

An Idiographic Analysis of Amotivation in Compulsory School Physical Education

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The purpose of this study was to provide an in-depth account of amotivation in compulsory school physical education by examining its major causes, the way it is displayed, and how it can be tackled. From an initial participant pool of 390 British schoolchildren ages 14 to 15 years, 21 of them (15 girls and 6 boys) were selected to participate in semi-structured interviews. They were categorized as being amotivated based on their responses to a questionnaire measuring motivation in physical education. Three main perceived causes of amotivation were identified in the interviews: learned helplessness beliefs, low need satisfaction, and contextual factors. Amotivation was mainly displayed by nonattendance, low involvement in the class, and low intention to be physically active after leaving school. Students' suggestions for reducing amotivation focused on the enhancement of positive affect, need satisfaction, and structural/organizational changes. The findings are discussed in conjunction with contemporary motivation theories and models of amotivation.

Key Words: learned helplessness, need satisfaction, motivational climate

The area of motivation has been one of the most prolific areas of research in sport and exercise psychology literature (Biddle, 1997). This is hardly surprising, given that different types of motivation are posited to account for variations in cognitive, affective, and behavioral experiences in physical activity contexts (Vallerand, 2001). However, it is noteworthy that there is little research on the lack of motivation or amotivation. One might argue that it is difficult to observe amotivation in sport or exercise contexts because amotivated individuals will not take part in these contexts. Alternatively, if amotivation is developed over the course of their participation, they are relatively free to drop out.

Dropout is not an option in school physical education, which is compulsory up to a certain age in many developed countries. For example, in the U.K. students are expected to participate in PE once or twice a week until the age of 16 (Spray, 2000). In fact, amotivation in PE represents a qualitatively different state from amotivation to take part in voluntary physical activity. In PE one can witness a few children

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with a strong sense of alienation who dislike most or all sports and games, but who nevertheless feel obliged to participate. The psychological costs of participation and the extent of accommodation to such environments can be an intriguing area of research on human adaptation to conditions of nonautonomy.

A better understanding of amotivation in PE is important not only from a theoretical but also from a practical perspective. Lack of motivation to participate in PE can have important public health implications. A recent consensus statement by the Health Education Authority in the U.K. reported that physical activity levels of young people are decreasing and suggested that PE should be used to promote physical activity and foster positive attitudes toward a physically active lifestyle (Cavill, Biddle, & Sallis, 2001). However, any intervention to promote health-enhancing physical activity in PE assumes that the students are motivated to participate in the first place. Yet recent empirical evidence (e.g., Ntoumanis, 2002) indicates that although the mean levels of amotivation in British PE are relatively low, there is a minority of children who are substantially amotivated toward PE.

Self-determination theory (Deci & Ryan, 1985, 2000) has discussed the concept of amotivation. This theory postulates that human behavior in any context can be intrinsically motivated, extrinsically motivated, or amotivated. Intrinsic motivation is evident when individuals freely engage in activities they find interesting and enjoyable, and which offer the opportunity for learning or task accomplishment (Pelletier, Fortier, Vallerand, et al., 1995). In contrast, extrinsic motivation is apparent when individuals perform an activity because they value its associated outcomes, such as public praise and extrinsic rewards, more than the activity itself. Amotivation refers to the absence of both intrinsic and extrinsic motivation and represents a complete lack of self-determination and volition with respect to the target behavior (Deci & Ryan, 1985, 2000). An amotivated student may feel that PE does not serve any purpose and may exhibit boredom, low attendance, or only passive participation in the lessons.

Deci and Ryan (2000) argued that amotivation stems from lack of need satisfaction. They identified three innate psychological needs which are essential for psychological growth and well-being: the need for autonomy (volition in behavior), competence (experience of effectance), and relatedness (attachment to significant others). Deci and Ryan argued that environments which undermine the need for autonomy will induce extrinsic motivation, but when the needs for competence and relatedness are also thwarted, individuals will feel amotivated. According to self-determination theory, amotivation is the mediator between thwarted need satisfaction and various negative cognitive, affective, and behavioral outcomes. Empirical research has shown that all three needs are relevant to the PE context because students want a choice of activities, strive to feel efficacious in these activities, and seek to be accepted by their peers while performing them (Ntoumanis, 2001; Standage, Duda, & Ntoumanis, 2003).

Deci and Ryan's (1985, 2000) view of amotivation as being partly a function of perceived lack of competence and control has some similarities with the notion of learned helplessness. Abramson, Seligman, and Teasdale (1978) argued that learned helplessness is manifested when individuals expect the outcome of their behavior to be independent of all their possible responses. Abramson et al. (1978) proposed different types of learned helplessness which can be useful in identifying diverse manifestations of amotivation in PE. Learned helplessness can be specific (restricted to a particular activity in PE) or global (across all activities in PE, or

across all school subjects). Learned helplessness can also be unstable (transient) or stable (chronic). Finally, it can be universal such as when students perceive that they and relevant others have no control over a particular outcome, or personal such as when such perceptions of uncontrollability do not extend beyond the self. Personal as opposed to universal helplessness in PE is more likely to be due to interindividual variations in physical competence levels. According to Abramson et al. (1978), global, stable, and personal helplessness beliefs can result in depression and low self-esteem.

