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ARTICLE

Research Article

**The relationships between motivation type and sport participation
among students in a South African context**

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van Heerden CH

Full Length Research Paper

The relationships between motivation type and sport participation among students in a South African context

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Reasons for participation in sport differ and intrinsic motivation, extrinsic motivation and even amotivation can influence the decision. In the South African context, little research has been done on the differences of motivation among male and female students to participate in sport. This study sought to understand the relationship between certain motivation drivers and sport participation. It also explored the gender variable and whether there are differences between male and female athletes in terms of their motivation for participating in sport. A non-probability sample was used and 199 respondents participated. Results indicate that there was a negative correlation between amotivation and sport participation. Furthermore, it was found that there is a positive correlation between intrinsic and extrinsic motivation. A last finding is that there are no significant differences between the gender groups and their motivation for sport participation. It is trusted that these findings will contribute to the subject area of sport and more specifically the relative similarity of gender motivations for participating in sport.

Key words: Sport participation, extrinsic motivation, intrinsic motivation, amotivation, gender, undergraduate students.

INTRODUCTION

Motives for sport participation differ and a distinction can be made between the intrinsic (the pleasure of participating) and extrinsic (future rewards or punishment) motivation of men and women when engaging in a sport activity (Alexandris et al., 2002).

Someone who is intrinsically motivated is inspired to participate in sport without being driven by an external incentive. Independence and competence are some of the feelings of individuals when doing activities that are enforced by intrinsic motivation (Kingston et al., 2006).

When a person is intrinsically motivated he will participate for the mere pleasure of the activity (Recours et al., 2004; Wilson, 2006). From previous research, it is evident that enjoyment causes men to be more intrinsically motivated than women (Kilpatrick et al., 2005).

Studies done in terms of extrinsic motivation reveal that men seem to be more motivated by competition and playing to the limit (Recours et al., 2004:13) than women when participating in sport (Campbell et al., 2008). Behaviours that resulted from extrinsic motivation do not

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necessarily result in habits in intrinsic motivation (Kilpatrick et al., 2005).

In the South African context little research has been done on the differences of motivation among male and female students to participate in sport and it might be beneficial to explore this as a contribution to knowledge in this area.

The objective of this study is to determine whether there are relationships between the types of motivation and sport participation. A further objective is to establish whether there are differences between male and female students at a higher educational institution regarding intrinsic motivation, extrinsic motivation and a motivation in sport participation.

LITERATURE BACKGROUND

Motivation

Alexandris et al. (2002) state that motivation is an important factor of individuals' decision-making process and the interaction between motivation and perception of constraints determines, in a large degree, leisure participation.

Some of the factors that contribute to the motivation to participate in sport include physiological and psychological health, enjoyment, competence, relaxation, challenges and appearance (Kilpatrick et al., 2005).

Sports motivation encompasses exhibitionism and competition, both contributing to extrinsic motivation and sociability and playing to the limit, which are factors contributing to intrinsic motivation (Recours et al., 2004).

Intrinsic motivation

Kilpatrick et al. (2005) claim that sport participation is more closely linked to intrinsic motives, whereas exercise is associated with primarily extrinsic motives. McCullagh (2005) cited in Wilson (2006) stated: "Intrinsic motivation can be defined as an individual's need to feel competency and pride in something". Intrinsic motivation inspires participation without external incentives and acts as a driver to participate in sport as a result of beliefs and the value that is found in doing the activity (Tosi et al., 1990). Independence and competence are enforced by intrinsic motivation (Kingston et al., 2006).

Intrinsic motivation consists of three dimensions, namely, motivation to know, motivation to accomplish and motivation to experience stimulation (Pelletier et al., 1995; Weinberg and Gould, 2003 cited in Wilson, 2006). Motivation to know is the fulfilment and pleasure experienced in learning and attempting to understand

new concepts within sport participation (Pelletier et al., 1995; Weinberg and Gould, 2003 cited in Wilson, 2006).

Motivation to accomplish can be defined as: "engaging in an activity for the pleasure and satisfaction experienced when one attempts to reach personal objectives (Vallerand and Losier, 1999 cited in Alexandris et al., 2002).

A person, who is motivated by experience stimulation will participate in an activity for the purpose of experiencing different sensations, for example fun and excitement (Alexandris et al., 2002). Both sociability and playing to the limit can be explained by this concept.

