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The relationships between teachers' observed motivational strategies and students' motivation during physical education.

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Background

During the last decade increasing attention has been devoted to the possible value of the Self-Determination Theory (Deci & Ryan, 2000) for investigating motivation in physical education. Self-determination theory proposes that students are more likely to be intrinsically motivated if their basic needs for autonomy (e.g., experiencing a sense of volition and psychological freedom), competence (e.g., feeling effective), and relatedness (e.g., experiencing a sense of closeness and friendship with the teacher or peers) are fulfilled. Hence, to understand how to structure physical education classes to foster optimal motivation, it is important to understand which social-contextual factors, including teachers' teaching behaviors, contribute to the satisfaction of the three basic needs. According to SDT, a need-nurturing environment is characterized by the provision of autonomy support and by the creation of a well-structured and warm environment. In contrast, a controlling, chaotic and neglectful climate will frustrate the basic needs and will in turn lead to less self-determined forms of motivation.

To date, many studies focused on the relationship between subjective perceptions of need support (measured by questionnaires) and self-determined forms of motivation to identify features of need-supportive class environments. These studies typically found that an autonomy supportive, structured, and warm context indeed relates to more self-determined forms of motivation. Teachers' autonomy support involves strategies like offering choice, minimization of controlling language, and provision of a meaningful rationale. Structure relates to the provision of clear instructions, to the emphasis on personal and future relevance to engage in a task, to the amount of positive feedback by the teacher and to how much students believe their teachers emphasize individual standards for success (mastery climate). Finally, teachers can create a warm environment by demonstrating sincere concern and unconditional regard.

Research on perceived need support has a number of shortcomings, however, both in terms of methodology and in terms of practical implications. At the methodological level, due to the self-reported nature of most perceived need support measures, many studies in this area cannot rule out the possibility of shared method variance. Further, to develop interventions aimed at increasing teachers' need support, we need a detailed account of what need-supportive teachers actually do. For these reasons, this study went beyond the assessment of subjective perceptions and instead aimed to develop a coding scheme for observations of PE teaching behaviors.

Research Questions

The first aim of the present study was to systematically develop a reliable and valid observational tool enabling researchers to objectively measure need supportive teacher behaviors during physical education. The observation instrument was developed as part of a larger research project, the goal of which is to test relationships between observed teacher behavior, need satisfaction, self-determined motivation and behavioral outcomes in a large sample of teachers and students involved in physical education classes. The second part of the presentation will focus on the relationships between teachers' observed need supportive behaviors and students' motivation.

Methods

An initial broad list of need-supportive teaching behaviors was developed based on a review of the literature supplemented with expert observations of video tapes of 21 PE classes. In a preliminary

study we tested the inter-rater and intra-rater reliability based on videotapes of 21 physical education classes. In the primary study videotapes of 120 lessons taught by different PE teachers were coded by means of the protocol. Factor analyses on these observed ratings will be used to examine the hypothesized three-factor structure corresponding to the three basic needs underlying teachers' need-supportive behaviors (factorial validity). The protocol is further validated by investigating whether (a) identified clusters of need-supportive behaviors and (b) specific need-supportive behaviors are effectively perceived as need supportive by the students.

At the end of each of the 120 observed physical education lessons, all pupils filled out a questionnaire measuring their motivation for physical education by means of the Behavioral Regulation for Exercise Questionnaire (BREQ2). Multilevel regression analyses will be used to investigate the relationships between teachers' behaviors and motivation for physical education, which will allow to determine the amount of variance in motivation explained at the teachers and at the student level.

Frame

As more extensively described in the background section, self-determination theory (SDT) is used as a theoretical framework to investigate students' motivation in a school physical education context.

Research findings

The observational assessments will allow us to investigate whether specific behaviors can be categorized as need supportive (or thwarting), by examining whether rated need-supportive behaviors are also perceived as need supportive (or thwarting) by the students. This allows identifying the 'core' need supportive strategies that are likely to be perceived as motivating by many students. The identification of need supportive or thwarting strategies will, in a second step, form the basis for the development of an intervention aimed at creating need supportive class environments by training PE teachers on how to teach in a need supportive way. The observational tool will also serve as an instrument to evaluate the interventions' effectiveness by observing whether exposure to the intervention resulted in real changes in need supportive teachers behaviors.

References

Deci, E. L. and Ryan, R. M. (2000) 'The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior', Psychological Inquiry 11: 227-68.