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Motivation for taking part in exercise

Introduction

According to Sevil (2016) “Engagement in regular physical activity (PA) with moderate to vigorous intensity (MVPA) reports numerous benefits in a person’s integral development, personal well-being and quality of life”. As a guideline adults should do at least 150 minutes of moderate intensity activity a week or 75 minutes of vigorous intensity activity a week (NHS, 2024). Moderate intensity activity should allow the heart rate to rise whilst breathing faster, Vigorous activity, however, should cause hard and fast breathing. The importance of integrating the psycho-social variables have been shown throughout previous research from Zhang (2013) by Integrating self-determination theory with the social ecological model to understand students' physical activity behaviours. Proposed in the Self-Determination Theory (SDT) and the Trans-Theoretical Model (TTM) which was applied to exercise that allows the use of social ecological models used by researchers as seen above for many years to further complement and justify engagement in Physical Activity. The Self-Determination Theory (SDT) was originally rooted in intrinsic motivation, which can describe spontaneous curiosity or sudden interest, (Deci, 1975; Deci & Ryan, 1980) since then individual differences in motivation, wellness, personal goals, relationship satisfactions, and other issues of import have been addressed within the same framework also known as extrinsic motivation (Ryan, 2019). Organismic integration Theory (OIT) explores the concept of extrinsic motivation in its various forms, focusing on their characteristics, determinants, and effects. In general, extrinsic motivation refers to behaviour aimed at achieving outcomes that are external to the behaviour itself (Center for Self-Determination Theory, 2024). However, there are different types of extrinsic motivation, including external regulation, introjection, identification, and integration. These forms exist on a continuum of internalization, with the degree of internalization influencing the level of autonomy a person experiences when performing the behaviour. OIT also examines the social contexts that either promote or hinder this internalization

process—specifically, what factors lead individuals to resist, partially adopt, or fully internalize values, goals, or belief systems. Key to this process are the supports for autonomy and relatedness, which OIT identifies as essential for fostering internalization. This laboratory report investigates the correlation between behavioural regulation strategies and the level of exercise and physical activity among students at the University of Wales Trinity Saint David. The study aims to determine whether specific behavioural regulation techniques, such as goal setting, self-monitoring, or reinforcement, are associated with increased participation in physical activity. The growing lack of motivation among university students to engage in physical activity is a significant concern. Identifying the factors that drive students to participate in sports or exercise is essential for encouraging greater involvement in physical activity. Ensuring physical activity among university students is essential for maintaining a healthy lifestyle, and universities play a crucial role in facilitating their participation in such activities. Engaging in sports and exercise can improve body shape, alleviate the monotony of studying, and enhance physical and mental well-being (Alkhateeb, 2019).

Method

A group of 47 undergraduate students from the School of Sport and Healthy Living at the Institute of Management and Health (Carmarthen Campus) completed the BREQ-3 (Markland and Tobin, 2004) and IPAQ (short form) assessments. According to the Center for Self-Determination Theory (2024) the Behavioural Regulation in Exercise Questionnaire (BREQ) and its subsequent modifications have become the most widely used measures of the continuum of behavioural regulation in exercise psychology research. The BREQ-3 (Markland and Tobin, 2024) questionnaire shows a range of 24 statements such as “I feel guilty when i don’t exercise”, “ I consider exercise a fundamental part of who I am” and “I think exercise is a waste of time” each participant would mark each statement from 0 (not true for me) to 4 (very true for me) based on their opinion only. After each statement has been scored the mean score (add all the scores and divide by the amount) must be calculated, there are 6 ‘scales’ each with specific questions (numbers in brackets)

Amotivation (2,8,14,20)

External regulation (6,12,18,24)

Introjected regulation (4,10,16,22)

Identified regulation (1,7,13,19)

Intergrated regulation (5,11,17,23)

Intrinsic regulation (3,9,15,21)

The International Physical Activity Questionnaire (IPAQ) on the other hand is a self-reported questionnaire for assessing physical activity only. The questionnaire was made to discover the different types of physical activity done throughout individuals' everyday lives, it does this by asking about the individuals time spent being active in the last 7 days. With a total of 7 questions starting with vigorous activity; asking how many days then how many hours and minutes a day, it proceeds to move onto moderate activities asking the same questions with the final two questions being about walking and sitting hours and minutes throughout the week. For this form to be repeatable each question had a description therefore if an individual wasn't familiar with any of the terms they could make a rough assumption e.g “Vigorous physical activities refer to activities that take hard physical effort and make you breathe much harder than normal”

After using the IPAQ (short form) the group's results were calculated and were subjected into 3 groups;

Group 1- Low Activity Level with 14 students

Group 2- Moderate Activity Level with 18 students

Group 3- High Activity Level with 15 students

Results

The results of the International Physical Activity Questionnaire (IPAQ) revealed notable differences in the levels of exercise motivation across the three groups of students based on their activity levels (Low, Moderate, High).