Sociability links to the need to relate, sharing experiences with fellow participants and forming relationships that exceed competition (Recours et al., 2004). Alexandris et al. (2002) suggest: "Social factors influence individuals' perceptions of psychological mediators, which in turn determine their motivation." Fellowship and a sense of belonging can be experienced in terms of sociability. Duda (1996) in Ryska (2003) stated that intrinsic motivation positively influences athletes' attitudes in terms of the sociability factor.

Playing to the limit relates to reaching ones' individual, maximum abilities and is a reward at the moment of achievement (Recours et al., 2004).

Extrinsic motivation

For the purpose of this study, extrinsic motivation will be defined as activities participated in for motives beyond the pleasure of the activity itself and as a means to an end and the primary objectives of participating in sport are to receive rewards or to avoid punishment (Deci and Ryan, 1985 cited in Kowal and Fortier, 1999).

Extrinsic motivation consists of four dimensions, namely, integrated regulation, identified regulation, introjective regulation and external regulation (Weinberg and Gould, 2003 cited in Wilson, 2006; Deci and Ryan, 1985 cited in Kingston et al., 2006).

Integrated regulation occurs when athletes perform activities to benefit different aspects of life, rather than for the pleasure of participating itself (Weinberg and Gould, 2003 cited in Wilson, 2006). Participation is out of personal choice and individuals experience the lowest form of the controlling factor (Vallerand and Fortier, 1998 in Kingston et al., 2006).

Identified regulation is internally driven, but still focuses on a result that is external (Pelletier et al., 1995 cited in Kingston et al., 2006) and participants normally identify with the activity, because it is perceived as having value (Weinberg and Gould, 2003 cited in Wilson, 2006;

Alexandris et al., 2002).

Introjective regulation exists when individuals feel internal pressure to participate and their behaviour is driven by controlling imperatives, resulting in the engagement of activities to avoid feelings of guilt and anxiety (Deci and Ryan, 2000 cited in Kingston et al., 2006; et al., 1990 cited in Alexandris et al., 2002). The main reasons for participating in an activity are the results related with the outcomes.

External regulation represents the most controlled form of extrinsic motivation and refers to behaviour that is controlled by material rewards or constraints imposed by others (Kingston et al., 2006). Participants either feel that they have no choice or that they are rewarded for participating (Weinberg and Gould, 2003 cited in Wilson, 2006).

As athletes become more competitive, a change from intrinsic motivation to extrinsic motivation occurs. These athletes participate in sport as a means to personal ends, and diverge from reasons that are perceived as positive by the wider society (Gough, 1998 cited in Ryska, 2003). Therefore, external rewards can replace intrinsic motivation thereby decreasing self-motivation and regulation (Kingston et al., 2006).

Amotivation

Human behaviour is largely influenced by amotivation and Kingston et al. (2006) state that amotivation is characterised by a total absence of motivation. Therefore, athletes suffering from amotivation no longer have a reason for sports participation. In their perception, no correlation exists between their actions and the purpose when participating in sport is no longer evident to individuals (Alexandris et al., 2002). Continuous failure in sport results in amotivation (Whitehead, 1993).

Influence of gender in sport motivation

Males and females do not necessarily participate in sport because of the same motivations. The study performed by Kelinske et al. (2001) cited in Campbell et al. (2008) indicates that there is little difference between men and women and their perceived benefits when they engage in sport.

Women are more intrinsically motivated than men and display more self-determination when partaking in sport (Chantal et al., 2002; Fortier et al., 2002; Petherick and Weigand, 2002 cited in Kingston et al., 2006; Pelletier et

al., 1995). Enjoyment is an intrinsic factor because it is concerned with the pleasure of participating in sport. Women have a stronger inclination for sociability when engaging in a sport (Campbell et al., 2008) and score higher on sportsmanship than men (Ryska, 2003). Men seem to be more motivated by competition and playing to the limit (Recours et al., 2004) than women when participating in sport (Campbell et al., 2008). Therefore, the statement made by Kingston et al. (2006) specifying that men are more extrinsically motivated than women is reinforced and it can be surmised that women are not as competitive as men.

RESEARCH OBJECTIVES AND HYPOTHESES

The objective of this study is to determine whether there are relationships between the types of motivation and sport participation. A further objective is to establish whether there are differences between male and female students at a higher educational institution regarding intrinsic motivation, extrinsic motivation and amotivation in sport participation.

