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Introduction to Exercise Psychology (BMSH4303)

To undertake an examination of the relationship between physical activity levels and behavioural regulation to exercise for a student population

Introduction

Understanding why people choose to be physically active is an important part of psychology. People do not all exercise for the same reasons. Some enjoy it, some want to feel healthier, some are told to do it, and others just do not feel motivated at all. One theory that explains these different reasons is Self-Determination Theory (SDT) (Deci & Ryan, 2000). SDT suggests that motivation sits on a scale varying from no motivation to very self-driven motivation (Ryan & Deci, 2017). At the bottom end is amotivation, where a person has no interest or intention to take part in exercise. Then there are more controlled types of motivation, such as external regulation, where someone exercises because they feel pressure from others, and introjected regulation, where people exercise to avoid guilt or to feel better about themselves (Ntoumanis, 2001; Hagger & Chatzisarantis, 2007). At the more self-driven end of the scale are identified, integrated, and intrinsic regulation, which involves seeing benefits in exercise, viewing it as part of who you are, or doing it because you enjoy it (Deci & Ryan, 2000; Ryan & Deci, 2017).

To measure these types of motivation, researchers use the Behavioural Regulation in Exercise Questionnaire (BREQ-3) (Markland & Tobin, 2004). Past studies using this scale have shown clear links between people's motivation and their physical activity levels. For example, people who exercise more tend to score higher in autonomous motivation (Deci & Ryan, 2000). Other studies show that self-driven motivation is linked to exercising consistently, while controlled motivation tends to result in people losing interest or dropping out (Ntoumanis, 2001). These patterns are also reflected in wider research on adult physical activity guidelines, which highlight the importance of encouraging people to find meaningful reasons to stay active (NHS, 2024; UK Chief Medical Officers, 2019).

University students are a good group to study because everyday life changes for them, and their physical activity levels can change depending on their timetable, workload, stress, and lifestyle. Studies on Students show that many exercise for enjoyment, self-efficacy, and goal-oriented reasons, which are positively associated with their physical activity levels (Taylor et al., 2024; ukactive, 2019/20). Students with more self-driven reasons are usually more active (Côté & Gilbert, 2009). More recent studies have also shown that UK university students struggle to meet recommended activity levels, highlighting the importance of understanding their motivation (Roberts et al., 2024). Understanding these motivational patterns can help universities support students who want to become more active or stay active (WHO, 2022).

The environment students grow up in, and study in, can affect their motivation. Access to sports facilities, cost of gym memberships, and having friends who are active can make a difference. If students feel supported and have opportunities to be active, they are more likely to feel confident enough to take part. This links with Self-Determination Theory, which suggests that

having confidence in their abilities and control over their choices is key for developing self-driven motivation (SDT) (Deci & Ryan, 2000).

The aim of this study is to look at the relationship between different types of exercise motivation and levels of physical activity in university students.

Method

Students from University took part in the study. They completed two questionnaires, the BREQ-3, which measures different types of exercise motivation, and the IPAQ-SF, which measures weekly physical activity. The BREQ-3 includes items about amotivation, external regulation, introjected regulation, identified regulation, integrated regulation, and intrinsic motivation. Students rated each statement on a scale from 0 (not true for me) to 4 (very true for me). The IPAQ-SF asks about walking, moderate activity, and vigorous activity, and then places individuals into low, medium, or high activity groups (Wilson et al., 2006).

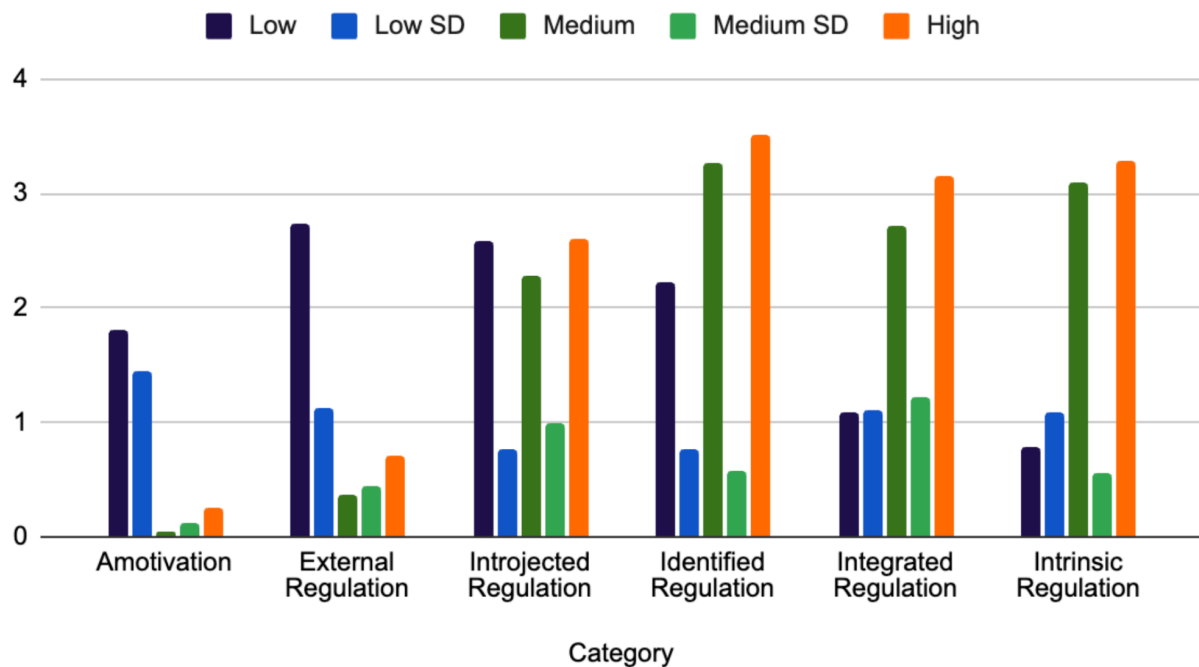
Before completing the questionnaires, students were told to answer honestly and to think about their usual weekly activity rather than one unusually active or inactive week. This was done to help reduce inaccuracy. As the questionnaires were completed independently, students could take their time and think about their answers without any pressure.

