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Social physical anxiety, perceived competence and perceived class climate as predictors of students' satisfaction and performance-related anxiety in physical education

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Background

Physical appearance has a great importance on how people are viewed in their social environment. Many researchers in sport and exercise psychology have, therefore, applied a self-presentational approach to the study of sport and exercise behaviour (Hausenblas, Bewer & van Raalte, 2004). Since the seminal work of Hart, Leary and Rejeski (1992), researchers have examined the relationship between social physique anxiety (SPA) and a variety of behavioural and psychological variables. For instance, high SPA was found to be associated with avoidance of public exercise settings. SPA has also been correlated with variables related to self-presentational issues such as physical attractiveness, physical self-presentation confidence, satisfaction with body size and weight, body fat and weight control (Motl & Conroy, 2000).
Despite the great interest of sport and exercise psychologists in SPA, previous research has had several major shortcomings. First, many studies have focused on college-aged and physically active groups (Motl & Conroy, 2000). Few studies have assessed SPA in youth even though adolescence is a time of rapid biological change, which can enhance the salience of the physique (Smith, 2004). Second, researchers have not yet investigated SPA in the context of physical education (PE). This is surprising as SPA is particularly influential in social situations, and PE is a compulsory subject in which performance assessment is an essential feature. Third, the vast majority of SPA studies were cross-sectional. Because longitudinal studies are missing, no cause-effect relationships can be established. Finally, few studies have considered social context variables even though they may interact with SPA in influencing attitudes toward exercise settings. Krane et al. (2002) proposed that a task-involving motivational climate might mitigate the negative effects of high SPA, whereas an ego-involving climate may precipitate the detrimental effects associated with SPA.

Research Questions

The primary purpose of this study was to find out (i) how SPA affects satisfaction and performance-related anxiety in PE above and beyond perceived competence and class climate, (ii) whether SPA interacts with perceived competence and class climate in explaining PE satisfaction and performance anxiety, and (iii) whether the patterns of results are similar across gender.

Methods

The sample consisted of 239 high school students (48.3% girls) attending a public elementary school in the North-Western, German-speaking part of Switzerland. The students filled in a questionnaire twice in an eight months interval. The mean age at baseline was M=13.4 years (SD=1.4). To assess SPA, we translated the original 12-item version of the Social Physique Anxiety Scale (SPAS; Hart et al. 1989). Confirmatory factor analyses showed that a unidimensional solution with 7-item provided the best model fit. Perceived physical competence was assessed with the Frankfurt Self-Concept Inventory for Children (FKSI, Deusinger, in press). Perceived class climate was measured with five scales (Pedagogical Engagement, Democracy, Justice, Comparativeness, Coherence) of the Linz Questionnaire for the Assessment of School and Class Climate (LFSK 4-8; Eder & Mayer, 2000). PE satisfaction was measured with a 5-item inventory (e.g. "I enjoy participating in PE."). Performance anxiety was assessed with a German version (WAI-T; Brand et al., 2009) of the Sport Anxiety Scale.

Frame

Hierarchical regression analyses were performed to determine whether PE satisfaction and performance anxiety were predicted by the variables described above (after controlling for educational level, gender, age and baseline scores).

Research findings

The results of the regression analyses showed that the predictor variables explained 59% of PE satisfaction. In the final regression equation, age ($ß$=-.10), baseline satisfaction ($ß$=.64), perceived competence ($ß$=.15), justice ($ß$=.18), SPA x Competence ($ß$=-.14), SPAS x Comparativeness ($ß$=-.12) were found to be significant ($p<.01$) predictors. Regarding somatic sport anxiety, the predictor variables explained 29% of variance. Baseline anxiety ($ß$=.40), perceived competence ($ß$=-.15) and comparativeness ($ß$=.17) were significant predictors of somatic performance anxiety ($p<.05$). Concerning cognitive anxiety symptoms, educational level ($ß$=.13), baseline anxiety ($ß$=.34), teachers' pedagogical engagement ($ß$=-.16) and SPA ($ß$=.27) were direct predictors of cognitive performance anxiety (26% explained variance). A direct influence of SPA was also found with regard to the social performance anxiety subscale (31% of explained variance). Beside baseline anxiety ($ß$=.41), SPA was the only significant ($p<.05$) predictor in the final regression equation ($ß$=.23). Overall, similar results were found for boys and girls. However, the significant interactions between SPA x Competence and SPAS x Comparativeness only emerged among male students (with PE satisfaction as criterion).

The present study shows that SPA plays an important role in how students perceive PE lessons. SPA was not a direct predictor of PE satisfaction. However, high SPA in combination with a performance-involving climate produced detrimental effects on students' PE satisfaction. Moreover, PE satisfaction decreased especially in physique-anxious students with high skill perceptions. Maybe, students who perceive their skills high and who are afraid that others evaluate their physique in a negative fashion, feel a strong obligation to prove that their fear is unfounded and that their positive self-perception is justified. Thus, students with high SPA and who perceived their own skills highly may be more likely to be extrinsically motivated. Finally, the findings suggest that a task-involving climate in PE might benefit social physique anxious students.

References

Brand, R., Ehrlenspiel, F., & Graf, K. (2009). Wettkampf-Angst-Inventar (WAI). Köln: Strauss.
Deusinger, I. M. (in press). Frankfurter Kinder-Selbstkonzept-Inventar – FKSI. Göttingen: Hogrefe.
Eder, F., & Mayer, J. (2000). Linzer Fragebogen zum Schul- und Klassenklima für die 4.-8. Klassenstufe (LFSK 4-8). Göttingen: Hogrefe.
Hart, E. A., Leary, M. R., & Rejeski, W. J. (1989). The measurement of social physique anxiety. Journal of Sport and Exercise Psychology, 11, 94-104.
Hausenblas, H. A., Bewer, B. W., & van Raalte, J. L. (2004). Self-presentation and exercise. Journal of Applied Sport Psychology, 16, 3-18.
Krane, V., Waldron, J., Stiles-Shipley, J. A., & Michalenok, J. (2001). Relationship among body satisfaction, social physique anxiety and eating behaviors in female athletes and exercisers. Journal of Sport Behavior, 24, 247-264.
Motl, R. W., & Conroy, D. E. (2000). Validity and factorial invariance of the Social Physique Anxiety Scale. Medicine and Science in Sports and Exercise, 32(5), 1007-1017.
Smith, A. L. (2004). Measurement of social physique anxiety in early adolescence. Medicine and Science in Sports and Exercise, 36(3), 475-483.