The antecedents of helplessness beliefs have been examined by Pelletier, Dion, Tuson, and Green-Demers (1999). Pelletier et al. proposed a model of amotivation toward environmental-protective behaviors according to which helplessness beliefs stem from capacity, strategy, and effort beliefs. Capacity beliefs are similar to the concept of self-efficacy (Bandura, 1997) and refer to individuals' beliefs in their ability to produce desired outcomes. Strategy beliefs are similar to the concept of outcome expectancy (Bandura, 1997) and refer to one's expectations of the effectiveness of certain strategies in producing desired outcomes. Effort beliefs can invoke a sense of helplessness in that some individuals are not prepared to invest the necessary effort to achieve a desired outcome.

Pelletier et al.'s (1999) model can be used to study amotivation in PE. In terms of strategy beliefs for example, some children may realize that 1 hour of PE per week—an unfortunate reality in many British schools—will have little impact on their fitness level. In relation to capacity beliefs, some children may believe that participation in different sports can accrue health benefits, yet feel they lack the competence to succeed in these activities. In fact, Ntoumanis (2001) showed that perceived competence is a significant predictor ($\beta = -.64$) of amotivation in PE. With regard to effort beliefs, some children may lack motivation in PE simply because they do not want to engage in any moderate or vigorous physical activity.

A weakness of Pelletier et al.'s (1999) model is that it provides a limited account of the antecedents of amotivation because it focuses on personal factors only. Various situational influences can also invoke feelings of amotivation. Such situational variables could be the motivational climate created by the PE teacher. Based on an achievement goal theory perspective, Ames (1992) argued that a teacher motivational climate could be mastery or performance oriented. Ames' conceptual framework places a central role on student perceptions of teacher actions, as such perceptions can influence student investment in learning. A perceived mastery climate promotes cooperative learning, offers choice of tasks, and rewards students privately on the basis of individual improvement and learning. In contrast, a perceived performance climate promotes interpersonal competition, does not encourage student participation in decision-making, favors the most competent children, and rewards them publicly using comparative evaluation criteria (Ames, 1992).

As Ntoumanis and Biddle (1999) have argued, a mastery climate is conducive to the satisfaction of the needs for competence, autonomy, and relatedness, and thus can potentially enhance self-determined motivation. In contrast, a performance climate often undermines these needs and promotes extrinsic motivation or amotivation, the latter being the case when all three needs are thwarted (Deci & Ryan, 2000). Empirical research in sport settings (Pelletier, Fortier, Vallerand, & Brière, 2001; Sarrazin, Vallerand, Guillet, Pelletier, & Cury, 2002) has shown that a mastery climate is more likely to relate to the three needs than a performance climate, and that coaches' controlling behavior can lead to a sense of amotivation in

athletes. However, no such research has been conducted in PE. Hence it is important to examine whether perceived weak mastery cues and/or strong performance cues transmitted by the PE teacher can foster amotivated student behavior. The promotion of competition may also invoke fears of inadequacy and failure, especially when students have low perceived competence. It is therefore logical to expect that competition, or any situation that reveals low perceived competence, could contribute to amotivation in PE.

Studies examining amotivation in PE have been sparse. Carlson (1995) used the term alienation (Dean, 1961) to describe feelings of meaninglessness, powerlessness, and isolation in a sample of U.S. middle and high school students. Alienation and amotivation are not conceptually the same. Based on Pelletier et al.'s (1999) work, however, we believe that meaninglessness and powerlessness can contribute to the sense of amotivation. Carlson (1995) found that alienated students felt that PE was not personally important. Such students had low perceptions of competence and a dislike for competitive situations; they reported a lack of choice of activities and a strong sense of separation from their peers. Furthermore, alienation was displayed by passive participation in the class ("wallflower strategy"), faking illness/injury, or nonattendance.

Although not directly examining amotivation in physical education, Coakley and White (1992) interviewed young men and women to learn about their past experiences in PE. Some women said they had felt amotivated in PE because they disliked the gym wear and the changing/ showering routines. Such factors were not identified by any of the men as contributing to negative experiences in PE. In another qualitative investigation of student experiences in British physical education, Flintoff and Scraton (2001) found that many girls avoided optional activities such as swimming, even if they liked these activities, in order to avoid unwanted attention from the boys.

The purpose of the present study was to provide a theory-driven and in-depth account of amotivation in PE by examining its major causes as perceived by the students, the way it is displayed, and how it can be tackled. Based on the evidence, it was expected that amotivation would relate to learned helplessness beliefs, low need satisfaction, teacher-created performance climate, and body image concerns. It was hypothesized that amotivated students would report that they typically try to avoid PE or, when present, they are not actively involved in the lesson. Finally, it was expected that their suggestions to reduce amotivation would relate to some of the perceived antecedents of amotivation.

Method

Participants and Questionnaire

The participants were recruited from four schools in the West Midlands region of England. In all, 390 students (238 boys and 152 girls), predominantly Caucasian and ages 14 to 15 years, completed a questionnaire measuring different types of motivation in PE (Goudas, Biddle, & Fox, 1994). Certain selection criteria were used to identify amotivated students based on their responses to the questionnaire (see Procedure section). From the initial sample, 21 students (15 girls, 6 boys) met the selection criteria and participated in semi-structured interviews.

