

Understanding student motivation for physical activity: A qualitative study using the BREQ-2 Questionnaire

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Abstract:

Exploring the factors that inspire or discourage physical activity in students is critical for shaping meaningful educational and health strategies. During university years, when lifestyle habits are still forming, understanding these influences can have lasting benefits. The Behavioral Regulation in Exercise Questionnaire (BREQ-2), developed within Self-Determination Theory (SDT), offers a systematic way to capture both intrinsic and extrinsic motivations for exercise. In this study, we examined how Romanian university students perceive and internalize their motivation for physical activity. A total of 740 undergraduates participated, providing demographic data on age and gender. Although the BREQ-2 typically uses a Likert-scale format, we applied thematic analysis to bring out qualitative insights alongside quantitative structure. Five main themes emerged: (1) Intrinsic Enjoyment, associated with pleasure, stress relief, and personal satisfaction; (2) Emotional Pressure, including guilt or anxiety about inactivity; (3) Social Influence, shaped by expectations from peers and family; (4) Valuation of Health Benefits, reflecting identified regulation; and (5) Amotivation, indicating disengagement. Autonomous forms of motivation—particularly enjoyment and perceived health value—were most frequent, with no significant gender differences ($p > 0.05$). Amotivation was rare but slightly more common in male students. Cronbach's alpha values between 0.741 and 0.894 confirmed strong subscale reliability. Overall, the findings suggest that Romanian students are more often driven by personal value and enjoyment than by external demands. This motivational profile offers a promising foundation for programs aimed at fostering long-term physical activity. The results also demonstrate that the BREQ-2 can effectively support both quantitative measurement and richer qualitative exploration of exercise behavior in academic contexts.

Key Words: autonomous motivation, intrinsic enjoyment, extrinsic regulation, amotivation, exercise psychology, university students, health promotion, motivational profiling.

Introduction

Regular physical activity (PA) is widely recognized as a cornerstone of physical and mental well-being, particularly in young populations such as students, where lifestyle patterns established during these years often persist into adulthood (World Health Organization, 2020; Guthold et al., 2020). In addition to improving cardiovascular and musculoskeletal health, regular exercise supports cognitive performance, emotional regulation, and social integration (Bull et al., 2020; Nelson et al., 2005). Despite these well-known benefits, global surveillance data indicate that more than 80% of adolescents and young adults fail to meet recommended PA levels. This shortfall is largely attributed to motivational barriers and competing academic or social demands (Strain et al., 2024).

To understand the underlying drivers of exercise behavior, researchers have increasingly turned to Self-Determination Theory (SDT). This framework conceptualizes motivation along a continuum ranging from intrinsic motivation—engaging in activity for inherent enjoyment—to amotivation, where no value or intention to act is perceived (Ryan & Deci, 2000). Notably, SDT posits that individuals are more likely to adopt and sustain exercise routines when their psychological needs for autonomy, competence, and relatedness are met (Vasconcellos et al., 2020; Koundouras et al., 2025), a relationship also confirmed in recent JPES research on motivational climate and need satisfaction in physical education contexts.

One widely used instrument for assessing motivational regulation in exercise is the Behavioral Regulation in Exercise Questionnaire-2 (BREQ-2) (Markland & Tobin, 2004). This validated tool evaluates five regulation types—intrinsic, identified, introjected, external, and amotivation—aligning closely with SDT principles. Its psychometric validity has been demonstrated across multiple countries and populations, including students and adolescents (Kovács & Kovács, 2021). Evidence suggests that intrinsic and identified regulation are positively associated with higher PA levels and better psychological well-being among university students (Owen et al., 2014; Jaakkola et al., 2019). By contrast, introjected and external regulation often relate to guilt, social pressure, or obligation, factors which can reduce long-term adherence (Hurst et al., 2017; Dieu et al.,

2020). Amotivation, or the absence of intent to exercise, is frequently linked to low self-efficacy, negative body image, and environmental discouragement (Castonguay et al., 2015; Van de Pol et al., 2023).

Sociodemographic variables such as gender, socioeconomic status, and social support can also shape motivational patterns. For instance, male students and those with higher perceived social support often score higher on autonomous motivation scales (Lauderdale et al., 2015; Laird et al., 2016). Cultural context adds another layer of influence, as shown in cross-cultural adaptations of the BREQ-2 (Murcia et al., 2007; Kovács & Kovács, 2021).

Although the motivational determinants of PA have been widely examined internationally, there is limited evidence from Eastern Europe, including Romania. Cultural norms, institutional structures, and socio-environmental factors may influence motivational profiles in ways that differ from Western populations (Anohin et al., 2022; Romanova et al., 2023; Erdvic, Øverby, & Haugen, 2014). Moreover, most Romanian studies rely heavily on quantitative methods, which are valuable for identifying prevalence and correlations but less effective at revealing the emotional, social, and contextual subtleties behind students' motivations. As such, there is a clear need for research that integrates the standardized structure of established tools such as the BREQ-2 with qualitative interpretation to capture the lived experience of student motivation.