The following hypotheses were formulated:

H_{1(null)}: No relationship exists between amotivation and the participation in sport

H_{2(null)}: There is no relationship between the extrinsic motivation and intrinsic motivation in sport participation.

H_{3(null)}: There is no difference in the type of motivation for sport participation between males and females.

METHOD

Sampling

The target population for this study consisted of undergraduate students in the Sport Science Faculties of the largest residential university in South Africa. Respondents included males and females from various ages and language groups who participate in sport.

A non-probability sampling method was used and a total of 225 students were approached to complete the questionnaire.

Data collection

A self-report questionnaire was used after pretesting to collect data and 199 respondents completed the questionnaire. No incentives were used to encourage respondents' participation.

The Sport Motivation Scale (Pelletier et al., 1995) was utilised to capture data on the motivation for sport participation. The 28 item multiple item rating scale measured three dimensions of motivation, namely intrinsic motivation, extrinsic motivation and amotivation. Scale values ranged from 1 ("Does not correspond at all") to 7 ("Corresponds exactly"); the higher the mean score, the higher the level of motivation of the motivation type.

All the items that measured amotivation were reverse scored.

Table 1. Time spent on sport participation per week.

	Frequency	%
0 - 5 h	57	29
More than 5 - 10 h	48	25
More than 10 - 15 h	37	19
More than 15 - 20 h	23	12
More than 20 h	30	15
Missing	4	
Total	199	100

RESULTS

Sample

There were 52% male and 48% female respondents in the final sample; 75% of the respondents were 1st year students, 12% were 2nd year students and 13% were 3rd year students.

Reliability

The Cronbach alpha coefficient for the sub-dimensions of the scale for intrinsic motivation was 0.86; for extrinsic motivation it was 0.82; and amotivation recorded 0.75 and indicated acceptable internal consistency reliability.

Descriptive statistics

In Table 1 the time spent on sport participation per week is shown.

The table indicates that 29% of respondents participate in sport 0-5 h of the week; while another 25% participate between 5-10 h per week. Another category ranging from 10-15 h participation per week is represented by 19% of the respondents. There are only 12% of respondents that participate in sport between 15-20 h per week and a total of 15% respondents participate more than 20 h per week.

Hypotheses testing

The first hypothesis focused on the correlation that exists between amotivation and the participation in sport.

The two-tailed non-directional hypothesis was tested at a 5% level of significance. Since amotivation was measured at an interval level of measurement and the level of sport participation on an ordinal level of measurement, the assumptions for the parametric significance test – the

Pearson's product moment correlation – could not be met. The assumption of linearity was tested through the visual inspection of a scatter plot which indicated that the assumption on linearity was not violated for this hypothesis. The Spearman's rank order correlation was used as the non-parametric alternative in testing H_1 . In Table 2 the Spearman's rank order correlation for H_1 is indicated.

Since the p-value is 0.01 the null hypothesis can be rejected and the alternative hypothesis can be accepted. The results given by the above table indicate that there is a positive correlation between participation in sport and amotivation as the correlation coefficient is 0.19. Because amotivation was reverse scored, the linear relationship between these two variables is positive. The coefficient of determination (r^2) indicates that the two variables share a 3.61% common variance. This implies that only 3.61% of the variance in the one variable is explained by the variance in the other.

The implication of these findings is that respondents' scores on the amotivation sub-dimension are negatively correlated with their scores related to the level of sport participation. While the correlation is significant (0.19), a strong association is not present. The second hypothesis focused on the relationship between extrinsic and intrinsic motivation in the participation of sport. This two-tailed, non-directional hypothesis was tested at a 5% level of significance. Since intrinsic motivation and extrinsic motivation were measured at an interval level of measurement, the appropriate parametric significance test is the Pearson's product moment correlation. This test assumes that there is a linear relationship between the variables being tested and that both variables have a normal distribution (Diamantopoulos and Schlegelmilch, 2000:203-205). The assumption of linearity was tested through the visual inspection of a scatter plot, while the assumption of normality was assessed through the Kolmogorov-Smirnov test, as well as through visual inspections of histograms and normal probability plots. The assumption for normality was violated for the intrinsic motivation sub-dimension while the scatter plot indicated that the assumption on linearity was not violated. In Table 3 the Spearman's rank order correlation is illustrated.