To measure the different types of motivation postulated by self-determination

theory, we used a questionnaire presented by Goudas et al. (1994). This questionnaire adapted to PE the Self-Regulation Questionnaire (Ryan & Connell, 1989), which measures intrinsic motivation, identified regulation, introjected regulation, and external regulation. Furthermore, Goudas et al. adapted to PE the amotivation subscale of the Academic Motivation Scale (Vallerand, Pelletier, Blais, et al., 1992). Participants responded to 20 items measured on scales ranging from 1 = "strongly disagree" to 7 = "strongly agree." Each item followed the stem "I take part in this PE class..." Example items are "because PE is fun" (Intrinsic Motivation), "because I want to improve in sport" (Identified Regulation), "because I would feel bad about myself if I didn't" (Introjected Regulation), "so that the teachers won't yell at me" (External Regulation), and "but I can't see what I am getting out of PE" (Amotivation).

The Interview Guide

The epistemological framework of this study was based partly on what Kvale (1996) and Patton (2002) labeled an orientational qualitative inquiry approach, and partly on an inductive analytic approach. Specifically, the interview guide was developed based on explicit theoretical perspectives while still allowing for new concepts to surface by including exploratory questions. Thus the theoretical work of Deci and Ryan (1985, 2000), Ames (1992), Pelletier et al. (1999), and Abramson et al. (1978) determined the concepts focused upon in this study, and to some extent guided the interpretation of the findings. An explicit theoretical perspective affords the reader a better understanding of the researchers' interpretations (Smith & Deemer, 2000). However, we also wanted to be receptive to new information provided by the participants without being constrained by the theoretical perspectives. As a result, new ideas and suggestions that emerged from the interviews were coded and analyzed inductively.

Procedure

Following approval from the ethics committee of a British university, 20 schools from the West Midlands area were randomly selected and asked to take part in the study. Four schools agreed to participate and their headmasters signed an informed consent form in accordance with the guidelines of The British Psychological Society (1997). The questionnaires were administered at the start of a PE lesson, after the students had been reassured that their responses would be confidential and that they could decline to participate or could withdraw at any time.

The purpose of the questionnaire was to identify students who were amotivated in PE. The selection criteria stipulated that students would be selected for interviewing if: (a) they indicated on the questionnaire that they were willing to be interviewed, and (b) they scored well above (>5) the midpoint of the amotivation subscale and below (<3.5) the midpoint of the intrinsic motivation and identified regulation subscales. The midpoint of all these subscales is 4. However, due to persistent student absence from the classes and the refusal of many boys to be interviewed, not enough participants met the initial selection criteria. Hence the cutoff point for the amotivation subscale had to be lowered somewhat (>4.5) to recruit more participants for the interviews.

Prior to the interviews, we conducted a pilot study with two students to

examine the appropriateness and clarity of the questions in the interview guide. Based on their feedback and our evaluation, we made minor modifications to the questions and their order. The finalized interview guide was used to interview 21 students who had returned a written parental consent form. All interviews lasted 15 to 25 minutes. The interviewer first attempted to establish rapport with the interviewees and then asked them to describe their motivation in PE. All interviewees expressed low levels of motivation. They were then shown their responses to the questionnaire, and all agreed that these responses gave an accurate account of how they felt. This procedure was used to ensure that the students were indeed amotivated in PE. The main part of the interview was split into three sections examining the perceived causes of amotivation in PE, how amotivation is displayed, and how it might be reduced. The presentation order of the questions varied so as not to disrupt the flow of the interview, but eventually all interviewees were asked the same questions. Probes were used when necessary for clarification.

Data Analysis

Initially all 21 taped interviews were transcribed verbatim. Then two of us independently read and re-read all 21 transcripts to become very familiar with the data. In addition, we each prepared a summary outline for each participant and independently identified raw data themes in all three sections of the interview guide. Raw data themes are quotes or paraphrased quotes that capture a distinct concept. Subsequently, two of us compared our sets of raw data themes and, following discussion, established a common set of themes. Since most themes were selected and coded based on existing theoretical concepts, there was minimal discrepancy between us. When new themes emerged that were not addressed by the theoretical framework of this study, a new label was assigned following discussion. This is in line with recommendations by Miles and Huberman (1994) and Patton (2002).

The next step was to organize the raw data into meaningful themes and general categories. Quotes with similar meaning were combined into a larger category. The categories were labeled “general themes,” “higher order themes,” and “dimensions,” in order of increasing generality. The dimensions represented common themes of the greatest generality that could not be grouped any further. Two of us grouped the themes independently. Following discussion, we made changes in the groupings until we reached a consensus on all themes and dimensions.

