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Gyms and Leisure Centres

8.1 Learning objectives

The purpose of this chapter is to examine the social context of the leisure setting and its importance in relation to volitional exercise enjoyment and long-term adherence. The key learning objectives are:

- to explore the role of exercise leaders, who have the potential to influence the psychosocial environment via their attitudes and behaviours in an exercise class. Links to models of leadership and leadership styles will be discussed in relation to individual and group motivation and long-term adherence;
- to consider the importance of perceptions of competence, social anxiety, and self-presentational issues of individuals in a gym environment. Links to characteristics of the exercise environment and self-presentational issues are discussed in relation to their impact on exercise choices and behaviours;
- to examine the role of group exercise and psychosocial processes involved in group behaviours; for example, social facilitation, social loafing, social and task cohesion, and collective efficacy. Links to Carron and colleagues' model of group cohesion are used to understand the relative importance of group cohesion for exercise adherence;
- to discuss the practical implications of the research so that exercise leaders, personal trainers, and gym and leisure centre managers can create an optimal social context for increased motivation, enjoyment, and long-term exercise adherence, with specific strategies outlined.

8.2 Introduction to the context

According to the recent 'Gyms and Fitness Centres Market Research Report' (IBIS 2013), this industry has expanded strongly since 2005, particularly since 2010. In 1996, the fitness market was worth £682 million, increasing to

£1.6 billion in 2001, and it was recently estimated to be worth over £2.5 billion (Mintel 2010). In the United Kingdom, the 8.7 million adults who have membership in a gym or leisure centre equate to some 17% of the adult population. Yet research by the online accounting firm crunch.co.uk estimates that UK adults waste £37 million per year on unused gym memberships and sport equipment. This highlights the key issue, long-term adherence, in this volitional exercise setting: individuals who choose to exercise in a gym environment and commit to membership often discontinue participation after a time. This could be due to lack of motivation and interest, the gym's psychosocial environment, or other personal barriers (lack of time, cost). Despite high levels of discontinuation, UK gyms and leisure centres that assist, advise, and motivate individuals to participate in exercise in a social context have become more prevalent and employ roughly 26,000 staff members. These exercise professionals play a significant role in the enjoyment, motivation, and long-term behaviours of individuals who exercise in a gym environment, yet there has been limited research on their effectiveness.

In a gym, the interaction between the individual and the social environment can be influential in determining exercise choices and behaviours. A growing body of literature has examined the role of the exercise leader as an agent of social influence, one who is able to foster positive behaviours in individuals in exercise classes (Beauchamp, Welch, and Hulley 2007). Exercise leaders (i.e., exercise class instructors, personal trainers) can facilitate the psychosocial environment of their sessions through their own attitudes and behaviours, which in turn may influence the behaviours of the participants. Furthermore, exercisers may see their instructors as role models and replicate their attitudes and behaviours. Consequently, the exercise leader can have a significant influence not only on the actual exercise behaviours of individuals but on the psychosocial processes related to group exercise, the quality and enjoyment of the exercise experience, and the likelihood of future exercise intentions.

The decision to exercise in a public setting (e.g., gym, local park) or a private setting (e.g., at home) may be influenced not only by accessibility or facilities but by an individual's self-presentational concerns. Self-presentational concerns are one of the key psychosocial processes involved in group-based exercise. As exercise participation occurs in social contexts, it is possible that self-presentational strategies may have an impact on exercise behaviours. Self-presentation has been described as the selective presentation and omission of aspects of the self to create a desired impression and avoid undesired impressions on specific people in a social encounter (Hart, Leary, and Rejeski 1989; Leary 1992). For example, individuals may avoid exercising in front of others in the gym because they feel they are not good enough and do not want to be judged by other gym users. Self-presentational concerns might be associated with an increased motivation to exercise or, conversely, might result in demotivation (Leary 1992). Consequently, consideration of

the social environment (i.e., exercise group, exercise leader) and its potential influence on self-presentational concerns can be important in relation to long-term exercise adherence in a gym.

The majority of structured, volitional exercise takes place in a social context. Group cohesion and collective efficacy in an exercise setting can be key to understanding individual adherence via the psychosocial processes in an exercise class. The research examining group cohesion in a team-sport setting has been extensive; however, it has yet to be fully translated into examination of group cohesion in an exercise setting. Unlike group cohesion in a sport setting, in exercise classes group cohesion may not be an inevitable by-product of group processes, structure, or task outcomes (Carron and Spink 1993).

Two group factors are regarded as important for individuals to adhere to exercise: group cohesion and social support (Courneya and McAuley 1995). Further examination of the interaction of the exercise leader, the exercise group, and the individual is needed to understand the psychosocial processes influencing choices and behaviours in the leisure setting, where a large proportion of UK adults choose to participate in regular exercise.

8.3 The role of the exercise leader

The role of the exercise leader is central to understanding the volitional exercise behaviours of individuals in a group exercise class and the psychosocial processes involved to ensure long-term exercise adherence. The exercise leader can also provide companionship and instrumental support for individuals on a one-to-one basis through the use of a personal trainer, yet the research examining this dyad is limited.

8.3.1 Definitions and models of leadership

There are numerous definitions available to understand the concept of leadership. Chemers (2000) defined leadership as 'a process of social influence in which one person is able to enlist the aid and support of others in the accomplishment of a common task' (27). With respect to exercise and physical activity settings, leadership is considered a prescribed rather than an emergent role; however, in the exercise group itself, individuals may emerge as leaders in relation to certain group tasks. Although several models of leadership in a sporting context have been developed, to date there are no leadership models specific to an exercise setting. Chelladurai's (1990) multidimensional model, developed to understand leadership in sport-specific contexts, is based on the concept that leadership effectiveness depends on the situation's constraints and characteristics and the athletes. According to the model, leader behaviours are influenced by three antecedents: situational, leader, and member characteristics. As a result of these antecedents,

the preferred leader behaviour (i.e., what is preferred by the members of the group) and required leader behaviour (i.e., the behaviour required by the affiliated organisation's cultural norms) will dictate *actual* behaviour. This will, in turn, influence group performance and group members' satisfaction, the two key consequences of leadership behaviours. In an exercise setting, the situational characteristics could relate to the size and composition of the exercise class, the leader characteristics to the leader's teaching style, and the member characteristics to the social interaction of other group members with both the leader and each other. However, performance as an outcome of actual leader behaviour is perhaps not as appropriate in an exercise setting as in a sport setting. Yet what could be considered salient is long-term adherence in addition to member satisfaction, as they are inextricably linked.

