

An Investigation of Motivation in Co-Dependent Team Sport

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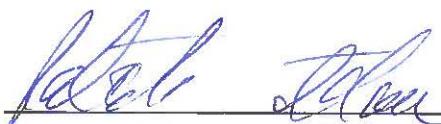
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degree of Master of Science, June 2014.

Declaration Statement

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I hereby certify that the material, which I now submit for assessment on the programmes of study leading to the award of a Degree of Master of Science, is entirely my own work and has not been taken from the work of others except to the extent that such work has been cited and acknowledged within the text of my own work. No portion of the work contained in this thesis has been submitted in support of an application for another degree or qualification to this or any other institution.



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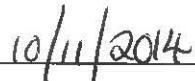


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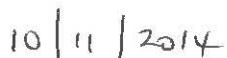
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Abstract

Motivation is a significant part of both a manager's and individual athlete's preparation for sport. This research study examined this important area by completing three studies. Study One examined the combined effect of the Perceived Motivational Climate (PMC) and the Achievement Goal Orientation (AGO) of players to determine their effect on the players' anxiety and self-confidence levels. Participants consisted of individuals between the ages of 18 and 40 years who played co-dependent team sports. Study One found that the combined effect of PMC and AGO had a significant effect on athletes' anxiety and self-confidence. However, further research is required to better understand this combined effect of PMC and AGO. A longitudinal study could uncover whether the motivational climate a manager develops can impact on his/her players' goal orientation.

As the popularity of social media increases, research is required to determine its potential effects on athletes and sports teams' performances. Study Two examined the use of Twitter in seventeen clubs who play co-dependent team sports, to determine whether the types of tweets posted could potentially impact upon their team's motivational climate. Study Two found 11.11% of clubs' Twitter posts commented on either their players', or one of their teams', performances. These findings suggest there is a possibility that club's tweets could have an impact on a team's motivational climate. Therefore, further search is required to further examine the potential effect of social media on sports teams' and athletes' performances.

During Study Three interviews were conducted with three managers of co-dependent sports teams to determine their opinions on the potential effects of the motivational climate, goal setting and social media on a team's performances. Managers stated that goal setting and the motivational climate were important factors in successful teams, while social media was likely to have a negative effect on players. These findings, along with the findings from Study One and Study Two suggest that further research is required to determine the effects of factors such as motivation and social media athletes' performance in a sports setting.

Chapter One: Introduction

Introduction

1.1 Introduction

In Ireland, Gaelic football, rugby and soccer are team sports played at club, county, regional and national level. Team sports have become a central part of today's society. Most clubs have a number of managerial staff looking after their teams. These individuals, along with family, friends and supporters can impact on a team's performance. This research explored how players' goal orientation and perception of the motivational climate their manager created in co-dependent team sports had an impact on their anxiety and self-confidence levels prior to competition. It then explored if the use of social media, such as Twitter, could also impact on players' anxiety and self-confidence levels. Finally, managers' views of goal setting, the motivational climate in their team and the use of social media were examined.

A co-dependent team sport is one in which a player's performance can directly impact on a fellow team member's performance. For example, soccer is a co-dependent team sport, however, non-relay swimming is not, because one swimmer's performance does not have a direct impact on the performance of his or her team mates. All three studies examined players who participated in co-dependent team sports. Study One involved the allocation of participants to one of three levels of performance, namely, "elite", "semi-elite" and "novice". Players' levels of performance were determined by the league in which they competed. "Elite" players were classified as players who competed at the highest level in their chosen sport. For example, The Airtricity League is the highest level of competition for soccer teams in Ireland. "Semi-elite" described players who competed at just below the highest level in their chosen sport, for example, senior club GAA teams. Finally, "novice" described players whose team competed in the lowest divisions of their sport, for example, the lowest division for soccer in Ireland is the Sunday League level.

Study one of this thesis examined the potential effect of the Perceived Motivational Climate and Achievement Goal Orientation on athletes' performance across all three levels of participation. Martin describes motivation as "the driving force that determines whether or not we perform a task" (Martin et al., 2007 p. 592). Sport psychologists have examined what "drives" people to play sports or exercise regularly,

or what motivates people to excel in their chosen activity or sport. "Motivation plays a crucial, if somewhat misunderstood, role in exercise and sport" (Moran, Carlson & Buskist, 2012, p. 44). If psychologists can better understand what motivates individuals and what alters individual's motives, this could lead to a better understanding of how people motivate themselves. Greater knowledge of motivation may assist in the development of strategies to help players 'get to the next level', or 'push' themselves further in their sporting performances. In elite sport, opponents generally have similar levels of physical ability, therefore, the difference between competitors can be their mental ability, and their motivation to win (Asakari, Fallah & Asakari, 2011). By working with both managers and players, new strategies can be developed by sport psychologists to improve players' motivation levels. Studies have been carried out to examine how players' motivation may be affected by peers and significant others, as well as how players motivate themselves (Moran, 2012).

Two types of motivation must be considered first, namely, intrinsic and extrinsic motivation (Moran, 2012). Intrinsic motivation refers to internal forces that motivate humans to act, for example, to reach a personal goal (Karageorghis & Terry, 2011). External motives are the external forces that encourage humans to perform a task, for example, money and accolades (Karageorghis & Terry, 2011). There are a number of theories of motivation, however, this thesis specifically examined the "Self Determination Theory" (Deci, 1971; Deci & Ryan 2000, 2008) and the "Achievement Goal Theory" (Nicholls, 1984; Ames, 1984; Ames & Archer 1988) due to the large number of research studies that have employed these theories to examine players' motivation.

The Self-Determination Theory is a theory of motivation developed by Deci and Ryan (Deci, 1971; Deci & Ryan 2000, 2008). The Self-Determination Theory examined the benefits of intrinsic motivation and how managers, and significant others (for example, parents and peers), can improve players' intrinsic motivation, through positive feedback and the development of a positive sporting climate (Moran, 2012). The Self-Determination Theory refers to three main elements which can affect motivation, namely, "relatedness", which is a feeling of belonging within a group, "competence", which refers to a feeling experienced by a player who is reaching his potential might

experience, and “autonomy”, which refers to feelings of control over one’s own outcomes (Moran, 2012).

Whitehead (1993) stated that the Self-Determination Theory assumes individuals are “driven” by a need for competence and self-determination. This need is satisfied by internal positive emotions such as enjoyment and excitement. These positive emotions motivate the individual to complete similar tasks in order to experience such emotions again (Moran, 2012). If players perceive themselves to be incompetent at an event, or under the influence of external factors, their intrinsic motivation decreases (Whitehead, 1993). Askari, Fallah and Askari (2011) discovered that players were more likely to attribute successes to internal factors and failures to external factors. In doing this players may reinforce positive factors such as self-confidence and self-worth. Askari et al. (2011) suggested that unsuccessful players may attribute failure to external factors in order to avoid harm (for example, loss of self-confidence). Whitehead (1993) stated if players perceive themselves to have lost control of their own destiny, this may lead to a state of “amotivation” (no motivation). Thus, the individual may not attempt a similar event again in order to avoid such negative feelings of incompetence. A number of studies (Bryan & Solomon, 2012; Mouratidis, Vansteenkiste, Lens, & Sideris, 2008), have supported the Self-Determination Theory and validated the importance of internal motives, over their external motives on players’ motivation levels for participating in their sport.

The second theory this study examined was the Achievement Goal Theory. The Achievement Goal Theory (Ames, 1984; Ames & Archer 1988; Nicholls, 1984) attempted to build on the principles of the Self-Determination Theory (Deci, 1971; Deci & Ryan 2000, 2008) in order to determine which variables can affect an individual’s motivation. The Achievement Goal Theory was first proposed by Nicholls (1984). Achievement behaviour is defined as a “behaviour directed at developing or demonstrating high rather than low ability” (Nicholls, 1984 p. 328). Nicholls (1984) studied how students set goals, and how these goal setting behaviours affected task mastery. Ames and Archer (1988) also investigated how the development of certain motivational climates encouraged different types of goal setting. Nicholls (1984) suggested that goal setting could be measured in two ways, either by setting “mastery/task” goals or

“ego/performance” goals. Moran (2012) stated that “mastery” goals focus on the development and improvement of an individual’s skills, while “performance” goals focus on individuals demonstrating their ability by outperforming others.

The Achievement Goal Theory also considered the premise that certain situations, or climates, developed by peers and significant others, can affect the type of goals individuals choose to set. Moran (2012) defined the motivational climate as the perceived structure and environment that develops in teams due to the manager’s attitudes and behaviours. Two types of motivational climate have been proposed, namely a “task climate” or an “ego-orientated climate”. Moran (2012) defined a “task climate” as one in which the manager encourages players to develop and improve their skill mastery, or improve performance. In this type of climate players’ mistakes are seen as an opportunity to gain feedback and improve. An “ego-orientated/performance” climate is one where the manager’s main goal is winning. In an “ego-orientated” climate players are forced to compete and are punished for failing to reach set goals. It is important to note that although a manager may aim to develop a task orientated climate, his players may perceive the motivational climate to be ego orientated. The implications of such a scenario will be discussed later in this introduction.

Ames and Archer (1988) suggested a “task” orientated climate may be more beneficial than an “ego” orientated climate as it may be more likely to nurture long-term goal setting. It may also lead to the belief that an individual’s effort is related to success, as performance is measured against his/her past performances rather than the performances of others. Ames and Archer suggested that a “task” or “mastery” orientated motivational climate may help to encourage “mastery” orientated goals, and that this may encourage students to be more intrinsically motivated. Also, the task orientated students in Ames and Archer’s study defined success based on intrinsic or internal factors but not external. This early research on the Achievement Goal Theory in an educational setting has been applied by sport psychologists to sports settings. This expanded the research, with numerous studies examining the effects of both the “Motivational Climate” and the “Achievement Goal Orientation” on athletic performance.

Study One was designed to test the effect of the Perceived Motivational Climate and the Achievement Goal Orientation on participants' anxiety and self-confidence levels. Anxiety can be divided into two types, namely, somatic and cognitive anxiety. Somatic anxiety refers to the physical anxiety a player often feels during competition. For example, 'butterflies' in the stomach and sweaty palms can both suggest an individual is experiencing somatic anxiety (Moran, 2012). In contrast, cognitive anxiety is classified as mental anxiety (Moran, 2012). Examples of cognitive anxiety would include doubting one's ability, or doubting one's capability in overcoming a particular obstacle. The third variable Study One examined was self-confidence. Anxiety and self-confidence can also be sub-divided into state and trait types. Trait anxiety, or self-confidence, is a person's "baseline" for anxiety, or self-confidence, and does not tend to change over time. In contrast, state anxiety, or self-confidence, refers to a person's anxiety, and self-confidence, at a specific point in time, for example prior to a match. Such state conditions can change due to the situation in which a person finds himself or herself.

In contrast, Study Two examined the possible effect of social media on co-dependent teams' motivational climate. Due to the recent increase in popularity of social media, research is required to examine if such media could also have an impact on a team's motivational climate. Social media is the use of online communities to network with other people. For example, Twitter is a social media site. Social media has become more popular in recent years with sporting events becoming a major topic on Twitter, for example, Olympics, (Barnett, 2012) Champions League Final and Super Bowl (Wertheim, 2011), and therefore research is required to examine social media's potential effect on players in the sports domain. Study Three further examined the potential effect of social media, through interviewing managers to determine their opinions.

The following sections will now explore the available research on athletes' Perceived Motivational Climate, their Achievement Goal Theory, anxiety, self-confidence and social media. The emerging gaps in this literature will also be discussed.

1.2 Perceived Motivational Climate

1.2.1 Overview

According to the Achievement Goal Theory, there are two types of motivational climate, namely, a “task” orientated motivational climate, and an “ego” orientated motivational climate. Researchers (Liukkonen, Watt, Barkoukis & Jaakkola 2010; Mouratidis, Vansteenkiste, Lens, & Sideris, 2008; Smith, Smoll & Cumming 2007) have examined the motivational climate and its benefits for athletes. Research (Barić & Bucik, 2009; Liukkonen et al., 2012) has shown that the development of a mastery climate is more beneficial to players than an “ego” orientated climate.

Whitehead (1993) noted that another important component of a motivational climate to consider is an individual’s perception of a situation, which could affect his or her reaction to it. Whitehead (1993) stated that it is the intrinsic need for competence that motivates individuals to participate in a mastery setting. Research has examined the effects of the motivational climate on a number of variables such as enjoyment (Liukkonen et al., 2010), effort in training (Barić & Bucik 2009), anxiety and self-confidence (Mouratidis, Vansteenkiste et al., 2008). Smith et al. (2007) discovered that the motivational climate had a significant effect on players’ anxiety levels. Whitehead (1993) stated that players who perceived themselves to be in a ‘task orientated’ climate were more likely to enjoy their sport. The effect of the motivational climate on players’ anxiety levels (Barić & Bucik, 2009; Smith et al., 2007; Vosloo, Ostrow & Watson 2009) and self-confidence has been examined (Barić & Bucik, 2009; Vosloo et al., 2009) with varying results. Early research on different motivational climates was conducted in classroom settings. However, research has also examined the possible effect of the motivational climate in physical education settings, and this will be discussed now.

1.2.2 Physical Education and Motivational Climate

In sport psychology, studies have examined the effect of the motivational climate on players. A number of the studies were also conducted in a physical education setting (Braithwaite, Spray & Warburton 2011; Bryan & Solmon 2012; Gråstén et al., 2012; Liukkonen, et al., 2010; Mouratidis et al., 2008). Braithwaite et al. (2011) conducted a meta-analysis of previous research on motivational climate and found that overall a task orientated motivational climate had a more positive affect on students’ performance

compared to ego orientated performance. However, due to the nature of the meta-analysis, Braithwaite et al. (2011) did not specify which variables the motivational climate had a significant effect on. Mouratidis et al. (2008) also examined students in a physical education setting. They reported that students were more likely to enjoy the physical education session if they perceived the motivational climate to be "task" orientated.

Mouratidis et al.'s (2008) also examined the effect of positive feedback, or a "task orientated" climate, on motivation. They prearranged for students to be given either high or low levels of positive feedback by their teacher on a shuttle run test. Mouratidis et al.'s (2008) findings suggested that a task orientated setting had a beneficial effect on the students' perceived confidence, which in turn had a favourable effect on their motivation. The participants reported higher levels of enjoyment in the task orientated setting. Mouratidis et al. (2008) noted that low levels of positive feedback over a longer period of time had the same positive effect on students as did high levels of positive feedback, over a shorter period of time.

Liukkonen et al. (2010) further explored the effect of the motivational climate in a physical education setting. They examined students between the ages of 10 and 15 years. Liukkonen et al. administered questionnaires to participants prior to their physical education class. Liukkonen et al. (2010)'s findings showed that the students in a task orientated physical education class were more likely to participate in physical activities during their free time when compared with students in an ego orientated climate. Liukkonen et al. (2010) stated that students' experiences in physical education could have a significant effect on their physical activity during their free time.

Bryan and Solmon (2012) and Gråstén et al. (2012) conducted similar research to Liukkonen et al. (2010) by examining the potential effect of the motivational climate on students' effort in a physical education setting. Bryan and Solmon (2012), and Gråstén et al. (2012), both studies examined students between the ages of 10 and 15 years in a physical education setting. Bryan and Solmon (2012) examined students over five consecutive days of physical education. They found that a task orientated

motivational climate was a predictor of students' enjoyment of the physical education session, more than the use of an ego orientated climate.

In comparison, Gråstén et al. (2012) conducted a longitudinal study of motivational climate over three years. The student participants completed the study's test questionnaires in Grade 7, Grade 8 and Grade 9 (12 to 15 years of age). Gråstén et al. (2012) also supported the findings of Bryan and Solmon (2012), Liukkonen et al. (2010) and Mouratidis et al. (2008) that a task orientated motivational climate had a positive effect on students' enjoyment of their physical education classes. Gråstén et al. (2012) found that over the three years of their study, the students' enjoyment of physical education declined. This decline was more prevalent among the female students than the male students. However, similar to the work of Bryan and Solmon (2012), and Liukkonen et al. (2010), they found that students' enjoyment of physical education was a predictor of their levels of physical activity in their free time outside school (i.e., participation in clubs/sports teams, or exercise). Gråstén et al. (2012) mentioned the importance of enjoyment as a significant element of motivation for adolescents, in order for them to maintain a positive attitude for both physical education and physical activity.

Research in the physical education setting has supported the findings of Nicholls (1984) in the classroom setting. Bryan and Solmon (2012), Gråstén et al. (2012), Liukkonen et al. (2010) and Mouratidis et al. (2008) all found that a task orientated motivational climate had a significantly more positive effect on students' performance than an ego orientated climate. Bryan and Solmon (2012), Gråstén et al. (2012) and Liukkonen et al. (2010) also mentioned the importance of experience in physical education as a possible predictor of students' physical activity levels in their free time. However, it is difficult to generalise these findings (Bryan & Solmon, 2012; Gråstén et al., 2012; Liukkonen et al., 2010; Mouratidis et al., 2008) to sporting populations with these research studies being carried out on student populations. Mouratidis et al. (2008) noted this limitation and conducted further research in this area with youth athletes in a competitive sports setting.

1.2.3 Competitive Sport

As mentioned above, Mouratidis et al. (2008) noted that research in the physical education setting was not generalisable to the competitive sport setting. A number of researchers since then have conducted research on youths in a competitive sport setting (Appleton et al., 2011; Fry, Guivernau, Kim, Newton, Gano-Overway & Magyar 2011; Ntoumanis et al., 2012; Tottegrosa et al., 2011). For example, Mouratidis et al (2008) observed the effects of positive feedback on national level players' motivation in their specialized sport, while Reinboth and Duda (2006), Appleton et al. (2011) and O'Rourke, Smith, Smoll & Cumming (2011) examined the effect of the motivational climate on elite junior players and university players.

Mouratidis et al. (2008) recorded the effects of a task orientated climate on players' intrinsic motivational levels. The results showed a positive correlation existed between intrinsic motivation, competence satisfaction and wellbeing. These findings are similar to the findings of Castillo et al. (2011), Fry et al. (2011) and Ntoumanis et al. (2012), who also reported that the motivational climate was a predictor of both physical and psychological well-being of the players (i.e., their enjoyment taking part in their sport).

Boiché and Sarrazin (2009) supported the findings of Mouratidis et al. (2008), that a task orientated motivational climate was more beneficial to youth athletes than an ego orientated climate. They found that players in task orientated climates had higher levels of satisfaction and were, therefore, more committed to their sport. McDonald, Côté, Eys, and Deakin (2011) obtained similar results. Participants in their study who perceived themselves to be in a task orientated motivational climate reported higher levels of enjoyment for their sport.

Fry et al. (2011) examined the relationship between motivational climate, youths' sport participation and their mental well-being. Fry et al. stated that encouraging the development of positive mental skills (i.e., concentration) could enhance both youth players' physical and mental health. Fry et al. inferred there were both direct and indirect links between participants' perception of the motivational climate they were in and the players' psychological well-being. Fry et al. found that players' perceptions of their motivational climate were associated with their

effectiveness in dealing with positive and negative emotions. Fry et al. suggested that the development of a mastery climate may be beneficial, as participants reported being more at ease in a mastery climate, where everyone was treated with kindness and respect. Fry et al. noted that this may mean participants feel more valued in a task orientated climate, and therefore, their fears are reduced (for example, the fear of bullying, because in a task orientated climate players may feel they are less likely to be taunted by other students). Fry et al. stated that because participants in a task orientated climate feel they are valued members of the group, they are more likely to feel confident. This ability to express positive emotions may help participants to develop and maintain better mental health into the future, according to Fry et al.

Ntoumanis et al. (2012) conducted a longitudinal study to examine the effects of the motivational climate on youths between the ages of 12 and 16 years, who participated in sports such as soccer, rugby and basketball. Ntoumanis et al. (2012) found that both ego and task orientated climates were related to the level and quality of the psychological experience, and engagement, of the young players. Students were found to be more engaged and happier in a task orientated climate.