To address this gap, the present study used the Romanian version of the BREQ-2, adapted to reflect linguistic and cultural nuances relevant to local students. The questionnaire consisted of 19 items, each rated on a Likert-type scale from 0 ("Completely Disagree") to 4 ("Completely Agree"), covering intrinsic motivation, identified regulation, introjected regulation, external regulation, and amotivation. Demographic variables such as age and gender were collected to contextualize variations in motivation. While the BREQ-2 is traditionally applied in quantitative research, this study incorporated thematic analysis to identify patterns and themes extending beyond numerical scores, enabling a more holistic understanding of motivational drivers and barriers.

The aim of this study was to explore the motivational profiles of Romanian university students regarding physical activity, based on responses to a culturally adapted version of the BREQ-2 questionnaire. Specifically, the study sought to:

1. Identify patterns of intrinsic and extrinsic motivation in students' responses;
2. Detect emotional and social influences (e.g., guilt, social pressure) associated with physical activity;
3. Analyze the presence of amotivation or negative attitudes toward exercise; and
4. Provide a qualitative interpretation of these patterns using the SDT framework.

This exploratory mixed approach was designed to offer a deeper understanding of students' subjective experiences, motivational drivers, and perceived barriers to physical activity—insights often overlooked in purely quantitative studies.

The combined thematic and statistical analyses indicated that autonomous forms of motivation—most notably intrinsic enjoyment and the recognition of personal health benefits—were the most prominent across the sample, with only slight gender variations. Feelings of guilt or internal pressure, characteristic of introjected regulation, emerged in moderate levels, while reliance on external prompts or social demands was minimal. Instances of amotivation were rare, suggesting that most participants valued physical activity and perceived it as beneficial. Interestingly, these patterns point toward a student population that not only understands the advantages of physical activity but also integrates them into daily life in a personally meaningful way. Reliability testing yielded high Cronbach's alpha coefficients for all BREQ-2 subscales, confirming the robustness and suitability of the adapted instrument for Romanian university students.

Material & Methods

Participants

The study sample consisted of 740 undergraduate students from various faculties at the West University of Timișoara, Romania. Participants ranged in age from 18 to 57 years (mean = 20.732, SD = 4.48), with a gender distribution of 77.3% female and 22.7% male. Participation was voluntary, and no exclusion criteria were applied apart from current student status.

Instrument: The BREQ-2 Questionnaire

We used a Romanian-translated and culturally adapted version of the BREQ-2 to assess students' motivational orientations toward physical activity. The instrument included 19 items, each rated on a 5-point Likert scale from 0 (Completely Disagree) to 4 (Completely Agree), grouped conceptually into the five categories proposed by SDT

- Intrinsic Motivation (e.g., "I enjoy doing physical exercises.")
- Identified Regulation (e.g., "I appreciate the benefits of exercise.")
- Introjected Regulation (e.g., "I feel guilty when I don't exercise.")
- External Regulation (e.g., "I exercise because others say I should.")
- Amotivation (e.g., "Exercise is a waste of time.")

The questionnaire also collected basic demographic data, including age and gender, to allow for comparative analysis and identification of potential motivational trends among subgroups.

Procedure

The questionnaire was distributed electronically using Google Forms, and students were invited to participate via institutional email and university channels. Data collection took place over a one-month period in April 2025. Prior to participation, all students were informed of the study's objectives and provided digital consent in accordance with GDPR and ethical research practices.

Upon closing the form, responses were exported to Microsoft Excel and carefully organized by anonymizing the email addresses and removing timestamp data. The remaining dataset included participants' age, gender, and answers to the 19 motivational items from the BREQ-2 questionnaire. These were sorted thematically according to SDT categories: intrinsic motivation, identified regulation, introjected regulation, external regulation, and amotivation. This allowed us to cluster the Likert responses and prepare them for descriptive and interpretative analysis.

Data Analysis

Although the BREQ-2 is traditionally evaluated using quantitative psychometric models, this study adopted a qualitative thematic approach to uncover deeper motivational patterns. This methodological choice was guided by the aim to move beyond numerical trends and capture the nuanced personal, social, and emotional factors influencing students' engagement in physical activity. By integrating thematic analysis, the research could identify not only the prevalence of certain motivational types but also the lived meanings students attach to them, providing richer, context-specific insights that a purely quantitative approach might overlook.

