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RELATIONSHIP BETWEEN DEMOGRAPHIC VARIABLES AND LEISURE CONSTRAINTS OF SELECTED SOUTH AFRICAN FIRST-YEAR UNIVERSITY STUDENTS

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ABSTRACT

This study aimed to determine the influence of demographic variables on leisure constraint among selected South African first-year students. Based on an availability sample, first-year students (N=334) from academic programmes in sport, recreation or leisure studies at six South African university campuses were selected. The leisure constraints questionnaire used, consists of 21 statements and measures of perceived leisure constraints based on a five-point Likert scale. A confirmatory factor analysis, effect sizes, t-tests and ANOVA were used for the data analysis. Results indicate that white students experience more structural constraints than black students (p=0.032), while black students experience more interpersonal constraints than white students (p=0.019). Differences exist between Black and Indian students in terms of intrapersonal constraints (p≤0.05). English-speaking students experience greater intrapersonal constraint than students speaking African languages (p≤0.05). Students residing in private accommodation experience greater structural constraints than those staying in a university hostel (p=0.011). Students that grew up in rural areas/informal settlements experience less intrapersonal and structural constraints than students from cities or towns (p≤0.05). Leisure education programmes are suggested to assist students in negotiating these constraints.

Keywords: Intrapersonal; Interpersonal; Leisure constraints; Structural; University students; South Africa.

INTRODUCTION

High levels of student attrition and low throughput, especially among first-year students, have long been a concern for South African universities (Akoojee & Nkomo, 2007). Additionally, a more recent concern relates to student success and transformation within South African universities (Akoojee & Nkomo, 2007). Although these concerns can be addressed in many different ways, research has shown that student involvement in non-academic aspects, such as campus recreation, can increase student success, increase a sense of belonging, and also improve academic performance (Belch *et al*., 2001; Artinger *et al*., 2006; Todd *et al*., 2009; Henchy, 2011). Research by Huesman *et al*. (2009) for example found that frequent student participation in campus recreation during their first term at university was associated with increased student retention and student success, while Artinger *et al*. (2006) found that first-year students experience significantly more social benefits from participation than other students do.

However, in order to provide students with adequate leisure and recreation opportunities, knowledge regarding the constraints to participation that they experience, is needed.

South Africa poses a number of unique variables that may influence leisure constraints. Magi (1999) proposes that a history of apartheid had a significant effect on the leisure behaviour of South Africans, as it led to a society that consists of diverse socio-economic backgrounds, and because affluence is closely related to race, the majority of opportunities for leisure participation can be found in the more privileged and affluent sectors of society. Palen *et al.* (2010) state that the legacy of apartheid also shaped the leisure constraints in South Africa, as issues of marginality, cultural values and racial discrimination, which may have influenced the leisure constraints of South Africans in a unique way.

In terms of understanding the relationship between demographic variables and leisure constraints in South Africa, a particular demographically diverse population group, that may provide valuable insight into leisure behaviour, is South African university students. Currently, a demographic shift is occurring in the student composition at all South African universities, with formerly white, Coloured and Indian universities experiencing increased enrolment by students that speak African languages (CHE, 2001). Furthermore, although racial integration has occurred at the more affluent educational institutions, such as universities (Pattman, 2007), many of the students that attend university are economically and educationally disadvantaged (Petersen *et al.*, 2009), adding to the diversity of the student population.

Although research regarding leisure constraints has seen significant growth and expansion since the 1980s (Jackson, 2000), many aspects regarding leisure constraints still need to be understood (Shinew *et al.*, 2004). How gender, race, and social class, along with other socio-demographic factors, relate to leisure constraints are some of the research areas that still need to be explored further (Jackson & Henderson, 1995; Shinew *et al*., 2004; Shinew & Floyd, 2005). Furthermore, to date the overwhelming majority of constraints research has been conducted in North America, and although this research has formed the foundation of the current body of knowledge regarding leisure constraints, research paucity exists in terms of the application of constraints models in non-Western and developing countries. More specifically, Goslin (2003) and Palen *et al.* (2010) highlight the fact that very little is known about leisure constraints from a South African perspective due to a lack of research in this field.

