowett and colleagues, who performed qualitative/quantitative approaches to characterize coach–athlete relationships, defined those relationships as reaching a state when the closeness, commitment, and complementarity of a coach and athlete were causally linked (Jowett, 2003; Jowett and Cockerill, 2003; Jowett and Ntmoumanis, 2004). Interpersonal relationships between coaches and athletes are particularly complex, dynamic, multifaceted, and interactive (Ickes, 2000), playing an important role in the physical, psychological, and social development of athletes and the quality of their performance (Jowett and Cockerill 2003). Across multiple studies, the quality of the parent–child relationship appears to be one of the more important factors in determining the behaviors and attitudes adolescents adopt across domains such as health, education, reproductive behaviors, social interactions, and problem behaviors (Hair, Jager and Garrett, 2002). In other words, in the handful of existing high-quality, multivariate studies available, the research shows that quality parent–teen relationships are linked to a wide range of positive outcomes, such as mental and emotional well-being, adjustment, and social competence, and to decreased problem behaviors (Borkowsky, Ramey and Bristol-Power, 2002; Hair et al., 2002). In sports situations, parental social support and attachment also influence adolescent athletes' self-esteem (Kang, Joen and Kwon, 2015). In addition, studies have recently found that friendship is involved in the motivation of participants in a sports situation, so research on sports friendship and peer relationship is being initiated (Cox and Ullrich-French, 2010; Cox, Duncheon and McDavid, 2009). Some studies show that relationships with friends and colleagues through sports can help individual growth through social and emotional development and positively affect sports participation motivation and enjoyment (Smith, 2003; Smith, Gustafsson and Hassmén 2010;

Weiss and Smith, 2002; Smith, Ullrich-French, Walker and Hurley, 2006). Research understands the level of cooperation among teammates to have a huge effect on enhancing performance and motivation (Smith, Cumming and Smoll, 2008; Vazou, Ntmoumanis and Duda, 2005).

In certain circumstances, such as a sports context, coaches and teammates are important factors in athletes' performance and motivation. The relationship with parents is especially significant in adolescent athletes' ego development (Wilkinson, 2004). Docheff and Conn (2004) showed both direct and indirect effects of conflict between young athletes and parents or coaches on their athletic performance, and Oh and Shin (2009) identified the negative effects of the conflict among teammates on individual or team performance. As described above, the importance of interpersonal relationships (coaches, colleagues, and parents) revealed in the sports situations of Western cultures is also an essential factor for athletes in Eastern cultures. Therefore, we can understand that amicable relationships with social supporters, stemming from cultural collectivism, might have an effect on Korean adolescent athletes.

In summary, we can see that Korean adolescent athletes have maintained collectivism over a long period of time. Further, Nunchi has developed due to the inherent characteristics of Korean culture. We can, therefore, interpret these characteristics as essential elements in their interpersonal relationships. Some researchers have noted that the cultural characteristics of the general public and the variables such as Nunchi are related to interpersonal relationships (e.g. Heo, 2014), but there is no study of the cultural characteristics and the Nunchi of the athletes. This study, then, aims to investigate the mediation effect of Nunchi on the association between cultural orientation and interpersonal relationships. Two hypotheses are proposed:

Hypothesis 1: The cultural orientation is related to Nunchi and interpersonal relationships.

Hypothesis 2: Nunchi will mediate the relationship between cultural orientation and interpersonal relationships.

Methods

Participants

In this study, we conducted a survey of 481 high school students registered as elite athletes by the Korean Olympic Committee in 2017. We selected two physical educational high schools (PEHS) for individual sports (e.g. swimming, track and field, weight lifting, wrestling, taekwondo, and archery) and seven sports teams in team sports (e.g. baseball, soccer, basketball, water polo, handball, rugby, and volleyball) in Korea as potential participants. The early 1970s saw the establishment of Korean PEHS, with the aim of cultivating individual sports, discovering athletic talent, and raising national esteem; they have been a driving force in the growth of elite sports, through nationally directed strategic athletic training (Oh, Song and Lim, 2007).