Questionnaire items were grouped thematically in accordance with SDT, and participant responses were interpreted to reflect broader categories of motivation, such as intrinsic enjoyment, emotional pressure (e.g., guilt, shame), social influence, and amotivation or disinterest. To guide interpretation, we first performed descriptive statistical analysis to understand the distribution of responses. The mean and standard deviation for each item and for participant age were calculated using Microsoft Excel. For additional accuracy and verification, statistical summaries such as frequencies, proportions, and comparisons were also processed using the online platform Statistics Kingdom (www.statskingdom.com). This platform was selected for its ability to rapidly generate precise statistical summaries and verify results without requiring advanced statistical software, thus ensuring methodological efficiency and transparent, replicable reporting.

These descriptive results served as a scaffold for thematic coding, which was carried out manually. Data patterns were analyzed across subgroups (e.g., by age, gender) to identify key motivational profiles. The coding process was verified by two independent researchers to ensure consistency, transparency, and credibility in the thematic synthesis.

Ethical Considerations

Participation in this study was entirely voluntary, and students were clearly informed that the questionnaire was optional and intended solely for research purposes. No academic, discipline, or personal consequences were associated with choosing not to participate. The questionnaire was distributed anonymously, and no identifying information (such as names or student IDs) was collected or used in the analysis. All responses were treated with strict confidentiality, and data was used exclusively in aggregated form to preserve participant privacy. The study complied with ethical research standards applicable to anonymous educational surveys involving minimal risk.

Results

This section is divided by subheadings for the five categories proposed by SDT. It provides a concise and precise description of the results, their interpretation, as well as the quantitative and qualitative conclusions that can be drawn.

In Figure 1 the mean scores for the five categories proposed by SDT are represented.

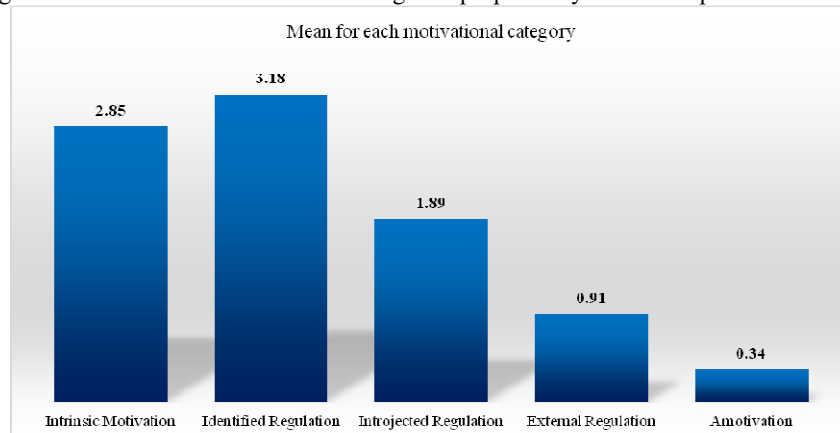


Fig 1. Mean values for each motivational category.

Intrinsic Motivation

Thematic analysis of the BREQ-2 responses revealed that intrinsic motivation—engaging in physical activity for inherent pleasure and enjoyment—was a significant factor in students' exercise behavior. This was reflected in consistently high scores across items related to enjoyment, well-being, and preference for physical education classes.

The mean score for the intrinsic motivation category was 2.85 (SD = 0.91), indicating that most participants reported moderate to high agreement with statements reflecting enjoyment and internal satisfaction. Among the individual items:

- Among the items reflecting intrinsic motivation, the highest overall agreement was recorded for “Physical exercise makes me feel good.” (Item 10), with a mean of 3.20 for females and 3.16 for males. This indicates a shared perception across genders that physical activity has a positive emotional impact and contributes to general well-being.
- “I enjoy doing physical exercises.” (Item 15) also received high ratings, with a female mean of 2.80 and a male mean of 2.88, suggesting that most students experience physical activity as pleasurable, reinforcing intrinsic engagement with movement.
- In contrast, the item “I enjoy participating in physical education classes.” (Item 18) had lower mean values: 2.95 for females and 2.73 for males. This finding highlights a potential difference between enjoying physical activity in general and enjoying it within the context of formal physical education classes.
- Finally, “I exercise because it's fun.” (Item 4) showed moderate scores, with females reporting a mean of 2.47 and males 2.61, suggesting that fun is a motivator, though not as dominant as emotional or wellness-related reasons.