LITERATURE REVIEW

Leisure constraints

Research regarding leisure constraints has made significant progress over the last three decades. Whereas leisure constraints were initially considered to be insurmountable barriers to participation, the model of leisure constraints by Crawford and Godbey (1987), Crawford *et al.* (1991) and Raymore *et al.* (1993), propose that three distinct categories of constraints exist, namely intrapersonal, interpersonal and structural constraints. The model also determined that these three constraints function in a hierarchical manner, and that the constraints have to be overcome in a sequential manner, starting with intrapersonal constraints and ending with the structural constraints.

Kay and Jackson (1991) found time and financial constraints to be the most significant forms of structural constraints. Similarly, Samdahl and Jekubovich (1997) also determined that the most often mentioned forms of structural constraints were a lack of time and of money, and poor health. In an overview of research regarding leisure constraints, Jackson (2000) agrees that

time- and cost-related constraints were ranked as the most widely experienced forms of constraints. In contrast, however, Alexandris and Carroll (1997) found that for a Greek sample, time- and facility/service-related constraints were the most experienced constraints for both participants and non-participants, whereas Drakou *et al.* (2008) concluded that lack of access and lack of facilities were the two most significant leisure constraints experienced by Greek university students. Similarly, Bülent *et al.* (2010) found that for a Turkish sample, facilities and service-related issues, along with accessibility, were the most significant constraints. These contradictory findings may indicate that structural constraints are not experienced similarly among different population groups.

In contrast to research that has found structural constraints to be the greatest, several studies report interpersonal constraints to be the most significant forms of leisure constraints. Research by Chick and Dong (2003) on the leisure constraints of a sample consisting of Japanese and Chinese couples determined that most of the subjects were extremely constrained by interpersonal factors and that this resulted in them terminating their leisure participation. Similarly, Wilhelm Stanis *et al.* (2010) determined that in terms of leisure time physical activity, interpersonal factors were the greatest form of leisure constraints. With regard to interpersonal constraints, Samdahl and Jekubovich (1997) found that the social aspects played an important role in leisure constraints as family responsibilities, absence of a partner and mismatched leisure interest among partners were the most cited forms of interpersonal constraints.

With regard to intrapersonal constraints, the most significant constraint found by Samdahl and Jekubovich (1997) was personality. Introverted people experienced constraints as they felt they could not make friends or take part in activities by themselves. Interestingly though, findings of Alexandris *et al.* (2002) revealed that of all the leisure constraints only intrapersonal constraints significantly influenced participation (acting as a blocking constraint) and that once overcome, individuals were likely to participate even though interpersonal and structural constraints existed. In a later study by Alexandris *et al.* (2002), it was further determined that intrapersonal constraints act as antecedents of motivation, and that individuals that reported higher levels of intrapersonal constraints were also less motivated to participate in leisure activities. According to Alexandris *et al.* (2002), these findings lend support to the hierarchical nature of leisure constraints, indicating that intrapersonal constraints are not only the first level of constraint, but also the most significant constraints to overcome.

Leisure constraints and demographic factors

Research regarding gender and leisure constraints has yielded contrasting results. Researchers, such as Drakou *et al.* (2008) and Casper and Harrolle (2013), found that no difference exists in leisure constraints based on gender. In contrast, Jackson and Henderson (1995) as well as Raymore *et al.* (1994) found that although females and males mostly experienced the same constraints, the intensity of the constraints was higher for females, supporting the notion that women are more constrained in terms of leisure. Similarly, Tergerson and King (2002) and Bülent *et al*. (2010) found that females experience more constraints than males. Specific constraints affecting females relate to them having lower self-esteem than males, resulting in increased intrapersonal constraints (Raymore *et al.*, 1994), while perceptions regarding body image were found to be a major factor that influences leisure behaviour of women (Shaw, 1999; Liechty *et al.*, 2006). Shaw (1999) identified the ethic of care as an additional factor that uniquely affects women's leisure behaviour. In this regard, Harrington and Dawson (1995), Dowling *et al.* (1997) and Koca *et al.* (2009) mention that because women are expected to be

responsible for domestic duties, childcare and other family responsibilities, they experienced self-denial (a possible intrapersonal constraint) during leisure since they place their personal needs before those of their family.