Chemers (2000) proposed a multidimensional framework of leadership, which was considered in an exercise context by Estabrooks and colleagues (2004). Chemers identified three major functions of successful leadership. The first function, termed image management, is based on the assumption that 'a leader must build credibility in the legitimacy of his or her authority by projecting an image that arouses feelings of trust in followers' (37). It could be argued that in an exercise setting a successful leader would successfully demonstrate the exercise behaviour or skill to the class members. The leader should communicate values and beliefs about engaging in a physically active lifestyle to the group and portray its benefits via physical appearance and fitness levels. The second function, relationship development, is based on the assumption that 'a leader must develop relationships with subordinates that enable those subordinates to move toward individual and collective goal attainment' (37). In an exercise setting research has shown that a supportive relationship between the class leader and class participants is effective in attainment of class enjoyment, motivation, and adherence (Annesi 1999; Estabrooks et al. 2004; Loughhead, Colman, and Carron 2001). Resource deployment, the third function, is based on the assumption that 'leaders must effectively use the knowledge, skills, and material resources present within their group to accomplish the group's mission' (37). In an exercise setting it is essential that the leader understand the group capabilities and strive to maximise them in order to attain the individual's and group's main goals. The individual's are likely to be related to fitness, enjoyment, and appearance, yet the group's could be related to social interaction, group cohesion, and long-term adherence.

8.3.2 Leadership styles and characteristics

Exercise leaders are key socialising agents who can exert significant social influence on an individual class participant and the exercise group as a whole. Research has indicated that participants' perceptions of group cohesion, attitudinal and emotional responses to the class (Carron and Spink

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1993; Turner, Rejeski, and Brawley 1997), and future exercise intentions (Spink 1999) can all be influenced by the exercise leader. Based on this, it can be suggested that the exercise leader's leadership style can have an impact on the individual's psychosocial responses to exercise in a social environment. A study demonstrated that a socially enriched leadership style, characterised by reinforcement of positive behaviours in the exercise class, encouragement, and social interaction, resulted in more positive feeling states and increased exercise self-efficacy among young females (Turner et al. 1997). This was compared to a bland leadership style, characterised by verbal punishment of negative behaviours and no verbal encouragement or social interaction. The findings emphasised how a supportive, enriched leadership style could enhance positive psychological responses to exercise.

Martin and Fox (2001) studied the effect of leadership style and group environment on a negative psychological response to exercise – social anxiety – during a single aerobics class. 'Social anxiety' describes the affective consequences individuals may experience when they doubt their ability to make a desired impression on others (Schlenker and Leary 1982). Participants in the study were 48 male and 42 female undergraduate students from a health course who were randomly assigned to one of four groups (socially enriched leadership style/socially enriched group environment; socially enriched leadership style/bland group environment; bland leadership style/socially enriched group environment; bland leadership style/bland group environment). The leadership style was manipulated by the exercise leader of the aerobics class. The group environment was manipulated using student confederates who helped to create a socially enriched group environment by interacting with other class members at the start of the class, complying with the exercise leader, and providing verbal encouragement to the group during the class. Alternatively, they created a bland group environment, where certain behaviours were implemented or omitted so as to create a neutral, non-interactive social environment. Detailed verbal and behavioural scripts were written for the leadership style and group environment manipulations and taught to the leader and confederates prior to the aerobics class. Social anxiety and class members' perceptions of the exercise leader and the exercise group were assessed. Contrary to the authors' hypothesis, a socially enriched group environment produced greater levels of social anxiety among class members than the bland group environment. However, a socially enriched leadership style seemed to reduce the social anxiety experienced, meaning that class members were less likely to worry about making a desirable impression on others. These findings emphasise the importance of a supportive exercise leader in reducing negative psychological responses, particularly if the group environment results in increased levels of social anxiety.

Research conducted to identify the leadership styles needed to support positive psychological responses to exercise has been predominantly

conducted with young population samples; older adults and their preferences for exercise leaders have received less attention. To address this, Estabrooks and colleagues (2004) used a qualitative approach to understand the perceptions of older adults regarding their exercise group leader. Twenty-three older adults (mean age = 78.5 years) considered healthy enough to engage in regular exercise were asked their thoughts on important characteristics of an exercise group leader. Findings were based on the three major functions of leadership outlined by Chemers (2000): image management, relationship development, and resource deployment. Key themes linked to image management included the leader's personality characteristics (e.g., charismatic, energetic, outgoing, positive attitude, positive disposition), professionalism (businesslike, prepared, committed), and qualifications (good presentation, appropriate skills, knowledgeable, certified). Key themes linked to relationship development were guidance (providing assistance, demonstration, encouragement, explanation, instruction) and individual attention (understanding participants' capabilities and expectations, making eye contact, interacting, recognising names, showing concern, providing individual support). Finally, key themes linked to resource deployment were environment (appropriate music, a clear voice) and group processes (group goals, member relationships, social integration). From this study, it is apparent that a leader is required to exhibit a vast range of positive characteristics during an exercise session, which often lasts for less than an hour; exercise class members demand much of their leader during this time. Developing these characteristics and translating them into practice can be a challenge.