Our study excluded 19 surveys because of missing responses, so the final analysis uses the data from 462 participants. Participants were 312 male students (67.5%) and 150 female students (30.7%), 237 individual sport athletes (51.3%) and 225 group sport athletes (48.7%). The duration of participation in sport was 5.11 years (SD = 2.50), and the average training time per day was 5.79 hours (SD = 2.06).

Measures

The validity and reliability of all of questionnaires, except for Nunchi, were previously tested and confirmed in other countries (see "Measures" for the references). To use these surveys in Korea, researchers translated the cultural orientation scale, relationship of coach–athlete scale, sports friendship quality scale, and parent–adolescent scale into Korean. In this process, researchers tried to secure equivalence of questions, according to the proposal of the Guidelines for Translating and Adapting Tests (GTAT) proposed by the International Test Commissions (ITC, 2010). GTAT suggests 22 guidelines in four categories: context, test development and adaptation, administration and documentation/score interpretations (ITC, 2010). Therefore, after thoroughly reviewing the concepts behind the original scales, the researchers sought to reflect the characteristics of the scales and to minimize the influence of cultural differences. Participants included: one doctoral researcher who majored in measurement in English-speaking countries, two sport psychologists, one education major who is fluent in English and Korean, and one coach. In three meetings, we confirmed the most appropriate items and meanings, revising them several times through analysis and discussion before verifying the content equivalence of the scale by 40 students from two PEHS.

We conducted a confirmatory factor analysis (CFA) and internal consistency analysis for each measurement tool to check reliability and construct validity. We used the CFA to derive a model using the maximum likelihood (ML) method, and then performed internal consistency analysis using Cronbach's alpha. In general, we considered the RMSEA index an acceptable fit when it is below .08 (Browne and Cudeck, 1993; Hu and Bentler, 1999), and the TLI and CFI indices acceptable at .90 or better (Bentler, 1990; Browne and Cudeck, 1993).

Cultural orientation. This research project used a cultural orientation questionnaire (Singelis, Triandis, Bhawuk and Gelfand, 1995). The questionnaire consisted of four subscales: Vertical Individualism (VI; eight items), Horizontal Individualism (HI; eight items), Vertical Collectivism (VC; eight items), and Horizontal Collectivism (HC; eight items). This study calculated *individualism* by adding VI and HI, and *collectivism* by adding VC and HC, as in previous studies that measured cultural orientation (e.g. Triandis, 1995; Triandis and Gelfand, 1998). Item responses appear on a 7-point scale, rating from "strongly disagree" to "strongly agree," with higher averages interpreted as a higher score of subscales. Examples of items in each

subscale include: "Winning in any competition is most important," "I believe in myself rather than depending on others," "I respect the opinions of the majority of the group to which I belong," and "If people around me are happy, then I am happy too."

We conducted CFA to determine the factor structure of the data. Eight items from individualism and seven from collectivism had factor loadings of less than 0.50, and so we deleted them from the data set (Bae, 2011). After deleting these items, the RMSEA fit index was acceptable, but the CFA and TLI were slightly below criterion. To improve the fit, we used six modification indices for observed variables contributing to the same latent variable (Jöreskog and Sörbom, 1997; Yu, 2012). The results of the CFA for the remaining 17 items and 2 subscales showed that the model fit was appropriate (χ^2 = 348.806, df = 126, p < .001, TLI = .900, CFI = .917, RMSEA = .062). Internal consistency (i.e., Cronbach's alpha) of cultural orientation was .789 in this study.

Nunchi. This study used Nunchi scales (Heo and Park, 2013). The questionnaire consisted of two subscales: Nunchi understanding (seven items), and Numchi behavior (seven items). We present item responses on a 7-point scale, from "strongly disagree" to "strongly agree," and we interpret higher averages as a higher score of subscales. Examples of the items in each subscale include "When I communicate with others, I quickly notice their intentions," and "I do not make others uncomfortable."