Leisure choices are not made based on biological gender, but due to the relationships and context in which an individual finds him/herself, together with the cultural and societal expectations placed on them (Jackson & Henderson, 1995), creating distinct interpersonal constraints. With regard to the impact of societal factors affecting leisure behaviour, Dowling *et al.* (1997) conclude that society often assumes that men are more entitled to leisure outside the home than women because, according to society, women have to perform domestic duties. Accordingly, Harrington and Dawson (1995) argue that women's leisure is perceived to be secondary to men's leisure and because of their leisure being restricted by family- and home-centred activities, their experience of leisure also differs from that of men.

Similarly, Shaw and Henderson (2005) mention that women may experience social disapproval in their leisure activities, which may act as an interpersonal leisure constraint. In terms of structural constraints, Shaw and Henderson (2005) reveal that lack of financial resources and a lack of time for leisure may influence women's leisure. In addition, these authors note that while women and men may have equal opportunities for participation in sport during their youth, there is a significant decrease in the opportunities for women to participate in sport during adulthood.

Although leisure constraints research has evolved tremendously, race and its relation with constraints is still poorly understood (Shinew *et al.*, 2004). Shores *et al.* (2007) note that socio-economic factors can influence leisure constraints since lower income is associated with people of colour, and that this can lead to increased constraints. Furthermore, perceived discrimination may act as a leisure constraint. According to Sharaievska *et al.* (2010), this discrimination can be in the form of discrimination by other recreation users, discrimination by staff, or differential upkeep of leisure resources. Evidence of this has also been found by Stodolska and Shinew (2010). The consequences of these actions can be significant, as Gobster (2002), Hibbler and Shinew (2002) and Sharaievska *et al.* (2010) indicate that these forms of discrimination can lead to confrontation, withdrawal or changes in leisure behaviour, individuals changing the time and places where they participate, visiting leisure settings in groups and not alone, and gaining more information about a setting before deciding to visit. Philipp (1998) also determined that racial peer group acceptance of leisure activities, especially among adolescents, plays a significant role in whether or not an individual will participate in certain activities, as certain activities are often labelled 'black' or 'white' activities. From this discussion, it is clear that differences in leisure constraints may vary between communities, as well as racial and cultural groups.

Leisure constraints in South Africa

Despite the lack of South African leisure constraints research, the available studies do provide some insight into leisure constraints among South Africans. Research by Wilders *et al.* (2010) found that intrapersonal constraints (feelings of guilt when participating in leisure, as well as poor health), interpersonal constraints (no friends to participate with) and structural constraints (lack of opportunities, monetary constraints, too little time) significantly influence the leisure behaviour of South African women. Additionally, a recent study by Palen *et al.* (2010) found that adolescents in Cape Town reported experiencing intrapersonal constraints to leisure most frequently, with disinterest being the greatest intrapersonal constraint. The frequency of reporting structural and interpersonal constraints were similar, with parents being the biggest

interpersonal constraint and risk of harm due to factors external to the activity (e.g. crime) being the most significant structural constraint (Palen *et al*., 2010).

From a national survey (DSR, 2005), it is clear that the strongest reason for persons aged 21 to 25 years not to participate in recreation was "no particular reason" followed by "not interested". The survey also indicates that race played a significant role in reasons for non-participation. For example, 26.3% of Asian/Indian respondents indicated that "no particular reason" led them not to participate, compared to only 14.4% for Africans, 17.8% for Coloured respondents and 15.6% for white respondents. More Asian/Indian respondents (30.8%) also reported not to be interested in participating in sport and recreation, while white respondents reported the lowest score with only 18.8% not being interested.

With regard to a lack of opportunities/facilities for participation, 11.8% of African and 13.2% of Coloured respondents reported this as a constraint compared to 2.2% of white and 0.5% of Indian/Asian respondents that reported it as a constraint. It should, however, be noted that the survey had a significant shortcoming as it only considered intrapersonal and structural constraints, leading to a scarcity of findings regarding the status of interpersonal constraints and highlighting the need for further research in this field.

RESEARCH PROBLEM

While constraints research has moved beyond basic demographic studies, within the South African context this basic research is needed to form the foundation from which future studies can be approached. As concerns about student dropout and success among the diverse first-year student populations at universities, it can be addressed partially by increasing students' participation in leisure and campus recreation. Therefore, the purpose of this study is to identify how first-year students from different demographic groups experience leisure constraints. Based on this, the research question for this study is: What are the relationships between the demographic variables and leisure constraints of selected South African first-year university students?