Gould et al. (2012) concurred that the development of a task climate was more beneficial to youth athletes, and that it also assisted in the players' social development. Gould et al. found the development of a task orientated climate led to more positive experiences for young players, while ego orientated climates were linked to more negative experiences in their sport. Gould et al. noted their participants had a more positive experience of their sport and, therefore, were able to have more positive interactions with their peers in the sports domain when they were immersed in a task orientated climate. As well as a task orientated motivational climate being more beneficial to encourage youth athletes to participate in competitive sport, it also appeared to be associated with lower levels of anxiety, which have been found to predict performance.

Smith et al. (2007) examined the effect of the motivational climate on players' anxiety over the course of a basketball session, using a cognitive behavioural intervention. The intervention aimed to reduce youth players' anxiety levels by helping

them to develop a task orientated motivational climate. Smith et al. discovered that the cognitive behavioural intervention group recorded significantly higher "task climate" scores than the non-cognitive behavioural group. The ego scores were found to be lower in the cognitive-behavioural participant group, however, this difference was not significant. Smith et al.'s results also showed that players who participated in the cognitive behavioural condition had significantly lower somatic anxiety levels compared to those who did not.

Similar to Smith et al. (2007), Appleton et al. (2011) examined the potential effect of the motivational climate on youth athletes. Appleton et al. (2011) conducted research to examine three aspects of the Perceived Motivational Climate. First, they examined the parental motivational climate of elite junior players. Second, they examined whether the motivational climate created by managers had a greater effect on junior players' perfectionism than that created by their parents. They also examined whether gender, or age, had a moderating effect on the motivational climates developed by the managers and the parents. Appleton et al.'s findings suggested that the parental climate had a significant impact on the children's perfectionism scores. Appleton et al. discovered that the opinion of a caregiver, of the same sex as the player, had the most significant effect on the players' perfectionism scores.

O'Rourke et al. (2011) found similar results to Appleton et al. (2011). They suggested the motivational climate a manager develops could also be significantly affected by external forces. O'Rourke et al. (2011) examined the role of parental pressure on players' performance anxiety. O'Rourke et al. suggested there are a number of other variables that can affect players' perceptions of their motivational climate, such as their peers and the cultural values depicted in the media. O'Rourke et al. also agreed with Appleton et al., that players who were in high task orientated settings had lower levels of anxiety than their counterparts in an ego orientated climate.

Unlike much of the previous research cited above, Mohammadzade et al. (2012) conducted research with adult players. Mohammadzade et al. (2012) examined the effect of the motivational climate in elite Iranian volleyball players. They examined 150 players from the Iranian men's volleyball league, to examine the relationship between

the motivational climate and the players' self-determination. The findings showed there was a significant positive relationship between the players' task orientated motivational climate scores and their self-determination scores. Mohammadzade et al. suggested there was a significant positive relationship between the task orientated climate and the intrinsic motivation of the players. This result supported the findings of previous research on youth players (Boiché & Sarrazin, 2009; MacDonald et al., 2011; Mouratidis et al., 2008; O'Rourke et al., 2011).

One major limitation of the previous research studies on the motivational climate in a sport setting is that a considerable amount of them have taken place in non-competitive settings, such as in educational settings, or in youth sport settings. Little research has been conducted with adults, or specifically adults in elite sport settings. Due to this limitation, it is not possible to generalise past research findings on elite adult athletes as little of the previous research was conducted on that population. This lack of research examining adult players' perception of their motivational climate is a gap in the literature that Study One attempted to fill.

1.3 Achievement Goal Orientation

1.3.1 Overview

Achievement Goal Orientation refers to the way individuals set goals. This has been examined under two headings or goal types. In the early research studies on goal orientation, Nicholls (1984) discovered the goals children set in school could be divided into either "task" or "ego" orientated goals. Moran (2012) stated there are two types of goal orientated players in sport. "Task" orientated players are motivated by "intrinsic" goals, which aim to develop skills and improve on past performances and mistakes. They consider success as mastering or developing new skills. In contrast, "ego" orientated players are motivated by extrinsic factors, and aim to "beat" opponents. They consider success to be winning trophies and accolades.

Ames and Archer (1988) and Ames (1992) were interested in examining whether students would adopt goals that were similar to the setting which was developed in the classroom. Ames and Archer's (1988) results indicated that students, who were immersed in a "task" orientated climate, preferred tasks that offered challenges. Such

students also enjoyed their class more, and stated effort and success were positively correlated (for example, working hard equalled high test scores). Ames and Archer also found the benefits of a mastery climate were not reduced by the presence of performance cues. For example, the comparison of the students' scores to their peers' scores did not decrease the students' self-evaluation, if they were "task involved". Ames and Archer also suggested it was not necessarily what happened in the classroom that affected the students' goals, but rather the students' perception of events that affected their goal orientation. Ames and Archer suggested that by understanding the variables that affect individual's motivation, the development of self-regulation and interest in learning could be examined.

Kremer and Moran (2008) stated that the process of goal setting can be divided into four steps, namely, effort (how much the player is prepared to work), performance (what the player accomplishes in competition), outcome (the reward the player receives) and satisfaction (how the player feels about the process). Whitehead (1993) noted there appeared to be many ways people judge their competence compared to their peers. A number of researchers (Coelho e Silva, Cruz, Torregrosa & Cumming, 2010; Gonçalves, Coelho e Silva, Cruz, Torregrosa & Cumming, 2010; Voight, Callaghan & Ryska, 2000) have examined players' goal orientation, and attempted to develop a better understanding of how goal setting affects athletes' performance in sport.

Research appears to agree that task orientated goals are more beneficial to athletes' performances over time, compared to ego orientated goals (Gonçalves et al., 2010; Nicholls, 1984; Voight et al., 2000; Zahariadis & Biddle, 2000). Whitehead (1993) alleged that people with intrinsic motivation tended to apply more effort and enjoy their sport more than extrinsically motivated individuals.

Many research studies (Mattern, 2005; Roebken, 2007; Veermans & Tapola, 2004; Wang Chu-Chun Fu & Rice, 2012) have examined the role goal orientation plays on students' performance from primary school (Veermans & Tapola, 2004) to college level (Chu-Chun Fu, 2012), and the factors goal orientation affects. Such research in an academic setting appears to show that task orientated goals are more beneficial to students' academic performance than ego orientated goals (Mattern, 2005; Roebken,

2007; Veermans & Tepola, 2004), however, a combination of ego and task orientated goals may be more beneficial to performance than task orientated goals alone (Roebken, 2007). An interesting finding by Wang et al. (2012) was that students with low self-worth were better able to cope with decreases in academic achievement if they were high in task orientation for the goals they set.

Research on goal orientation in the sport, exercise and performance domain has revealed similar results to research carried out in the academic domain. For example, Kilpatrick, Bartholomew and Reimer (2003) discussed the importance of research being completed on goal orientation in the exercise domain, while Peer (2007) suggested that research which has been conducted on goal orientation in an academic domain could benefit athletes in the sports domain. One area that allowed researchers to examine students in an exercise setting, which is not too far removed from the academic setting, is the physical education setting. The findings from such research will now be presented.

1.3.2 Physical Education

Zahariadis and Biddle (2000), Mouratidis, Vansteenkiste, Lens and Auweele (2009) and Yli-Piipari, Barkoukis, Jaakkola and Liukkonen (2013) examined students in physical education settings. Zahariadis and Biddle (2000) examined students between the ages of 11 and 16 years in English secondary schools and found that the task orientated goals set by students were positively related to positive emotions (for example, enjoyment), and more positive experiences for students, than ego orientated goals.

Mouratidis et al. (2009) examined students between the ages of 9 and 11 years and found that task orientated goals (for example, setting personal best goals) were linked to positive emotions, such as enjoyment, hope and pride in performance. Task orientated goals were found to be negatively linked to negative emotions in students, such as boredom, hopelessness and anger. Mouratidis et al. (2009) observed that ego orientated goals were positively linked to negative emotions in students such as anger, shame, boredom, hopelessness and anxiety. This was an interesting finding as ego goals appeared to be linked to both high-arousing negative emotions (for example, anxiety) and low-arousing negative emotions (for example, boredom). Students who scored high for ego goals also set medium to low task goals. This finding is important as it may

suggest that it is not just the presence of ego goals, but the absence of task goals, that leads to students feeling negative emotions.

Yli-Piipari et al. (2013) examined the link between students' enjoyment of physical education classes and their physical activity levels outside of school. Students, from 12 to 14 years of age, were examined over three years to determine the longitudinal relationship between physical education and their physical activity levels in their free time. Over the three years of the study the students' enjoyment of physical education gradually decreased. This finding coincided with a decrease in their physical activity levels. One interesting finding in this study was the lack of any relationship between the students' goal orientation and their enjoyment of physical education. Boys were more likely to have higher ego orientated goals, and had higher levels of enjoyment for physical education than girls. The overall finding indicated that physical education can have a significant effect on students' levels of physical activity. This finding suggested that although task orientation appeared to be more beneficial for students' physical activity, ego orientation also played an important role in the students' experience of physical education. One flaw of this research study on goal setting was that it did not appear to generalise to the competitive sport setting.

1.3.3 Competitive Sport

Research on goal orientation in a competitive sport setting has found similar results to the research carried out in a physical education setting. For example, Voight et al. (2000) examined female volleyball players participating in a year-long training program. They found that players high in task orientation were low in trait anxiety, however, somatic anxiety was not significantly affected by goal orientation. This finding may have been due to the players' perception of somatic anxiety. They may have perceived anxiety in a positive way, for example, that it meant they were ready to compete. Voight et al. also found that players with high levels of ego orientation had higher levels of cognitive anxiety. They suggested that other variables should be considered when examining the effect of goal orientation on athletes' performance. For example, they found that the combined effect of goal orientation and self-confidence had a more significant positive effect on athletes' anxiety levels than goal orientation alone.

Allen (2003) stated that players regularly reported social reasons for their choice to participate in sport, and that previous research had recognised that social factors can have an effect on youth players' participation in sport. Allen examined students between the ages of 14 and 17 years who were not specifically involved in sport. Allen believed the social context of sports participation was a salient factor in understanding an individual's motivation to take part in sport. Factors such as affiliation, being part of a team, and social status were considered important factors in motivation. Social factors may have positive and negative effects on individuals. Allen suggested factors such as friendship, social recognition and parental pressure all have an effect on young players' sports participation. Allen stated that, due to the recent decline in physical activity, more research is being conducted to determine the motivational factors that can result in people taking part in regular exercise.

Çetinkalp and Turksoy (2011) examined whether goal orientation and self-efficacy could predict youth soccer players' motivation to participate in their chosen sport. They examined adolescent male soccer players, between the ages of 13 and 14 years, and found that task orientation predicted the players' physical skill development. Çetinkalp and Turksoy found that task orientation was related to team atmosphere and recognition. Çetinkalp and Turksoy also reported that ego orientation played an important role in participant motivation. Ego orientation was related to achievement, status and competitiveness of players in a sports setting.

Behzadi et al. (2011) examined the effect of goal orientation on female athletes who played both team and individual sports. They highlighted the effect of task orientation on these players' anxiety levels. As task goal orientation increased, players' levels of anxiety decreased. An important finding by Behzadi et al. was that other issues also had an effect on the relationship between goal orientation and anxiety. Voight et al. (2000) also suggested that the impact of goal orientation could be affected by social variables, such as media, family and friends.

Another important variable that can affect the impact of goal orientation on athletes' performances is the players' reasons for choosing those goals. Morris and Kavussanu (2009) suggested that not only is the difference between task and ego goals

important, but whether the goals are ‘approach’ or ‘avoidance’ goals may also have a significant impact on the effect of those goals on athletes’ performances. Moran (2012) stated that “Task-orientated” athletes set either “task approach” or “task avoidance” goals. The main aim of a “task approach” goal is to learn and develop one’s skills. With “task avoidance” the main aim is to avoid making mistakes or decline in one’s current ability. “Ego” orientated athletes are motivated by more “extrinsic” factors and aim to beat opponents. They consider success winning trophies and accolades. An “ego-orientated” athlete sets either “performance approach” or “performance avoidance” goals. The aim of a “performance approach” is to perform better than one’s opponent and the main aim of “performance avoidance” is not to be worse than one’s opponent. Players who set task approach goals had lower cognitive anxiety levels. Morris and Kavussanu found that goal type had a significant impact on enjoyment levels of the players. Task approach goals were a positive predictor of enjoyment.

Gonçalves et al. (2010) stated the nature of the task orientated goals is also an important issue to take into consideration when examining goal orientation (i.e., self-referenced achievement goals usually promote positive attitudes, while normative goals are more likely to promote negative attitudes such as lack of motivation). Gonçalves et al. stated the potential for being able to predict players’ attitudes to sport could be important in the development of educational interventions for students, and managers’ training sessions for young people. These findings suggested that by creating team climates that allow for task orientated goals being set, they may also help to encourage positive attitudes among young players towards exercise and sport.

Vansteenkiste et al. (2010) stated that although two players’ goals may have the same outcome, the reasons for setting those goals may be very different and, therefore, these players may have different attitudes towards fair play and well-being. Vansteenkiste et al. found that although players may set ego orientated goals, they may not do so for ego orientated reasons. Vansteenkiste et al. stated that when players step on to a pitch they may automatically see the opposing team as a challenge they hope to outperform. Another interesting finding by Vansteenkiste et al. was that ego goals were also positively related to feelings of vitality, and unrelated to negative outcomes such as unsportsmanlike behaviour. Vansteenkiste et al.’s main finding was that it is vital to

identify the underlying reasons for setting certain goals, as this may be more important to players than the goals themselves. Vansteenkiste et al. suggested that goal orientation on its own does not have an effect on moral functioning. The underlying reasons for setting these goals may lead to players' reasons for unsportsmanlike conduct.

Cetinkalp (2012) concurred with the findings of Vansteenkiste et al (2010). They suggested it was not goal orientation alone that affected young players' self-esteem and competence. Cetinkalp stated that goal orientation was also significantly affected by whether the youth players set 'approach' or 'avoidance' goals. For example, 'task' approach goals were positively correlated to perceived competence, whereas, 'task' avoidance goals were not related to competence. In contrast, the findings of Morris and Kavussanu (2009), Gonçalves et al. (2010), Vansteenkiste et al. (2010) and Cetinkalp (2012) all suggested that it was not only the difference between "task" and "ego" orientated goals that affected variables such as moral functioning, but that underlying variables which help young players to set goals may also impact on these goals, (i.e. approach or avoidance goals)

Another variable that has been found to affect goal orientation is the type of sport a player competes in. Whether that sport is an individual sport (for example, golf), or a co-dependant team sport (for example, soccer), can affect the interaction between goal orientation and other variables (for example, anxiety). Hanrahan and Cerin (2009), Behzadi et al. (2011), and van de Pol and Kavussanu (2012) all discussed the moderating effect of sport type on goal orientation.

Hanrahan and Cerin (2009) and Behzadi et al. (2011) found that players in individual sports had higher levels of ego goal orientation than players in team sports. Hanrahan and Cerin (2009) suggested the reason for individual players having such higher ego orientation was because it was easier for them to directly compare themselves to their competitors than it was for players in co-dependant team sports. However, they also argued that, due to the nature of most individual sports, it should be easier for individual players to set task orientated goals and judge them against their

own performances, as their performances are not affected by teammates, therefore, making task goals easier to determine.

van de Pol and Kavussanu (2012) suggested previous research which had reported ego orientation to be higher in individual sport (Behzadi et al., 2011; Hanrahan & Cerin, 2009) may have found this due to a team's focus being on team performance in co-dependant teams, instead of on a sense of personal accomplishment. van de Pol and Kavussanu (2012) found that players in both individual and co-dependant team sports were more likely to have higher ego orientation in competition than in training. Task orientation also only predicted effort in individual sport. This suggested that due to the nature of individual sports, task orientated goals are more important in individual sports when trying to enhance a player's effort. Enjoyment was another variable which sport type had a moderating effect on with regard to goal orientation (van de Pol & Kavussanu, 2012). While task orientation was a predictor of enjoyment in both sport types, it was significantly higher in individual sports. Task orientation was also a negative predictor of trait anxiety in competition. However, this finding only related to individual sports. van de Pol and Kavussanu suggested that players in individual sports may feel they have more control over the result than players in co-dependant sports. This may explain why trait anxiety was only linked to goal orientation in individual sports. van de Pol and Kavussanu's findings support the findings of Hanrahan and Cerin (2009), who also found that individual players had higher internal attributes (i.e., mental skills) and lower external attributes, than players in co-dependant team sports. This may also explain Behzadi et al.'s (2011) findings that suggested individual sports players' anxiety levels were not predicted by task orientation goals. The findings of previously mentioned studies were taken into consideration in the design of the current research study.

1.4 Combined Research

Previous research studies concentrated on one feature of the Achievement Goal Theory. Appleton et al. (2011), Gråstén et al. (2012), Bryan and Solomon (2012) and Ntoumanis et al. (2012) examined the importance of the motivational climate, and its effect on players', and students' performances. In contrast, Behzadi et al. (2011), Çetinkalp and Turksoy (2011), Wang et al. (2012) and Cetinkalp (2012) examined goal orientation, and the effect it had on players', and students', performances. Ames and Archer (1988)

indicated that a task orientated motivational climate may lead to participants setting more task orientated goals. A number of other researchers (Barić & Bucik 2009; Gershgoren, Tenenbaum, Gershgoren, & Eklund 2011; Moreno-Murcia, Sicilia, Cervelló, Huéscar & Dumitru, 2011; Vosloo et al., 2009) examined the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation on athletes' anxiety and self-confidence levels.

Peer (2007) stated it is vital that trainers/managers develop motivational climates that develop self-regulated learning, and activities, that allow students, and players to assess their progress, based on their own improvement, therefore, making it easier for them to set task orientated goals. Barić and Bucik (2009) stated the Perceived Motivational Climate a manager develops may have an effect on the way a team functions, along with the quality of the team's performance. A number of studies have been conducted to identify whether the motivational climate a teacher, or manager, develops has a significant effect on students' or players' goal orientation. Self-Brown and Mathews (2003), and Smith, Smoll and Cumming (2009) examined the effect of the motivational climate on students' Achievement Goal Orientation. Self-Brown and Mathews (2003) examined elementary school students, between 4th and 5th grade, to determine the effect of the classroom structure on the students' Achievement Goal Orientation. Self-Brown and Mathews (2003) discerned that students who were placed in a task orientated climate set significantly more task orientated goals than ego orientated goals, compared to students in either an ego orientated climate, or a control group. Students in their ego orientated motivational climate group set significantly more ego orientated goals than task orientated goals.

In contrast to Self-Brown and Mathews (2003), Smith et al. (2009) conducted a longitudinal study examining youth basketball players between the ages of 9 and 13 years, to determine if the motivational climates developed by their managers could predict changes in the players' goal orientation over the course of a season. Self-Brown and Mathews (2003), and Smith et al. (2009) both found the motivational climate to be a significant predictor of participants' goal orientation. Smith et al. (2009) noted that players in task orientated climates were higher in task orientation and lower in ego orientated goals. When changes in goal orientation were examined over the course of a

season the motivational climate was significantly linked to goal orientation. These findings by Self-Brown and Mathews (2003) and Smith et al. (2009) are particularly interesting as they suggest that managers, or teachers, can have a significant impact on the goal setting of their players or students. However, the players' or students' perception of the motivational climate the manager, or teacher, develops may also affect the goals they set.

Gershgoren et al. (2011) and Moreno-Murcia et al. (2011) examined the combined effect of the motivational climate and goal orientation on young students' goal setting. They examined the role of parental feedback on the combined effect of the Perceived Motivational Climate and the Achievement Goal Orientation of youth athletes. Young male soccer players were examined for their performance on penalty kicking, to determine if their performance was affected by the combined influence of the motivational climate and their goal orientation. Gershgoren et al. (2011) found that parental feedback had a moderating effect on the players' goal orientation. In particular, an ego orientated comment by a parent had a significant effect on the students who were in the ego orientated motivational climate group, while a task orientated comment made by a parent had a significant effect on students' goal setting in the task orientated motivational climate group. Task orientated comments by parents also had a positive effect on ego orientated climates, while in contrast, ego orientated comments by parents did not affect task orientated climates.