The study determined factor structure using CFA, revealing that no items had too low a factor loading. All fit indices were good, except the RMSEA, which was below criterion. The study used three modification indices for observed variables included in the same latent variable in order to improve the fit (Jöreskog and Sörbom, 1997; Yu, 2012). Ultimately, a CFA for the 12 items and two factors revealed an appropriate model fit (χ^2 = 179.504, df = 50, p < .001, TLI= .959, CFI = .969, RMSEA = .075). The Cronbach's alpha was .747 in this study.

Relationship of coach–athlete. This study selected a relationship of coach–athlete scale (Jowett and Ntoumanis, 2004). The questionnaire consisted of three subscales: commitment (three items), closeness (four items), and complementarity (four items). Item responses appear on a 5-point scale, from "strongly disagree" to "strongly agree," and we interpret higher averages as a higher score of subscales. Examples of the items in each subscale include "I feel close to my coach," "I trust my athlete/coach," and "When I am coached by my coach, I feel at ease."

Researchers performed a CFA to determine the factor structure, which resulted in no deleted items. The RMSEA index, however, slightly exceeded the criterion. The study used three modification indices, and in a final CFA of the three factors and 11 items, the model fit was acceptable (χ^2 = 138.995, df = 38, p < .001, TLI = .954, CFI = .969, RMSEA = .076). The Cronbach's alpha was .877 in this study.

Sports friendship. This study measured sports friendship using the sports friendship quality scale (Weiss and Smith, 1999). The questionnaire consisted of six subscales: self-esteem enhancement and supportiveness (four items), loyalty and intimacy (four items), things in common (four item), companionship and pleasant play (four items), conflict resolution (three items), and conflict (three items). Item responses appear on a 5-point scale, from "strongly disagree" to "strongly agree," and we interpreted higher averages as a higher score of subscales. On the other hand, the conflict factor includes negative items that require reverse scoring for analysis. Examples of the items in each subscale include "My friend gives me a second chance to perform a skill," "My friend has confidence in me during sports," "My friend and I do similar things," and "My friend and I get mad at each other."

In the CFA, one in self-esteem enhancement and supportiveness, one in loyalty and intimacy, one in things in common and companionship and pleasant play, had loadings of less than .50 and were deleted (Bae, 2011). In the final model of the six factors and 18 items, the model fit was acceptable (χ^2 = 437.669, df = 120, p < .001, TLI = .901, CFI = .922, RMSEA = .076). The Cronbach's alpha was .857 in this study.

Parent–adolescent relationship. This study used a parent–adolescent relationship scale (Hair et al., 2005) to measure parent–child relationships. The questionnaire consisted of two subscales: identification with parents (three items), and perceived parental supportiveness (five items). Item responses appeared on a 5-point scale, from "strongly disagree" to "strongly agree," and we interpreted higher averages as a higher score of subscales. Meanwhile, the three items (Q5, Q7, Q8) of this measurement consisted of negative statements that require reverse scoring. Examples of the items in each subscale include "I really enjoy spending time with my parents" and "My parents help me when I do important things."

We confirmed the factor structure of the questionnaire via CFA: two items from perceived parental supportiveness had factor loadings of less than 0.50, and so we deleted them from the questionnaire (Bae, 2011). Finally, a CFA for the two factors and 6 items found an appropriate model fit (χ^2 = 22.171, df = 8, p < .01, TLI = .974, CFI = .986, RMSEA = .062). The Cronbach's alpha was .719 in this study.

Procedure

We collected data from June to July 2017. We explained the research objectives to the potential participants and conducted the survey after receiving written agreement from participants, which took less than one hour. All researchers completed a research ethics education course, and a university in Korea reviewed and approved the entire procedure.