METHODOLOGY

Research sample

The research was based on an availability sample from six South African universities representative of the demographic composition of South Africa. As discussed in the introduction, first year students seem be the most prone to drop out of university, but also tend to benefit the most from participation in leisure and campus recreation. Hence, first-year students from academic programmes in sport, recreation or leisure studies were selected for this study.

Research instruments

The leisure constraints questionnaire by Raymore *et al.* (1993) was used to determine the perceived leisure constraints of first-year university students. The instrument consists of 21 statements and measures perceived leisure constraints in three categories, namely intrapersonal, interpersonal and structural constraints, with seven items per constraint category. For this study research participants were required to indicate the importance of each statement based on a five-point Likert scale. Raymore *et al.* (1993) clearly explains that the questionnaire does not focus

on constraints during a specific activity, but on general constraints that can influence participation in any new leisure activity.

Demographic information was gathered by means of open and close-ended questions, while students' involvement in leisure activities was determined through an open-ended question in which students had to indicate the leisure activities they participate in, along with the frequency of participation.

In order to achieve acceptable reliability of the constructs in this study, items of the questionnaire had to be removed from the factor analysis in order to achieve higher reliability. Reliability for the three constructs is indicated in Table 2. Considering that a reliability of 0.70 (Chronbach Alpha) or higher could be regarded as satisfactory (Nunnaly & Bernstein, 1994), it is clear that the reliability of the three factors, ranging between 0.49 and 0.59, are marginally acceptable. However, low reliability is a common occurrence within leisure constraints research that utilises the hierarchical framework of leisure constraints. Godbey *et al.* (2010) warn that high reliability should not be blindly pursued with removal of whichever items that do not fit. Based on this, the items that did not fit into the intrapersonal, interpersonal and structural constraint factors were still included as individual items during the analyses.

With regard to mean inter-item correlation, a measure of internal consistency, the desired range is between 0.15 and 0.55 (Clark & Watson, 1995). As the inter-item correlation of the four factors is between 0.14 and 0.32, it is evident that two of these values fall within the desired range. It can, therefore, be concluded that the internal consistency of the leisure constraints questionnaire, with reference to this sample, is marginally satisfactory.

Research procedures and ethical clearance

Ethical approval for the research was obtained from the Ethics Committee of the North-West University (NWU-0006-12-A1). Permission for the use of first-year students in the fields of sport, recreation or leisure studies at the various universities was obtained from the heads of the relevant programmes. The research questionnaires were distributed during contact sessions and were completed under the supervision of a lecturer versed in the aims of the study. Students participated voluntarily in the study and gave their consent for the research being conducted.

Statistical analysis

The data was processed by the Statistical Consultation Services of the North-West University. Firstly, descriptive statistics were used to determine mean scores and standard deviations. In terms of students' involvement in leisure, reported leisure activities were grouped into leisure programme areas and an average participation count in each of the programme areas was determined per participant.

Secondly, a confirmatory factor analysis was performed on the research instrument using AMOS (Amos 20.0.0 Build 817, Copyright IBM Corporation) to determine whether the proposed factors measured by the questionnaire fit the factors found in the sample of the current study. Reliability of the constraints questionnaire for this sample was also determined.

Thirdly, Spearman's rank order correlations were used to determine the relationship between leisure constraints and involvement in leisure. Lastly, practical significance in terms of effect sizes for the differences between means were calculated (small effect, d=0.2; medium effect, d=0.5; large effect, d=0.8), along with t-tests and ANOVA that were applied to determine whether the various demographic variables had statistically significant influences on leisure constraints.

RESULTS

Results will be reported in three parts. The first part will discuss the composition of the sample, while the second part will explain the results from the confirmatory factor analysis. The last part of the discussion will focus on the result regarding students' leisure involvement and whether statistically significant differences exist in terms of leisure constraints based on selected demographic variables.

Composition of sample

The sample consisted of 334 participants of which 12% came from the North-West University (Potchefstroom Campus) and 9% from the North-West University (Vaal Campus), 20% from the University of the Free State, 8% from the University of the Western Cape, 24% from the University of Johannesburg, 13% from the University of KwaZulu Natal and 14% from the University of Venda. The gender composition was 52.1% male and 47.9% female, with a mean age of 19.86±2.07 years. In terms of race, 41.6% where black, 42.8% white, 9.6% Coloured, 5.4% Indian and 0.6% reported to belong to other racial groups.