Beauchamp and colleagues (2007) examined two types of leadership styles, transactional and transformational, typically used in other settings (business, military, education) in an exercise setting. According to Bass (1985) transactional leadership exerts influence by setting goals, providing feedback, and exchanging rewards for achievement. Transformational leadership exerts influence by elevating members' goals and giving them the confidence to go beyond minimally accepted standards. As outlined by Bass (1998), transformational leadership acts to augment the effects of transactional leadership to increase self-efficacy beliefs. Beauchamp and colleagues examined whether transactional leadership is related to exercisers' self-efficacy beliefs and whether transformational leadership augments the effects of transactional leadership in relation to exercise-related self-efficacy. Female participants at university ($N = 164$), enrolled in a 10-week exercise class, were classified as either 'experienced exercisers' ($N = 78$) or 'initiate exercisers' ($N = 86$). A modified version of the multifactor leadership questionnaire (MLQ; Bass and Avolio 1995) was used to assess transactional and transformational leadership after each class from week 3 onwards. Three measures of self-efficacy were also examined: in-class self-efficacy (i.e., confidence in completing important tasks in the exercise class),

barrier self-efficacy (confidence to overcome barriers to exercise), and scheduling self-efficacy (confidence to complete specific behaviours required to attend their scheduled exercise class). As expected, findings indicated that initiate exercisers reported significantly lower levels of all three types of self-efficacy compared to experienced exercisers. For exercise initiates, the transactional leadership dimension of contingent-reward behaviours (positive reinforcement and reward when an identified goal is achieved) explained the variance in barrier self-efficacy and scheduling self-efficacy, yet no leadership behaviours were related to the self-efficacy of experienced exercisers. Findings also indicated that none of the transformational leadership behaviours outlined by Bass (1985) were related to exercise-related self-efficacy. The authors suggested that transformational leadership may not augment transactional leadership in a structured exercise class in the same way it does in other organisational settings due to the limited amount of contact time between the exercise leader and the class participants.

A socially enriched, supportive leadership style emphasising social interaction and positive reinforcement has been shown to have an impact on the positive psychological responses to exercise for class participants. The influence of the exercise leader's attitudes and motives for exercise might also translate to class members, particularly those who have enhanced negative psychological responses such as social anxiety and social physique anxiety. A study conducted by Raedeke, Focht, and Scales (2007) examined the extent to which exercise leaders create a health- or appearance-related class atmosphere for socially anxious females. It was hypothesised that instructors who wear form-fitting attire and make appearance-oriented comments may create class atmospheres that emphasise physique. Conversely, wearing more casual clothes and making health-oriented comments may foster more of a health orientation and lessen attention on appearance-related issues. Females aged 18 to 27 ($N = 99$) with high levels of social physique anxiety participated in the study. Social physique anxiety is a subtype of social anxiety that originates in self-presentational concerns about appearance. Individuals with high social physique anxiety experience apprehension and fear of negative social evaluation in situations where they perceive their appearance is being evaluated by others (Hart et al. 1989). The study also examined the influence of the presence of mirrors on levels of social physique anxiety (see Section 8.4.3). Participants were randomly assigned to one of four groups (appearance-focused leadership style / mirrors; appearance-focused leadership style / no mirrors; health-focused leadership style / mirrors; health-focused leadership style / no mirrors). To accentuate an appearance-focused style, the instructor wore tight-fitting aerobics attire and made appearance-related comments all through the exercise session; for example, 'stand tall, you'll look five pounds lighter' and 'work it, let's get your legs toned so they look good'. To minimise evaluated threat associated

with physique issues, the instructor attempted to create a health-focused leadership style by making health-oriented comments and creating a more casual atmosphere by wearing gym shorts and a T-shirt. For each cue in the appearance-focused condition, the instructor had a health-oriented counter-cue: 'shoulders back for good posture'; 'work it, let's get fit and healthy'. Positive affect, enjoyment, task self-efficacy, and future intentions to exercise were assessed pre- and post-exercise class. Findings suggested that a leadership style with a health-focused approach influenced the quality of an acute bout of exercise in females with high levels of social physique anxiety; they reported more positive affect and greater enjoyment and were more likely to exercise in the future.

Overall, it is clear that the exercise leader is a significant socialising agent in the gym environment and can influence a range of class members' psychosocial behaviours, including self-efficacy, enjoyment, positive affect, and future intentions to exercise. The leader can also contribute to the development of group cohesion in the exercise class, which in turn, can increase long-term exercise adherence (see Section 8.5). The leadership style adopted and the exercise leaders' physical appearance can also influence participants' negative psychosocial processes (e.g., social physique anxiety) and impact on the decision to engage in or avoid group exercise situations. Qualitative findings have identified numerous characteristics exercise leaders need to be considered effective by class participants. These range from displaying positive personality traits and being prepared and professional to more complex qualities such as managing and encouraging social interaction and gauging individual goals and group capabilities. The high expectations of an exercise leader can be difficult to deliver with the limited contact time in a typical exercise class; they may develop only over time in an exercise group consisting of regular attendees.

8.4 Self-presentational issues in a gym setting

The gym setting is a social context; therefore, the presence of others whilst an individual exercises is inevitable. For an individual, exercising in the presence of others can elicit a range of psychological responses that may enhance exercise participation and provide a supportive network or may discourage exercise participation due to worry and concern about others' social approval. Prior to the discussion of self-presentational issues in a gym setting, key terms in this area need to be defined.

8.4.1 Definitions and key terms related to self-presentation

As outlined earlier, self-presentation is the selective presentation and omission of aspects of the self to create a desired impression and avoid undesired

impressions with specific people in a social encounter, such as exercising in a gym environment (Hart et al. 1989; Leary 1992). It has been suggested that self-presentational concerns can affect an individual's exercise cognitions, attitudes, and behaviours. These concerns can be associated with an increased motivation to exercise to improve or maintain physical appearance or construct a social identity as an exerciser. Conversely, self-presentational concerns can cause demotivation to engage in exercise when an individual feels incapable of creating a desired impression and fears others' negative evaluation (Leary 1992). The individual's level of certainty about being able to make a derisive impression (i.e., how certain an individual is of creating a good impression in a certain context) has been conceptualised as self-presentational efficacy, a concept based on the integration of the self-efficacy and self-presentation theories of social anxiety (Maddux, Norton, and Leary 1988). In an exercise setting self-presentational efficacy may be related more to concerns about appearance and physique; perceptions of physical competence, coordination, and fitness levels may also be relevant. All of these can influence how confident an individual feels in their ability to create a desirable impression in these areas, and these in turn may impact exercise choices and behaviours in the gym environment.