Results and Discussion

Psychometric Information

A confirmatory factor analysis was carried out using the robust maximum likelihood estimation procedure to examine the factor structure of the Goudas et al. (1994) questionnaire. The fit indices were satisfactory (see Hu & Bentler, 1999) and supported the proposed five-factor structure: Scaled χ^2 (160) = 306.43, $p < .01$; CFI = .94; NNFI = .94; SRMR = .05; RMSEA = .05; 90% CI of RMSEA = .04 to .06. Furthermore, all factor loadings were moderate to large (median = .69). Cronbach alpha coefficients indicated acceptable internal reliability for all factors except for introjected regulation, whose reliability was marginal: Intrinsic motivation $\alpha = .86$; identified regulation $\alpha = .84$; introjected regulation $\alpha = .65$; external regulation $\alpha = .75$; amotivation $\alpha = .76$.

Selection of Amotivated Students

Before conducting the interviews we wanted to ensure that the students selected for the interviews had a maladaptive motivation profile compared to the rest of the sample. A significant MANOVA test, Pillai's Trace = .36; $F(5, 384) = 42.65$; $p < .01$; $\eta^2 = .36$, and follow-up univariate tests indicated that the selected students ($N_1 = 21$) had different scores on the five subscales compared to the rest of the sample ($N_2 = 369$). Although the results should be viewed with caution due to the large disparity in sample size between groups, the differences in mean scores are very informative. The interviewed students had higher scores on amotivation ($M_1 = 5.96$; $M_2 = 2.65$) and external regulation ($M_1 = 4.65$; $M_2 = 3.11$), and lower scores on introjected regulation ($M_1 = 1.82$; $M_2 = 3.78$), identified regulation ($M_1 = 1.90$; $M_2 = 5.31$), and intrinsic motivation ($M_1 = 1.83$; $M_2 = 5.31$). The mean scores of the amotivated students¹ are similar to those of the controlling motivation/amotivation profile group that emerged in Ntoumanis' (2002) cluster analysis of motivational profiles in British PE.

Analysis of Interviews

The findings from the interviews are presented in three sections: perceived causes of amotivation, display of amotivation, and students' suggestions to reduce amotivation. Some of the identified themes and dimensions were labeled using terms and concepts taken from the models and theories of motivation and amotivation reviewed in the introduction.

1. Perceived Causes of Amotivation in PE. The analysis of the interviews revealed that amotivation in PE was defined by a variety of factors. A total of 81 relevant raw data themes were identified and ordered into 15 general themes and 7 higher order themes (see List #1). The higher order themes were classified into three dimensions: (a) helplessness beliefs, (b) personal concerns, and (c) contextual factors.

(a) Helplessness Beliefs. This dimension comprised three higher order themes which, based on Pelletier et al.'s (1999) model, were labeled low strategy beliefs, low effort beliefs, and low capacity beliefs. Low strategy beliefs were evident in students who expressed a lack of understanding of the purposes of PE. Carlson (1995) also found that lack of student understanding of the role of PE contributed to a sense of meaninglessness and alienation. In the present study low strategy beliefs were also reported by students who, although they thought PE had a purpose, they felt that this purpose could not be achieved. One student stated,

They say you do it to get fit but, I'm not being funny, but the PE lessons we do here don't get us fit. We just stand there and hit a ball, but hitting a ball for 10 minutes isn't going to get us fit. We don't sweat or anything, we just stand and hit a ball.

Other students felt that PE could not achieve its purpose because of the limited time allocated to it by the national curriculum. Unfortunately, PE has been marginalized in many schools in the U.K. which do not provide more than 1 or 2 hours of PE per week. The low strategy beliefs identified in the interviews signify the need to establish a more central role for PE in the school curriculum. This is especially important in view of recent calls urging the promotion of health related fitness in PE (Cavill et al., 2001).

List #1 — Perceived Causes of Amotivation in PE

DIMENSION

General Themes

- Higher Order Themes
 - Raw Data Themes

HELPLESSNESS BELIEFS

A. Low Strategy Beliefs

1. No desired outcome
 - I don't know why we have PE lessons
2. Low outcome expectancy
 - We have PE because we need to keep fit but it doesn't keep me fit because of:
 - low frequency ($n = 5$); –low intensity ($n = 2$); –low duration

B. Low Effort Beliefs

1. Low value of PE
 - PE is not important to me ($n = 9$)
 - I have no desire to improve ($n = 3$)
 - PE does not stimulate me
 - I am not interested in PE
 - I don't like PE
 - I think PE is boring ($n = 8$)
2. Relinquished effort
 - Effort is not important because I cannot change my performance †
 - I used to put effort in but I was not successful †

C. Low Capacity Beliefs

1. Across-activity low perceived competence
 - I'm no good at any sport
 - I'm not a sporty person ($n = 8$)
 - I am not very good at PE
 - I am bottom of the class
 - I am not good at PE because of my physique †
 - To be good at PE you have to want to do it but I dread it ($n = 2$)
 - I am no good at PE due to lack of practice outside of school ($n = 2$)
 - I am poor at PE because I am Asian; we do not do this
 - I am poor at PE because I have asthma
2. Activity-specific low perceived competence
 - I cannot play tennis
 - I cannot run ($n = 2$)
 - I cannot throw
 - I cannot do some sports
 - I am not good at team sports
 - I am not good at gymnastics ($n = 2$)
 - I only feel confident in certain sports