As South Africa has eleven official languages, of which nine are indigenous African languages, these nine languages were grouped together and will be referred to as African languages. African languages were the home languages of 35.4% of the respondents, English was the home language of 33.8% of the respondents and Afrikaans was the home language of 30.8% of the respondents. In terms of where the respondents grew up, 39.5% came from cities, 33.2% from towns and 27.3% from farms, rural areas or informal settlements. Christianity was the most prevalent religion (84.7%), followed by atheism (7.2%). Only 26% of the respondents stayed in university residences or dormitories, with the majority (74%) staying in private accommodation.

Confirmatory factor analysis

Due to the overly strict nature of the Chi-square test in determining goodness of fit of a model (Hancock & Mueller, 2010), alternative methods for determining goodness of fit were utilised. According to Hancock and Mueller (2010), goodness of fit of the three-factor model was reported in terms of more than one index. In this study three different indices, namely Minimum Sample Discrepancy divided by Degrees of Freedom (CMIN/DF), Comparative Fit Index (CFI) and Root Mean Square Error of Approximation (RMSEA) are used to evaluate fit.

The three-factor model provided a CMIN/DF value of 2.5, which can be regarded as acceptable, being smaller than five. In terms of the CFI, as values higher than 0.9 are described by Mueller (1996) as a good overall fit, thus the value of 0.76 achieved in this study can be considered to be less than acceptable. Lastly, a RMSEA value of 0.067 was obtained, with a 90% confidence interval of [0.055; 0.079], which indicate an acceptable fit with a value smaller than 0.08. Results for the confirmatory factor analysis of the leisure constraints questionnaire are indicated in Table 1. For the purposes of this study, goodness of fit in two of the three indices is considered acceptable. Additionally, all means, variances, correlations and regression weights in the three factors were statistically significant.

Table 1. **GOODNESS OF FIT INDICES FOR RESPECTIVE STRUCTURAL EQUATION MODELS**

	CMIN/DF	CFI	RMSEA [90% CI]
Three Factor Model	2.5	0.76	0.067 [0.055; 0.079]

CMIN=Minimum Sample Discrepancy DF=Degrees of Freedom
CFI=Comparative Fit Index RMSEA=Root Mean Square Error of Approximation
CI=Confidence Interval

Based on the mean scores achieved in the three constraints constructs (Table 2), as measured on a 5-point Likert scale, it is concluded that students' leisure is not significantly constrained, and that of the three constructs, students considered structural constraints to be the most significant.

Table 2. **RELIABILITY OF CONSTRAINTS QUESTIONNAIRE AND INDIVIDUAL ITEMS OF NO FIT INTO THE THREE FACTORS**

Construct	Chronbach Alpha	Mean±SD	Mean inter-item correlation
Intrapersonal	0.49	2.95±0.85	0.32
Interpersonal	0.59	2.82±0.65	0.22
Structural	0.54	3.36±0.53	0.14
Individual items of no fit in intrapersonal, interpersonal and structural constraint factors:			
I am too shy to start a new leisure activity. (a)			
I am unlikely to do a new leisure activity that makes me feel uncomfortable. (a)			
The people I know usually have enough money to begin a new activity with me. (b)			
I am more likely to do a new leisure activity that is in keeping with my religious beliefs. (a)			
The people I know usually know what new leisure activities they could do with me. (b)			
I am more likely to do a new leisure activity that does not make me feel self-conscious. (a)			
I am more likely to do a new leisure activity that doesn't require a lot of skill. (a)			

(a)=Intrapersonal constraints
(b)=Interpersonal constraints, according to original questionnaire (Raymore *et al*., 1993)

Correlations between constraints and leisure participation

Correlations between the different leisure constraints and leisure participation were determine by means of Spearman's rank order correlations and revealed some interesting results. In terms of intrapersonal and interpersonal constraint factors, as used in this study, there were no statistical significant correlations with leisure participation. However, a number of statistical significant correlations were found between structural constraints and leisure participation.

Firstly, structural constraints showed a negative correlation with team sports (r= -0.198), outdoor activities (r= -0.128) and individual sports (r= -0.113). Secondly, structural constraints had a positive correlation with social activities (r=0.154), relaxation (r=0.137) and watching television (r=0.115).