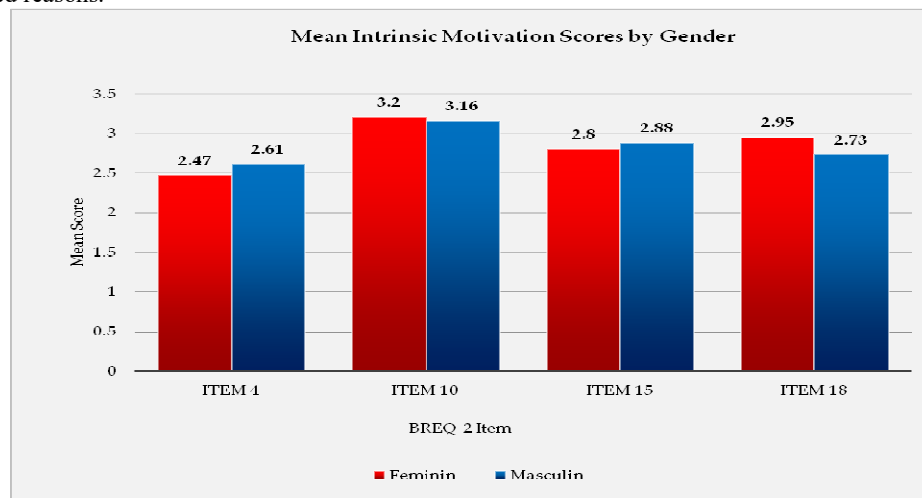


Fig 2. Mean intrinsic motivation scores by gender for each item from BREQ-2 questionnaire.

These findings suggest that intrinsic motivation is an active force in driving student engagement with physical activity, particularly when it is self-initiated or recreational in nature. The data aligned with SDT, which posits that when individuals derive pleasure from an activity, they are more likely to sustain it over time (Teixeira et al., 2012; Schneider, 2018; Richards et al., 2017; Gardner & Lally, 2013). The moderately high intrinsic scores also provide a hopeful indicator for long-term behavioral adherence to exercise among youth.

No significant gender differences were observed in the overall intrinsic motivation scores, although slight variations appeared in specific items. This suggests that both male and female students value the pleasurable aspects of physical activity, reinforcing the importance of making exercise environments enjoyable and autonomy-supportive for all genders.

Identified Regulation

The highest overall motivational scores in the dataset were observed in the category of identified regulation, with a mean of 3.18 (SD = 0.77). This form of motivation reflects students' conscious valuing of physical activity as important for health, personal goals, or self-development—indicating that many students engage in exercise because they recognize its personal significance, even if the activity itself is not always enjoyable. The three items associated with this category revealed strong and consistent agreement:

- “I appreciate the benefits of exercise.” (Item 3) recorded the highest individual mean (Female Mean = 3.3; Male Mean = 3.5), suggesting that both genders clearly value the outcomes of physical activity.
- “It is important for me to exercise regularly.” (Item 8) followed closely, showing that most participants consider exercise a personally meaningful routine, not just a task imposed by others.
- “I think it is important to make the effort to exercise regularly.” (Item 14) scored slightly lower than the other two but still maintained high values, especially among female respondents (Mean = 3.3), suggesting a stronger internalization of health-oriented behaviors in this subgroup.

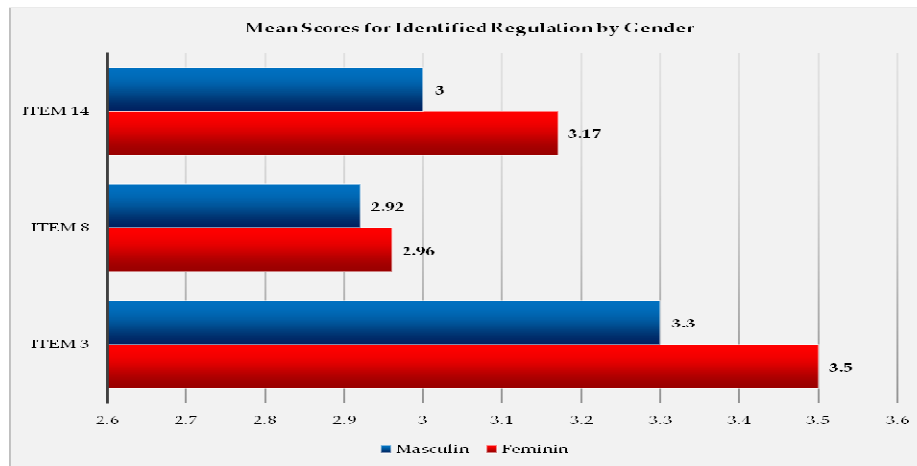


Fig 3. Mean identified regulation scores by gender for each item from BREQ-2 questionnaire.

The high scores across all identified regulation items reinforce the idea that students are motivated by personal beliefs about the usefulness and importance of physical activity—hallmarks of autonomous motivation. This is consistent with SDT's concept of internalized extrinsic motivation, in which individuals adopt behaviors aligned with their values and identity (Markland & Tobin, 2004).