Moreno-Murcia et al. (2011) examined secondary school students, with a mean age of 14.5 years, to identify if a combination of the motivational climate developed by their physical education teacher, and their goal orientation, had a significant effect on their goal behaviour. Moreno-Murcia et al. (2011) discerned that the combined effect of the Perceived Motivational Climate and the Achievement Goal Orientation could predict student behaviour (i.e. discipline). In particular, students with high ego goal orientation in an ego orientated motivational climate had decreased levels of discipline, while task orientated students in a task orientated motivational climate displayed high levels of discipline. This research (Moreno-Murcia et al., 2011), while important, is difficult to generalise to athletes in a sport setting as they are from different populations,

however, Barić and Bucik (2009) and Vosloo et al. (2009) did examine players in competitive sports.

Vosloo et al. (2009) suggested many factors may influence anxiety and self-confidence levels in sports settings. Barić and Bucik (2009) noted that previous research had been conducted on the benefits of “task” orientated climates, and how encouraging players may raise the players’ own levels of intrinsic motivation. Barić and Bucik (2009), and Whitehead (1993) both stated that players with higher levels of intrinsic motivation invest more effort in training and enjoy it more. Barić and Bucik (2009) believed the motivational climate a manager creates may influence the player indirectly and that it may have an effect on the way an individual sets personal goals also. Vosloo et al. (2009) further stated that Achievement Goal Orientation may be one of the variables that affect both players’ anxiety and self-confidence levels. Vosloo et al. (2009) and Barić and Bucik (2009) believed that the combined effect of the Perceived Motivational Climate and the Achievement Goal Orientation may have a significant impact on the anxiety and self-confidence levels of players.

Barić and Bucik (2009) examined the importance of the combined effect of the players’ Perceived Motivational Climate and their Achievement Goal Orientation scores on the players’ confidence and anxiety levels. Participants were youth players who participated in co-dependent team sports, who had a mean age of 15.9 years. Barić and Bucik (2009) used the Croatian version of the Perceived Motivational Climate in Sport Questionnaire (PMCSQ, Newton Duda & Yin, 2000) to measure the Perceived Motivational Climate of the players, and the Croatian version of Task and Ego Goal Orientation in Sport Questionnaire (CTEOSQ Barić & Horga, 2006) to measure their goal orientation. Barić and Bucik (2009) discovered that players in the task orientated climate showed higher levels of investment in training than those in the ego orientated climate. The greatest difference across the “mastery” and “ego” groups was the amount of effort they invested in their training, and their enjoyment of their sport.

Vosloo et al. (2009) conducted a study on teenage high school students competing in swim meets. Vosloo et al. (2009) examined the combined effect of the swimmers’ Perceived Motivational Climate, and the swimmers’ Achievement Goal

Orientation on the athletes' anxiety and self-confidence. Vosloo et al. (2009) used the Perceived Motivational Climate in Sport Questionnaire -2 (PMCSQ-2, Newton et al., 2000) to measure the Perceived Motivational Climate, and the Perceptions of Success Questionnaire (POSQ, Robert & Balague, 1998) to measure the players' Achievement Goal Orientation. Vosloo et al. (2009) then allocated the participants to groups based on their results on the PMCSQ- 2 (Newton et al., 2000) and the POSQ (Robert & Balague, 1998). They measured the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation in the players by using the Competitive State Anxiety Inventory-2 (CSAI-2 Cox, Martens & Russell, 2003). Vosloo et al.'s (2009) study revealed no significant difference in anxiety and self-confidence levels existed for the swimmers they tested, based on the combined scores for the Perceived Motivational Climate and the swimmers' Achievement Goal Orientation. However, Vosloo et al. (2009) suggested the lack of significant results may have been due to swimming being an individual sport. Vosloo et al. (2009) believed that future research should examine the combined effect of the Perceived Motivational Climate and the Achievement Goal Orientation in team sports on anxiety and self-confidence, due to the co-operative nature of team sports. Vosloo et al.'s (2009) also suggested future research should examine the effect of the level of sport participation (for example, novice and elite players) on the combination between athletes' Perceived Motivational Climate and Achievement Goal Orientation.

1.5 Anxiety and Self-Confidence

Anxiety can be defined as, "an emotional state characterised by worry, feelings of apprehension and/or bodily tension that tends to occur in the absence of real or obvious danger" (Moran, 2012 p. 345). Anxiety is a natural human response that is designed to enhance survival when the body/mind perceives the environment to be threatening (Karageorghis and Terry, 2011). Moran (2012) stated there are two types of anxiety that can affect players. The two types of anxiety players can experience are, state, and trait anxiety. Trait anxiety refers to players' general dispositions to be anxious, or their baseline anxiety levels. State anxiety refers to the anxiety a player may experience in a specific situation, (i.e., in a competitive match).

Anxiety can also be characterised as either somatic or cognitive. Moran (2012) stated that somatic anxiety referred to physical anxiety. Possible symptoms of somatic

anxiety include ‘butterflies in the stomach’ and sweaty palms. Moran (2012) defined cognitive anxiety as nervousness for an impending situation or performance. Possible symptoms of cognitive anxiety are negative expectations of one’s performance and cognitive concerns about one’s performance. An important point to make is that anxiety, or arousal, is not always negative. Jack Donohue a Canadian Olympic Basketball Manager stated, “*It's not a case of getting rid of the butterflies; it's a matter of getting them to fly in formation*” (Jack Donohue, cited in Ohlson & Hammermeister, 2011, p. 105).

There are a number of variables that can affect a player’s anxiety. Moran (2012) suggested that the perceived importance of a competition, predispositions, attribution/expectation, perfectionism, fear of failure and lack of confidence can all affect players’ anxiety levels. Karageorghis and Terry (2011) noted that varying levels of anxiety and self-confidence can cause players to perform below their usual level of ability. The second variable Study One examined was self-confidence.

Most players and managers believe that self-confidence is an important psychological factor in sport (Horn, 2008). Self-confidence can be defined as “the certainty that you are equal to the task at hand as a result of an absolute belief in your ability” (Karageorghis & Terry, 2011, p. 60). Self-confidence can be divided into two types, namely, state and trait. Trait self-confidence is an individual’s baseline level of self-confidence while state self-confidence is a person’s self-confidence level at a specific point in time. Moran (2012) noted there are a number of ways players’ self-confidence can be altered or changed. Horn (2008) suggested other variables that can affect athletes’ confidence levels include their manager’s leadership style and environmental factors such as, team atmosphere.

Boudreau and Giorgi (2010) stated that social support, from team mates and significant others, is another variable that can have a significant effect on players’ self-confidence levels. Karageorghis and Terry (2011) also noted that both the players’ physiological and emotional state can have a significant effect on players’ performance. Karageorghis and Terry (2011) suggested that past performance is the most important variable that could affect a player’s self-confidence. Another variable that could affect

self-confidence is watching other individuals succeed. This may improve players' self-confidence levels because they may think, "if they can do it, I can do it too".

A player's ability to control both somatic and cognitive anxiety can also affect their self-confidence, as can the player's goal orientation. Research has identified a number of variables that may affect self-confidence, for example, the pressure to perform well at a tournament (Modrono & Guillen, 2011). Karageorghis and Terry (2011) suggested that self-confidence could also be a predictor of a player's performance. Lack of self-confidence could have a significant impact on a player's performance also, in the same way an injury could. A drop in self-confidence could take a long time to recover from. Karageorghis and Terry (2011) stated that self-confidence could have an effect on an opponent's performance as well as the player's performance. For example, Muhammad Ali was out spoken about his belief in his own ability. He repeated the phrase, "I am the greatest" (Muhammad Ali cited in; Karageorghis & Terry, 2011, p. 59) so much that his opponents started to believe it also. Similar to self-confidence, anxiety can also have a significant impact on a player's performance.

Anxiety and self-confidence have been examined from two points of view. A number of studies (André & Metzler, 2011; Mesagno et al., 2010; Ohlson & Hammermeister, 2011; Tsopani, Dallas & Skordilis, 2011) have examined the effect of anxiety and self-confidence on players' performances. Other studies (Copeland, Bonnell & Reider 2009; Hatzigeorgiadis, Zourbanos, Mpoumpaki & Theodorakis, 2009; Mullen, Lane & Hanton, 2009) have examined what variables can affect anxiety and self-confidence. As mentioned earlier, Mouratidis et al. (2008) were one of a number of researchers who found that the motivational climate could have a significant effect on the anxiety and self-confidence levels of players. Nordin-Bates et al. (2011), and van de Pol and Kavussanu (2012), found that a player's goal orientation could have a significant impact on his or her anxiety and self-confidence levels. However, these studies examined anxiety as a dependent variable (i.e., what variable effected anxiety levels, not what anxiety affected).

Copeland et al. (2009) attempted to determine the effect of mental skills training on adolescent lugers. They examined 12 to 16 year old lugers during a national training

camp. The players were allocated to one of three groups, a “Mental Skills Training” group, an Attention Control (placebo) group ” and a “Control” group . Players in the mental skills group were given mental skills training. The attention control group was given extra physical skills training while the control group trained as normal. Copeland et al. (2009) found that lugers, in the mental skills training group, showed increases in their self-confidence and a greater reduction in their anxiety levels, compared to the lugers in either the placebo group or the control group. In a follow-up study three months after the intervention, the players in the mental skills group showed that their self-confidence and anxiety levels had remained high, compared to the other groups.

Hatzigeorgiadis et al. (2009) specifically studied the role of motivational self-talk on self-confidence. Hatzigeorgiadis et al. (2009) examined competitive young tennis players with a mean age of 13.47 years. The tennis players were tested on their forehand ability in session one. In session two the players were allocated to one of two groups, namely an experimental, or a control group. Both groups were given basic skills training as well as extra training over sessions two, three and four. However, the experimental groups were given extra training on positive self-talk. They were introduced to the concept of self-talk. The control group were only given extra physical skills training. The participants were then re-tested on their forehand ability in session five. Hatzigeorgiadis et al.’s (2009) findings suggest, overall, self-talk had a positive effect on the players’ anxiety and self-confidence levels and an impact on performance. Their task performance also improved. Hatzigeorgiadis et al. (2009) suggested that the improvement in the tennis players’ shot performance may have been linked to the increase in their self-confidence.

Mullen et al. (2009) were interested in the way players perceive anxiety. They examined undergraduate sport science students in an attempt to determine the way participants perceived anxiety. Mullen et al. found that, overall, players with high anxiety scores were more likely to perceive anxiety to be a negative influence. Players who were low on features such as “worry” were more likely to perceive anxiety as a facilitative influence. These findings suggested that anxiety and self-confidence alone may not be reliable predictors of performance. However, the way players perceive anxiety may have more of an affect than anxiety alone.

Grossbard, Smith, Smoll and Cummings (2009) examined young players between the ages of 9 and 14 years of age who played in community basketball programmes, or soccer, hockey and volleyball camps. The players were divided up into two groups, 9 to 11 year olds, and 12 to 14 year olds, to determine the potential effect of age on anxiety levels. Grossbard et al. (2009) found that age had a significant effect, with participants in the older age group having higher anxiety levels than those in the lower age group. Gender was also found to have a significant effect, with females reporting higher levels of anxiety than males.

So, anxiety and self-confidence have been found to have a significant effect on athletes in a number of ways. Moran (2012) suggested one of the most important reasons anxiety and self-confidence may be examined frequently is possibly due to their effect on athletic performance. A number of researchers have examined the effect of anxiety on performance (Mesagno et al., 2011; Ohlson & Hammermeister, 2011; Yoshie, Shigemasu, Kudo & Ohtsuki, 2009). However, anxiety has also been found to indirectly affect performance through examining other variables such as self-esteem (Coudeville, Gernigon & Martin Ginis, 2011), fear of success (Monsma, Mensch & Farroll, 2009) and concentration (André & Metzler, 2011). This will now be discussed.

Yoshie et al. (2009), and Ohlson and Hammermeister (2011) examined the effect of anxiety and self-confidence on athletes and musicians. Yoshie et al. (2009) specifically examined the effect of anxiety and self-confidence on pianists. The musicians were between 18 and 26 years and had, on average, been playing the piano for 13.5 years. Yoshie et al. (2009) found self-confidence was significantly positively correlated with performance. A surprising finding of Yoshie et al. was that self-confidence not only predicted the skill components of piano playing but also the artistic elements of the performance. Cognitive anxiety was also found to negatively predict performance. Unlike that of cognitive anxiety and self-confidence, somatic anxiety was found to have no significant relationship with performance.

In contrast, Ohlson and Hammermeister (2011) examined the effect of anxiety on military marksmen's ability to hit a target in a simulated setting. Ohlson and Hammermeister suggests the presence of anxiety does not have an effect on

performance but rather, how an individual deals with that anxiety has a greater effect on variables such as cognitive processing and attention. Ohlson and Hammermeister also suggested that highly skilled shooters would report less anxiety than shooters with less skill and therefore, experience may be a potential variable that impacts on the effect of anxiety. Ohlson and Hammermeister discovered that somatic anxiety was not a reliable predictor of performance. They stated that the presence of "anxiety-related symptoms" did not have an effect on performance. The ability of individual marksmen to deal with anxiety and maintain focus did appear to be a more reliable predictor of performance. Ohlson and Hammermeister found the presence of a variable, such as somatic anxiety was not a good predictor of simulated shooting performance.

Studies have examined the effects of anxiety and self-confidence on players' performance (Abouzekri & Karageorghis, 2010; Bois, Sarrazin, Southon, & Boiché, 2009; Filaire, Alix, Ferrand & Verger, 2008; Mesagno et al., 2011). Self-confidence and anxiety have been found to affect athletic performance in a number of different sports, for example, golf (Chamberlain & Hale 2007; Filaire, et al., 2008), tennis (Bois et al., 2009), basketball (Mesagno et al., 2010) and windsurfing (Modroño, & Guillén 2011). Mesagno et al. (2010) examined the effect of anxiety on basketball players' free throw ability in high and low pressure situations. They described the inability to perform under pressures as 'choking', and noted that a universally agreed definition of choking has not been devised to date. Mesagno et al. (2010) suggested the type of pressure that players are under, (for example, internal or external) could have an effect on their performance

Nicholls et al. (2010) examined the relationship between pre-competition anxiety, self-efficacy and subjective performance. Nicholls et al. (2010), similar to Mesagno et al. (2010) stated that cognitive anxiety and somatic anxiety could affect performance in various ways. They stated that somatic anxiety could have a greater effect on the fine motor skills of athletes, while cognitive anxiety could have a greater effect on the players' overall performance. Nicholls et al. suggested that self-efficacy may act as a moderating factor in the combined effect of anxiety and performance. They found a negative relationship existed between self-efficacy and both somatic, and cognitive, anxiety. They stated that these findings could be beneficial to sport, as the

players they examined with higher self-efficacy were better able to deal with high pressure situations than those with lower levels of self-efficacy.

Researchers have also examined the effect of anxiety on professional athletes. Modroño and Guillen (2011) examined professional windsurfers to determine whether anxiety would act as a predictor of seasonal ranking. They found that players with lower levels of anxiety were less likely to experience 'choking' than those with higher levels of anxiety. The high-pressure group also had significantly higher levels of somatic anxiety. Mesagno et al. (2010) also reported that manipulation of the type of pressure (for example, the crowd) affected choking more than increases in motivation (for example, offering money for performance). These results support the findings of Bois et al. (2009) who found that golfers who made the cut (i.e. qualified for the third and fourth round of a tournament) scored higher for self-confidence than players who did not, and players who made the cut had more positive cognitive and somatic anxiety scores (i.e., lower scores). Chamberlain and Hale (2007) also examined the effect of anxiety on golfers. They examined golfers during a putting task. Self-confidence was an indicator of performance (i.e. players with higher confidence performed better than those with low levels of confidence). However, up to a point, somatic anxiety was actually beneficial to performance for the golfers tested.

Ohlson and Hammermeister (2011) discovered that perception of anxiety might have as significant an effect as the anxiety itself on performance. This view is in contrast to the findings of Mesagno et al. (2010) who reported that anxiety had a significant effect on performance. Ohlson and Hammermeister (2011) stated if players perceive anxiety to be a positive influence then it could aid performance as opposed to hindering it. Sanchez et al. (2010) agreed with these findings in their study which examined the effect of anxiety on climbers. Climbers who were high in somatic anxiety, but who viewed it as facilitative, performed better in competition than those who viewed anxiety as debilitating. Climbers with high cognitive anxiety were also found to have significantly lower levels of self-confidence.

In contrast to Ohlson and Hammermeister (2011), Modroño and Guillen (2011) found a significant relationship between anxiety scores and performance ranking, and a

significant relationship between ranking and self-confidence. Tsopani et al. (2011) also examined the effect of anxiety on athletes. Tsopani et al. examined young gymnasts and found similar results to Modroño and Guillen (2011). Gymnasts with higher rankings were significantly higher in self-confidence also, compared to those with lower ranking. Similar to Chamberlain and Hale (2007), and Bois et al. (2009), Filaire et al. (2008) examined the effect of anxiety on golfers. Filaire et al. (2008) examined golfer's competing in the opening round of a tournament. The players who qualified for the next round recorded significantly lower levels of both cognitive and somatic anxiety and significantly higher levels of self-confidence compared to those who did not.

Overall, previous research has found that cognitive anxiety and self-confidence are better predictors of performance than somatic anxiety. Abouzekri and Karageorghis (2010) also found there was a significant positive correlation between self-confidence and anxiety when it was perceived to be facilitative. Ohlson and Hammermeister (2011) suggested that this finding may be due to confounding variables such as the experience of the player. Sanchez et al. (2010) suggested that whether a player perceived anxiety as a facilitative or debilitating force may impact the effect of anxiety on players' performance.

1.5.1 Study One Justification

Some of the above suggestions for future research outlined in the previously mentioned studies were taken into account when designing Study One, in order to develop a study that would build on the current knowledge-base and fill current gaps in the previous literature, and these will be discussed now.

Gonçalves et al. (2010) stated that further research was needed to examine the possible combination effect of the task and ego orientation on each other. Mouratidis et al. (2009) suggested that the benefits to players in setting task orientated goals needed further examination. Fry et al. (2011) noted that the way players perceived a motivational climate may have a critical effect on how that motivational climate affects variables such as the anxiety and self-confidence levels of athletes. Moreno-Murcia et al. (2011) suggested little research has examined the way players perceive their motivational climate. Such research may lead to some interesting findings on the impact of motivational climate variables such as anxiety and self-confidence.

One of the main aims of Study One was to examine the combined impact of the Perceived Motivational Climate and players' Achievement Goal Orientation on their anxiety and self-confidence levels, as recommended by Barić and Bucik (2009). Vosloo et al. (2009) suggested that the combination between Perceived Motivational Climate and Achievement Goal Orientation needed to be examined, as little research had examined the phenomena in the past. Hanrahan and Cerin (2009) discovered a number of differences in the way players reacted to variables such as anxiety and self-confidence between players in individual and team sports. Vosloo et al. (2009) suggested that research on the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation should be conducted with co-dependent team sports instead of individual sports such as swimming. This may be important as the relationships between players in co-dependant team sports, such as rugby, are likely to be different to the relationships seen between athletes in individual team sports, such as swimming. The performances of players in co-dependant teams directly affect the performance of other players on those teams, and therefore, the motivational climate within such a team may have a greater effect on the players' anxiety and self-confidence levels as a result.