'Social anxiety' refers to the negative consequences that may be experienced when an individual doubts their ability to make a desired impression on others (Schlenker and Leary 1982). In relation to an exercise setting, Hart and colleagues (1989) developed a measure of social anxiety specific to the physique, social physique anxiety. Defined as the anxiety experienced by those who perceive that their physique will be negatively evaluated by others, it was originally considered a personality trait. Since it results from the perception that others may evaluate one's body, situations which emphasise both physique and evaluation (e.g., exercise classes) could temporarily increase social physique anxiety.

8.4.2 Social physique anxiety and exercise behaviour

There has been extensive research examining the relationship between social physique anxiety and exercise behaviour, particularly in females, who typically exhibit higher levels of the anxiety than males (Haase, Prapavessis, and Glynn Owens 2002; Motl and Conroy 2000). Lantz, Hardy, and Ainsworth (1997) examined social physique anxiety and perceived exercise behaviour in 120 males and 180 females between 18 and 60. Findings indicated a negative relationship between social physique anxiety and exercise behaviour, with individuals with high levels of social physique anxiety engaging in less exercise. Furthermore, this finding, moderated by gender and age, showed that exercise behaviour was lowest in older female adults with high levels of social physique anxiety. Yet findings from an intervention study by Treasure, Lox, and Lawton (1998) examining adherence of obese females

($N = 31$) to a 12-week walking programme highlighted that for younger obese females, social physique anxiety had a greater effect on walking adherence than older obese females. In this study, social physique anxiety decreased with age; its influence on walking adherence consequently decreased.

The link between social physique anxiety and exercise behaviour in females was further examined by Ransdell and colleagues (1998) in post-menopausal women. Findings indicated that social physique anxiety was higher in women who engaged in low-to-moderate levels of physical activity compared to those who engaged in high-to-vigorous levels of physical activity, independent of percentage of body fat. This suggests that the link between social physique anxiety and exercising to improve appearance is not necessarily attributable to an objective need to reduce body fat. In addition, it should not be assumed that only overweight or obese individuals will have high levels of social physique anxiety. Social physique anxiety and self-presentational concerns have also been linked to risk-taking behaviours in gym settings, particularly in male exercisers. Martin, Leary, and O'Brien (2001) found that 28% of male university students surveyed, compared to 3% of females, reported lifting excessive weights at the gym for self-presentational reasons and in some cases reported taking anabolic steroids to create a desirable impression on others in a gym setting. Overall, research consistently shows self-presentational concerns, social physique anxiety, and exercise behaviours to be inextricably linked; however the complexity of the relationship is influenced by factors related to the psychosocial environment where the exercise takes place. Discussing these factors will aid in understanding the links between self-presentational concerns, social physique anxiety, and exercise behaviour in a gym setting.

8.4.3 The psychosocial exercise environment and self-presentational concerns

As discussed earlier, Martin and Fox (2001) examined the effect of leadership style and group environment on social anxiety, a negative psychological response to exercise, during a single aerobics class. Manipulation of the group environment was deliberate; it created a socially enriched exercise group using confederates for one condition and a bland group environment for the other. Social anxiety and class members' perceptions of the exercise leader and group were assessed. Contrary to the authors' hypothesis, a socially enriched group environment produced higher levels of social anxiety than the bland one among the class members. In this instance, the social attention by the confederates to the class participants may have provoked social anxiety as they attempted to present favourable impressions of themselves. Therefore, emphasising social interaction to make class members feel welcome and comfortable in the exercise environment may not necessarily reduce feelings of social anxiety and could, for some, increase feelings of social anxiety.

Research by Crawford and Eklund (1994) examined the exercise environment and self-presentational concerns in 104 female university students aged 18 to 25, with a specific focus on attire's influence on various self-presentational outcomes during an aerobics class. The participants were shown two videotapes of a class. In one, participants wore aerobics fashion attire (e.g., lycra); in the other, they wore shorts and T-shirts. Prior to watching the videotapes, participants completed measures of social physique anxiety, body size satisfaction, exercise motives, and self-report exercise behaviour. Afterwards, participants had to rate their attitudes towards the exercise settings of the two exercise videos. Findings suggested that social physique anxiety was negatively associated with the setting that emphasised physique (i.e., aerobics attire) and positively related to the setting that minimised its salience (i.e., shorts and T-shirt attire). This study was one of the first to highlight the importance of the social environment to self-presentational concerns for individuals in an exercise class. A follow-up study, conducted by Eklund and Crawford (1994) to examine similar self-presentational concerns related to exercise environment attire, attempted to control for body composition. Contrary to the first study, there was no significant relationship between social physique anxiety and attitudes towards attire in the setting. However, the authors commented that the participants recruited for this study were physical education undergraduate students and therefore a biased population sample with a lower body mass than the participants used in the Crawford and Eklund (1994) study had. More recently, Brewer and colleagues (2004) examined two forms of self-presentational behaviour in 86 female participants attending an aerobics class at a university fitness centre. They examined the relationship between social physique anxiety and proximity to the exercise instructor during a class and the wearing of concealing exercise attire. In support of Crawford and Eklund (1994), findings highlighted that social physique anxiety was positively related to clothing concealment ($r = 0.25$) and proximity to the exercise instructor ($r = 0.31$), suggesting that for female exercisers, having a choice over one's standing position in an exercise class – further from the instructor – could reduce self-presentational concerns. The study increases support for the importance of choice of attire in reducing self-presentational concerns in an exercise class setting.