Analysis

We used the SPSS (version 18.0) and AMOS (version 18.0) for data analyses. First, we conducted a descriptive statistical analysis to check the normality of the data, and then we performed reliability testing (i.e., Cronbach's alpha). Se-

cond, we calculated Pearson's correlations between each variable to test the relationships among the variables. Third, we performed a measurement model test to investigate the stability of model. Finally, we conducted structural equation modeling. We set the Type I error rate to .05 forward in this manuscript.

Results

Descriptive Statistics and Correlations for Observed Variables

To check the basic information for each measured variable, we conducted descriptive statistics. All results were less than the criterion values (Hong, Malik and Lee, 2003; West, Finch and Curran, 1995): means (? 4.5 / ? 6.3), standard deviations (? 2.0), skewness (? 2.0), and kurtosis (? 4.0). Therefore, the assumption of normality was satisfied for all variables. Correlation coefficients for the relationships between each subvariable are presented in Table 1. We found all the subfactors to have a positive relationship, from low correlation to high correlation (r = .130~.655; Zhu, 2010).

Table 1
Descriptive Statistics and Correlations among the Variables

Variable		Mean (SD)	Skewness	Kurtosis	1	2	3	4	5	6	7
Cultural Orientation	Individualism	5.16(.82)	-.11	.06	1	----	----	----	----	----	----
	Collectivism	5.28(.73)	-.11	-.22	.655** (.794)	1	----	----	----	----	----
Nunchi	Understanding	5.16(.96)	-.17	.39	.451** (.518)	.497** (.558)	1	----	----	----	----
	Behavior	5.22(.89)	-.11	-.38	.438** (.523)	.565** (.659)	.597** (.660)	1	----	----	----
Interpersonal Relationships	Friends	3.61(.50)	.22	-.56	.367** (.442)	.497** (.584)	.456** (.508)	.435** (.504)	1	----	----
	Parents	3.83(.75)	.01	-1.25	.130** (.171)	.141** (.181)	.189** (.230)	.239** (.302)	.355** (.452)	1	----
	Coach	3.83(.72)	-.45	.01	.384** (.456)	.397** (.461)	.345** (.380)	.406** (.465)	.459** (.529)	.288** (.636)	1

*Note. SD = Standard Deviation, (): Disattenuated correlation, **p < .01.*

Structural Model Testing

Testing of measurement model

We evaluated the reliability and validity of the measurement model, comprising four latent variables and nine observed variables. Confirmatory factor analysis with maximum-likelihood estimation showed that the fit index of the measurement model to the data was satisfactory (χ^2 = 67.398, df = 21, p < .001, TLI = .947, CFI = .969, RMSEA = .069).

Table 2 shows the construct reliability, Average Variance Extracted (AVE) of each latent variable, and correlation between each concept. We calculated the construct reliability of each latent variable using the formula that Fornell and Larcker (1981) suggested, and it ranged from .735 to .871, exceeding the cutoff value (≥ .70). We also calculated the AVE using the abovementioned formula, and it ranged from .507 and .771, exceeding the cutoff point (≥ .50) in all cases. The AVE values were greater than the root values (ϕ) of the correlation coefficients between concepts. Overall, this secured the convergent and discriminant validity of the measurement model.

Table 2
Construct Reliability and Average Variance Extracted of Measurement Model

Concept	Construct Reliability	AVE	Correlation between Concept(ϕ)			
			1	2	3	4
Individualism	0.735	.507	1	----	----	----
Collectivism	0.871	.771	.655**(.429)	1	----	----
Interpersonal Relationships	0.789	.569	.373**(.139)	.428**(.183)	1	----
Nunchi	0.776	.634	.497**(.247)	.595**(.352)	.488**(.238)	1