In contrast to introjected or external regulation, identified regulation is considered more stable and predictive of long-term engagement in physical activity. The minimal gender difference in this category suggests that health awareness and goal-oriented thinking about exercise is widespread and not strongly influenced by social roles in this sample. These findings indicate that interventions targeting student exercise behavior may benefit most from reinforcing personally relevant goals—such as fitness, energy, or health maintenance—rather than relying solely on fun, pressure, or competition.

Introjected Regulation

The category of introjected regulation, which refers to internalized pressure such as guilt, shame, or self-criticism related to inactivity, had a moderate mean score of 1.89 (SD = 1.00). This suggests that emotional discomfort is a motivating factor for a portion of the students, though it is less prominent than intrinsic enjoyment or identified personal value. Within the category of introjected regulation, the item “I feel guilty when I don't exercise.” (Item 2) received the highest scores, with a mean of 2.40 among female students and 2.27 among male students. This suggests that guilt is a moderately strong emotional motivator, particularly among females, when physical activity is neglected. “I feel restless if I don't exercise regularly.” (Item 17) also showed relatively high values (Female Mean = 1.83, Male Mean = 1.90), indicating that both genders experience some level of restlessness or anxiety when physical activity is not part of their routine. Lower scores were observed for “I feel ashamed when I miss an exercise session.” (Item 7), with means of 1.81 for females and 1.88 for males. Similarly, “I feel useless when I don't exercise daily.” (Item 13) recorded the lowest values in this category, with virtually identical scores across genders (Female Mean = 1.53, Male Mean = 1.52). Contrary to initial expectations, no substantial gender gap was observed in the response to perceived shame or feelings of uselessness, suggesting that emotional pressure is present but relatively balanced across male and female students. Overall, these results support the notion that while emotional regulation plays a role in student motivation, it is less dominant than intrinsic enjoyment or personal value.

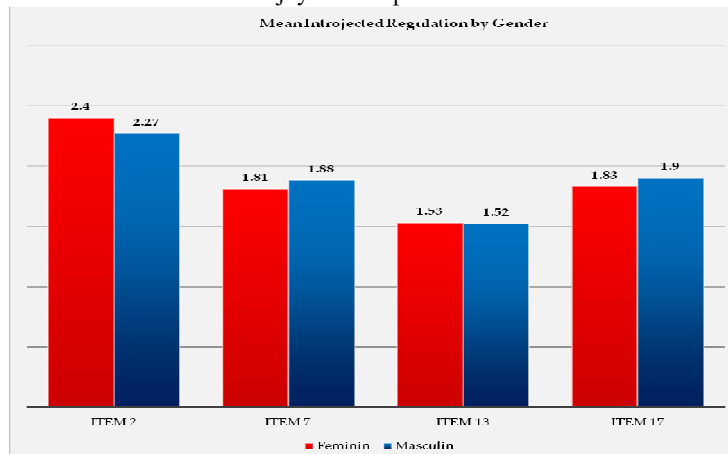


Fig 4. Mean introjected regulation scores by gender for each item from BREQ-2 questionnaire.

Overall, the moderate intensity of introjected regulation reflects the ambivalent nature of this motivational type: while it can stimulate activity, it does so through negative emotional triggers such as guilt or obligation, which may undermine well-being or long-term engagement if unbalanced by intrinsic or identified motives.

From an SDT perspective, introjected regulation is a less self-determined form of motivation, often associated with external expectations or personal standards of worth (Bieg et al., 2024). Its presence in the dataset—particularly among students with lower intrinsic enjoyment—may indicate that some individuals rely on self-imposed pressure to maintain activity levels, rather than genuine interest or internal goals.

These findings suggest that physical activity programs should not emphasize shame, guilt, or “all-or-nothing” thinking. Instead, they should foster environments where students can reframe physical activity as self-care and choice, rather than punishment or obligation.

External Regulation

External regulation refers to participation in physical activity driven by external pressures, such as expectations from peers, family, or authority figures. This category yielded a relatively low overall mean of 0.91 (SD = 0.80), indicating that most students do not primarily engage in exercise because others tell them to.

Among the four items in this category:

- “I exercise because others say I should.” (Item 1) had the lowest scores in the group (Female Mean = 0.64; Male Mean = 0.76), highlighting minimal reliance on external encouragement or direction.
- “I exercise because others won't be happy with me if I don't.” (Item 11) was also rated low (Female Mean = 0.54; Male Mean = 0.70), suggesting a limited concern for social approval as a motivator.
- “Friends/family/partner tell me I should exercise daily” (Item 6) showed slightly higher values (Female Mean = 0.90; Male Mean = 1.15), indicating that external reminders do occur more frequently, particularly among male students.
- “I feel pressured by friends/family to exercise” (Item 16) maintained moderate values (Female Mean = 0.83; Male Mean = 1.06), again slightly higher in males.