A number of criteria set out by previous researchers were taken into consideration when designing Study One. Fry et al. (2011), Gould et al. (2011) and O'Rourke et al. (2011) suggested that previous research was not generalisable to elite players as it had been carried out with youth participants in non-competitive settings. van de Pol and Kavussanu (2012) suggested that the setting may be an important issue that previous research on the motivational climate and goal orientation impact in sports performances had overlooked. One element of previous research that had also been overlooked was that little of previous research had examined adult athletes. Roebken (2007) and van and Kavussanu (2012) had examined university students, Mohammadzade et al. (2012) had examined adult players, however, a large number of other researchers (for example, Allen, 2003; Cetinkalp, 2012; Fry, et al., 2011; Gonçalves et al., 2010; MacDonald et al., 2011; Voight et al., 2000; Zahariadis & Biddle, 2000) had all examined young players. Little research has examined adult players, therefore, Study One in this research study examined adult players from competitive team sports.

The levels of performance these players competed at were also considered in Study One. Vosloo et al. (2009) suggested the level of performance a player competed at may have a significant effect on the combined impact of the motivational climate and goal orientation on athletes' performances. This may be due to players at high levels of performance spending more time with their managers and peers, and therefore, may be more likely to be influenced by the climate. Smith et al. (2009), Nordin-Bates et al. (2011) and Gershgoren et al. (2011) also suggested that the length of time players spent immersed in their motivational climate may have a bearing on the extent to which such a climate could affect them, and that future research should examine this variable.

Liukkonen et al. (2010) suggested that different types of anxiety may be affected differently by the goal orientation, or the motivational climate of athletes, therefore, future research should consider this variable also. Study One examined both cognitive and somatic anxiety to determine if they were affected differently by the goal orientation or motivational climate of the players. A number of other variables were also examined to determine if they had moderating effects on the combined influences of the Perceived Motivational Climate and the Achievement Goal Orientation on anxiety and self-confidence levels of players.

Study One had three main aims. First, it examined the effect of the Perceived Motivational Climate on players' anxiety and self-confidence levels. Second, it examined the effect of the Achievement Goal Orientation of players on their anxiety and self-confidence levels. Finally, Study One examined the effect of the combined Perceived Motivational Climate and Achievement Goal Orientation to determine if this impacted on the players' anxiety and self-confidence levels prior to a competitive league match.

1.6 Other Social Influences on PMC

A number of researchers have suggested that social factors have been neglected in the examination of the Perceived Motivational Climate in the sports domain. Due to the rise in popularity of social media in recent years and in particular the use of Twitter within the sporting community, social media may have become a salient social factor that researchers need to consider regarding its potential impact on performance. When the topic of social networking is discussed, people often think about online social networks such as Twitter, Facebook and LinkedIn. Online social networking is a phenomenon

which has grown in the past ten years since the launch of Facebook in 2004 (Facebook, 2012), and the launch of Twitter in 2006 (Soci@l jumpstart, 2012). The phenomenon of social media has now become increasingly popular. Alexa (2012) ranked Facebook and Twitter as the most used social media platforms, with Facebook the top ranked website in the world for internet traffic, and Twitter the eighth ranked for most internet traffic.

Social networking is used by people from a number of different backgrounds. Everyone from teachers, students and celebrities to multinational companies have either a Facebook page, a Twitter account or both (Davila, Hershenberg, Feinstein, Gorman, Bhatia, & Starr, 2012). People use social networking for a number of reasons. Some use it to keep in contact with friends and to organise events. Others use it to communicate their views, and to challenge the views of others. Companies and celebrities regularly use it to advertise themselves and their products. As social media only became popular in recent years, little research has examined its effect on athletes.

Twitter was launched on March 21st 2006, and since January 2008 has grown from a company with 8 employees (Twitter, 2011), to a company with almost 1000 employees today (Soci@l jumpstart, 2012). Twitter's mission statement states it is "*The fastest, simplest way to stay close to everything you care about*" (Twitter, 2012, para.1). Twitter has become one of the main places for people to talk about what interests them in the world. According to Soci@l Jumpstart (2012), Twitter now has over 300 million users, and the topics discussed on Twitter range widely. In 2011, the most tweeted events were on Beyoncé Knowles announcing her pregnancy, to the assassination of Osama bin Laden (Bond, 2011).

1.6.1 Impact of Twitter

Sports teams have begun to use social networks to communicate with their supporters, to raise revenue through advertising and to improve their popularity (Wertheim, 2011). In recent years, more sports teams, and players, have also begun to use social media as a means to communicate directly with their fans. In 2008, Shaquille O'Neill was traded to the Phoenix Suns (NBA basketball team), and a fan of his set up a Twitter parody for O'Neill. Soon after, O'Neill set up an account himself followed by the Phoenix Suns setting up their own team account (Wertheim, 2011). From there the use of Twitter by sports teams has grown exponentially with most major teams now having Twitter

accounts and many players also having their own individual accounts (Wertheim, 2011). In early 2011, a professional lacrosse team sought permission to change the names on the backs of their jerseys to the players' Twitter handles for a one-off game in aid of a cancer charity (Knapp, 2011). The Philadelphia Wings lacrosse team organised the game in order to increase the team's social media footprint. Players who did not have Twitter accounts were asked to set them up, and were taught how to use them (Knapp, 2011).

In recent years sporting events have become a major topic of interest for Twitter users. In 2011, four of the top ten most tweeted about events globally were sporting events (Bond, 2011), and in 2012 Super Bowl XLV recorded approximately 4,064 tweets per second only to be surpassed by the UEFA Champions League Final where more than 6,300 tweets per second were recorded (Wertheim, 2011). Due to this popular use of Twitter and Facebook more teams are signing up these social networks to make themselves more accessible to their fans, and to take advantage of the global audience such a media presence provides.

Teams are not the only ones using social media, however. Individual players are also making use of the benefits of the global audience these social media provide. This is something that sports managers appear to have mixed views on. Some managers have prohibited their players from using Twitter, due to the possibility of it being a disruptive force within their team. This was the case during the Euro 2012 football competition when Vicente del Bosque, the Spanish soccer manager, banned his players from using Facebook and Twitter (Sharma, 2012). Cesc Fabregas, a well-known Spanish player, tweeted at the start of the competition on June 1st, "*From today we are not allowed to use social networks, I wish that the next picture I post will be with the Euro Cup. See you soon!*" (cesc4official, 2012). However, after a week the ban was lifted. Sporting organisations such as the FAI have also noticed the uptake in social media use among their players and fans. For example, the Irish Rugby Union Players Association now offer players training to deal with social media (IRUPA, 2013). Jacques (2009) stated that in 2009 the South-Eastern Conference, one of the American College Athletic Associations released rules for fans' use of Twitter and Facebook. They stated that fans who posted videos and pictures of their games could affect their revenue and as such they set out these guidelines.

In order to determine the potential effects of social media on players' performance, research in the area is needed. Psychological research on social networking has examined people's use of social networking, and the potential long term effect of its use on users (Davila et al., 2012). Cyberbullying is a topic that has dominated such research in recent years due to the social pressures often placed on adolescents, by their peers, to be socially active and to join online communities (Barlett & Gentile, 2012). Other researchers have examined the changes in social dynamics caused by the use of online social media, and the way people interact with each other on social media. Romantic relationships, platonic relationships and friendships developed on social media have all been researched over the past ten years (Davila et al., 2012).

The use of social media by sports teams and players is a topic that is yet to be thoroughly examined. A search of relevant journals, for example, CyberPsychology, Behaviour and Social Networking journal unearthed very few articles related to sport, or sports teams, and the use of social media in this domain. Keyword searches for "Sports Teams" and "Social Media" provided no pertinent results, when articles related to topics such as online gaming, gambling and health were removed. A search of the Ebscohost database also resulted in very few articles being found, with the majority of such articles retrieved from sources such as newspapers rather than peer-reviewed periodicals. Only eight articles were sourced from such peer reviewed journals. Having filtered out articles examining the public relations, marketing and business benefits of social media, only one key article remained. This article described McGannon, Hoffmann, Metz and Schinke (2012) study which examined the effects of one player's comments in the media on another player. The only studies this research found examining the effect of social media on team climates have been completed in the workplace environment.

Cunningham (2010) discussed how the introduction of the "digital native" has changed the way people communicate in their workplaces. More companies are banning the use of social networks in the workplace. However, it may be advisable for them to examine the potential benefits of social media also. Social media, such as LinkedIn, allows for the development of networks that were not previously possible. They allow people to meet individuals they would not have been exposed to previously.

Cunningham (2010) suggested the use of social media, such as YouTube, Twitter, LinkedIn and Facebook allow companies the opportunity to communicate company information in a new creative way.

Ou, Davison, Zhong and Liang (2010) examined the use of instant messaging in “empowering” employees. Due to the lack of research examining Twitter, studies examining instant messaging were considered to be the most related. Ou et al. (2010) stated that previous research had failed to examine social networking, or the value of instant messaging in enabling the development of social networks. Ou et al. (2010) suggested the use of instant messaging is expanding rapidly in a range of contexts and instant messaging is capable of connecting individuals instantly, which then allows for real time interactions. It is also cost effective. Instant messaging is widely used in a number of contexts, however, its use in the workplace remains controversial. Some organisations might think the use of instant messaging may lead to security issues, and negatively affects productivity.

Sparta also examined the effect of social media on an organisation. Sparta (2012) stated that social networks are not new, and that individuals have been involved in social networks since they were in the “playground”. However, due to the development of social media, the way individuals interact with social networks has been altered. Sparta (2012) suggested it is not just the development of social tools that has changed the way people interact, but that the volume of available tools has increased.

Cunningham (2010) stated it is important to put systems (i.e., guidelines) in place to encourage appropriate use of social media, promoting what works best for individual companies while also developing systems to educate older members of staff, and to teach them how to interact with, and use these tools. Cunningham (2010) stated usage policies will formalize the use of social media in the workplace. Another important element of social media is to understand the “voice” and “data” that travels across these networks. Cunningham (2010) suggested it is important for companies to embrace new types of employees who are digital savvy, because they can help the company to grow and move into a new era of social media, as well as bringing a wealth of knowledge to the organisation.

Ou et al.'s (2010) study demonstrated that the use of instant messaging in the workplace has the potential to empower teamwork, through the establishment of social networks and by facilitating the sharing of knowledge among team members. As organisations are continually demanding more complex tasks be completed by their employees, the development of an efficient and effective method of communication is important. Instant communication provides the opportunity for a real-time sharing of information. Another important finding is that the use of instant messaging enables a higher level of teamwork mediated by social networks and the sharing of knowledge. Although social networks are not a recent phenomenon, social media has altered the way they are formed and how they act. Ou et al.'s (2010) fourth finding was that the use of email and knowledge sharing helped to strengthen social networks in a work environment. Ou et al.'s (2010) research demonstrated the benefits of instant messaging in a work environment and the importance of putting structures into place that enhance the benefits of instant messaging to that specific organisation.

Sparta (2012) agreed with the findings of Ou et al. (2010) that social media are an easy and effective way to share knowledge. Sparta (2010) suggested that social media by their nature, are uncontrollable, which can create unwanted consequences. For example, an engineer may identify a way of fixing an issue with a piece of equipment with his colleagues that is in violation of the company's warranty. Sparta (2012), similar to previous research (Ou et al., 2010) feels that the use of social media is an effective way to share knowledge, and information as long as guidelines are in place to define proper and effective use of the media. Sparta (2012) gave three guidelines to organisations for using social media effectively. First, utilize social media in a way that suits the specific organisation. Second, use a specific platform, or technology, that will enhance an area in need of improvement, as there are a number of different social media platforms and technologies. Third, identify which social media will enhance an organisation to gain the most benefits. Finally, identify any legal issue that could occur as a result of the use of social media. Elements such as training, and learning, are vital to the development of effective guidelines. Sparta (2012) stated the use of social networks is too public, however the development of guidelines for using social networks allows for a dramatic acceleration of knowledge sharing. Two examples of companies

already using social media as a way to communicate are McDonald's food chain and Ford car manufacturers (Khan & Khan, 2011). Both of these multi-national companies have stated the more fluid method of communication is a better way for their staff to communicate with each other (Khan & Khan, 2011).

The research by Cunningham (2010), Ou et al. (2010) and Sparta (2012) examining the use of social media provided mixed results. These three studies have stated both positive and negative effects of social media use on team environments. Ou et al. (2010) and Sparta (2012) stated that social media are an effective way to share information in real-time. Ou et al. (201) stated that, when used correctly, social media is a way to develop better relationships, and improve social networks within the workplace. One of the main suggestions of the current research on social media is the development of guidelines for the use of social media in the workplace as these guidelines may allow social media to improve teamwork (Ou et al., 2010; Sparta, 2012), and allows a business the opportunity to develop new inventive ways to communicate (Cunningham, 2010; Sparta, 2012). Sparta (2012) also stated using the correct social media is important to avoid unnecessary issues arising such as legal issues. The research by Cunningham (2010), Ou et al. (2010) and Sparta (2012) all examined social media in the workplace, however, there remains a lack of research on the effect of social media in the sport, exercise and performance area.

Due to the lack of research on social media in the sports domain, research is required to explore its possible effects on athletes and sport teams. From the findings of Ou et al. (2010) and Sparta (2012), it appears the use of social media in the workplace can have a beneficial effect on teamwork, and can improve communication among colleagues. However, this research is not generalisable to sporting populations, due to different dynamics that may exist in individual players and their sporting team setting. Appleton et al. (2011) suggested future research should consider the effect of other social variables on players' perceptions of their motivational climate. O'Rourke et al. (2011) and Ntoumanis et al. (2012) also suggested the effect of other people on a team's motivational climate needed to be considered by future researchers. For example, the London 2012 Olympic Games were nicknamed the "Social Media Olympics" (Barnett 2012). This alone shows how important social media could be and that it should be

considered by researchers. Another important point to mention is that sporting events have become a popular topic to discuss on social media, in particular, by Twitter users. Bond (2011) stated that four of the top ten most tweeted about events were sporting events. This anecdotal evidence suggests that social media could be a salient social factor in sport. Therefore, research on social media in sport settings should be an important area of research interest.

1.6.2 Study Two Justification

Ou et al. (2010) examined the effect of instant messaging on teams in a workplace and discovered that the use of instant messaging in an organisational structure had a positive effect on teams' performance. Other researchers (i.e., Cunningham, 2010; Sparta 2012) have also examined the effect of social media on teams in organisational settings. However, little research has been conducted on the effect of social media on teams' performance in a sport setting. Appleton et al. (2011) stated that previous research had taken a "narrow" approach when examining the Achievement Goal Theory and that future research needed to examine a number of other social variables that could affect a team's motivational climate. Vosloo et al. (2009), O'Rourke et al. (2011) and Ntoumanis et al. (2012) all suggested the impact of other social variables could have a significant impact on a team's motivational climate. Due to the growth of social media in the sports domain it may be a salient social factor which could impact on both individual athletes, and sport teams. Study Two investigated social media's potential impact on players. Opinion on the use, and impact, of social media in sport appears to be divided, with some managers prohibiting their players from using them (i.e., the Spanish soccer manager, Vicente del Bosque, Sharma 2012). Study Two aimed to add to current knowledge on social media in three ways: One by determining whether social media provides information on players' anxiety and self-confidence levels; Two by determining whether social media could have a significant impact on a team's motivational climate; and Three by determining whether clubs from different sports use social media in different ways.

1.7 Review

Study One's informal discussions with the teams' managers resulted in a number of interesting points being made. While talking to the manager of one elite team the topic

of task and ego orientated motivational climates was discussed. The manager agreed that while a task orientated motivational climate may benefit a team the most, it can be difficult to completely remove any mention of ego orientated goals, because if a manager of a professional team does not win games, he is likely to lose his job. Therefore, it can be very difficult for managers not to portray that situation to their players.

Managers also appeared to be undecided about the use of social media in sport and whether it affects players' mental state and a teams' motivational climate in a positive or negative way. Therefore, interviews with such managers could uncover their opinions regarding social media, and the possible effects it may have on players' mental states, and their teams' motivational climates.

1.7.1 Study Three Justification

Study Three attempted to document managers' opinions of team climate, what variables they stated could have an effect on it and whether they thought players or management have the most significant impact on the teams' motivational climate. Study Three also attempted to examine managers' opinions of goal setting. Whether they stated goal setting was important for a team's success. What type of goals they set, and whether they thought goal type can affect a team? Finally, Study Three examined managers' opinions of social media. The number of teams using social media has grown considerably in recent years, however, a significant lack of research in this area to date exists. Study Three attempted to determine the potential effect of social media on a player's mental state and enhance the understanding of the effect of social media on a team's motivational climate in a sport setting.

During Study Three, three managers were interviewed to attempt to determine their opinions on a number of relevant topics including motivational climate and goal setting. A benefit of using interviews in Study Three was that it allowed the researcher to examine the potential effect of social media in a different way to that used in Study Two. It also allowed qualitative data to be collected on motivational climate, in comparison to the quantitative data collected in Study One. Gonçalves et al. (2010) suggested the use of such a mixed method approx. (i.e., qualitative and quantitative data collection) could help to develop a better understanding of Perceived Motivational Climate. This

final study in this piece of research also attempted to draw a link between Study One and Study Two.

1.8 Research Questions and Hypothesis

1.8.1 Research Focus

A number of gaps in the literature were identified by examining previous research on players' Perceived Motivational Climates and their Achievement Goal Orientation. The first gap identified was the lack of research examining the combined effect of the Perceived Motivational Climate and the Achievement Goal Orientation, and their effect on players' anxiety and self-confidence levels. The second gap in the literature identified was the lack of research examining the effect of social media on either individual players' mental state, or on teams' motivational climates. These gaps in the literature lead to the following research questions being proposed:

1.8.2 Study One

Research Question One:

Does the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation have a significant effect on players' anxiety and self-confidence levels?

Hypothesis One

Hypothesis 1a stated there would be a difference in the players' somatic anxiety scores prior to a match based on their perception of their team's motivational climate (i.e., Task or Ego).

Hypothesis 1b stated there would be a difference in the players' cognitive anxiety scores prior to a match based on their perception of their team's motivational climate (i.e., Task or Ego).

Hypothesis 1c stated there would be a difference in the players' self-confidence scores prior to a match based on their perception of their team's motivational climate (i.e., Task or Ego).

Hypothesis Two

Hypothesis 2a stated there would be a difference in the players' somatic anxiety scores prior to a match based on their achievement goal orientation.

Hypothesis 2b stated there would be a difference in the players' cognitive anxiety scores prior to a match based on their achievement goal orientation.

Hypothesis 2c stated there would be a difference in the players' self-confidence scores prior to a match based on their achievement goal orientation.

Hypothesis Three

Hypothesis 3a stated there would be a difference in the players' somatic anxiety scores prior to a match based on the combined effect of their perception of their team's motivational climate and their achievement goal orientation.

Hypothesis 3b stated there would be a difference in the players' cognitive anxiety scores prior to a match based on the combined effect of their perception of their team's motivational climate and their achievement goal orientation.

Hypothesis 3c stated there would be a difference in the players' self-confidence scores prior to a match based on the combined effect of their perception of their team's motivational climate and their achievement goal orientation.

1.8.3 Study Two

Research Question One

Will clubs tweet about their players' mental state prior to, during or after matches (e.g., will they refer to the players' anxiety and self-confidence levels)?

Research Question Two

Will clubs from different sport types (for example, soccer and rugby) use Twitter in the same way (for example, will they post similar types of tweets)?

1.8.4 Study Three

Research Question One

What do managers perceive as the variables that could affect their team's motivational climate?

Research Question Two

How important is goal setting to a team, and what effect can it have on the team?

Research Question Three

Do managers state that social media could have an impact on a player's mental state, goal setting ability or a team's motivational climate?

Chapter Two: Study One

Study One

The main aim of Study One was to investigate players' perception of their Motivational Climate and their Achievement Goal Orientation in order to determine their effect on players' anxiety and self-confidence levels prior to a competitive match. The research question stated, does the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation have a significant effect on players' anxiety and self-confidence levels? First, the players' perception of their Motivational Climate was examined to determine its effect on the players' anxiety and self-confidence levels. Second, the players' Achievement Goal Orientations were examined to determine their effect on the players' anxiety and self-confidence levels. Finally, Study One attempted to examine the combined effect of players' perception of their Motivational Climate with their Achievement Goal Orientation to determine whether the combined effect of these variables had a significant impact on the players' anxiety and self-confidence levels.