PERSONAL CONCERNS

A. Low Need Satisfaction

1. Low autonomy
 - I take part in PE because I have to ($n = 11$)
 - We have PE because the government/ curriculum says so ($n = 2$)
 - I hate the idea of doing something I don't want to do
 - We only get to choose activities at the start of the year ($n = 3$)
 - The teacher chooses what we are going to do in each lesson ($n = 11$)
 - We do not get much choice of activities ($n = 2$)
2. Low relatedness
 - I do not feel encouraged by the teacher to help others ($n = 8$)
 - The others do not help me ($n = 4$)
 - There are people I don't like and couldn't work with ($n = 2$)
 - I put less effort in when working with people I don't like ($n = 3$)
 - I get negative comments from peers

B. Social Evaluation Concerns

1. Dislike of competition

- I am not good at PE compared to others ($n = 7$)
- I don't like it when the better players get chosen to be captains ($n = 2$)
- I don't like doing PE in front of other people
- I think competition is pathetic ($n = 2$)
- I don't like competition ($n = 3$)
- I try to avoid competition ($n = 2$)
- I hate being the last picked
- I don't like team sports because I fear making mistakes in front of peers
- I am not competitive in sports that I am not good at [†]

2. Body image concerns

- I don't feel comfortable in my PE kit ^{††}
- I hate doing PE with the boys ($n = 2$) ^{††}
- I hate getting changed ($n = 4$) ^{††}

CONTEXTUAL FACTORS

A. Poor Teaching Style

1. Punishment

- I have had to run laps
- I have been given detentions
- I have been excluded from lessons

2. Poor pupil-teacher relationship

- The teacher gives little attention to anybody
- The teacher gives little praise ($n = 3$)
- The teacher shows apathy
- The teacher is annoying
- I don't think the teacher notices my performance ($n = 3$)
- The teacher gives me little individual attention ($n = 10$)
- The teacher does not know my name
- The teacher can make comments that make you feel stupid
- If I make a mistake the teacher will make fun of me
- I feel picked on/victimized by the teacher ($n = 2$)
- The teacher is biased towards boys
- I don't like the teacher ($n = 2$)
- The teacher concentrates on rules too much ($n = 3$)
- The teacher shouts a lot ($n = 4$)

3. Low mastery climate

- We are taught only a few new skills ($n = 2$)
- Little attention is given to those who need the help ($n = 2$)
- Little attention is given to those who try hard
- Little praise is awarded according to effort ($n = 2$)
- Little attention is given to improve individual skills
- The teachers offer very little advice

4. High performance climate

- Most attention is given to the better players ($n = 8$)
- Most praise is awarded to the best players ($n = 3$)
- The teachers put us under pressure to be good
- The teachers value beating your opponent ($n = 2$)
- The teachers moan when I make mistakes

B. Poor Physical Environment

- I don't like the cold weather ($n = 6$)

Note: Superscripts indicate that only boys[†], or girls^{††}, reported that theme.

Helplessness in PE was also underpinned by low effort beliefs. Most participants said they did not exert effort in the lessons because they did not value PE or consider it personally important. A low valuation of PE also emerged as an important antecedent of alienation in Carlson's (1995) interviews. Low effort beliefs in the present study were also reported by some boys who had had unsuccessful experiences in PE: "I used to put a lot of effort in but I didn't get anything out of it, so I stopped putting all the effort in, so now I might as well not show up for PE at all." The devaluation of PE and the associated reduction of effort may reflect a self-handicapping strategy aimed at protecting one's perceptions of low competence, especially when the latter is normatively defined (Nicholls, 1989). As one student pointed out, "You wouldn't put all your effort in because if you are trying hard and make a mistake, you look silly."

Learned helplessness beliefs also encompassed low capacity beliefs. The latter resulted from across-activity or activity-specific perceptions of low competence. Across-activity low competence described general perceptions that one is not athletic (e.g., "Any sport, I'm just no good at it at all; I have to go and ask the teachers how to do it"). Some boys attributed this belief to an "inadequate physique" (lack of strength and speed); other students blamed their ethnicity (Asian) or health condition (asthma). Activity-specific low competence described lack of competence in certain activities only (e.g., "Football was the worst lesson ... oh it was terrible because I couldn't do nothing, the ball was going that way and I was over there, it was horrible"). As Abramson et al. (1978) argued, specific helplessness beliefs are more amenable to change than global helplessness beliefs. In the context of PE, across-activity low competence beliefs could be more difficult to tackle since one must overcome not only deep-rooted perceptions of incompetence but also perceived/actual cultural and health barriers. Clearly this is an area worthy of more research since low perceptions of competence have been associated with amotivation in PE (Ntoumanis, 2001).

(b) Personal Concerns. Low need satisfaction, along with social evaluation concerns, comprised the dimension of personal concerns. Autonomy, relatedness, and competence are posited by self-determination theory to represent three innate fundamental psychological needs whose satisfaction is essential for psychological growth and well-being (Deci & Ryan, 2000). According to this theory, when all three needs are not met in a particular context, individuals will feel amotivated. Lack of autonomy was reported by many students as a cause of their amotivation, with the emphasis being on lack of personal volition (e.g., "I turn up because I have to. If I had a choice, I would rather sit behind a desk all day") and lack of choice of activities. Past research has also shown that lack of autonomy is associated with dissatisfaction and amotivation in PE (Chen, 2001; Coakley & White, 1992; Ntoumanis, 2002). The provision of a wider range of activities, especially those without a strong competitive element (e.g., aerobics, dancing), will inevitably increase choice and may enhance the motivation of children who dislike traditional competitive sports.