*Note. (ϕ): Root value of correlation coefficients between concepts. **p < .01.*

Testing structural model

To verify the structural relationship of each variable, we conducted structural equation modeling using maximum-likelihood estimation. As a result, the fit of the model to the data was acceptable (χ^2 = 73.039, df = 23, p < .001, TLI = .948, CFI = .967, RMSEA = .069). As shown in Figure 1, all parameter estimates of each path between collectivism, Nunchi, and interpersonal relationships were statistically significant in the hypothesized direction (p < .001); however, individualism did not statistically explain Nunchi. The antecedent variables explained the squared multiple-correlation values that ranged from 62% to 65%. These results mean that the high level of collectivism of the adolescent athletes has a high relationship with the level of Nunchi, and Nunchi can explain interpersonal relationships. Notably, individualism is not associated with other variables, and so we conclude that individualism does not play a role as an independent variable. We tested the final model, excluding individualism, from this point forward in this manuscript.

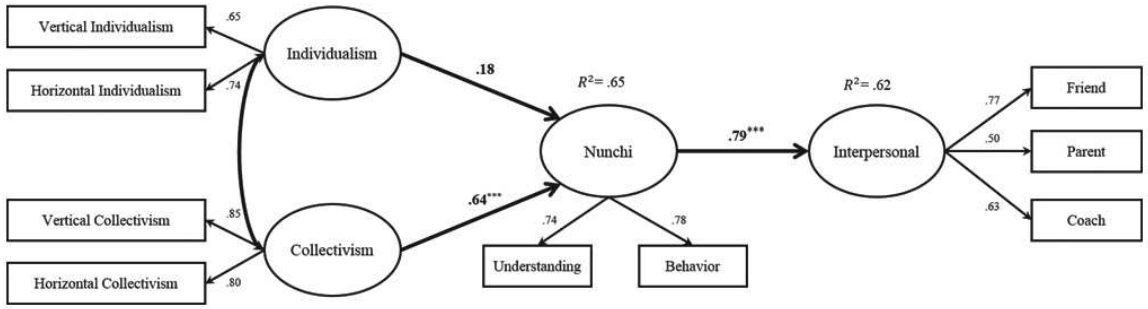

Figure 1. Structural equation modeling for the study variables

Mediation effect of Nunchi

To test the mediation effect of Nunchi in the final model (see Figure 2), we checked the fit index of the final model. As a result, the fit of the model to the data was acceptable (χ^2 = 31.742, df = 11, p < .001, TLI = .963, CFI = .981, RMSEA = .064).

Finally, we performed an indirect effects analysis on the results of the final mediation model, using bootstrapping (n = 10,000); the result indicated, with a 95% confidence interval, that the indirect effect of collectivism on interpersonal relationships was b = .255 (p < .001). This demonstrates that Nunchi mediated the association between collectivism and interpersonal relationships. The result of bootstrapping is shown in Table 3.

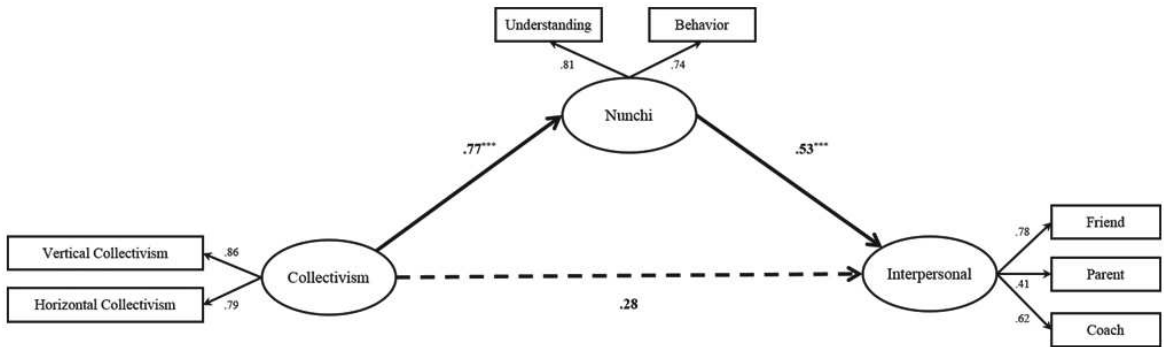

Figure 2. Mediation model

Table 3
Test of Indirect Effect through Bootstrapping

Path	Direct effect(β)	Indirect effect(β)	Total effect(β)
Collectivism → Nunchi → Interpersonal Relationships	.173* (.275)	.273*** (.405)	.248*** (.681)