2.2 Method:

2.2.1 Design:

The study employed a quasi-experimental design. Purposive sampling was used in order to select the participants. Study One involved the collection of quantitative data in order to attempt to answer Research Question One, and to test the research hypotheses. There were two independent variables (IVs) in Study One, namely, the players' Achievement Goal Orientation, which was measured using the Perception of Success Questionnaire (POSQ, Robert et al., 1998), and the players' Perceived Motivational Climate, which was measured using the Perceived Motivational Climate in Sports Questionnaire-2 (PMCSQ-2, Newton et al., 2000). The dependent variables (DV) were the players' pre-match anxiety and self-confidence scores which were measured using the Competitive State Anxiety Inventory 2-Revised (CSAI-2R, Cox et al., 2003). The design of Study One was based on Vosloo et al.'s (2009) study, which also examined the combined impact of the Perceived Motivational Climate and the Achievement Goal Orientation on teenage swimmers' anxiety and self-confidence levels.

2.2.2 Participants:

349 male and female (Male = 305, Female = 44) players between the ages of 18 and 46 years ($M = 25.60$ years, $SD = 4.94$ years) participated in Study One. The participants included 79 soccer players, 95 rugby players and 184 GAA players. The players included 139 novice, 179 semi-elite and 40 elite level players. The participants were recruited from teams that had been under the care of their current manager for at least six months. The decision to only include teams that had been under the care of the current manager for six months was based on research by Vosloo et al. (2009) who regarded six months as sufficient time for managers to have an effect on their team members and their team's motivational climate. A more detailed breakdown of participants can be seen in Table 1 below.

Table 1: Participant Breakdown

| Participant Breakdown | Male | | | Female | | |
|-----------------------|--------|------------|-------|--------|------------|-------|
| | Novice | Semi Elite | Elite | Novice | Semi Elite | Elite |
| | | FAI | 39 | 40 | 0 | 0 |
| GAA | 31 | 45 | 0 | 13 | 18 | 0 |
| IRFU | 35 | 50 | 0 | 0 | 0 | 0 |

2.2.3 Materials:

Achievement Goal Orientation Measure: Perception of Success Questionnaire

Robert et al. (1998) developed the Perception of Success Questionnaire (POSQ; see Appendix A) to measure the Achievement Goal Orientation of athletes. The POSQ is a 12 item, self-report scale that examines the Achievement Goal Orientation of athletes. Participants are required to rate the 12 questions from 'Strongly Agree' = A, to 'Strongly Disagree' = E. The POSQ consists of two subscales, an 'ego' subscale and a 'task' subscale. The 'task' subscale contains six items and consists of questions such as "I reach a goal" and "I work hard". The 'ego' subscale also contains six items and consists of questions such as "I beat other people" and "I am clearly superior". Robert et al. (1998) computed a Cronbach alpha coefficient of 0.88 for the POSQ. The scoring for the POSQ is also based on the results of the sample (i.e., a mean score is calculated for both the task and ego subscales for each participant). A mean score is then calculated for the

sample. Based on the sample mean score participants are allocated to one of four groups (for example, if a participant is above the sample mean for the task and ego subscales they are allocated to the High Task/ High Ego group).

Perceived Motivational Climate Measure: Perceived Motivational Climate in Sport Questionnaire-2

Newton et al. (2000) developed the Perceived Motivational Climate in Sport Questionnaire-2 (PMCSQ-2, see Appendix A) to measure the motivational climate athletes perceive themselves to be in. The PMCSQ-2 is a 33 item, self-report questionnaire that examines six traits related to 'ego' and 'task' orientated motivational climates. Participants are required to rate the questions on a five-point Likert scale, with 'Strongly Disagree' = 1 and 'Strongly Agree' = 5. The PMCSQ-2 was used to allocate athletes to either an "ego" or "task" based motivational climate group. The PMSCQ-2 consists of two subscales. The task subscale consists of 17 items, including question such as, "On this team, the coach wants us to try new skills" and "On this team, the players help each other to get better and excel". The ego subscale consists of 16 items and includes questions such as, "On this team, only the players with the best 'stats' get praise" and "On this team, players are 'psyched' when they do better than their teammates in a game". Newton et al. (2000) computed a Cronbach alpha of 0.87 for the task-oriented climate subscale and 0.89 for the ego-oriented climate subscale. A mean score was calculated for both the task and ego subscales for each participant in Study One. A mean score was then calculated for the sample. Based on the sample mean score athletes were allocated to either the Task or Ego Group (for example, if a participant was above the sample mean for the task and below the sample mean for ego subscales they are allocated to the Task group). If a participant was either above or below the average for each group they were removed from the test data set (for example, if a player was above the average task and ego score, they were removed from the data set).

Self Confidence: Competitive State Anxiety Inventory-2 Revised

Cox et al. (2003) developed the Competitive State Anxiety Inventory-2 Revised (CSAI-2R, see Appendix A) in order to measure the anxiety and self-confidence levels of athletes prior to competition. The CSAI-2R is a 17 item, self-report measure, which consists of

three subscales, namely, somatic anxiety, cognitive anxiety and self-confidence. The somatic anxiety subscale consists of seven items, including questions such as "My heart is racing" and "I feel jittery". The cognitive anxiety and self-confidence subscales each contain five items. The cognitive anxiety subscale consists of items such as "I am concerned about losing" and "I am concerned about choking under pressure". The self-confidence subscale contains items such as "I'm confident about performing well" and "I feel self-confident". Participants rate the items on a four-point Likert scale, with 'Not at All' = 1 and 'Very Much So' = 4. Cox et al. (2003) computed a Cronbach alpha level of 0.91 for self-confidence, 0.88 for somatic anxiety, and 0.83 for cognitive-anxiety on the CSAI-2R. Scoring for this scale can be acquired by contacting the CSAI-2R's author.

2.2.4 Pilot Study:

A pilot study was conducted to examine a number of issues that could affect the results of Study One. The pilot study involved collecting data from 6 male and 6 female players. The participants were issued with the "Research Pack" which contained a consent form, the POSQ (Robert et al., 1998), the PMCSQ-2 (Newton et al., 2000), the CSAI-2R (Cox et al., 2003) and a debriefing form (see Appendix A). They were then briefed on the study and asked to complete the three scales.

Feedback was given by the 6 participants on issues such as the wording of the tests, the layout of the Research Pack and the time taken to complete the tests in the Research Pack. A number of changes were suggested by the participants. These suggestions were considered by the researcher, and the majority of the suggested changes were made in order to improve the research materials. No statistical analysis was conducted on the data collected in the pilot study due to the small sample size employed.

2.2.5 Procedure:

Consent:

An internet search was completed in order to obtain the contact details of representatives from potential sports clubs. Clubs were only considered as participants if they played co-dependant team sports such as Soccer, Rugby, Hurling or Gaelic Football. The Secretaries of such clubs were contacted to obtain the contact details for the team managers. The managers were then contacted by email or by telephone. The

aims and procedure for Study One were explained to the managers, and any questions or queries they had about the study were answered as accurately as possible by the researcher. Each team manager's permission to allow his/her players to participate in the study was then requested.

2.2.6 Ethics

One of the main ethical issues considered in Study One was the consent of the participants. The managers were contacted and their consent for the researcher to meet with the players was sought prior to consent being requested from the players. Study One contained minimal risk for the players, both physically and psychologically, however, there was a potential risk of social injury for the participants as they were taking part in a psychological research study. It was decided that the most likely way to avoid such injury was to ensure the anonymity of the participants. The researcher achieved this by giving the participants identification numbers and by not requesting that the participants sign the consent form. Instead participants indicated their consent by ticking a box on the consent form. The confidentiality of the data was also important. The data was stored in the researcher's private residence in a storage box and the researcher informed the participants that the data would only be kept for two years after the completion and submission of the research thesis in December 2013. The participants were informed of their rights and responsibilities as much as was possible, by attending a briefing session prior to Study One being carried out, and a debriefing session after taking part in Study One. Participants were also given a "Debriefing Sheet" to take away with them after they had completed their participation in Study One. The document contained information about Study One, as well as the researcher's, and his research supervisors' contact details. The participants were also given the opportunity to ask as many questions as they wished, both prior to, and after, their participation in Study One.

Another ethical issue in Study One was that it measured players' anxiety levels. This could have actually affected their anxiety levels in a negative way as it may have drawn their attention to the anxiety they are feeling. However, this was not considered to be a potentially serious issue in Study One as the researcher only intended to measure the players' anxiety prior to a competitive match. He did not intend to manipulate the

players' anxiety in any way. Study One also had a low risk-benefit ratio as there appeared to be few risks to the participants taking part in Study One. In fact it was thought that the findings of Study One could have a positive effect on the way managers develop their team's motivational climate in the future, as well as resulting in a better understanding of the way a perceived motivational climate in a team setting, and players' achievement goal orientation, may combine to impact on their performances in sport.

Research Procedure:

Participants met with the researcher at their team's last meeting prior to a competitive league match. League matches were chosen as teams playing in a league are of a similar level of ability. In contrast, a Cup competition can typically consist of teams of differing levels, or standards (for example, a Division One team could be drawn against a Division Five team in a Cup-Style competition). Participants were greeted in Study One and the researcher read a script aloud to each team which explained the aims of Study One, as well as the rights and responsibilities of the participants while they were participating in the study. The participants were then given the Research Pack and asked to complete the three measures. Once all participants had completed the POSQ, PMCSQ-2 and the CSAI-2R the researcher collected them. The participants were then asked to take the participant copy of the consent form and a debriefing sheet, which explained the main aims of the study. The debriefing sheet (see Appendix A) included additional resources on motivation in sport and the contact details of the researcher and his research supervisors. Once the relevant materials were returned to the researcher, the participants were given another opportunity to ask any questions they might have about Study One and were then thanked for their participation in the study.

2.2.7 Data Analysis:

Participating players were allocated to their groups based on their scores on the PMCSQ-2 and the POSQ. The results from the PMCSQ-2 assigned players to one of two Perceived Motivational Climate groups, either a "task" orientated, or an "ego" orientated climate group. The POSQ also allocated players to one of four groups, namely: "High Task – Low Ego", "High Task – High Ego", "Low Task – High Ego" or "Low Task – Low Ego".

In order to test Hypothesis One, T-tests were employed, to compare the results of the participants' pre match anxiety and self-confidence scores. Players were allocated to one of two groups based on their scores on the PMCSQ-2. Hypotheses Two, and Hypothesis Three were tested using An Analysis of Variance (ANOVA) to determine whether players' anxiety and self-confidence scores were significantly affected by their Achievement Goal Orientation (Hypothesis Two), or the combined effect of their Perceived Motivational Climate classification, and their Achievement Goal Orientation classification (Hypothesis Three). Tukey Post hoc tests were also carried out to determine which groups had significantly varied in anxiety and self-confidence scores.

2.3 Results:

2.3.1 Descriptive Statistics:

Participants were recruited from a number of levels of performance, namely elite, semi-elite and novice (Elite = 40, Semi-elite = 140, Novice = 169). It was noted whether players were from a rural or an urban setting, (Rural = 134, Urban = 215). The length of time players had participated in their chosen sports was recorded. Players ranged from 1 to 34 years participating in their sport ($M = 14.75$ years, $SD = 6.11$ years). All data for the above variables were obtained from the demographic questionnaire each participant completed (see Appendix A).

2.3.2 Data Analysis

Cronbach Alpha Levels:

Cronbach alpha levels were computed for the POSQ (Roberts et al., 1998) the PMCSQ-2 (Newton et al., 2000) and the CSAI-R (Cox et al., 2003) in order to determine the scales' reliability values. Roberts et al. (1998) computed Cronbach alpha values for both the POSQ "task" subscale and the "ego" subscale (task $\alpha = 0.89$ and ego $\alpha = 0.91$). A Cronbach alpha level was also computed for Study One for both the "task" and "ego" subscales (task $\alpha = 0.81$ and ego $\alpha = 0.82$).

Cronbach alpha levels were computed for both "task" and "ego" subscales on the PMCSQ-2 (Newton et al., 2000). Newton et al. computed a Cronbach alpha of $\alpha = 0.87$ for the "Task" subscale and a Cronbach alpha of $\alpha = 0.89$ for the "Ego" subscale. For Study One a Cronbach alpha of $\alpha = 0.89$ was recorded for the Task subscale and $\alpha = 0.84$ was recorded for the Ego subscale.

Cox et al. (2003) reported a Cronbach alpha level for the “somatic anxiety”, “cognitive anxiety” and “self-confidence” subscales (somatic anxiety $\alpha = 0.88$; cognitive anxiety $\alpha = 0.83$; self-confidence $\alpha = 0.91$). A Cronbach alpha level of $\alpha = 0.86$ was recorded for the somatic anxiety subscale in Study One, a Cronbach Alpha of $\alpha = .75$ was recorded for the cognitive anxiety subscale and a Cronbach alpha of $\alpha = 0.86$ was recorded for the self-confidence subscale.

The Cronbach alpha levels for all three of the measures in Study One represented high levels of internal consistency for the three measures and the subscales within those measures.

Grouping Classification

Perceived Motivational Climate:

In order to allocate participants to either an “ego” or a “task” orientated team climate, descriptive statistics were carried out on the data obtained from the participants’ PMCSQ-2 scores. The mean “task” and “ego” scores were computed for each player using Microsoft Excel. These data were then transferred into the Statistical Package for the Social Sciences (SPSS) where descriptive statistics were carried out on players’ PMCSQ-2 scores, in-order to identify the mean of the players’ mean scores. The grouping criterion for the Perceived Motivational Climate groups is shown in Table 1 (below). Players were included in the task orientated motivational climate group if they scored more than 3.75 on the task orientation subscale and if they also scored less than 2.75 on the ego orientation subscale. In contrast, participants with a task score less than 3.75, and an ego score of more than 2.75, were allocated to the ego orientated Perceived Motivational Climate group. 126 participants did not meet the criteria for either of the Perceived Motivational Climate groups and were thus removed from this analysis of Hypothesis One in Study One.

Table 2: Perceived Motivational Climate Group Criteria

| Group Name | Group Criteria | n |
|-------------------|---|----------|
| Task Group | “Task ≥ 3.74 and Ego ≤ 2.75 ” | n = 119 |
| Ego Group | “Task ≤ 3.74 and Ego ≥ 2.75 ” | n = 104 |

Achievement Goal Orientation:

Participants were allocated to Achievement Goal Orientation groups based on their scores on the POSQ (Roberts et al., 1998). As with PMCSQ-2 scores, mean scores were computed for the POSQ score and, based on these, players were allocated to one of four Achievement Goal Orientation groups. For example, a participant was allocated to the High Task/ Low Ego group if he scored greater than 4.50 on the task and lower than 4.03 on the ego subscale. The groups are shown in Table 2 (below). All 349 participants were classified into one of four goal orientation groups based on their scores on the POSQ. These groupings were used to test Hypothesis Two.

Table 3: Achievement Goal Orientation Group Criteria

| Group Name | Group Criteria | n |
|------------------------|--------------------------------|---------|
| High Task/ Low Ego | "Task >= 4.50 and Ego <= 4.04" | n = 74 |
| High Task/ High Ego | "Task >= 4.50 and Ego >= 4.04" | n = 116 |
| Low Task/ High Ego | "Task <= 4.50 and Ego >= 4.04" | n = 66 |
| Low Task/ Low Ego | "Task <= 4.50 and Ego <= 4.04" | n = 93 |

Perceived Motivational Climate/Achievement Goal Orientation:

In order to test Hypothesis Three, which involved examining the combined effect of the players' perception of their Motivational Climate and their Achievement Goal Orientation the PMCSQ-2 and POSQ scores were examined together. The overall classification of the groups can be seen in Figure 1 (overleaf). Participants were allocated to their groups based on the combined effect of both sets of scores. For example, if a player was allocated to the task group for Perceived Motivational Climate and the High Task/ Low Ego group for Achievement Goal Orientation, he was then allocated to the Task/ High Task / Low Ego group for Hypothesis Three. The grouping criteria are shown in Table 3 overleaf. Of the 360 participants, 126 did not meet the criteria and were removed from the study for the examination of Hypothesis Three. A more detailed description of the groups can be seen in Figure 1 (overleaf).

Group Classification for Testing of Study One

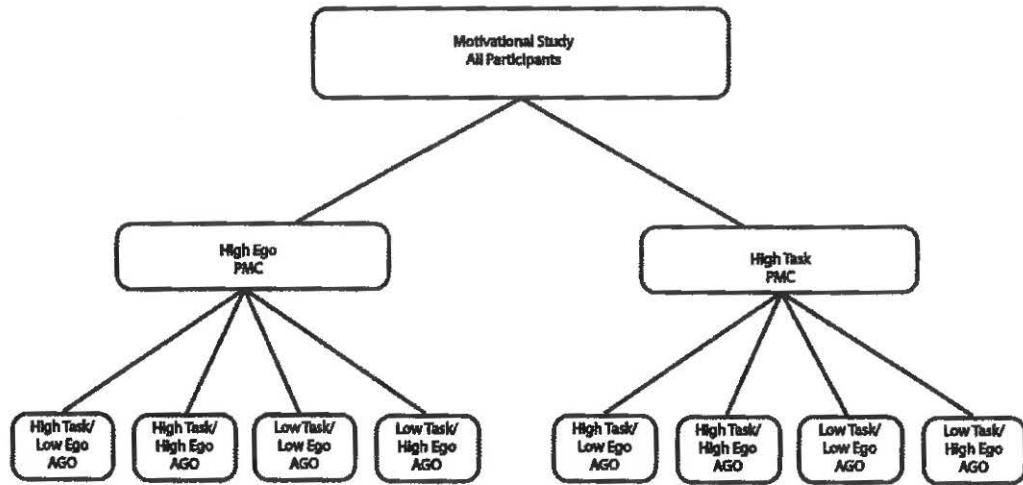


Figure 1: Study One Combined Group Classification

Table 4: Combined Groups Criteria

| Group Name | Group Criteria | n |
|---------------------------------|---|----------|
| Task/ High Task/ Low Ego | PMCSQ-2 = Task Group POSQ = High Task/Low Ego | n = 29 |
| Task/ High Task/ High Ego | PMCSQ-2 = Task Group POSQ = High Task/High Ego | n = 43 |
| Task/ Low Task/ High Ego | PMCSQ-2 = Task Group POSQ = Low Task/High Ego | n = 18 |
| Task/ Low Task/ Low Ego | PMCSQ-2 = Task Group POSQ = Low Task/Low Ego | n = 29 |
| Ego/ High Task/ Low Ego | PMCSQ-2 = Ego Group POSQ = High Task/Low Ego | n = 14 |
| Ego/ High Task/ High Ego | PMCSQ-2 = Ego Group POSQ = High Task/High Ego | n = 30 |
| Ego/ Low Task/ High Ego | PMCSQ-2 = Ego Group POSQ = Low Task/High Ego | n = 25 |
| Ego/ Low Task/ Low Ego | PMCSQ-2 = Ego Group POSQ = Low Task/Low Ego | n = 35 |

2.3.4 Hypotheses 1a, 1b and 1c:

Somatic Anxiety

Hypothesis 1a stated there would be a difference in the players' somatic anxiety scores prior to a match based on their perception of their team's motivational climate (i.e., Task or Ego).

An Independent T-Test was used to test if there was indeed a significant difference in the players' somatic anxiety scores based on their allocation to either the task or ego Perceived Motivational Climate group.

There did appear to be a significant difference in the players' somatic anxiety levels based on the group they were allocated to, namely, the task ($M=16.59$, $SD=5.15$), or ego ($M=19.18$, $SD=6.81$) condition, [$t(221) = -3.177$, $p = 0.001$]. Thus, these data appeared to show that the Perceived Motivational Climate did have a significant effect on the players' somatic anxiety scores, with participants in the ego orientated group being more anxious than those in the task orientated group. Thus the hypothesis was supported (For the relevant T-Test data, please see Appendix B).