This test indicated that the p-value was smaller than 0.05 and the null hypothesis can be rejected. Therefore, a relationship exists between extrinsic motivation and intrinsic motivation in sport participation. The coefficient of determination (r^2) indicates that the two variables share 15.21% common variance. This implies that 15.21% of the variance in the one variable is explained by the variance in the other.

The implications of these findings are that the respondents' scores on intrinsic motivation are positively correlated with the scores of extrinsic motivation.

Table 2. Spearman's rank order correlation for H₁.

		Time spent on sport participation per week	Amotivation
Time spent on sport participation per week	Correlation coefficient	1.00	0.19
	Sig. (2-tailed)	0.00	0.01
	N	195	193
Amotivation	Correlation coefficient	0.19	1.00
	Sig. (2-tailed)	0.01	0.00
	N	193	197

Table 3. Spearman's rank order correlation for H₂.

		Intrinsic motivation	Extrinsic motivation
Intrinsic motivation	Correlation coefficient	1.00	0.39
	Sig. (2-tailed)	0.00	0.00
	N	199	199
Extrinsic motivation	Correlation coefficient	0.39	1.00
	Sig. (2-tailed)	0.00	0.00
	N	199	199

Table 4. Independent sample t-test for H₃.

	Levene's Test for equality of variances		T-test for equality of means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% Confidence interval of the difference	
								Lower	Upper
Intrinsic motivation	0.00	0.98	0.32	195	0.75	0.04	0.11	-0.19	0.26
Amotivation	3.65	0.06	-0.59	193	0.55	-0.07	0.12	-0.30	0.16
Extrinsic motivation	0.03	0.86	0.17	195	0.87	0.02	0.14	-0.25	0.30

The third hypothesis focused on the difference between the type of motivation in sport among males and females. This non-directional hypothesis was tested at a 5% level of significance. The assumption for normality was assessed through the Kolmogorov-Smirnov test for normality as well as through a visual inspection of the relevant histograms (Pallant, 2001). The assumption of a normal distribution for the independent sample t-test was satisfied and equal variance also exists. In Table 4 the results of the independent sample t-test are given.

The significance value for the Levene's test for equality of variance of all the constructs is higher than 0.05 (Intrinsic motivation = 0.98, amotivation = 0.06 and extrinsic motivation = 0.86). Therefore an equal variance

exists in both groups. There is a high significance value for the t-test, indicating that there is no significant difference between the two group means (Intrinsic motivation = 0.75, amotivation = 0.55 and extrinsic motivation = 0.87). The null hypothesis is therefore accepted and there is no significant difference in the type of motivation for sport participation between male and female Sport Science students.

MANAGERIAL IMPLICATIONS

The study indicated that there is a positive relationship between extrinsic motivation and intrinsic motivation.

Therefore, when extrinsic motivation increases, intrinsic motivation will also increase and vice versa. According to Recours et al. (2004:3) people participate in sport to prove themselves rather than for the love of the game and therefore, extrinsic motivation plays a greater part in sport involvement than intrinsic motivation. Universities in Africa should use this information to enhance its sport and product offering to current and potential students. In order to increase extrinsic motivation a programme that focuses on the results of progression of various athletes in all relevant sport types can be implemented.

The value of participation in sport and the great potential future that sport has in Africa should be communicated to these students to increase commitment and motivation. This may increase the intrinsic motivation among students at the relevant university. If amotivation is not addressed and countered, students may seize further participation in sport. The study by Kelinske et al. in 2001 (cited in Campbell et al., 2008) indicated that there is little difference between men and women and their perceived motivations when they engage in sport. The results of this study echoed that and less attention should be spent on differences between male and female participants.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The non-probability sampling approach is a limitation and the results of the study cannot be generalised to a larger population. The type of sport and whether it is exercised on a team-based or individual-based level can be investigated in future studies when motivation on sport participation is considered. In this category, the level of participation may also display interesting results and should be investigated in more depth.

Concluding remarks

This study sought to understand the relationship between certain motivation drivers and sport participation. Also it explored the gender variable and whether there are differences between male and female athletes in terms of their motivation for participating in sport. It can be concluded that there are no significant differences between the gender groups and their motivation for sport participation. It is trusted that these findings will contribute to the subject area of sport and more specifically the relative similarity of gender motivations.

Conflict of Interests

The author has not declared any conflict of interests.

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