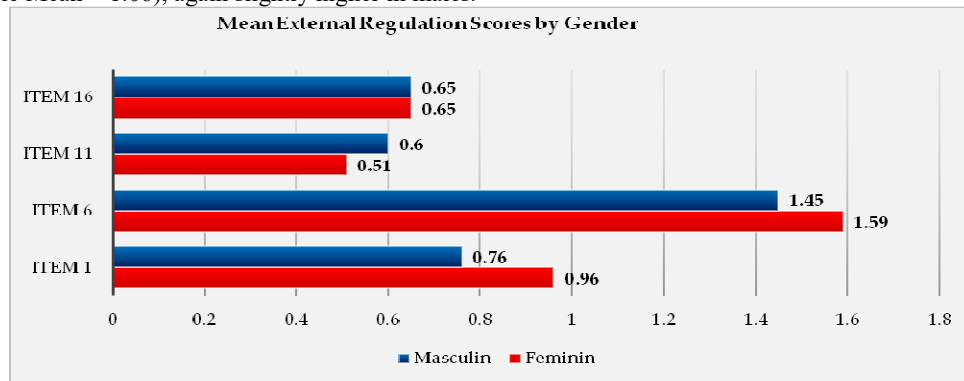


Fig 5. Mean external regulation scores by gender for each item from BREQ-2 questionnaire.

Although males reported marginally more external pressure overall, the difference was not dramatic. These results suggest that students perceive their motivation as internally driven, even if they acknowledge occasional social influences. This is a positive indicator of autonomous motivation, as SDT defines externally regulated behavior as the least self-determined and often unsustainable over time (Wlasak, 2022).

The low mean across this category contrasts clearly with the high scores for identified regulation, reinforcing the idea that students are more likely to be motivated by personal value than by external demands or expectations.

From an applied perspective, these findings imply that physical activity programs and education curricula should avoid strategies that emphasize external rewards or punishments. Instead, focusing on internal value and personal meaning is likely to be more effective in encouraging sustained participation.

Amotivation

Amotivation, defined as the absence of intention to engage in physical activity due to a perceived lack of value or control, recorded the lowest overall mean among all motivational categories—0.34 (SD = 0.60). This indicates that most students do not reject the importance or relevance of exercise, and very few express disinterest or apathy.

The four items in this category were consistently rated low across participants:

- “Movement is a waste of time” (Item 19) had the lowest score in the entire dataset (Female Mean = 0.22; Male Mean = 0.33), reflecting a strong consensus that physical activity is not considered useless.
- “I don't consider the movement beneficial for me.” (Item 5) followed similarly low (Female Mean = 0.38; Male Mean = 0.50), reinforcing the perception that students recognize the personal benefits of staying active.
- “I don't think it's a beneficial move.” (Item 12) and “I consider the movement to be unnecessary.” (Item 9) also had very low mean scores across both genders.

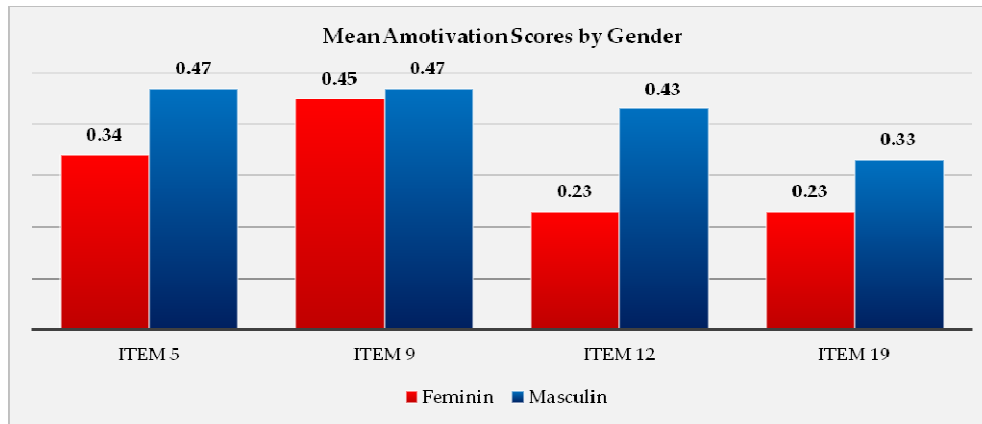


Fig 6. Mean amotivation scores by gender for each item from BREQ-2 questionnaire.

These findings suggest that amotivation is largely absent from this sample, which is consistent with the earlier findings of strong identified and intrinsic regulation. The combination of high personal value, moderate enjoyment, and low disinterest forms a positive motivational profile.