In terms of the individual questions that did not fall into the three factors, further correlations were found. The statement, *"I am more likely to do a new leisure activity that doesn't require a lot of skill"* was negatively related to total participation (*r*= -0.123), outdoor activities (*r*= -0.130) and wellness (*r*= -0.136), while the statement, *"I am more likely to do a new leisure activity that does not make me feel self-conscious"*, had a negative correlation with team sport (*r*= -0.124). The statement, *"I am more likely to do an activity that is in keeping with my religious beliefs"*, showed positive correlations with total participation (*r*=0.118), self-improvement activities (*r*=0.125) and watching television (*r*=0.146). The statement, *"I am unlikely to do a new leisure activity that makes me feel uncomfortable"*, had negative correlations with team sport (*r*= -0.114) and outdoor activities (*r*= -0.117), and a positive correlation with relaxation (*r*=0.132). Finally, the statement, *"I am too shy to start a new leisure activity"*, had a negative correlation with total participation (*r*= -0.127).

Demographic variables and leisure constraints

Results indicate that gender had no effect on the intrapersonal, interpersonal or structural constraints experienced by students. However, with regard to the individual statements not included in these factors, the statement, *"I am more likely to do a new leisure activity that does not make me feel self-conscious"*, showed that a statistically significant difference (p=0.021; *d*=0.25) exists between male and female students, with female students (43±0.1.06) experiencing self-consciousness as a greater constraint than do male students (3.17±0.98).

In terms of race , results of the t-test between white and black students reveal statistically significant differences in terms of interpersonal constraints (p=0.019; *d*=0.26), structural constraints (p=0.032; *d*=0.24) and the statement, *"I am more likely to do a new leisure activity that doesn't require a lot of skill"* (p=0.031; *d*=0.24). In these cases, black students (2.88±0.70) experience greater interpersonal constraints than do white students (2.70±0.60). Black students (2.84±1.13) also experience the need for skill as greater constraints than do the white students (2.57±0.94), whereas white students (3.40±0.48) experience more structural constraints than do the black students (3.26±0.57).

With regard to differences between all four racial groups (white, black, Coloured and Indian) the ANOVA revealed that statistically significant differences exist in terms of intrapersonal constraints (p=0.014), interpersonal constraints (p=0.017), structural constraints (p=0.028) and the statement, *"I am more likely to do a new activity that doesn't require a lot of skill"* (p=0.012). A Tukey B post-hoc test revealed that for intrapersonal constraints a statistically significant difference (p≤0.05; *d*=0.63) exists between black (2.81±0.95) and Indian (3.4±0.67) students. For the statement, *"I am more likely to do a new activity that doesn't require a lot of skill"*, a statistically significant difference (p≤0.05; *d*=0.58) exists between white (2.57±0.94) and Indian (3.22±1.11) students. In both these instances, the Indian students experience the greatest level of constraints.

The results indicate that differences also exist in terms of language and perceived leisure constraints. The ANOVA revealed that statistically significant differences exist between the different language groups (Afrikaans, English and African languages) in terms of intrapersonal constraints (p=0.013) and structural constraints (p=0.05). However, the results of the Tukey B

post-hoc test revealed that a statistically significant difference ($p \leq 0.05$; $d=0.35$) only exists between the intrapersonal constraints of English-speaking students (3.10±0.80) and students that speak African languages (2.78±0.92). In this instance, English-speaking students experience greater intrapersonal constraints than the students that speak African languages.

In terms of where students stayed, results of a t-test suggest that a statistically significant difference ($p=0.011$; $d=0.31$) exist, with greater structural constraints being experienced by students staying in private accommodation (3.40±0.52) than students staying in university residences and hostels (3.22±0.57).