Lack of relatedness was another perceived cause of amotivation, as some students said they did not get along with most of their peers. Carlson (1995) also reported that alienated children in PE had a strong sense of separation from their peers. Such feelings of estrangement from the peer group could be attributed to the fact that often amotivated children have poor physical competencies. As Weiss and Duncan (1992) have shown, physical competence is significantly related to peer acceptance and popularity. To tackle amotivation resulting from lack of related-

ness, PE teachers should promote a mastery motivational climate that encourages student cooperation and teamwork (Ames, 1992). Finally, the two low perceived competence general themes, which were grouped under capacity beliefs using Pelletier et al.'s (1999) model, can also be subsumed under the low need satisfaction theme following the tenets of self-determination theory.

Social evaluation concerns was the second higher order theme that comprised the dimension of personal concerns. Social evaluation concerns emanated from a dislike of competition and from body image concerns. With regard to competition, the students expressed a dislike of competitive situations as these tended to emphasize differences in normative ability. One girl said, "I wouldn't feel confident because I'd think, oh no, I'm going to lose and I'm going to be the worst." In contrast, amotivated boys disliked competition only in sports they were not good at. The alienated students in Carlson's (1995) study also reported that the competitive nature of their PE classes was a deterrent to their participation and enjoyment.

Body image concerns were reported by girls only. These concerns had more to do with rules and arrangements regarding clothing, changing, and showering, and less with the activities themselves. Flintoff and Scraton (2001) also found that young girls felt uncomfortable in PE when their bodies were "on display," such as when swimming or when wearing short games skirts. Research evidence suggests that body image concerns and social physique anxiety are becoming increasingly evident in female adolescents (Page & Fox, 1997). Schools should consider such concerns and relax their strict rules about the clothing and changing routines.

(c) Contextual Factors. This dimension encompassed two higher order themes: poor teaching style and poor physical environment. Poor teaching style was a strong contextual perceived cause of amotivation, as shown by the large number of raw and general data themes that made up this dimension. Many students referred to inappropriate teaching attitudes and behaviors which contributed to poor student/teacher relationships. One student said about her PE teacher, "She's a good teacher, but sometimes she can make comments that make you feel stupid and I think she picks on certain individuals in the class." In some cases exercise was used as a form of punishment (e.g., "I have had to run laps") for what the teachers perceived as lack of effort. Obviously punishment did not have the presumed desired effect of increasing student effort; it only induced feelings of injustice and anger, and as one boy said, "made me not want to do PE even more."

The students perceived a low mastery climate in their PE classes, with little emphasis on student learning and improvement. One student said about her PE teacher, "All she does is tell us to get up and play; she doesn't teach us any of the basics or anything." The prevailing motivational climate transmitted strong performance cues in that attention was given to the most competent students and praise was provided only when students outplayed their peers. In such situations, intervention programs are needed to strengthen the mastery cues of the climate (see Treasure, 2001). Finally, poor weather conditions such as exercising outdoors in the cold or in the rain also contributed to feelings of amotivation. Some students described PE lessons that had taken place on muddy pitches in numbing wind. Similar student experiences have been recorded in other studies (Coakley & White, 1992; Flintoff & Scraton, 2001). Anecdotal evidence suggests that some schools use such practices to toughen up the students, but the interviews clearly indicate that these practices undermine the motivation of some students.

2. *Display of Amotivation in PE.* Another aim of this study was to identify the various manifestations of amotivation in PE. Twenty-three relevant raw data themes were identified which were ordered into six general themes and three dimensions (see List #2): (a) avoidance behavior, (b) low involvement, and (c) low future intention to participate in physical activity.

(a) *Avoidance Behavior.* Many of the students reported that their attendance at PE lessons was very poor. They used different ways to avoid PE. Sometimes they sought legitimate reasons (e.g., “Sometimes I say to my mum that I’ve got a headache and she’ll write me a sick note”) whereas on other occasions they simply used excuses (e.g., “I can’t find my trainers”; “somebody stole my bag”).

(b) *Low Involvement.* Not all students actively sought to avoid classes. Nevertheless, those who turned up for PE demonstrated low involvement, which was manifested in two ways: disruptive behavior and passive attitude/behavior. Both girls and boys were disruptive but in different ways; girls tended to chat more whereas boys “messed around.” Other students displayed a passive attitude toward PE and their contribution to the lessons was minimal. One student said, “When we are playing volleyball, I usually just stand there when the ball is coming over and everyone is, like, running for the ball, I just stand there.” Similar passive strategies were also reported by alienated students in Carlson’s (1995) study.

The diverse manifestations of amotivation should be of interest to PE teachers and practitioners who want to identify and target amotivated students. The results show that while some students can adapt relatively well by just having a passive attitude during lessons, others cannot easily make such a psychological adaptation and go to various lengths to avoid PE. Student eagerness to find legitimate reasons or excuses not to attend PE creates a practical problem, that is, accessing these students for research purposes. Although we made every effort to identify all amotivated students, some of them were not interviewed simply because they were persistently absent.