In addition to shaping self-presentational concerns, Gammage, Martin Ginis, and Hall (2004) suggested that situational factors in the exercise environment (e.g., revealing clothing) can affect an individual's self-presentational efficacy due to increased self-awareness. They argued that this self-evaluative process leads to an increased awareness of shortcomings and a reduced self-efficacy for completing the task. The aim of their study was to manipulate self-presentational efficacy in an exercise context through a range of situational factors and to determine the effects of the manipulation on manifestations of social anxiety. Regular female exercisers were

recruited for the study ($N = 68$) and randomly assigned to either a low or high self-presentational efficacy group. Manipulation of low self-presentational efficacy involved ensuring that all mirrors and windows in the exercise environment were uncovered and looked out onto a public hallway. A video camera was set up at the front of the class, and a male individual, with a second video camera, walked around during the class. All clothing, a cropped lycra top and lycra shorts, was provided for the participants, and they were instructed to wear name badges throughout the exercise class. Manipulation of high self-presentational efficacy involved ensuring that all mirrors and windows were covered, that no video cameras present, and that they were provided loose T-shirts and shorts to wear. The above descriptions of the dance studio where the exercise class was to take place were given to the participants, who were told they would be moving to the classroom to complete several questionnaires and then would be supplied clothing for the class in the changing room before returning to the dance studio to start the class. Assessments of impression motivation, self-presentational efficacy, task self-efficacy, state social anxiety in an exercise class, social physique anxiety, and physical appearance anxiety were conducted. At this point, the participants were informed they would not be required to do the class and were fully debriefed on the study. Despite not actually having to participate in the class, findings indicated that those women in the low self-presentational efficacy group scored higher on exercise-related state social anxiety, physical appearance anxiety, and social physique anxiety than those in the high self-presentational efficacy group. Furthermore, participants in the former group reported looking forward to taking part in the class significantly less than those in the latter group. This study was one of the first to highlight that *perceptions* of an exercise environment associated with low levels of self-presentational efficacy can impact self-presentational concerns and future intentions to exercise even prior to participating in the session.

The presence of others whilst exercising is a central component of self-presentational concerns. Previous research (Carron et al. 1999) has shown that in a social scenario where the physique is emphasised, self-presentational anxiety in females was less pronounced among female friends or a mixed group of male and female friends than when alone or in a group of male friends. This suggests that a group's gender composition can have an impact on the levels of self-presentational anxiety females experience. The group gender composition in an exercise class in relation to self-presentational concerns was examined by Kruisselbrink and colleagues (2004). Study participants consisted of 51 males and 80 females who completed the 9-item scale (Hart et al. 1989) assessing situational social physique anxiety and indicated their immediate exercise intention for three exercise-setting scenarios. For each scenario the instructions were, 'Imagine that you are going to an exercise workout. Clad in your usual exercise attire, you enter the exercise area. When you look around

you notice that everyone in the room is...' The statement's completions were (a) female, (b) male, (c) an even mix of females and males. The order of presentation of the scenarios was counterbalanced. Findings demonstrated that the exercise group's gender composition had no influence on situational social physique anxiety and exercise intentions in males. Yet females reported highest levels of situational social physique anxiety to an all-male exercise class scenario. The authors, concluding that females have reduced levels of social physique anxiety and are less likely to shorten their workout in an all-female class, emphasised the importance of the class's gender composition in relation to self-presentational concerns experienced by female exercisers.

Further research that has examined the presence of co-exercisers, coupled with the presence of mirrors in the exercise environment, was conducted by Martin Ginis, Burke, and Gauvin (2007). In their study, 92 sedentary females aged 20 performed 20 minutes of moderate-intensity exercise in one of four conditions: (1) exercising alone in a mirrored studio; (2) exercising with others in a mirrored studio; (3) exercising alone with no mirror; (4) exercising with others with no mirrors. Exercise-induced feeling state was assessed pre-, mid- and five minutes post-exercise, and self-consciousness and perceived social evaluation and comparison were assessed post-exercise. Multilevel modelling analysis demonstrated that participants in the group exercising with others in a mirrored studio reported increased physical exhaustion, higher levels of self-consciousness, and increased perceptions of social evaluation and comparison. Thus, for inactive females, exercising in the presence of others in a mirrored environment may not be conducive to positive psychological well-being and minimising self-presentational concerns.

Research has demonstrated that the exercise environment itself is central to understanding self-presentational concerns of exercisers and their potential impact on exercise choices, behaviours, and long-term adherence. Situational factors, such as the presence of mirrors, can also exacerbate feelings of self-presentational efficacy and self-consciousness. Although exercisers use mirrors in a gym environment to correct technique and monitor behaviour, for some they can be a deterrent to exercise. As the attire worn to an exercise class has been shown to negatively impact on self-presentational efficacy and social physique anxiety, the importance of allowing exercisers control over choice of clothing for group exercise sessions is underlined. That the group's gender composition can also change the degree to which female exercisers experience social anxiety and social physique anxiety suggests that female-only sessions could minimise self-presentational concerns and maximise the likelihood of future exercise intentions and long-term exercise adherence. Finally, the psychosocial environment created by both exercise leader and group members can encourage social interaction and integration. This has been shown to both increase social anxiety levels through the desire

to create a positive impression on others and reduce social anxiety through feelings of relatedness to other class members. Further research is needed to clarify whether a socially enriched environment in an exercise class is optimal for reducing feelings of social anxiety and increasing exercise intentions and to establish whether the social support's source (i.e., the class leader or group members) can have a different effect on the positive outcomes.

8.5 Group cohesion and social processes in an exercise class setting

Group cohesion and collective efficacy in an exercise setting are central to understanding individual adherence through the social processes developed in an exercise class. Discussion of the links between group cohesion and exercise adherence follow a definition of what a group is and how it can be cohesive so as to understand group cohesion in an exercise context.