*Note. β: Standardized Effects; ***p < .001, *p < .05.*

Discussion

This study tested the association among cultural orientation, Nunchi, and interpersonal relationships among Korean adolescent athletes, focusing on the mediation effect of Nunchi. Specifically, we analyzed the influence of cultural orientation (individualism–collectivism), which Triandis and his colleagues claim, on the interpersonal relationships of adolescent athletes, as mediating effect of Nunchi.

As a result, as shown in Figure 1, collectivism was highly correlated with interpersonal relationship, but individualism did not explain the other variables. The analysis that follows, therefore, examines the relationships between collectivism and other variables were examined. The "humans are social animals" concept means that everyone has community, influencing each other instead of living alone (Lee, 2000). People are able to be mature and find solutions for problems of interpersonal relationships within society. According to Jose et al. (1998), North America prefers individual-centered coping methods, where individualism is most common, whereas Asia favors relationship-oriented coping methods, where collectivism is more typical. Additionally, Rahim (1992) demonstrated that those within individualism tend to choose competitive coping methods to deal with conflict, as opposed to those within collectivism, who tend to choose any method that avoids worsening their interpersonal relationships (Ohbuchi, Fukushima and Tedeschi, 1999).

Baumeister and Leary (1995) introduced "belongingness theory," asserting that humans are willing to belong to a society or community for a fundamental component that affects their cognition and behavior. This willingness promotes the securing of amicable relationships (Donkers, Martin and Evans, 2016). Previous studies showed that belonging to a group and acceptance from others contribute to teenage development (e.g. Strachan, Côté and Deakin, 2011) and are considered important resources for older adolescents to maintain intimate relationships (e.g. Horn and Weiss, 1991). This present study supports the abovementioned literature, showing a close association between collectivism and interpersonal relationships. Those with high collectivism might perceive themselves as being connected to others, which could lead to placing more value on others than on themselves alone (Kim, 2011; Ting-Toomey and Kurogi, 1998).

Next, we analyze the median model, as shown in Figure 2. This shows the result that the model of mediation through the Nunchi can better explain the relationship between collectivism and interpersonal relationship. Analysis of the results of the whole study shows that the collectivism of Korean adolescent athletes has a strong relationship to their interpersonal relationships. In addition, it confirms that the Nunchi of the selected variable as the mediating variable in this study can further enhance the relationship between the two variables. Nunchi might be necessary in any social circumstance as a critical skill to have better interpersonal relationships (Heo, 2014). Our results show that Nunchi mediated the association between collectivism and interpersonal relationship, indirectly support Nunchi's helpfulness in cooperative tasks and conflict with others (Triandis, 1989; Triandis, McCuster and Hui, 1990). Nunchi from the general public is statistically related to interpersonal relationships (Heo and Park, 2013), and those with greater Nunchi had better relationships than those with lower Nunchi (Heo, 2013). These previous studies imply that Nunchi can be used as an interactional skill within any human community or country, including Korea.

Summarizing the results of this study showed that the collectivism of Korean adolescent athletes is associated with Nunchi and quality of interpersonal relationships, and Nunchi results in a positive indirect effect that increases interpersonal relationships within sports contexts. Individualism could not explain this relationship, however. Therefore, we can suggest that intervention skills such as Nunchi can play an important role in the interpersonal relationships of athletes. The significance of this study seems particularly meaningful, in that it examines the relationships between cultural variables and other variables applied in social psychology research.