From a theoretical standpoint, amotivation is positioned at the far end of the SDT continuum and is associated with dropout, disengagement, and non-participation (Vlachopoulos et al., 2013; Jackson-Kersey & Spray, 2016). The absence of high scores in this category may reflect general awareness among students of the benefits of physical activity, as well as institutional support for exercise through education, sport, or health promotion.

While this low level of amotivation is encouraging, it is still important for physical activity programs to monitor isolated cases where students' express apathy or disconnection, especially if it reflects emotional or environmental challenges not captured in this study.

Statistical tests

Although the primary aim of this study was qualitative exploration, statistical tests were employed to verify whether gender-based differences in motivational regulation were statistically significant. To this end, we applied both the Independent Samples t-Test and the Mann-Whitney U Test for each motivational category. The t-Test was used to compare the mean scores of female and male participants within each motivational group under the assumption of approximately normal distribution of the composite scores. This parametric test is useful for detecting significant differences in central tendencies between two independent groups when sample sizes are reasonably balanced.

In parallel, the Mann-Whitney U Test—a non-parametric alternative to the t-Test—was used to ensure robustness of results, especially given the ordinal nature of Likert-scale responses and the possibility of non-normal data distribution. This test compares the ranked distributions between two groups and does not assume homogeneity of variance or normality, making it more conservative for psychological and behavioral data.

Table 1. Statistical tests by gender.

Motivational Category	t-Test p-value	Mann-Whitney U p-value	Female Mean	Male Mean
Intrinsic Motivation	0.8877	0.9743	2.86	2.84
Identified Regulation	0.075	0.2403	3.21	3.08
Introjected Regulation	0.9955	0.9439	1.89	1.89
External Regulation	0.364	0.5619	0.93	0.87
Amotivation	0.0554	0.1341	0.31	0.43

To assess the internal consistency of each motivational subscale within the BREQ-2 questionnaire, we calculated Cronbach's Alpha for each of the five theoretical categories: Intrinsic Motivation, Identified Regulation, Introjected Regulation, External Regulation, and Amotivation.

Cronbach's Alpha is a widely used reliability coefficient that measures how closely related a set of items are within a scale. Values above 0.70 are generally considered acceptable, with higher values indicating stronger internal consistency among the grouped items. For example, a high alpha within the Intrinsic Motivation category suggests that items such as "I enjoy doing physical exercises." (Item 15) and "I exercise because it's fun." (Item 4) reliably reflects the same underlying construct.

This analysis is essential in confirming that the adapted Romanian version of BREQ-2 maintains theoretical coherence across motivational categories and that each cluster of questions consistently measures its intended psychological construct.

Table 2. Statistical test for motivational scales.

Motivational Category	Cronbach's Alpha
Intrinsic Motivation	0.838
Identified Regulation	0.741
Introjected Regulation	0.771
External Regulation	0.686
Amotivation	0.596

Dicussion

This study explored the motivational profiles of university students regarding physical activity, using a combination of thematic interpretation of BREQ-2 questionnaire responses and basic statistical analysis. Grounded in SDT, the results provide insight into how different types of motivation—ranging from autonomous to non-self-determined—manifest in a student population.

Intrinsic and Identified Motivation: Autonomous Foundations

The results show that the most dominant motivational drivers among students are intrinsic motivation and identified regulation, both forms of autonomous motivation. Intrinsic motivation was reflected in high scores for enjoyment-related items, such as “Physical exercise makes me feel good.” and “I enjoy doing physical exercises.”. These findings align with prior European university research (e.g., Jaakkola et al., 2019; Vasconcellos et al., 2020), which demonstrated that intrinsic enjoyment is a consistent predictor of sustained participation in sport and exercise. The overall mean score was 2.86 for females and 2.84 for males, with no statistically significant gender difference (Mann–Whitney U $p = 0.9743$). This gender parity suggests that enjoyment-based motivation transcends gendered social expectations in the Romanian university context, a trend also observed in mixed-gender studies in Finland and Portugal.

Identified regulation, which reflects the recognition of exercise as important and personally valuable, showed the highest mean scores overall (3.21 for females, 3.08 for males). Again, no significant gender difference was found (U $p = 0.2403$), though the slightly higher mean in females may suggest a stronger emphasis on health and goal orientation in this subgroup. High identified regulation values mirror findings from Kovács & Kovács (2021) in Central and Eastern Europe, where health awareness and long-term personal goals were reported as dominant exercise motivators among students. These findings support prior literature indicating that identified motivation is strongly associated with adherence and long-term behavior change (Hemmingsson et al., 2001; Middleton et al., 2013; Barreto & Sánchez, 2011; Thøgersen-Ntoumani & Ntoumanis, 2006; Nelson et al., 2005).

The internal consistency of both subscales was confirmed, with Cronbach’s alpha of 0.838 for intrinsic motivation and 0.741 for identified regulation. These values demonstrate that the items within each construct reliably measure their respective dimensions of motivation. From a practical perspective, these results highlight the value of interventions that cultivate both the pleasure of movement and the recognition of its personal benefits.