8.5.1 Definitions and key terms related to group cohesion

Early theoretical concepts of a group, as outlined by Zander (1982), suggest that 'a body of people is not a group if the members are primarily interested in individual accomplishments, are not concerned with the activities of other members...and are often absent' (1-2). This explanation suggests that for exercise groups composed of individuals with separate goals and interests, interest in the activities of other class members is needed for the group to be conceptually defined. This echoes the sentiments of Carron, Brawley, and Widmeyer (1998), who previously defined 'group cohesion' as 'a dynamic process reflected in the tendency of a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs' (213). They developed a conceptual model of group cohesion in sport, dividing cohesion into four distinct dimensions across two specific levels: an individual versus group level and a task versus social aspect of cohesion.

At the individual level, attraction to the group (ATG) reflects the individual's perceptions about personal motivations acting to attract and retain the individual in the group. This is related to both a task (ATG-T) and social aspect (ATG-S). At the group level, group integration (GI) reflects the individual's perceptions of closeness, similarity, and bonding in the group. This is also related to both a task (GI-T) and social aspect (GI-S). In relation to their conceptual model in an exercise context, Brawley, Carron, and Widmeyer (1987) suggest that attraction to the group task (ATG-T) is the most salient predictor of exercise adherence, with group integration to the task (GI-T) the next most important predictor. Once the group has become efficient at the task, attraction to the group's social aspects (ATG-S) should develop and

become predictive. Finally, once the group integrates around these social interactions, group integration socially (GI-S) will become a predictor of exercise adherence.

8.5.2 Developing group cohesion in an exercise context

It is apparent that group cohesion leads to long-term exercise adherence behaviours. However, during an exercise class, cohesion is not an inevitable by-product of group processes, structure, or outcomes, as it can be in a sports team. Consequently, research examining the relationship between group cohesion and exercise adherence has centred on using exercise class strategies such as team building and goal setting to enhance the cohesiveness of the group in an effort to influence long-term exercise adherence. Research by Carron and Spink (1993) determined whether a team-building programme would increase perceptions of cohesion in a fitness class ($N = 94$) compared to a control group ($N = 101$). All participants were female, between 18 and 25, and involved in aerobics and aqua fitness classes three times a week for 13 weeks. In the experimental group, exercise leaders received instructions on how group cohesion and the benefits of exercise enjoyment and adherence could be increased. The leaders became active agents in developing strategies for the team-building programme based around positions, norms, sacrifices, distinctiveness, interaction, and communication. The team-building programme was implemented in the experimental group for the 13-week programme. The control group received standard exercise leader protocol during this time; cohesiveness was assessed in both groups at week 8. Findings highlighted significant group differences in the ATG-T dimension, with the experimental group reporting higher levels than the control group. In addition, higher levels of satisfaction and lower levels of dropout were also reported in the experimental group, emphasising the potential positive influence of team-building strategies on exercise class cohesion and subsequent long-term adherence. Carron and Spink (1995) extended these findings to examine how a team-building intervention would influence cohesiveness in small (<20) and large (<40) exercise classes. Findings suggested that an exercise leader's team-building strategies can offset the potential negative impact of class size on group cohesion. Team-building strategies can be useful in small- and large-group exercise contexts for developing cohesion and exercise adherence.

The efficacy of team-building strategies in increasing cohesion in exercise groups has also been evidenced in older adults. Estabrooks and Carron (1999) examined group cohesion and exercise participation in 75 older adults at 1, 6, and 12 months of an exercise programme of aerobic fitness and strength and flexibility training (study 1). They also examined the effectiveness of a team-building intervention based on developing class cohesion for improving class attendance at weeks 6 and 10 in a subsample of 33 older adults

(study 2). Findings of study 1 suggested that cohesion predicted exercise attendance at 1 month, 6 months, and 12 months after an exercise programme. Findings of study 2 supported the use of a team-building intervention for immediate and long-term effect on exercise attendance. Overall the authors concluded that short-term participation was associated with the social aspect of group cohesion but long-term participation was associated with the task aspect. This suggests that for older adults, the social aspect of group exercise may be more salient for developing group cohesion than the activity itself, contrary to the early findings by Carron, Widmeyer, and Brawley (1985) and Brawley and colleagues (1987).

Tailoring group-cohesion strategies for the group an exercise leader is working with was further emphasised by Annesi (1999), who stated that private and public gyms and leisure centres may require different cohesion-promotion methods. This study examined group cohesion in new exercisers (those exercising for six months or less) in a private fitness centre. Participants were randomly assigned to a control or treatment condition. Treatment participants differed from controls in that an exercise professional led them in small groups for a five-minute warm-up and cool-down before and after they completed the prescribed exercise programme alone. Group cohesion was assessed at weeks 1, 5, 10, and 15 for participants in both conditions. Findings indicated that ATG-T increased between weeks 1 and 5, with higher attendance and decreased dropout in the treatment group. This showed that placing participants under minimal supervision in surroundings that might promote independent social interaction can increase aspects of group cohesion and attendance and reduce dropout in a private leisure centre setting.

More recently, Christensen and colleagues (2006) examined the formation of group cohesion and social support among a group of sedentary adults. The intervention consisted of 32 weekly exercise sessions of approximately 90 minutes, where social activities were incorporated into each session to develop group cohesion among participants (e.g., scheduled coffee breaks before and after class, encouragement of group discussion during the cool-downs, and participant-led choice of group exercise activities during class). Findings indicated social relations in the class had a significant effect on future exercise intentions, yet the intervention had no effect on self-reported loneliness. A subsample of the participants ($N = 18$) were interviewed on their past experiences with exercise, their exercise experience during the intervention, barriers to participation, and the dynamic processes in the group during the intervention period. Findings suggested that none of the exercise class groups had experienced similar social processes and that the initial meeting phase was decisive in the developing group processes and establishing cohesion. It was apparent that integrated groups were characterised by feelings of acceptance, solidarity, and mutual respect

among the participants. In relation to the four dimensions of group cohesion, the participants discussed their attraction to the group in relation to the social aspect and their integration with the group in relation to both the group's tasks and social aspect. The findings provide further support for the conceptual model of group cohesion in an exercise setting and also suggest that for sedentary individuals, both task and social aspects of cohesion are needed to enhance overall cohesion in an exercise class setting.