Cognitive Anxiety

Hypothesis 1b stated there would be a difference in the players' cognitive anxiety scores prior to a match based on their perception of their team's motivational climate (i.e., Task or Ego).

An Independent T-Test was used to test if there was indeed a significant difference in the players' cognitive anxiety scores based on their allocation to either the task or ego Perceived Motivational Climate group.

There did appear to be a significant difference in the players' cognitive anxiety levels based on the group they were allocated to, namely the task ($M=20.61$, $SD=6.45$) or ego ($M=24.03$, $SD=7.34$) conditions, [$t(221) = -3.704$, $p < 0.001$]. Thus, these data appear to show that the Perceived Motivational Climate did have a significant effect on the players' cognitive anxiety scores with participants in the ego orientated group appearing to be more anxious than those in the task orientated group. Thus the hypothesis was supported (For the relevant T-Test data, please see Appendix B).

Self-Confidence

Hypothesis 1c stated there would be a difference in the players' self-confidence scores prior to a match based on their perception of their team's motivational climate (i.e., Task or Ego).

An Independent T-Test was used to test if there was indeed a significant difference in the players' self-confidence scores based on their allocation to either the task or ego Perceived Motivational Climate group.

There did appear to be a significant difference in the players' self-confidence levels based on the group they were allocated to, namely the task ($M=30.43$, $SD=7.01$) or ego ($M=26.43$, $SD=7.19$) conditions [$t(221) = 4.194$, $p < 0.001$]. Thus, these data appear to show that the Perceived Motivational Climate did have a significant effect on the players' self-confidence scores, with participants in the ego orientated group being more anxious than those in the task orientated group. Thus the hypothesis was supported (For the relevant T-Test data, please see Appendix B).

2.3.5 Hypotheses 2a, 2b, and 2c:

Somatic Anxiety:

Hypothesis 2a stated there would be a difference in the players' somatic anxiety scores prior to a match based on their achievement goal orientation.

A one way ANOVA was used to test if there was indeed a significant difference in the players' somatic anxiety scores based on their Achievement Goal Orientations (High Task/Low Ego, High Task/High Ego, Low Task/High Ego or Low Task Low Ego).

No significant difference was found for the players on their somatic anxiety levels based on the group they were allocated to for Achievement Goal Orientation, with alpha set at $p < 0.05$, therefore, the null hypothesis was retained (For the relevant ANOVA table, please see Appendix C).

Cognitive Anxiety:

Hypothesis 2b stated there would be a difference in the players' cognitive anxiety scores prior to a match based on their achievement goal orientation.

A one way ANOVA was used to test if there was indeed a significant difference in the players' cognitive anxiety scores based on their Achievement Goal Orientations (High Task/Low Ego, High Task/High Ego, Low Task/High Ego or Low Task Low Ego).

There did appear to be a significant difference for the players' on their cognitive anxiety levels based on the group they were allocated to for Achievement Goal Orientation, with alpha set at $p < 0.05$ for the four conditions [$F(3,345) = 4.124$, $p = 0.007$]. Thus, these data appeared to show that the players' Achievement Goal Orientation did have a significant effect on their cognitive anxiety scores. Thus the hypothesis was supported (For the relevant ANOVA table, please see Appendix C). For bar chart displaying mean scores for Achievement Goal Orientations groups please see Figure 2 below.

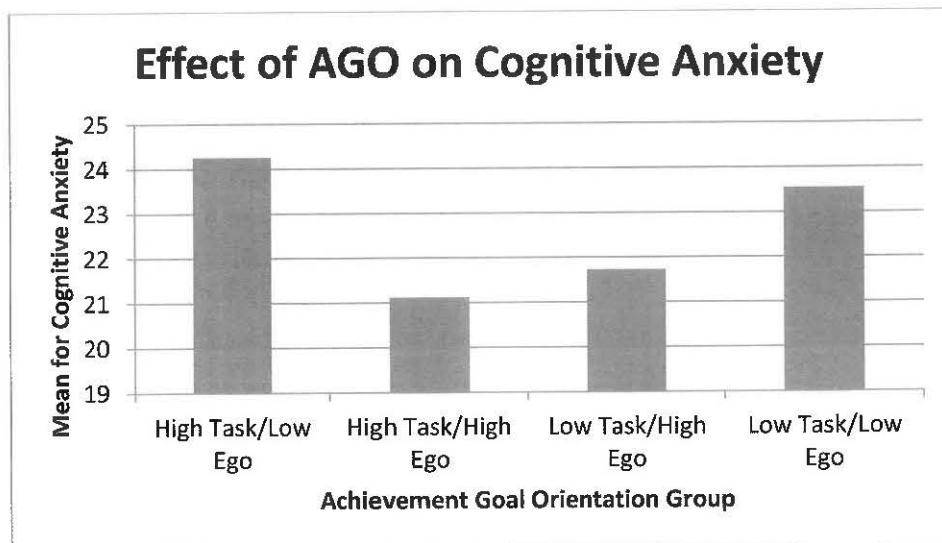


Figure 2: Achievement Goal Orientation Means Plot (Cognitive Anxiety)

Self-Confidence:

Hypothesis 2c stated there would be a difference in the players' self-confidence scores prior to a match based on their achievement goal orientation.

A one way ANOVA was used to test if there was indeed a significant difference in the players' self-confidence scores based on their Achievement Goal Orientations (High Task/Low Ego, High Task/High Ego, Low Task/High Ego or Low Task Low Ego).

There did appear to be a significant difference for the players' on their self-confidence levels based on the group they were allocated to for Achievement Goal

Orientation, with alpha set at $p < 0.05$ for the four conditions [$F(3,345) = 7.474, p < 0.001$]. Thus, these data appear to show that the players' Achievement Goal Orientation did have a significant effect on their self-confidence scores. Thus the hypothesis was supported (For the relevant ANOVA table, please see Appendix C). For bar chart displaying mean scores for Achievement Goal Orientations groups please see Figure 3 below.

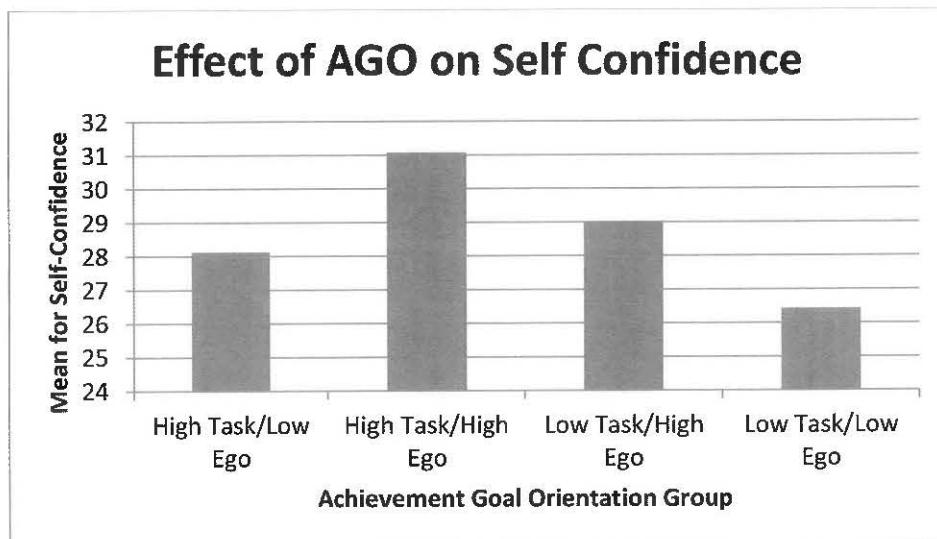


Figure 3: Achievement Goal Orientation Means Plot (Self-confidence)

2.3.6 Hypotheses 3a, 3b and 3c:

Somatic Anxiety:

Hypothesis 3a stated there would be a difference in the players' somatic anxiety scores prior to a match based on the combined effect of their perception of their team's motivational climate and their achievement goal orientation.

A one way ANOVA was used to test if there was indeed a significant difference in the players' somatic anxiety scores based on the combined effect of their perception of their team's motivational climate and their achievement goal orientation.

There did appear to be a significant difference for the players' on their cognitive anxiety levels based on their perception of their team's motivational climate and their achievement goal orientation, with alpha set at $p = 0.001$ for the four conditions [$F(7,215) = 3.562, p > 0.001$]. Thus, these data appear to show that the players' Achievement Goal Orientation did have a significant effect on their somatic scores. Thus,

the hypothesis was supported (For the relevant summary ANOVA table for this statistic, please see Appendix C). For bar chart displaying mean scores for Combined groups please see Figure 4 below.

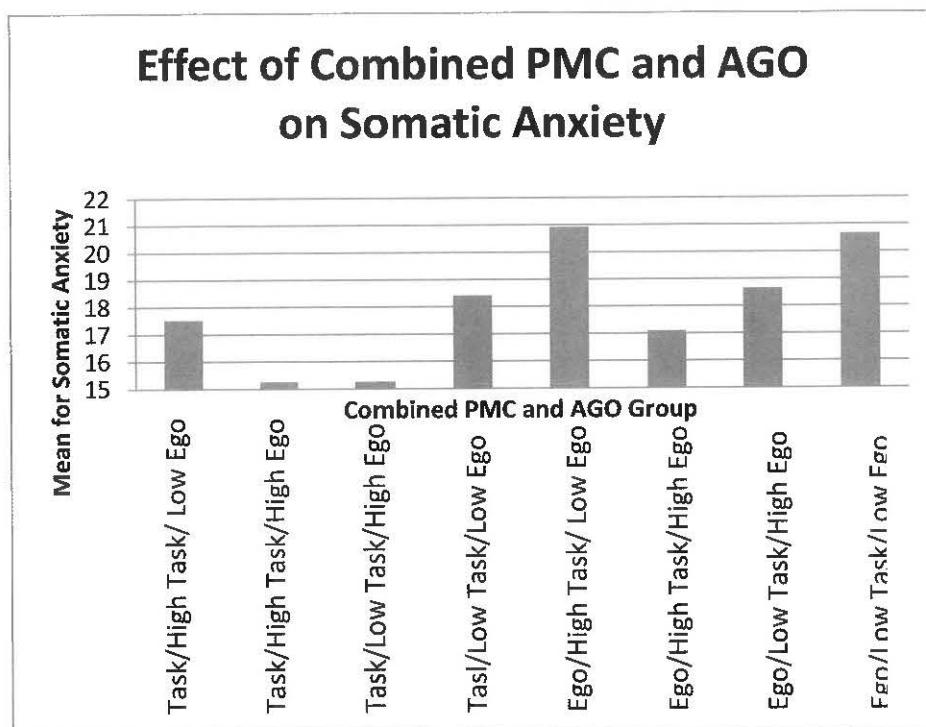


Figure 4: Combined Groups Means Plot (Somatic Anxiety)

Cognitive Anxiety:

Hypothesis 3b stated there would be a difference in the players' cognitive anxiety scores prior to a match based on the combined effect of their perception of their team's motivational climate and their achievement goal orientation.

A one way ANOVA was used to test if there was indeed a significant difference in the players' cognitive anxiety scores based the combined effect of their Perceived Motivational climate scores and their goal orientation scores.

There did appear to be a significant difference for the players' cognitive anxiety levels based on their perception of their team's motivational climate and their achievement goal orientation. for the combined Perceived Motivational Climate and Achievement Goal Orientation groups, with alpha set at $p < 0.001$ for the four conditions [$F(7,215) = 3.819$, $p = 0.001$]. Thus, these data appeared to show that the players' Achievement Goal Orientation did have a significant effect on their cognitive anxiety

scores. Thus, the hypothesis was supported (For the relevant summary ANOVA table for this statistic, please see Appendix C). For bar chart displaying mean scores for Combined groups please see Figure 5 below.

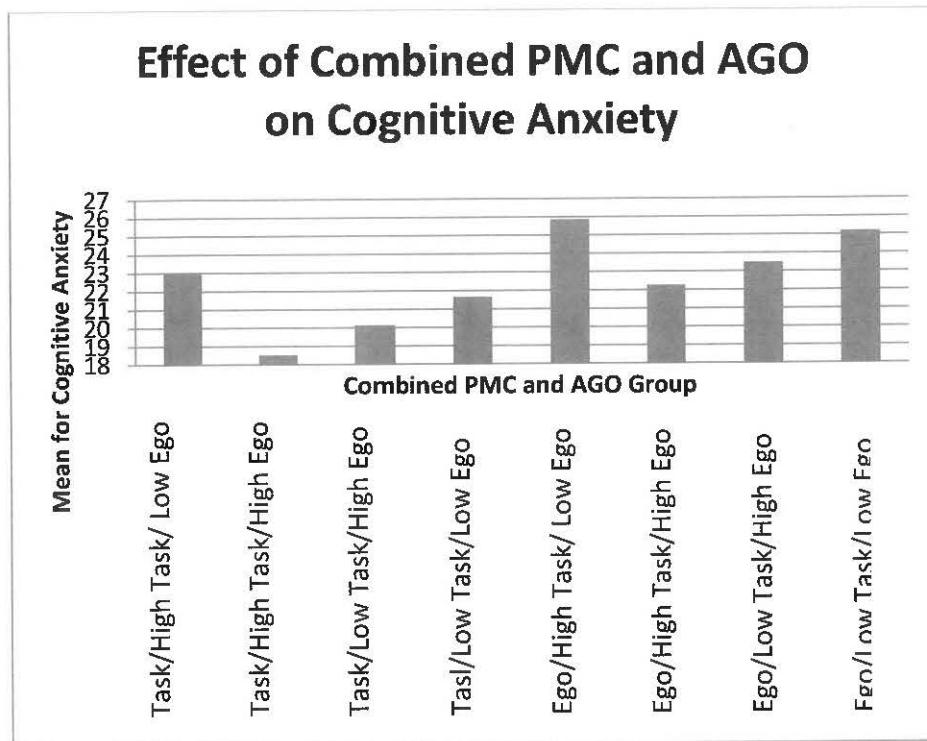


Figure 5: Combined Groups Means Plot (Cognitive Anxiety)

Self-Confidence:

Hypothesis 3c stated there would be a difference in the players' self-confidence scores prior to a match based on the combined effect of their perception of their team's motivational climate and their achievement goal orientation.

A one way ANOVA was used to test if there was indeed a significant difference in the players' self-confidence scores based the combined effect of the players' Perceived Motivational Climate and goal orientation scores.

There did appear to be a significant difference for the players' cognitive anxiety levels based on their perception of their team's motivational climate and their achievement goal orientation, with alpha set at $p < 0.001$ for the four conditions [$F(7,215) = 5.798$, $p < 0.001$]. Thus, these data appear to show that the players' Achievement Goal Orientation did have a significant effect on their self-confidence scores. Thus, the hypothesis was supported (For the relevant summary ANOVA table for

this statistic, please see Appendix C). For bar chart displaying mean scores for Combined groups please see Figure 6 overleaf.

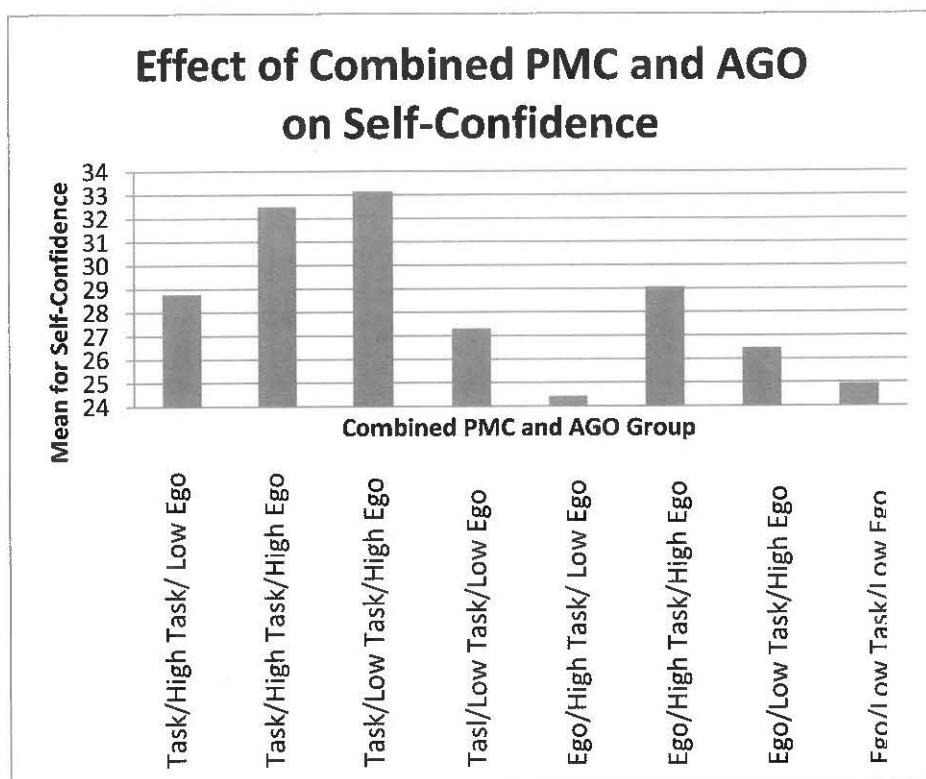


Figure 6: Combined Groups Means Plot (Self-Confidence)

2.4 Discussion:

The main aim of Study One was to examine the impact of the combined effect of the players' Perceived Motivational Climate and their Achievement Goal Orientation on their anxiety and self-confidence levels. One of the main gaps in the literature on the Achievement Goal Theory, which Study One attempted to fill, was the lack of research carried out on adult athletes in a competitive sport setting (Fry et al., 2011; Gould et al., 2011; O'Rourke et al., 2011). Therefore, Study One's participants were adult players who participated in competitive team sports. Previous research focused on either the Perceived Motivational Climate (Appleton et al., 2011; Gråstén et al., 2012) or the Achievement Goal Orientation of players (Wang, et al., 2012; Cetinkalp, 2012), and their impact on players' anxiety and self-confidence levels. Little research (Barić & Bucik 2009; Vosloo et al., 2009) has examined the combined effect of these two variables on players' anxiety and self-confidence. Study One examined the effect of the Perceived Motivational Climate and the Achievement Goal Orientation of players on their anxiety

and self-confidence levels, and the combined effect of these two variables on players' anxiety and self-confidence levels prior to a competitive league match.

Hypotheses 1a 1b and 1c examined the effects of the Perceived Motivational Climate on player somatic anxiety, cognitive anxiety and self-confidence levels prior to a competitive league match. The findings of Study One support Hypothesis 1a and support the findings of Mouratidis et al. (2008) and Smith et al. (2007) who also reported the benefits of a task orientated motivational climate. Study One found that players who perceived themselves to be in a task orientated environment recorded significantly lower somatic anxiety levels than players who perceived themselves to be in an ego orientated setting. This was also true for cognitive anxiety, as players in a task orientated Perceived Motivational Climate recorded significantly lower cognitive anxiety scores on the CSAI-2R than the players in the ego orientated Perceived Motivational Climate. These findings support those of Smith et al. (2007), Mouratidis et al. (2008), Nordin-Bates et al. (2011) and O'Rourke et al. (2011). Nordin-Bates et al. (2011) found task orientated dancers to have lower anxiety levels than ego orientated dancers, while Smith et al. (2007) discovered that youth players participating in community based basketball programs in a task orientated setting had significantly lower anxiety levels than their counterparts in the ego orientated setting. Study One also identified a task orientated setting to be more beneficial for players' self-confidence than an ego orientated setting. Players in a task orientated setting were significantly higher on self-confidence than those in an ego orientated setting. This finding supported previous research by Mouratidis et al. (2008) and Barić and Bucik (2009). Mouratidis et al. (2008) and Barić and Bucik (2009) examined youth players and found that players who perceived themselves to be in a task orientated setting appeared to have significantly higher levels of self-confidence than players in an ego orientated climate. The findings of Study One also support previous research by Mouratidis et al. (2008) Smith et al. (2007), and add further strength to the argument that a task orientated setting is more beneficial to players than an ego orientated motivational climate.