(c) *Low Future Intention to Participate in Physical Activity.* Some amotivated students reported low intention to participate in physical activity after leaving school (e.g., “Not unless I’m watching footy on the telly, no way!”). Such low future intentions are certainly troubling from a public health perspective. However, it should be noted that some other amotivated students participated in sports outside of school, such as dancing and kickboxing. It seems that for them the problem was the PE environment and the choices it offered rather than a dislike of physical activity. Therefore, not all students who dislike PE are or intend to become physically inactive.

3. *Suggestions by Amotivated Students.* The students were also asked to suggest ways of reducing amotivation in PE. Their suggestions for improving their psychological experiences in physical activity have rarely been considered in the literature. Yet their advice can be particularly informative and can complement (or in some cases contradict) recommendations from adults. Several interesting recommendations were made which indirectly addressed most of the perceived causes of amotivation identified earlier. Twenty-one raw data themes emerged which were classified into 8 general themes and three dimensions (see List #3): (a) enhancement of positive affect, (b) need satisfaction, and (c) structural/organizational improvements.

List #2 — Display of Amotivation in PE*DIMENSION*

General Themes

- Raw Data Themes

AVOIDANCE BEHAVIOR

1. Low attendance or participation
 - I usually try and avoid the lesson
 - My attendance is poor ($n = 5$)
 - I don't normally take part ($n = 2$)
2. Seeking legitimate reasons to miss PE
 - I have used illness as an excuse to avoid PE ($n = 7$)
 - I have used injury as an excuse to avoid PE ($n = 4$)
3. Seeking excuses to miss PE
 - I have used "forgotten my kit" as an excuse ($n = 4$)
 - I get my parents to write a note whenever I want to miss PE

LOW INVOLVEMENT

1. Disruptive Behavior
 - I'm not interested; I'll just chat ($n = 5$)^{††}
 - I tend to listen more in sports that I like ($n = 3$)^{††}
 - We don't concentrate on the games; we just talk about other things^{††}
 - I mess around more in sports I don't like ($n = 2$)[†]
2. Passive Attitude and Behavior
 - I normally feel bored ($n = 5$)
 - I don't think during lessons
 - I would rather be somewhere else
 - I am happy to sit out
 - I do not get involved ($n = 6$)
 - I don't run around in lessons; I just stand there
 - I am happy for others to be more involved ($n = 9$)
 - I hide in lessons
 - I like to be involved but it's difficult because I'm not good at it
 - I would never volunteer

LOW FUTURE INTENTION TO PARTICIPATE IN PHYSICAL ACTIVITY

1. Low future intention to participate in physical activity
 - I will not take part in physical activity when I leave school ($n = 4$)
 - I cannot wait to get away from PE when I leave school

Note: Superscripts indicate that only boys[†], or girls^{††}, reported that theme.

(a) Enhancement of Positive Affect. The students suggested they would be more motivated in PE if the lessons were more enjoyable. Enjoyment could be increased by providing task variety and challenge and by de-emphasizing normative comparisons (Ames, 1992).

(b) Need Satisfaction. The students made recommendations which effectively called for satisfying the needs for relatedness, competence, and autonomy (Deci & Ryan, 2000). Relatedness was particularly important for girls, who preferred to

List #3 — Suggestions by Students to Reduce Amotivation in PE

DIMENSION

General Themes

- Raw Data Themes

ENHANCEMENT OF POSITIVE AFFECT

1. Increase enjoyment

- PE lessons should be made more fun ($n = 2$)

NEED SATISFACTION

1. Increase relatedness

- I would like to be with friends more ($n = 4$)^{††}
- I would prefer smaller groups ($n = 3$)^{††}

2. Increase perception of competence

- I would like to play with people of my own ability ($n = 3$)
- I would like to receive more praise ($n = 2$)

3. Increase autonomy

- Teachers should ask pupils what they want ($n = 2$)
- Teachers should make pupils feel more involved
- I would like to volunteer my ideas
- I would prefer more choice of activities ($n = 6$)
- I need more sports I'm interested in ($n = 2$)
- I would prefer more team sports
- I would prefer more individual sports

STRUCTURAL / ORGANIZATIONAL IMPROVEMENTS

1. Improve teaching style

- I would rather not be assessed by the teachers
- I would prefer teachers not to make a big deal if we make a mistake ($n = 2$)
- I would like the teachers to offer me more advice

2. Take into account the physical environment

- We should have easier access to facilities
- We should have winter lessons inside
- We should have summer lessons outside

3. Increase duration of lessons

- If lessons were longer, that would increase our fitness and give point to PE ($n = 5$)

4. Reduce body image concerns

- I would prefer a longer time to get changed ($n = 3$)^{††}
- I would like to choose what I wear^{††}

Note: Superscripts indicate that only boys[†], or girls^{††}, reported that theme.

work in smaller groups and with friends. As for perceived competence, the students suggested they should receive more praise from their teachers. They also stated they would like to work in groups with students of similar ability so that intragroup differences in ability would be less salient. However, the suggestion for homogeneous ability grouping is in contrast to Ames' (1992) call for mixed-ability grouping in education settings. We believe that although homogeneous groups make intragroup differences in ability less pronounced, they can be problematic because they accen-

tuates intergroup differences and marginalize less competent students. Concerning autonomy enhancement, the students said they should be able to volunteer their ideas and become more involved in the lessons. They also felt a wider range of activities should be provided. This is important since, according to Deci and Ryan (2000), choice can stimulate interest and enjoyment and satisfy the need for autonomy.