Although research has shown that team-building strategies in an exercise class setting can be efficacious in enhancing group cohesion and consequently exercise adherence, research on use of group goal setting as a specific strategy to develop cohesiveness has been limited. In 2010 Burke and colleagues looked to examine group goal setting and performance in a physical activity context, where individuals predominantly focus on personal rather than collective outcomes (e.g., increase fitness, develop competence, lose weight), even when engaging in group exercise. The study's main aim was to examine the relationship between group goal setting and group performance in 1,325 walking groups. A secondary aim was to examine factors that might influence the magnitude of the group's goal setting and performance relationship – specifically task cohesion, prior levels of physical activity, and self-efficacy. The eight-week walking programme was part of a community-based project in Kansas involving 6,356 adults in self-selected walking groups of three to six individuals, with a designated walk leader for each group. Findings revealed a positive, significant relationship between group goal setting and group performance. Task cohesion was not a significant moderator of this relationship, yet prior levels of physical activity and self-efficacy were. There was also evidence of conjunctive moderation effects on this relationship, where high levels of prior physical activity and high levels of self-efficacy were more influential than a combination of medium or low levels of prior physical activity and self-efficacy. Overall this study supports the use of group goal setting as a strategy to increase group performance in a walking group, with the importance of self-efficacy further emphasised. Additional research is needed to examine whether group goal setting in a group exercise class can enhance long-term exercise adherence, as group performance is not directly relevant in this context.

8.6 Exercise leaders and group cohesion

Exercise leaders have been shown to influence the psychosocial processes of an individual involved in group exercise, yet they can also act as socialising agents to develop group cohesion in an exercise class. The relationship of the exercise leader, group cohesion, and exercise adherence was examined by Loughhead and colleagues (2001). The purpose of their study was to

determine whether cohesion serves as a mediator between exercise leader behaviours and exercise adherence in older adults. Participants were 117 older adults (aged 67) who regularly participated in exercise classes. Cohesion was assessed using the physical activity group environment questionnaire (Estabrooks and Carron 2000), and leadership behaviours were assessed on a nine-point Likert scale pertaining to participants' perceptions of the leaders' enthusiasm, ability to motivate class members, availability outside class, and ability to provide personal information. Findings demonstrated that the leader behaviours of enthusiasm, motivation, and availability were positively related to ATG-T and GI-T. For older adults, these behaviours may create an optimal psychosocial environment that promotes exercise adherence by making the task more attractive to the class members and increasing perceived value of the exercise class based on common goals. Further support for the potential influence of the exercise class leader on developing group cohesion has been found in qualitative research in this area. Estabrooks and colleagues (2004) found that group processes relating to group goals – membership relationships and social integration – were factors of social and task cohesion identified by older adults as important characteristics of an exercise leader. Similar findings were reported by Christensen and colleagues (2006), where the teaching ability of the exercise leader influenced group cohesion and development in a group exercise class for previously sedentary adults.

In order to enhance group cohesion, Carron, Spink, and Prapavessis (1997) outlined a four-stage process of developing team-building in an exercise class:

1. Introductory stage – provide the exercise class leader with an overview of the benefits of developing group cohesion in relation to class member enjoyment, enthusiasm, and long-term adherence.
2. Conceptual stage – introduce a conceptual framework for team building, as developed by Carron and Spink (1993), to the exercise leader in a fitness class. This framework postulates that group cohesion is influenced by the group environment and group structure via group processes.
3. Practical stage – allow the exercise leader to become an active agent in the development of practical strategies, tailored to the leader's exercise group, for promoting group cohesion. The exercise leader's autonomy with the group will be enhanced and commitment to developing group cohesion increased.
4. Intervention stage – have the leader introduce specific team-building strategies to the exercise group and continue them in each session.

This four-stage process can be used by exercise leaders and practitioners aiming to develop group cohesion in a gym or leisure centre setting (see Section 8.8 for additional strategies for use at the practical stage).

8.7 Summary

Exercise leaders and co-exercisers contribute to the social processes involved in volitional exercise behaviour choices and adherence in the gym or leisure centre setting. Long-term exercise adherence can be ensured by developing a cohesive environment focused on group tasks and social interaction. For individual exercisers, certain self-presentational concerns (e.g., social physique anxiety, self-presentational efficacy) can contribute to negative psychological well-being; minimising this will ensure long-term exercise adherence. The case study discusses specific strategies that exercise leaders, personal trainers, and gym managers can use to create an optimal social environment for long-term adherence in their settings.

8.8 Case study

8.8.1 Setting the scene

Sarah is a 23-year-old female who experienced low levels of self-efficacy for sport at school and felt uncomfortable participating in sport in front of her classmates. Since leaving school, she did not engage in regular exercise until recently, when she decided to join her local private gym. This decision was prompted by an increasingly stressful job; she hoped to use exercise to reduce stress levels and feel better about herself. She also wanted to improve her fitness and tone, make friends, and lose weight.

Sarah joins an aerobics exercise class in the gym, and during the session she finds other class members cliquey and unsociable. As it has been a while since Sarah was in a gym environment, she is wearing loose clothing for the class and prefers to stand at the back of the class, behind all other class members and away from the mirrors and the exercise leader. She finds the exercise class leader, who offers limited instruction and interaction with the group, unfriendly towards her. She continues to attend the same session for the next few weeks, yet her experience remains the same. This leads to a lack of enjoyment during the class and a reduced intention to go to the class in the future. Sarah is considering cancelling her gym membership at the end of the month.

How can the exercise class leader, co-exercisers, and gym manager change the exercise environment to increase Sarah's enjoyment in class and thus increase her future intentions and long-term exercise adherence?