Students completed both questionnaires. After collecting the data, the motivation scores from the BREQ-3 were placed into groups depending on whether the student had been classed as low, medium, or high in physical activity according to the IPAQ results. The average score for each motivation type was then shown in a graph so the differences between the three groups could be seen clearly.

Results

The graph shows the mean scores across all motivation types for the low, medium, and high physical activity groups.

Low, Medium and High



From the graph, the low-activity group scored highest for amotivation and external regulation. Their scores for identified, integrated, and intrinsic regulation were very low. This suggests that less active students did not value exercise and mostly took part only because of external pressure, if at all.

The medium-activity group showed more balanced scores. They reported higher identified, integrated, and intrinsic motivation than the low group. Controlled motivation types were lower in this group.

The high-activity group had the strongest self-driven motivation. They scored highest for identified, integrated, and intrinsic regulation, and lowest for amotivation and external regulation.

Another pattern in the results was that the medium-activity group sat between the low and high groups. This suggests that motivation builds up slowly rather than changing all at once, as activity levels increase. For example, while their intrinsic motivation was not as strong as the high-activity group, it was still higher than the low-activity group. This suggests that even a moderate level of activity may help build more positive feelings towards exercise.

These trends match earlier studies looking at university student motivation and activity levels (Côté & Gilbert, 2009).

Discussion

The aim of the study was to look at how motivation towards exercise differs depending on physical activity levels in university students. The results support Self-Determination Theory and are consistent with previous research (Deci & Ryan, 2000; Ryan & Deci, 2017).

Students in the low-activity group showed the highest levels of amotivation and external regulation. This means they either did not feel motivated to exercise or only did so because they felt pressured. Research shows that these forms of motivation are linked with low enjoyment and poorer long-term commitment (Ntoumanis, 2001; Hagger & Chatzisarantis, 2007).

Students in the medium and high-activity groups had much higher levels of identified, integrated, and intrinsic regulation. These results reflect previous findings showing that autonomous motivation is linked with consistent physical activity and positive feelings during exercise (Deci & Ryan, 2000; Ryan & Deci, 2017). The results for the high-activity group also match previous findings showing that students with higher autonomous motivation exercise more regularly (Kara, Yıldırım, & Smith, 2023; Côté & Gilbert, 2009).

Something that might help show the differences between students is routine. Students who are already active may have added exercise into their weekly routine, making it easier to keep up. However, students who are less active might not have a set routine, so physical activity becomes something they do only when they feel they have spare time.

Another point to consider is that students' motivation can change throughout the year. When deadlines and exams come, many students reduce their physical activity, even if they normally enjoy exercise. Research shows that taking part in regular physical activity and short breaks can help lower stress, improve recovery, and help students with their academic performance (Schmidt, Müller & Bauer, 2024). Even light physical activity during exams can reduce stress and improve overall wellbeing (Fischer, Meier & Hoffmann, 2023).

These findings also link to wider nationwide trends in student activity, where lack of motivation and lifestyle pressures are common barriers (ukactive, 2019/20; Roberts et al., 2024). Public health guidelines highlight the importance of promoting accessible, enjoyable activities to support long-term participation (NHS, 2024; UK Chief Medical Officers, 2019).

There are some limitations to consider. The data relied on students reporting their own activity, meaning some may not have remembered accurately. The study also only looked at motivation and activity at one point in time, so we cannot determine whether motivation leads to activity or whether being active increases motivation (Wilson et al., 2006). Despite this, the results show clear differences in motivation across activity levels.

Conclusion

In summary, the study showed that students who were more physically active tended to have stronger autonomous motivation. This suggests that helping students find enjoyment in physical activity may support long-term behaviour change. Encouraging students to choose activities they enjoy and understand the benefits of may improve activity levels (Deci & Ryan, 2000; Ryan & Deci, 2017; Kara, Yildirim, & Smith, 2023). Other guidance supports this approach, showing that motivation and enjoyment play a big role in helping people meet recommended activity levels (NHS, 2024; UK Chief Medical Officers, 2019; WHO, 2022).

Word count - 1457

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