Hypothesis Two examined the effect of players' Achievement Goal Orientation on their pre-competition anxiety and self-confidence levels. Similar to the results of hypothesis one, hypotheses 2a and 2c in Study One were supported. Players' goal

orientation was found to have a significant effect on their anxiety and self-confidence levels prior to a competitive match. This finding also supported previous research (Barić & Bucik, 2009). Hypothesis 2a, examined the effect of goal orientation on somatic anxiety. Goal orientation was not found to have a significant impact on players' somatic anxiety levels. This was in contrast to previous research by Smith et al. (2007), Mouratidis et al. (2009), Behzadi et al. (2011) and Pol and Kavussanu (2012) who all found that goal orientation had a significant impact on players' anxiety levels. However, these findings are supported by the findings of Voight et al. (2000). Voight et al. (2000) reported that even though players' goal orientation significantly impacted their anxiety levels, their goal orientation did not predict their somatic anxiety. This may have been due to the way the players perceived their somatic anxiety. This is something that managers have also alluded to. For example, when asked if nerves were a bad thing, Kenny Dalglish (The Liverpool Manager at the Time) "If you weren't nervous you'd have a wee bit of a problem" (Kenny Dalglish, cited in Rice, 2012). Behzadi et al. (2011) also suggested other variables could affect athletes' somatic anxiety levels and that these needed to be taken into consideration. Ohlson and Hammermeister (2011) also suggested that how an individual perceives anxiety can have a significant effect on somatic anxiety. Therefore, future research needs to examine the role players' perception of somatic anxiety plays in the effect of that anxiety. Voight et al. (2000) Ohlson and Hammermeister (2011) and Modroño and Guillen (2011) suggested if players see these somatic signs (for example, jitteriness and butterflies in their stomach) as a positive sign (i.e., indicating the body is ready to perform) they may not perceive such signs as 'anxiety' but rather as 'readiness' to compete. Grossbard et al. (2009) suggested the level of participation may also be a confounding variable that could affect players' anxiety, and their perception of that anxiety, for example, elite level players may be better trained in dealing with anxiety than novice athletes.

Hypothesis 2b examined the effects of players' goal orientation on their cognitive anxiety levels. The hypothesis was supported, indicating that the players' goal orientation had a significant impact on their cognitive anxiety. Players who were high in both their task and ego goal orientations had significantly lower cognitive anxiety than players who were low in both their task and ego goal orientations. No significant

difference was found between the High Task/Low Ego group and the Low Ego/High Task Group for cognitive anxiety. A means plot in Figure 2 (page 59) shows the mean scores of the players' cognitive anxiety scores. These findings support previous research carried out by Morris and Kavussanu (2009 and Voight et al. (2000) who found that athletes' goal orientation could have a significant impact on their levels of cognitive anxiety. An important point to note is that variables such as players' perceptions of anxiety need to be considered, as research by Ohlson and Hammermeister (2011) showed that variables such as experience can have a confounding effect on the impact of goal orientation.

Hypothesis 2c examined the effect of goal orientation on players' self-confidence levels. The hypothesis was supported. These findings also support previous research (Barić & Bucik, 2009). Similar to Hypothesis 2b, players who were high in both task and ego goal orientation had the most positive self-confidence and cognitive anxiety scores, as shown in Figure 2 (page 59) and Figure 3 (page 60). Players who were low in both task and ego goal orientation had the lowest self-confidence scores and the highest cognitive anxiety scores. Little research on goal orientation has examined the effect of goal orientation on players' self-confidence levels. Previous research has found the motivational climate to have a significant impact on the self-confidence of participants.

The findings of Study One suggest that future research should consider the effect of goal orientation on players' self-confidence. Study One demonstrated the importance of goal orientation. The findings support a number of previous research studies (Çetinkalp & Turksoy, 2011; Mattern, 2005; Roebken, 2007; van de Pol and Kavussanu; Veermans & Tapola, 2004 2012; Yli-Piipari et al., 2013) that have demonstrated how athletes' goal orientation can have a significant impact on a number of variables, such as anxiety and self-confidence, and these have been reported as significant predictors of athletic performance (Barić & Bucik, 2009; Vosloo et al., 2009).

Hypothesis 3a, 3b and 3c examined the combined effect of the players' perception of their motivational climate and their Achievement Goal Orientation to determine their effect on the players' anxiety and self-confidence levels. A number of previous studies had examined either the impact of goal orientation (Behzadi et al., 2011; Cetinkalp, 2012; Çetinkalp & Turksoy 2011; Wang, et al., 2012) or the motivational

climate on athletic performance (Appleton et al., 2011; Bryan & Solmon, 2012; Gråstén et al., 2012; Ntoumanis et al., 2012). However, little research had examined the combined effect of these two variables on athletic performance. Barić and Bucik (2009) and Vosloo et al. (2009) examined the effect of this combination on players' anxiety and self-confidence. As in Hypothesis One and Hypothesis Two, Hypothesis Three examined three dependant variables, namely, somatic anxiety, cognitive anxiety and self-confidence. Hypothesis 3a examined the combined effect of the players' perception of their motivational climate and their Achievement Goal Orientation on their somatic anxiety levels. The results of Study One supported the hypothesis which stated that the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation would have a significant impact on players' somatic anxiety levels. Players in the Task Orientated/Low Task/High Ego group had the lowest levels of somatic anxiety while players in the Ego Orientated/High Task/Low Ego group had the highest levels of somatic anxiety. These data are shown in Figure 4 (page 61).

These findings in Study One support previous research by Barić and Bucik (2009) who found the combined effect of the motivational climate and goal orientation to have a significant impact on players' somatic anxiety. However, these findings from Study One are in contrast to those cited by Vosloo et al. (2009) who found the combined effect of the Perceived Motivational Climate, and Achievement Goal Orientation, had no significant impact on players' somatic anxiety. The findings of Study One suggest the combined effect of the players' Perceived Motivational Climate and Achievement Goal Orientation may only affect players in co-dependant team sports, as Study One and Barić and Bucik (2009), tested participants from co-dependant team sport, while Vosloo et al. (2009) examined teenage swimmers (an individual sport setting). Hypothesis 3b examined cognitive anxiety. Similar to the findings for somatic anxiety Study One found players in the Task Orientated/High Task/High Ego group had the lowest levels of cognitive anxiety while players in the Ego Orientated/Low Task/ Low Ego group had the highest levels of cognitive anxiety. These data are shown in Figure 5 (page 62).

Study One suggested the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation had a significant positive impact on players' anxiety levels. These findings support Hypothesis 3b and support the findings of previous

research (Barić & Buck, 2009), however, they are in contrast with the findings of Vosloo et al. (2009). Finally Hypothesis 3c examined the effect of the combination of players' perception of motivational climate and their achievement goal orientation on the players' self-confidence levels. Similar to anxiety, players in the Task Orientated/High Task/High Ego group and the Task Orientated/Low Task/High Ego group had the most positive scores (i.e., the highest levels of self-confidence). Players with the most negative score (i.e., the lowest levels of self-confidence) were those in the Ego Orientated/High Task/ Low Ego group. These data are shown in Figure 6 (page 63).

The findings of Study One support the suggestion by Barić and Bucik, (2009) that the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation can have a significant impact on players' anxiety and self-confidence levels. However, little research has been carried out in this area. These findings are in contrast to the findings of Vosloo et al. (2009) who reported that the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation did not have a significant effect on teenage swimmers' anxiety and self-confidence levels. However, these contrasting findings may be due to the difference in the types of participants in the two studies. Vosloo et al. (2009) suggested that their lack of significant findings may have been due to their research being carried out on athletes who competed in an individual sport. Vosloo et al. (2009) suggested that future research should examine players in co-dependant team sports. Study One took this into consideration and this may explain the difference in the findings between the two studies. Study One's findings suggested that, at least in co-dependant team sports, the combined effect of Perceived Motivational Climate and Achievement Goal Orientation may play a significant role in sports performance. While the results from Study One appear to suggest that the combined effect of the players' perception of their Motivational Climate and their Achievement Goal Orientation may play a significant role in performance, a number of questions remain unanswered. Players in a task orientated motivational climate had more positive scores for anxiety and self-confidence than those in the ego orientated motivational climate. This suggests that perceived motivational climate may be the primary cause for the difference in the participants' anxiety and self-confidence scores, with goal orientation playing a moderating role. Another important variable to take into

consideration is the effect of time. It would be interesting to examine the change in players' perceptions of their motivational climate and goal orientation over the course of a season. This could help to determine if the Perceived Motivational Climate plays a role in the type of goals players set. Also, examining a team before and after the arrival of a new manager could shed some light on the effect of the Perceived Motivational Climate on players' Achievement Goal Orientation.

Study One had a number of strengths and limitations. Study One built on previous research. Study One examined Vosloo et al. (2009)'s suggestion that co-dependant team players could react differently compared to individual team players, regarding the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation. Vosloo et al. (2009) suggested that their results may have been affected by examining participants in non-co-dependant team sports (i.e., swimmers). Study One examined the four main co-dependant team sports in Ireland (i.e., soccer, rugby, hurling and Gaelic football). This allowed Study One to examine the differences in findings of Vosloo et al. (2009) and those of Barić and Bucik (2009). The findings of Study One suggested the difference in these two other studies' findings may have been due to the involvement of different participant groups. Future research could examine the differences between individual and co-dependant team sports to determine if the discrepancy in the results of Study One and Vosloo et al. (2009) are due to these studies examining different types of sports. Behzadi et al. (2011), Hanrahan and Cerin (2009) and van de Pol and Kavussanu (2012) showed how players in individual sports can react differently compared to players in team sports for variables such as anxiety and self-confidence. Study One's findings are unable to determine whether the difference in the results (i.e., the effect of the combined effect of motivational climate and goal orientation on players anxiety and self-confidence levels) between this study and Vosloo et al. (2009)'s study may be due to the different type of player, as Study One did not include athletes from individual sports. Future research should explore this further, and examine whether individual and co-dependant team players do, in fact, react differently on their anxiety and self-confidence for the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation.

Study One also collected data from a large sample of participants. This large sample size allowed Study One's findings to be generalisable to an Irish, co-dependant sporting population. Study One also examined an adult sporting population. This is unlike much of the previous research that had examined the impact of the Perceived Motivational Climate and Achievement Goal Orientation. Such research by Barić and Bucik (2009), Mouratidis et al. (2008), and Vosloo et al. (2009) has all examined teenage athletes. Study One, and Mohammadzade (2012), in contrast, involved the recruitment of participants from adult athlete groups. This difference in participants allowed Study One's findings to be generalised to an adult sporting population, unlike much of the previous research examining the impact of the Perceived Motivational Climate and Achievement Goal Orientation.

A limitation of Study One was that as the data was only collected on one occasion, it is difficult to determine whether it was just the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation that was affecting the players' anxiety and self-confidence, or if a more detailed interaction was taking place. A number of other variables that could impact on the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation were beyond the scope of Study One, however, they could be interesting to examine in future research. Variables such as gender affects, a detailed examination of the level a player competes at (i.e., elite, semi-elite or novice level), the location of the teams (i.e., in an urban or rural setting) were beyond the scope of this research, however, an investigation of these variables may help to understand athletes' Achievement Goal Orientation in more depth. These, and other suggestions for future research, are discussed later in the discussion section of this thesis.

Chapter Three: Study Two

Study Two:

3.1 Aim of Study Two

The main aim of Study Two was to examine the possible effect of social media on performance in co-dependant team sports. There is a lack of research in this area, however, a number of previous researchers, for example, Vosloo et al. (2009) suggested that social factors like the media, family and friends could play a vital role in the development of a team's motivational climate. Therefore, Study Two examined the possible role of social media as a social factor, and examined social media's possible effect on a team's motivational climate. Study Two had two research questions, one, will teams tweet about their players' mental state prior to, during or after matches (e.g., will they refer to the players' anxiety and self-confidence levels)? Two, will teams from different sport types (for example, soccer and rugby) use Twitter in the same way (for example, will they post similar types of tweets)? Due to a lack of research examining the potential effects of social media on sport, it was difficult to design Study Two based on previous research. However, previous research examining Perceived Motivational Climate, Achievement Goal Orientation and the effect of social media within business settings were considered (see Chapter 1).

3.2 Method

3.2.1 Design:

Study Two employed a semi-structured qualitative design. The researcher followed a number of teams on Twitter, however, there was no contact between the researcher and the owners of these Twitter accounts. Tweets for the teams followed were examined over a four month period. Four months was chosen as it gave the opportunity to examine the clubs over a short period of time as well as allowing for the collection of a large amount of data. Content analysis was used to examine the tweets in order to code the data into one of four themes.

3.2.2 Participants:

The clubs included in Study Two were seventeen co-dependant sports clubs from GAA, rugby and soccer. The teams in Study Two had established live Twitter accounts for between 8 and 47 months ($M=20.17$ months, $SD=16.55$ months). Of the teams included, seven were located in a rural setting while ten were located in an urban setting. Since

the time the teams had established their online presence on Twitter, they had tweeted between 5 and 3596 times ($M=1432$ tweets, $SD=1607.50$ tweets).

3.2.3 Procedure:

Research Procedure:

Clubs were chosen based on a number of criteria. Clubs also had to have an active Twitter account for at least six months. Clubs were only examined from the four main co-dependant team sports in Ireland, namely, soccer, hurling, Gaelic football and rugby. These criteria were used in an attempt to make the results more generalizable across a range of different sports, as well as allowing for comparison between the different sport types. The clubs' Twitter accounts were observed and their tweets were recorded for a four month period during the season. All tweets were recorded and analysis of the tweets was carried out in three phases.

3.2.4 Ethics:

Consent to use clubs' tweets in Study Two was not required. Tweets are considered to be in the public domain, therefore, it was not necessary to receive consent from the clubs to examine their Twitter posts. However, a number of other important factors needed to be considered. First, the anonymity and confidentiality of the players and clubs was considered important. If players had been named in Study Two it may have been possible to identify them as taking part in Study One. Due to the promise made by the researcher with the clubs to keep the players' and clubs' data anonymous in Study One, it was decided that tweets by players who participated in Study One would not be identified in Study Two. Only the key words from the tweets are, therefore, published in Study Two. This decision was made to ensure participant anonymity throughout the research process. Therefore, any tweets included in Study Two are only examples of the types of tweets posted by the clubs and are actually taken from popular club Twitter accounts, for example, Liverpool Football Club and Manchester United Football Club.

3.2.5 Data Analysis:

Phase One consisted of a key word search where the tweets were examined for words related to motivation, anxiety and self-confidence. During Phase Two of the analysis the tweets were coded into one of four themes, namely, Public Relations, News, Match Updates and Team Interaction. These themes were then divided up into sub-themes (for

example, the main theme: "Match Updates", had sub-themes such as, "Score", "Incident Update" and "Performance Update") see Table 4 (Below). The main themes were coded into sub-themes as this allowed for a more in-depth examination of the tweets and the researcher was better able to determine if the tweets could have an effect on a team's motivational climate. A second reader also examined the tweets of seven of the seventeen teams included in Study Two. There was an agreement of 79.54% on the tweets that the co-rater examined. The co-rater was not familiar with sport and so was given examples of the types of tweets to expect in a sports setting that would be considered to be related to each of the identified themes. The co-rater and researcher also had the same qualification in Internet research methods, therefore were had a similar level of expertise.

Phase Three, the final phase of Study Two, involved tweets being examined for differences in the way clubs from the different sports use Twitter. Due to the lack of research in the area it was felt that this broad examination would allow the researcher to best determine whether social media could have an impact on the team climate of co-dependant teams and to answer the two research questions.

Research Question One: Will clubs tweet about their players' mental state prior to, during or after matches (e.g., will they refer to the players' anxiety and self-confidence levels)?

Research Question Two: Will clubs from different sport types (for example, soccer and rugby) use Twitter in the same way (for example, will they post similar types of tweets)?

3.3 Results:

3.3.1 Descriptive Statistics

Tweets were recorded over a four month period during a competitive season. During this period, the seventeen teams included in the study tweeted between 21 and 1390 times ($M=377.06$ tweets, $SD=345.53$ tweets). These tweets were coded into one of four main themes "News", "Match Updates", "Public Relations" and "Team Interaction". Each club's Twitter information is presented in Table 4 (overleaf).

Table 5: Club Twitter Profile Information

| ID | Sport | Joined Twitter | Months Active | Team Placement | No. of Tweets | Tweets per Month | Tweets in Test Period | News | Match Update | Public Relations | Team Interaction |
|----------------|--------|----------------|---------------|----------------|---------------|------------------|-----------------------|------|--------------|------------------|------------------|
| Club One | GAA | Jul-09 | 42 | Urban | 624 | 14.86 | 21 | 5 | 0 | 13 | 3 |
| Club Two | GAA | Mar-12 | 8 | Rural | 550 | 68.75 | 357 | 74 | 138 | 114 | 31 |
| Club Eight | GAA | Sep-09 | 55 | Urban | 2925 | 53.18 | 482 | 208 | 172 | 70 | 17 |
| Club Thirteen | GAA | Jan-12 | 28 | Rural | 1011 | 36.11 | 212 | 33 | 119 | 51 | 9 |
| Club Three | GAA | May-12 | 24 | Rural | 337 | 14.04 | 45 | 81 | 145 | 30 | 16 |
| Club Four | Rugby | Sep-11 | 16 | Urban | 929 | 58.06 | 309 | 118 | 96 | 125 | 135 |
| Club Five | Rugby | Feb-09 | 47 | Urban | 422 | 8.98 | 272 | 81 | 97 | 137 | 187 |
| Club Ten | Rugby | Nov-10 | 41 | Urban | 3350 | 81.71 | 212 | 36 | 75 | 82 | 19 |
| Club Eleven | Rugby | Apr-12 | 24 | Urban | 5746 | 239.42 | 612 | 162 | 232 | 193 | 25 |
| Club Six | Soccer | Dec-11 | 13 | Urban | 3898 | 299.85 | 376 | 265 | 35 | 59 | 17 |
| Club Seven | Soccer | Feb-12 | 11 | Rural | 3596 | 326.91 | 551 | 93 | 426 | 30 | 2 |
| Club Nine | Soccer | Aug-12 | 20 | Urban | 5011 | 250.55 | 489 | 89 | 150 | 246 | 4 |
| Club Twelve | Soccer | Jan-11 | 39 | Urban | 3577 | 91.72 | 97 | 94 | 0 | 0 | 3 |
| Club Fourteen | Soccer | May-13 | 11 | Rural | 7465 | 678.64 | 1389 | 125 | 290 | 968 | 6 |
| Club Fifteen | Soccer | Mar-09 | 61 | Urban | 9348 | 153.25 | 834 | 247 | 346 | 229 | 12 |
| Club Sixteen | GAA | Mar-12 | 25 | Rural | 489 | 19.56 | 77 | 20 | 37 | 8 | 12 |
| Club Seventeen | GAA | Feb-13 | 14 | Rural | 352 | 25.14 | 75 | 32 | 10 | 7 | 26 |

3.3.2 Research Question One:

Will clubs tweet about their players' mental state prior to, during or after matches (e.g., will they refer to the players' anxiety and self-confidence levels)?

An examination of the seventeen club Twitter accounts yielded no interesting results see Table 5 (below). The most common word posted by clubs was "support". However, without the context in which such a word appeared it is difficult to determine whether words such as "support" are related to the team or to the supporters. The analysis did not suggest that Twitter could have an effect on a team's climate. However, a further more in-depth examination was required to determine the impact social media could have on a team's motivational climate in such co-dependant team sports.

Table 6: Twitter Word Search for Words Related to Anxiety and Self-confidence

| | |
|------------|-----|
| Motivation | 0 |
| Encourage | 4 |
| Promote | 0 |
| Lift | 6 |
| Support | 123 |
| Pressure | 23 |
| Anxiety | 0 |
| Stress | 0 |
| Nerves | 1 |
| Emotions | 2 |

Coding and Theme Classification

Tweets were classified into one of four themes, namely "News", "Match Update", "Public Relations" and "Team Interaction". Tweets classified as "News" were considered factual tweets (i.e., they give updates on club events or news to followers). Such tweets were considered not likely to have had an effect on a team's motivational climate, as these tweets rarely mentioned a specific team or its players, and were primarily used to relay information on to the public (an example of such a tweet, @LFC posted "Congratulations to @luis16suarez, who has tonight booked his place at the 2014 World Cup with Uruguay pic.twitter.com/4m4WDlwQ9G") (LFC, 2013).