Introjected and External Regulation: Emotional and Social Pressures

Moderate scores were found in the introjected regulation category (Female Mean = 1.89, Male Mean = 1.89, U $p = 0.9439$), which captures motivation driven by guilt, shame, or inner pressure. These values indicate that some students do experience emotional tension when not engaging in physical activity, but this is not a dominant form of regulation. The lack of gender difference suggests a relatively uniform emotional experience related to physical activity across male and female students. Similar moderate levels of introjected regulation have been documented in other student cohorts (e.g., Murcia et al., 2007), where internalized pressure served as a motivator but was less predictive of long-term adherence compared to autonomous forms.

External regulation, the most controlled form of motivation, had the lowest mean values aside from amotivation (Female Mean = 0.93, Male Mean = 0.87, U $p = 0.5619$). This confirms that external demands or expectations from others are not primary motivators for most students in this sample. Items like “I exercise because others won’t be happy with me if I don’t.” were particularly low scoring, highlighting a general sense of autonomy in decision-making.

These low scores are consistent with SDT’s assertion that externally regulated behaviors are less likely to be maintained over time (Ryan & Deci, 2000) and parallel findings in JPES studies where peer or family pressure was minimally influential in physically active student groups. The internal reliability of this subscale was acceptable (Cronbach’s $\alpha = 0.686$), reflecting satisfactory consistency for exploratory work.

The relative weakness of both introjected and external regulation in this cohort suggests that motivational strategies based on guilt induction or external incentives are unlikely to be effective. Instead, educational and sports programs should prioritize autonomy-supportive environments, promoting internal value rather than compliance with external expectations.

Amotivation: Minimal Presence of Disengagement

The amotivation category, which reflects a lack of intention, value, or control regarding physical activity, showed the lowest overall means (Female = 0.31, Male = 0.43, $U p = 0.1341$). While slightly higher in males, this difference was not statistically significant. The low scores across all items (e.g., “Exercise is a waste of time”) suggest that most students do not reject or disengage from physical activity. This is encouraging, as amotivation is strongly linked in the literature (Vallerand, 2007; Pelletier et al., 1995) with dropout risk and sedentary behavior, a finding echoed in JPES studies on academic motivation and burnout among physical education students (Guedes & Moreira, 2025). The subscale showed lower internal consistency (Cronbach’s $\alpha = 0.596$), which may be due to the low variability of responses—when most participants score near the bottom of the scale, reliability coefficients naturally decrease.

Conclusions

This study examined the motivational orientations of university students toward physical activity using a Romanian-adapted version of the BREQ-2 questionnaire, analyzed within the framework of Self-Determination Theory. The findings indicate that the motivational climate among this cohort is predominantly autonomous, with identified regulations, valuing health and personal benefit, and intrinsic motivation, enjoyment and emotional satisfaction, emerging as the strongest drivers.

More controlled forms of motivation, introjected (e.g., guilt) and external regulation (e.g., social pressure)—were present but secondary, while amotivation was notably low. This suggests that most students not only recognize the value of physical activity but also approach it from a perspective of personal choice and relevance. No statistically significant gender differences were observed, although slight trends suggest that females may more frequently internalize physical activity as personally important, whereas males may respond slightly more to social encouragement. These trends, however, remain exploratory and warrant further study. The reliability of the adapted instrument was supported by strong Cronbach’s alpha values across most subscales, reinforcing its suitability for use in the Romanian context. From a practical standpoint, these results support the design of educational and wellness programs that prioritize personal meaning, enjoyment, and autonomy, rather than relying on external rewards or sanctions.

Several limitations should be acknowledged. The reliance on self-reported questionnaire data introduces potential bias, including social desirability effects and individual interpretation of items. The cross-sectional design captures motivational profiles at a single point in time, limiting causal inference and overlooking possible fluctuations related to academic workload, seasonality, or emotional state. Moreover, the absence of variables such as year of study, socioeconomic status, and objective measures of physical activity constrains the ability to fully contextualize the findings.

Future research could expand on this work through longitudinal designs, qualitative interviews, or integration of behavioral metrics (e.g., wearable fitness trackers or physical education attendance data). In particular, combining quantitative measures with in-depth qualitative narratives may yield a more nuanced understanding of how motivation for physical activity evolves in response to personal, academic, and cultural influences. Despite these limitations, this study provides a theoretically grounded and culturally relevant contribution to understanding student motivation for physical activity in Romania. The insights gained can inform policy makers, educators, and health practitioners seeking to foster active lifestyles in university populations.

Conflicts of interest: The authors declare no conflicts of interest related to this study.

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