	Amotivatio n	External regulation	Introjecte d regulation	Identified regulation	Integrated regualtion	Intrinsic regulation
Group 1 - Low						
Mean	1.68	2.61	2.59	2.29	1.25	1.04
Standard Deviation	1.49	1.13	0.78	0.79	1.23	1.38
Group 2- moderate						
Mean	0.01	0.29	2.25	3.36	2.65	3.15
Standard Deviation	0.06	0.41	1.02	0.50	1.29	0.55
Group 3- High						
Mean	0.33	0.93	2.63	3.42	2.02	3.28
Standard Deviation	0.72	1.04	0.94	0.50	0.80	0.71

Group 1 (Low Activity Level) exhibited the highest mean score (1.68), indicating a greater lack of motivation to engage in physical activity compared to Groups 2 (Moderate Activity Level) and 3 (High Activity Level), whose means were substantially lower (0.01 and 0.33, The mean score for external regulation was highest in Group 1 (2.61) which suggests that students in this group are more likely to engage in physical activity due to external pressures e.g. social media. Group 2 and Group 3 had much lower mean scores of 0.29 and 0.93, indicating less external influence on exercise behaviour. On the other hand, Groups 2 (Moderate Activity Level) had the highest mean for integrated regulation (2.65), suggesting that students in this group are more likely to engage in physical activity as a fully integrated part of their identify, allowing a balanced lifestyle Group 2 (Moderate

Activity Level) had the highest mean for identified regulation (3.36), suggesting that these students are engaging in physical activity because they see it as a meaningful part of their overall personal goals and values. This is often associated with a more sustained and autonomous form of motivation, which tends to lead to greater long-term adherence to exercise (Deci & Ryan, 2002). Group 3 (High Activity Level) followed closely with a mean of 3.42, while Group 1 (Low Activity Level) had a much lower mean (2.29), indicating that students with higher activity levels are more likely to engage in exercise for self-endorsed reasons

Overall, the data suggest that as the level of physical activity increases (from low to high), students exhibit stronger intrinsic motivation, higher identified and integrated regulation, and lower levels of amotivation and external regulation.

Discussion

The results of this study provide valuable insights into the role of motivation in physical activity levels among university students. The differences observed between students with low, moderate, and high activity levels align closely with previous research on motivation and physical activity, particularly within the framework of Self-Determination Theory (SDT). SDT posits that motivation exists on a continuum, ranging from amotivation (lack of motivation) to intrinsic motivation (engagement for its inherent enjoyment). Our findings underscore how variations in the type of motivation affect physical activity participation, and how this is consistent with and expands upon the findings of previous studies. However, the relatively low intrinsic motivation scores in Group 1 (1.04) suggest that students in this group are less likely to derive enjoyment from physical activity, which could be a key barrier to increasing their activity levels. These findings are consistent with Alkhateeb et al. (2019), who found that university students with lower motivation were less likely to engage in exercise due to a lack of interest or enjoyment. If these students were to develop more intrinsic motivation, through strategies such as offering enjoyable physical

activities or emphasizing the personal benefits of exercise, it could potentially lead to increased engagement in physical activity.

Similarly, the high mean score for external regulation in Group 1 aligns with findings by Chatzisarantis et al. (2010), who suggested that individuals who are less physically active are more likely to engage in exercise due to external influences, such as social pressure or obligations. This kind of extrinsic motivation, though it can initially trigger some activity, is often not sufficient for sustaining long-term engagement in exercise (Deci & Ryan, 2008).

In summary, the findings of this study provide strong support for the role of motivation in influencing physical activity levels among university students. The results are consistent with previous research, which has shown that autonomous forms of motivation (identified, integrated, and intrinsic) are associated with higher levels of physical activity, while more controlled forms of motivation (external regulation and introjection) are often less sustainable. The study highlights the importance of fostering intrinsic and identified regulation among students, as these forms of motivation are more likely to lead to sustained participation in physical activity. Tailoring interventions that help students find personal meaning and enjoyment in exercise could be an effective strategy for promoting physical activity and improving overall well-being among university students.

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