Finally, where students grew up also influenced their perceived leisure constraints. The ANOVA revealed that statistically significant differences exist between where students grew up (city, town or rural/informal settlement) and intrapersonal constraints ($p=0.022$), structural constraints ($p=0.002$) and the statements, *"I am more likely to do a new leisure activity that is in keeping with my religious beliefs"* ($p=0.05$) and *"The people I know usually know what new leisure activities they could do with me"* ($p=0.017$). The Tukey B post-hoc test indicates that the statistically significant differences ($p \leq 0.05$; $d=0.36$) in intrapersonal constraints exist between students that grew up in towns (3.11±0.84) and students from rural areas/informal settlements (2.78±0.91). For structural constraints, the differences ($p \leq 0.05$; $d=0.44$) exist between students that grew up in the city (3.44±0.55) and students from rural areas/informal settlements (3.19±0.55), as well as between students from towns (3.39±0.46) and students from rural areas/informal settlements ($p \leq 0.05$; $d=0.36$), with students from rural areas/informal settlements reporting the lowest level of structural constraints.

For the statement, *"I am more likely to do a new leisure activity that is in keeping with my religious beliefs"*, differences ($p \leq 0.05$; $d=0.32$) exist between students that grew up in towns (3.53±0.96) and students from rural areas/informal settlements (3.18±1.12), with students that grew up in rural areas/informal settlements reporting the lowest level of constraints. With regard to the statement, *"The people I know usually know what new leisure activities they could do with me"*, a difference exists between students that grew up in the city and students from rural areas/informal settlements ($p \leq 0.05$; $d=0.25$). Additionally, a difference also exists between students that grew up in towns and students from rural areas/informal settlements ($p \leq 0.05$; $d=0.33$). In the context of this specific statement, students from rural areas/informal settlements (3.05±1.07) achieved the lowest score, indicating that for this specific statement they experience a greater constraint than do students from cities (3.33±0.84) and towns (3.41±0.80).

DISCUSSION

Although strong evidence exists that females experience higher levels of leisure constraints than do males, the results of this study indicate that there are no differences between male and female students in terms of the intrapersonal, interpersonal and structural constraints. However, the fact that female students reported higher scores for the statement, "*I am more likely to do a new leisure activity that does not make me feel self-conscious*", suggests that a feeling of self-consciousness is a greater constraint for female students. A possible explanation for this result can be found in research by Raymore *et al.* (1994), who determined that female adolescents had lower self-esteem and hence experienced greater intrapersonal constraints than did male adolescents. Therefore, as female students have lower self-esteem than males, it is possible that they will prefer to avoid leisure activities that they perceive will make them feel self-conscious.

Additionally, research has found that body image is of particular concern to females (Shaw, 1999; Liechty *et al.*, 2006) and as a result, it is possible that they will avoid participation

in leisure activities that make them feel self-conscious of their bodies. The fact that little differences exist between the intrapersonal, interpersonal and structural constraints of male and female students, suggests that universities provide an environment where students of both genders may have equal access to leisure and recreation opportunities. However, because female students experience self-consciousness as a greater constraint than do male students, it is suggested that leisure and recreation professionals design programmes in ways that limit situations where female students may feel self-conscious.

The fact that black students experience greater interpersonal constraints than did the white students can be attributed to a number of factors. Although research by Raymore *et al.* (1994) did not find any relationship between socio-economic status perceived family income) and interpersonal constraints, within a South African context where black students generally are from previously disadvantaged and marginalised communities, this may differ. It should be noted that interpersonal constraints, according to the questionnaire used in this study, are based on the constraints experienced by friends or family of an individual, which prevents him or her from participating in leisure activities with them.

It is, therefore plausible that in marginalised communities interpersonal constraints, as measured by the questionnaire (friends' and family's limited access to transport, limited money, limited free time due to family responsibilities and lack of knowledge of leisure) are more pronounced. This may prevent leisure participation with other people, such as friends or family, increasing the perception of interpersonal constraints. Because of how interpersonal constraints are conceptualised in the questionnaire used in this study, in this case, it is possible that race, *per se*, does not influence interpersonal constraints, but rather the socio-economic status and marginalisation associated with a specific racial group. It should, however, be noted that social groups are very important in African cultures, and could also influence how strongly interpersonal constraints are experienced, and possibly add new dimensions of interpersonal constraints that have not been considered previously.

The finding that black and Indian students experienced the need for skill to participate in a leisure activity as a greater constraint than did the white students, can possibly be explained by the fact that in South Africa the white population participates more in sport and recreation activities than any other population group (Department of Sport & Recreation, 2005). As a result, white students may have had more access to various activities and have already mastered the necessary skill by the time they attend university, whereas other racial groups may feel intimidated by the skills required to participate in new leisure and recreation activities presented by universities.