8.8.2 Assessing the situation

The key socialising agent in this situation is the exercise class leader, who needs to acknowledge the importance of being a facilitator of each class

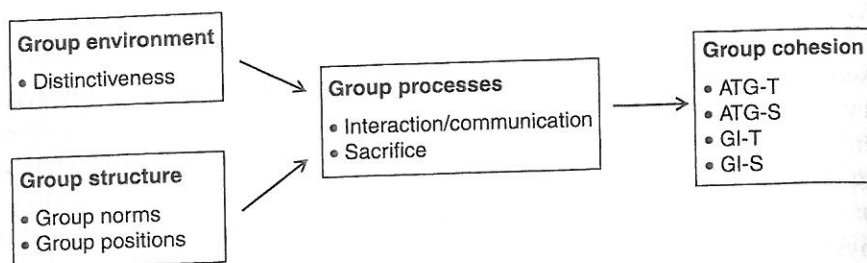


Figure 8.1 Conceptual framework used as a basis for the implementation of a team-building program in fitness classes

Source: Reprinted, with permission, from Carron, V. and Spink, K. S. (1993). Team building in an exercise setting, *Sport Psychologist*, 7(1), 8–18.

member's exercise experience. To increase the likelihood of future participation, that experience needs to be motivating, enjoyable, and fun. The class leader needs to be aware of the different levels in the class, not only in relation to physical abilities but with regard to levels of self-presentational efficacy, social physique anxiety, and confidence as an exerciser. The leader also needs to manage the social integration of the group to create a balance. In Sarah's case, she felt the group was too cliquey; it made her feel isolated in her first class. Equally, the exercise leader is not there to enforce social interaction. Doing this can exacerbate certain individuals' level of social anxiety in a new exercise setting. Encouraging social interaction in a natural and gradual manner is what is needed.

It is difficult for an exercise leader to 'assess' all class members in relation to their levels of social physique anxiety and self-presentational efficacy in each session; contact time (usually one hour) is limited, and frequency of contact irregular. The exercise leader thus has to attempt to gauge these self-presentational concerns by using cues during the session; for example, the distance that class members stand from the front of the class and from the mirrors (further away suggesting high social physique anxiety and low self-presentational efficacy) and the attire they wear during the session (i.e., loose clothing suggesting high social physique anxiety and low self-presentational efficacy). The exercise leader should gauge from Sarah's conduct that she is a new member of the class and may be experiencing high social physique anxiety and low self-presentational efficacy. Consequently the leader should ensure Sarah's first exercise experience is positive, motivating, and enjoyable.

8.8.3 Specific strategies

The following strategies could be used by both the gym manager and the exercise leader to ensure that the psychosocial environment in the sessions promotes increased enjoyment, exercise group cohesion, and motivation.

and consequently long-term exercise adherence behaviours. Using the conceptual framework (Figure 8.1) developed by Carron and Spink (1993), gym managers and exercise practitioners can promote and increase awareness in their exercise class instructors of the importance of enhancing group cohesion for long-term exercise adherence. The framework can be used, alongside the four-stage process, by exercise leaders and practitioners aiming to develop group cohesion in a gym or leisure centre setting (See Section 8.6).

Linked to Carron and Spink's (1993) framework, several strategies could be employed by the exercise leader to develop a more cohesive exercise class:

- Group environment (distinctiveness) – consider having group T-shirts, posters, and a group name.
- Group structure (individual positions) – allow members to choose their own spot for the class and encourage them to remain in it throughout the year.
- Group structure (group norms) – encourage class members to set up and tidy away each other's equipment. Create a goal for each session that is developed by the group.
- Group processes (individual sacrifices) – encourage regular attendees to buddy up with new class members.
- Group processes (interaction and communication) – encourage members to introduce themselves to each other. Develop activities during the class that encourage class members to work together.

As outlined, it is the exercise leader who needs to orchestrate these strategies to develop task and social cohesion in the class and also needs to display all the key characteristics of an efficacious leader on the basis of the class members' expectations (the characteristics are discussed in Section 8.3.2). Salient qualities include a health-focused and professional approach and a positive disposition and attitude, with energy and enthusiasm shown throughout the class. The exercise leader must also judge individual capabilities and provide the necessary support whilst managing social interaction. A key strategy that could help reduce self-presentational concerns of exercisers, particularly those new to the gym environment, might be establishing female-only sessions, with no mirrors or windows present, to reduce levels of social physique anxiety. The gym manager would be responsible for endorsing this class and integrating it into the class timetable.

8.9 Further study and recommended reading

The following literature is recommended for further reading on key concepts addressed in this chapter.

- Pridgeon, S., and Grogan, S. (2012). Understanding exercise adherence and dropout: an interpretative phenomenological analysis of men and women's accounts of gym attendance and non-attendance. *Qualitative Research in Sport, Health and Exercise*, 4(3), 382–399.
- Tenenbaum, G., Eklund, R. C., and Kamata, A. (2012). *Measurement in Sport and Exercise Psychology*, chs 22, 23, 35. Champaign, IL: Human Kinetic

Additionally, reading in the following relevant areas is recommended. The materials address other social aspects of the gym and leisure centre settings that are not covered in this chapter but are important to both the exercisers and exercise professionals.

Exercise addiction and social physique anxiety in exercise professionals

- Banbery, B., Groves, M., and Biscoomb, K. (2012). The relationship between exercise dependence and identity reinforcement: a sociological examination of a gym-based environment in the United Kingdom. *Sport in Society: Cultures, Commerce, Media, Politics*, 15(9), 1242–1259.
- Landolfi, E. (2013). Exercise addiction. *Sports Medicine*, 43(2), 111–119.

Muscle dysmorphia:

- Murray, S. B., Rieger, E., Touyz, S. W., and De la Garza García, L. (2010). Muscle dysmorphia and the DSM-V conundrum: where does it belong? A review paper. *International Journal of Eating Disorders*, 43, 483–491. doi: 10.1002/eat.20828.
- Olivardia, R. (2001). Mirror, mirror on the wall, who's the largest of them all? The features and phenomenology of muscle dysmorphia. *Harvard Review of Psychiatry*, 9(5), 254–259.