We will provide a few opinions that researchers can incorporate into future research, based on limitations found in the process of proceeding with and interpreting the above results. First, this study includes some limitations, especially due to the rarity of applying Nunchi in countries other than Korea. Therefore, it is worthwhile for researchers to test whether Nunchi can be used in other countries. We encourage any cross-cultural research about cultural orientation and Nunchi. Second, research must identify other interactional skills not yet studied, so that people can more effectively deal with conflict within general society as well as in a sports context. Third, we need to find ways to develop and apply interpersonal skills that we can practically apply in the field, as well as Nunchi. A final limitation of this study is that it considered only adolescent athletes residing in South Korea. Potential differences in cultural orientation and sport environment between countries necessitate a follow-up study with regard to such limitations.

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Asociación entre orientación cultural, Nunchi y relaciones interpersonales con atletas adolescentes coreanos

Resumen

Los aspectos culturales y sus relaciones con los seguidores deportivos son importantes para los atletas adolescentes. Otras habilidades de comunicación o percepción (e.g., Nunchi) pueden ser útiles para llevarse bien con los hinchas. El propósito

de este estudio fue identificar la asociación entre la orientación cultural, Nunchi, y las relaciones interpersonales con atletas adolescentes. Con este objetivo, hemos encuestado a 462 atletas adolescentes coreanos. Las herramientas de medición comprendían cuestionarios sobre orientación cultural, Nunchi y relaciones interpersonales -incluidos el entrenador-atleta, las amistades deportivas y los padres-adolescentes- diseñados para cumplir con el propósito de la investigación. Los datos se analizaron mediante el uso de modelos de ecuaciones estructurales. Nuestros resultados son los siguientes: primero, verificamos que el colectivismo está positivamente relacionado con Nunchi, y que Nunchi está positivamente asociado con las relaciones interpersonales. Pero no verificamos que el individualismo esté relacionado con Nunchi. En segundo lugar, en nuestro modelo final, excluyendo el individualismo, Nunchi mostró un efecto de mediación sobre la asociación entre colectivismo y relaciones interpersonales. En conclusión, los atletas coreanos con alto colectivismo estarán positivamente relacionados con las relaciones interpersonales a través de Nunchi. Además, discutimos los temas de la cultura en el deporte y la psicología del ejercicio.

Palabras clave: colectivismo, individualismo, deporte, entrenadores, padres.

Associação entre orientação cultural, Nunchi e relações interpessoais com atletas adolescentes coreanos

Resumo

Aspectos culturais e suas relações com os apoiadores sociais são importantes para os atletas adolescentes. Outras habilidades em comunicação ou percepção (por exemplo, Nunchi) podem ser úteis para se dar bem com os apoiadores. O objetivo deste estudo foi identificar a associação entre orientação cultural, Nunchi e relações interpessoais com atletas adolescentes. Com esse objetivo, foram pesquisados 462 atletas adolescentes coreanos. Os instrumentos de medição incluíam questionários sobre orientação cultural, Nunchi e relações interpessoais - incluindo treinador-atleta, amizades esportivas e pais-adolescente - projetados para corresponder ao objetivo da pesquisa. Analisamos os dados usando modelagem de equações estruturais. Nossos resultados são os seguintes: primeiro, verificamos que o coletivismo está positivamente relacionado ao Nunchi, e Nunchi está positivamente associado às relações interpessoais. Mas não verificamos que o individualismo está relacionado ao Nunchi. Em segundo lugar, em nosso modelo final, excluindo o individualismo, Nunchi mostrou um efeito de mediação na associação entre coletivismo e relações interpessoais. Em conclusão, os atletas coreanos com alto coletivismo estarão positivamente relacionados às relações interpessoais através do Nunchi. Além disso, discutimos as questões da cultura no esporte e na psicologia do exercício.

Palavras-chave: coletivismo, individualismo, esporte, treinadores, pais

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