As black students experience greater interpersonal constraints, leisure programmers should focus on providing services that may help negotiate these constraints, such as providing a database of people interested or currently participating in various activities and are looking for someone to participate. This may help black students to participate with other students, who are not necessarily their friends or family, but who are not constrained by finances, transport, or time. Additionally, as black and Indian students perceived a need for skill as a leisure constraint, leisure programmers may consider implementing introductory and skills development programmes so that individuals may progress through different levels of participation.

A further thought, the fact that white students report higher levels of structural constraints than do black students is surprising, since literature suggests that marginalised racial groups are in general more constrained in their leisure. However, the findings of this study are similar to those by Shinew *et al.* (2004) who found that North American marginalised groups, in their case African Americans, were less constrained than Caucasians. Possible explanations for white

students experiencing more constraints can be that they have different expectations of leisure facilities than black students (Shinew *et al*., 2004). However, Shinew *et al*. (2004) suggest that individuals from marginalised groups are more accustomed to negotiating constraints and thus may have developed strategies to overcome their structural constraints.

Considering the negative correlation of structural constraints with participation in team and individual sport, and its positive correlation with social activities, watching television and relaxing, the fact that white students experience more structural constraints than do black students may indicate that the nature of white students' leisure may be less active than that of black students. Since the reason for white students experiencing greater structural constraints is not clear, further research is recommended so that leisure professionals can have guidelines on how to help students negotiate these structural constraints.

The fact that differences exist in terms of intrapersonal constraints between English-speaking students and students that speak African languages can be attributed to ethnic factors associated with specific languages. Researchers suggest that differences in leisure behaviour result from ethnic differences, such as culture, values, norms and socialisation patterns (Floyd *et al.*, 1994; Philipp, 1997; Gómez, 2006) and it is possible that these differences between English-speaking students and students that speak African languages accounted for the higher levels of intrapersonal constraints among English-speaking students. In support of this notion, Stodolska and Yi-Kook (2005) note that differences in constraints based on language is a clear function of ethnicity.

As noted, students staying in private accommodation experience more structural constraints than students staying in university residences and hostels do. Possible explanations can be that students staying on campus have easier access to campus recreation and leisure facilities than their off-campus counterparts have, and have more opportunities of engaging in recreation and leisure activities, such as team sports, within their hostel context. In support, research by Miller *et al.* (2008) found that students living on campus are 50% more likely to utilise campus recreation facilities than students living off campus. However, as this study found positive correlations between structural constraints and social activities, watching television and relaxation, it is possible that students that experience structural constraints change their leisure behaviour to include activities that do not pose structural constraints.

Lastly, it appears that where students grew up, accounted for the most differences in leisure constraints. In terms of intrapersonal constraints, structural constraints, as well as the statement, "*I am more likely to do a new leisure activity that is in keeping with my religious beliefs*", students that grew up in rural areas/informal settlements experience the lowest levels of constraints. In terms of constraints related to the statement, *"The people I know usually know what new leisure activities they could do with me"*, students from rural areas/informal settlements recorded the lowest scores, indicating that they do not agree with the statement as much as do students from cities and towns. Whether the results can be explained because students from rural areas/informal settlements are generally from lower socio-economic backgrounds or whether other factors play a role in these findings is unclear and further research into these findings is recommended.

CONCLUSION

Despite the fact that not all statistical significant differences were supported in terms of practical significance, the results still indicate that demographic factors influence leisure constraints, and that within a South African context, where a diverse student population is the norm, it is clear that leisure professionals have a difficult leisure programming task as they need to consider the different combinations and intensities of leisure constraints experienced by students during leisure.

Apart from the practical implications of this study, however, certain theoretical insight into leisure constraints within South Africa is gained. Firstly, some of the findings in this study are similar to those of studies on American and other first-world populations, indicating the possibility that leisure constraints are more generalised than initially expected. Secondly, although based on a very specific population, the findings contribute greatly to a unique body of knowledge based on South African populations within a unique South African context.

It should be noted that the study had some limitations, most notably being the composition of the sample. Because the sample consisted of first-year university students studying sport, leisure or recreation, it is possible that these students are more inclined to participate in sport of recreational activities, and thus the results cannot be generalised. Therefore, without further studies to expand on or confirm these findings, the true nature of leisure constraints in South Africa would never be fully understood.

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