(c) Structural and Organizational Improvements. The students made recommendations in terms of how PE lessons might be organized and delivered. Given that poor teaching style was identified as an important perceived cause of amotivation, it was not surprising that one recommendation was that PE teachers should improve their teaching style. The students wanted their teachers to be more supportive and offer more advice and less criticism. One student said the teacher “should still point out when we aren’t doing it right but shouldn’t make it obvious that you aren’t that good at it.” Another recommendation was that weather conditions should be taken into consideration when planning sport activities: “Fewer activities out in the cold. In the winter everything should be done inside, and in the summer activities should be outside.”

Interestingly, some students said they would like PE lessons to be longer. Although this seems an unusual suggestion for amotivated children to make, it could be explained in conjunction with the lack-of-strategy belief identified earlier as a perceived cause of amotivation. In other words, the students felt that if classes were longer, PE could achieve its purpose—the improvement of their fitness. However, it should be noted that some recommendations for organizational changes might be difficult to implement due to national curriculum guidelines, limited funding, and school restrictions on length of classes. Finally, some girls proposed that students should have a choice of gym wear and be given more time to change. These suggestions might reduce body image concerns which had been identified as antecedents of amotivation.

Conclusions

This study shows that student amotivation in PE depends on a multitude of factors and is displayed in a variety of ways. Therefore it seems that the model of amotivation presented by Pelletier et al. (1999) is not comprehensive enough to adequately describe the different antecedents and outcomes of amotivation. Some perceived antecedents that emerged in this study are context-specific (e.g., teaching styles) while others are more generic (e.g., need satisfaction) and should be taken into account in future models of amotivation.

A more comprehensive model of amotivation should first distinguish between those who are amotivated and can avoid engaging in a particular activity, for example by taking part in an after-school sport, and those who are amotivated but obliged to participate in compulsory PE. These are two qualitatively different states of amotivation with perhaps some unique antecedents and consequences. In any case a more comprehensive model of amotivation should include, besides the three beliefs postulated by Pelletier et al. (1999), the constructs of low need satisfaction, social evaluation concerns, poor interpersonal relationships, context-specific factors, and environmental factors if applicable. Consequences of amotivation at a behavioral, cognitive, and affective level should be specified. Finally, potential moderating factors such as age, gender, socioeconomic status, and provision of social support could also be included.

Longitudinal studies are needed in order to study the dynamic process of amotivation, as some of the emerged antecedents (e.g., low effort) could also be conceived as outcomes if examined over time. Also, experimental designs are important for ascertaining whether the manipulation of some perceived antecedents of amotivation that emerged from this study can reduce amotivation in PE. The findings show relatively few gender differences. Girls were apprehensive about their appearance whereas boys seemed more concerned with perceived deficiencies in strength and speed. Furthermore, amotivated girls tended to chat more in the class whereas boys were more disruptive. Also, girls emphasized more relatedness compared to boys.

The relatively few gender differences may be an artifact of the imbalance in the group numbers. However, it was difficult to recruit amotivated boys since most of them indicated on the questionnaire that they were unwilling to be interviewed. Similar problems in recruiting male participants were reported by Carlson (1995). The boys' reluctance to be interviewed could be due to socialization influences that make them hesitant to appear amotivated in sport, a context highly valued by most boys (Chase & Dummer, 1992). Perhaps interviewing young male recent graduates might solve this problem.

An encouraging finding of the present study was that only a minority of students were amotivated in PE. However, it is important to continue to study amotivation because the research evidence is still preliminary and the prevalence of amotivation may vary depending on a number of factors. For example, there may be differences in amotivation between students from public and private schools due to differences in funding and available facilities. Furthermore, age differences in amotivation should be examined since there is evidence that intrinsic motivation, task orientation, and perceived physical ability decrease from late childhood to late adolescence (Digelidis & Papaioannou, 1999). These decreases in adaptive motivational variables could be associated with increases in amotivation. The influence of peers and parents should also be examined. There is evidence that parental influence is a significant predictor of young people's attitudes and degree of involvement in physical activity (Welk, 1999). It would also be informative to know, for both theoretical and practical purposes, how teachers cope with amotivated students. Finally, intervention programs are needed to tackle amotivation based on the students' suggestions and sound theoretical advice.

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Note

¹ The fact that the interviewed students differed from the others in all types of motivation implies that the term "amotivated students" should not be confined to high levels of amotivation only but should also define a motivational configuration consisting of high amotivation and external regulation, and low introjected regulation, identified regulation, and intrinsic motivation. This should be taken into consideration when interpreting the findings from the interviews. However, because amotivation had the highest score in this motivational configuration, and because students were asked to describe in the interviews their amotivation, we use the terms "amotivated students" and "student amotivation" throughout.

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