The second theme identified from this analysis was "Match Updates". Tweets categorised as Match Updates contained real time information from live matches. It was

thought such tweets may have had an effect on a team's motivational climate, as references in some of the posts were made to teams and individual players' performances (an example of such a tweet, @OfficialWexGAA posted "Leinster Intermediate Hurling Championship Final (2nd half,48 min) Buffers Alley 0-10 Rower-Inistioge 1-9") (OfficialWexGAA, 2013).

A third theme identified from this analysis was "Public Relations". These tweets accounted for 2215 (34.56%) of the tweets and were categorised as Public Relations as they were tweets directly related to other Twitter users (an example of such a tweet, @irfurugby posted "Updates, pictures & tweets & live updates from @AVIVASTadium fan studio check out irishrugby.ie for our live blog #IRLvAUS") (irfurugby, 2013). Such tweets were either retweets or messages directed at other Twitter user's Twitter handle. These tweets were also considered unlikely to have had an impact on a team's motivational climate as they were largely directed at people outside of the club. However, it is worth noting that it is possible some of the tweets were sent to people within the club.

The final theme identified during this data analysis was "Team Interaction". These tweets included messages commenting on past performances or encouraging a team in future matches (an example of such a tweet, @mcfc posted "FULL TIME: City 6-0 Spurs. Another stunning home performance from the Blues! #cityvspurs #mcfc pic.twitter.com/h84DMxnHzz") (mcfc, 2013). These tweets were considered most likely to have had an effect on a team's motivational climate. Such tweets, however, occurred infrequently and were usually only made prior to big games such as finals. These main themes were also divided into sub themes, these and the criteria for the themes and sub-themes are displayed in Table 6 (overleaf).

Table 7: Identified Theme and Sub Theme Classification

| Themes | Number of Tweets | Criteria |
|-------------------------|------------------|---|
| News | 1704 | Tweets updating followers in news. |
| Club News | 154 | Tweets updating fans on club news. |
| General News | 457 | Tweets about general news, usually about the clubs' sports. |
| Event News | 286 | Tweets alerting followers to club events. |
| Match News | 671 | Tweets giving information about matches. |
| Team News | 102 | News about the clubs' teams. |
| Merchandise | 34 | Tweets alerting fans to club merchandise. |
| Match Updates | 2255 | Tweets updating followers during live matches. |
| Score | 413 | Tweets updating on the score only. |
| Incident Update | 1366 | Tweets updating about a match incident (e.g., a corner kick.) |
| Performance Update | 476 | Tweets commenting on a players' or teams' performance. |
| Public Relations | 2215 | Tweets interacting with other Twitter users. |
| Retweet | 1674 | Retweets by the club. |
| Fans | 541 | Tweets directed at particular Twitter users. |
| Team Interaction | 236 | Tweets interacting with the clubs' teams and players |
| Encouragement | 112 | Tweets encouraging the team for a future match. |
| Performance | 124 | Tweets commenting on a team's past performance. |

A total of 6410 tweets were coded into one of four main themes, i.e., News, Match Updates, Public Relations and Team Interaction. Match Update was the most commonly occurring theme from the tweets. It appeared on 2255 occasions (35.18%). The theme identified least often was Team Interaction. It occurred on only 236 occasions (3.68%) in the tweets. In comparison, the News theme occurred on 1704 occasions (26.58%), while the Public Relations theme appeared on 2215 occasions (34.56%). Figure 7 (overleaf) displays the percentage occurrence of each of the main themes. The team interaction tweets, which were considered to possibly be related to motivational climate, only account for 3.68% of the total tweets posted.

Percentage Occurrence of Themes Identified in Clubs' Twitter Posts

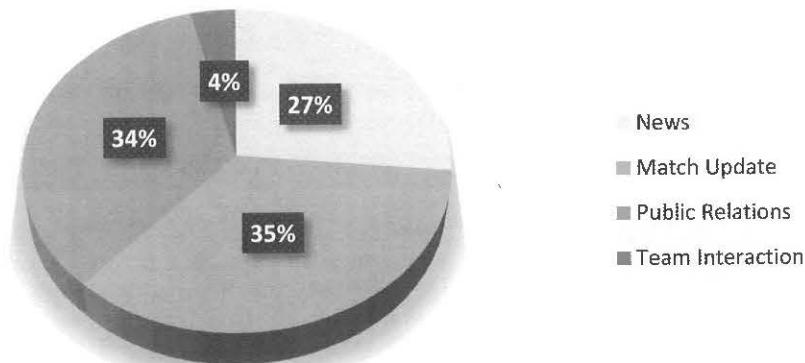


Figure 7: Percentage Occurrence of Themes Identified in Clubs' Twitter Posts

News (26.58%), and Public Relations (34.56%) could be classified as interaction with the public, not the team, and were, therefore, not considered relevant to a team's motivational climate. However, 35.18% of the tweets analysed were classified as Match Updates. Match Update posts were a mixture of public interaction and team interaction, as they contained information to keep the public updated on scores in live matches. They may also have had an effect on a team's motivational climate, as comments were made about individual players, and the team's overall performance in such posts.

Tweets Related to the Teams' Motivational Climate

As stated above, the Team Interaction tweets were considered most likely to have had an effect on a team's motivational climate. This was due to these tweets being specifically directed at the players and their team. These tweets were posted either prior to, or after a match. This theme only accounted just 3.68% of the total tweets viewed. However, the "Performance Update" sub theme also has the potential to affect a team's motivational climate. While these tweets were posted during matches when players were "on the pitch", players may have viewed them after the match and therefore, saw the comments posted regarding their own, or a team mate's, performance. "Match Update" also contained "Score" and "Incident Update". Figure 8 (overleaf) highlights the percentage occurrences of these sub themes. As shown in Figure 8 (overleaf), 21.11% of the Match Update tweets were performance related. When both the Performance Update and Team Interaction tweets were examined together they accounted for

11.11% of the overall tweets posted. With over 10% of tweets it could be argued that Twitter may have a potential effect on a player or a team, however, given that this is such a low percentage it is unlikely that twitter will have a significant effect on motivation.

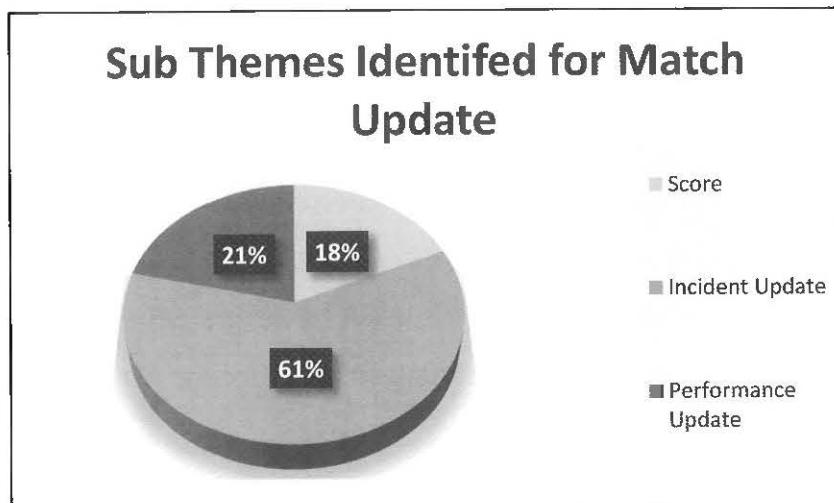


Figure 8: Sub Theme Percentages for Match Update Information in Themes Examined

3.3.3 Research Question Two:

Will clubs from different sport types (for example, soccer and rugby) use Twitter in the same way (for example, will they post similar types of tweets)?

Sport Use of Twitter

In phase three soccer, rugby and GAA clubs were compared to determine whether clubs from each of the sports used Twitter in a similar way. Figure 9 (overleaf) shows GAA clubs' use of Twitter. GAA clubs most common type of tweet was Match Update, and News was the second most common theme. An important point to note was that the least common theme to occur was Team Interaction.

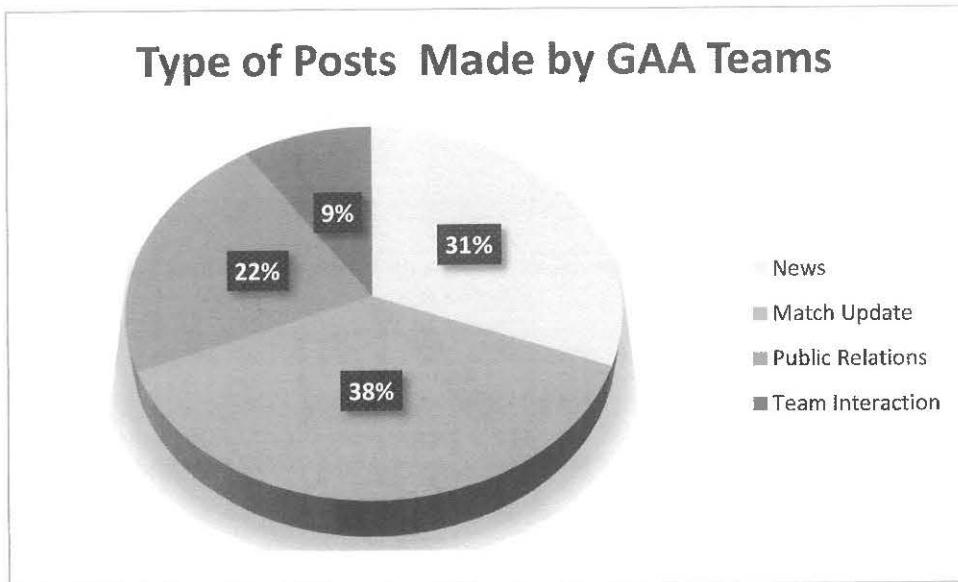


Figure 9: Type of Posts Made by GAA Teams

Figure 10 (overleaf) shows that rugby clubs' posts were similar to those of GAA clubs. The most common theme in tweets by rugby clubs was Match Update. Unlike GAA teams Rugby clubs' second most common theme was Public Relations, however, there was less than a 1% more difference between it and News. Another point to note was that, similar to GAA clubs, the least common theme emerging for rugby clubs was Team Interaction. However, it appeared less frequently in rugby clubs' tweets than in those of the GAA clubs monitored.

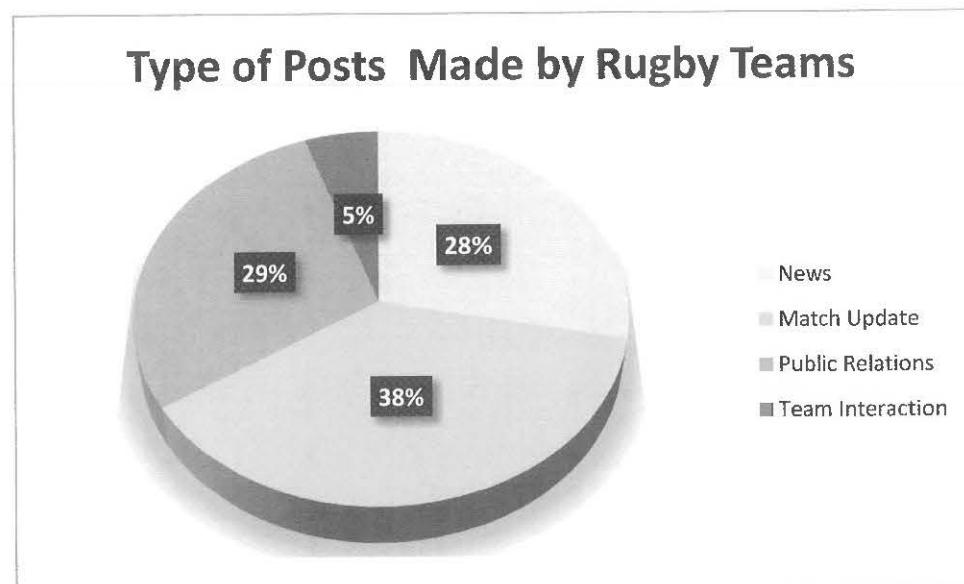


Figure 10: Type of Posts Made by Rugby Teams

Finally, Figure 11 (overleaf) shows the theme percentages for soccer clubs' tweets. Unlike GAA and Rugby teams the most common theme from soccer clubs was Public Relations, accounting for almost 45% of the soccer clubs' tweets. The second most common theme was Match Update accounting for 33% of the tweets posted by soccer clubs during the analysis. Only 1% of the soccer clubs' tweets analysed were categorised as Team Interaction. This was a similar trend to both GAA and rugby clubs. It was the least commonly occurring theme in soccer.

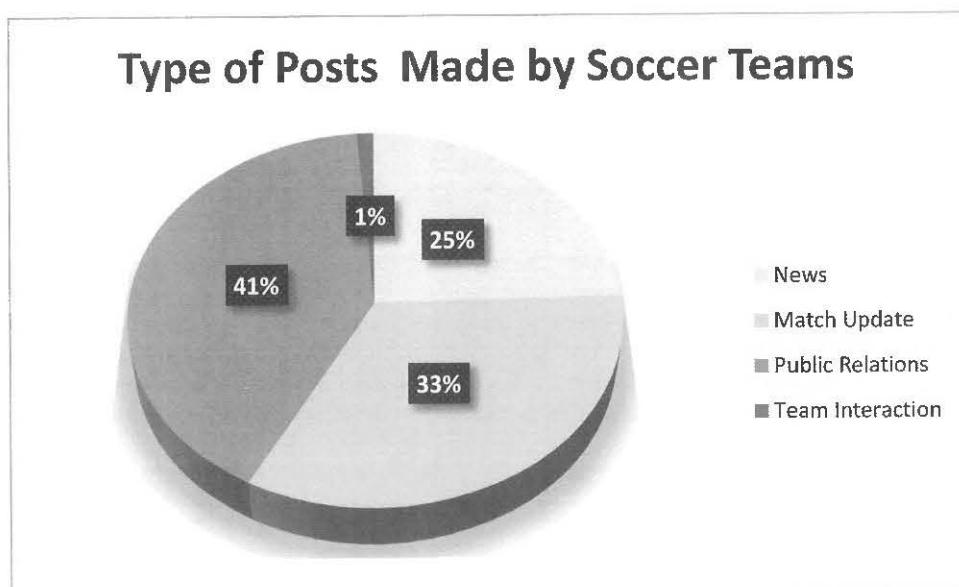


Figure 11: Type of Posts Made by Soccer Teams

3.4 Discussion:

Phase One of Study Two involved a key word search to identify whether team's tweets contained references to the players' mental state. Words such as anxiety, self-confidence, and nerves were searched for. The most commonly occurring word was "Support" which appeared on 123 occasions in the analysed tweets. However, without context, it is very difficult to identify whether such tweets were aimed at teams or the supporters. The other most prevalent words in the analysis relating to performance and the perceived motivational climate were "Encourage" which appeared on 4 occasions and "Pressure" which appeared on 23 occasions. This suggested there is little reference to a team's mental state by clubs in their Twitter posts. This could be the case for a number of reasons. However, one possible explanation for this may be that clubs may not want to make competing teams aware of their own teams' mental state. One major

limitation to the data analysis of Phase one in Study Two was that the context of the tweets was not considered, therefore, during Phase Two the tweets were coded. This allowed for a more in-depth examination of the tweets.

Of the themes identified, Team Interaction was considered most likely to have had a possible effect on a team's climate. However, only 3.68% of 6410 tweets examined were coded as Team Interaction. This finding could suggest that in the case of tweets made by the seventeen teams analysed in Study Two, it is unlikely that a club's tweets had a significant impact on a team's motivational climate, simply due to the lack of such tweets made by clubs examined. In order to complete a more in-depth examination, the tweets allocated the themes into sub themes. This analysis yielded some interesting findings. Of the tweets classified as Match Update, 18.31% were classified as "Score" which means these tweets only gave an update of a live match score (for example, Rathnure 2-14, Oulart/The Ballagh 5-9, Rathnure St. Annes, 2013). 60.58% of the tweets examined were classified as "Incident Update". These referred to tweets that updated followers on a match incident. (For example, an injury update: David Moyes confirms Nani, Ashley Young and Wayne Rooney will not be travelling to Wembley. #mufc, manutd, 2013). The final 21.11% of the tweets examined were classified as "Performance Update", which pertained to comments about either a player or his team's performance. This observation is relevant as it is possible Performance Update tweets could have had an effect on either a player, or his team's performance. If combined, the number of tweets coded as Performance Update with the tweets coded as Team Interaction, accounted for 11.11% of the overall tweets examined. This is an interesting point. If over 10% of all tweets posted by clubs were directly commenting on a player or a team's performance then it is possible a clubs' Twitter posts could have some impact on the development of the team's motivational climate, however, due to the low percentage it is unlikely that they could have a significant impact.

Two other important issues should be mentioned here. Firstly, Performance Update tweets were tweets related to live matches, therefore, unless players actively went back to read such tweets after the match, it is unlikely that such tweets affected their performance or the team's Perceived Motivational Climate. Secondly, Study Two only took tweets posted by clubs into consideration. Tweets made by opposing clubs,

opposing players, opposing managers, fans or the players themselves were not considered. Tweets by these other Twitter users may have contained more or less content that could impact on the development of a team's Perceived Motivational Climate.

During the final phase of Study Two a number of similarities and differences between the clubs' tweets from the different sport types were identified. The most popular type of tweet was Match Update for GAA teams 37.67%, Rugby teams 37.72%. Soccer team's most common theme was Public Relations which accounted for 41.01% of the tweets. This difference may be due to the fact that all of the soccer teams included in the analysis were elite teams, in comparison to the GAA and Rugby teams who were a mixture of Semi Elite and Novice. Teams at higher levels of their sport may be more likely to interact with fans as they may be trying to build a rapport with fans to encourage them to attend matches and buy merchandise. Another interesting observation made in Study Two was that only 1% of soccer tweets were coded as Team Interaction. This was lower than rugby teams' tweets (5%) and GAA teams tweets (9%). As with public relations a possible reason for this is that the soccer teams examined in Study Two were professional teams, therefore, they may have been more careful about posting tweets referring to the teams' mental state, as, professional teams would not want to make their teams' mental state available to their competitors.

Due to the lack of research in this area, it was not possible to compare the findings of Study Two to previous research studies. However, future research should take a number of issues into consideration. Study Two had a relatively small sample size. Future research should consider examining a larger number of teams' tweets. Teams were not divided evenly between the three sport types this could also potentially have had an impact on the results. Also, Study Two only followed teams in co-dependant team sports over a four month period. Future research should consider examining teams over the course of a year. This would allow researchers to examine possible changes in the clubs (for example, game results) that Study Two could not consider. One of the strengths of Study Two was that it is one of the primary studies to examine social media in a sporting domain. The findings of Study Two suggest that further examination of the impact of social media is warranted.

The current study was only able to examine clubs' tweets. The addition of examining players' or managers' tweets may better determine the potential of social media such as Twitter on a team's motivational climate. Another potential discrepancy of the teams examined was the difference in the number of tweets each of the examined teams made. Teams with more experience of using Twitter may change their behaviour over time. This is another potential area for future research to examine. Due to time pressure and a small sample size the current study was unable to determine whether this could have an effect on the type of tweets that were made. This may be an interesting subject for future research to take into consideration. Teams were also not evenly divided between the three sporting types, four rugby teams, five soccer teams and six GAA teams were examined. Due to the lack of rugby teams and soccer teams that use Twitter it was not possible to have even an even number of teams across the three sports types. This may have had an impact on the results and future research should take this into consideration. Due to the small sample size the current finding cannot be confidently generalised to an Irish adult sporting population. These, and other limitations will be discussed further in the overall discussion section of this thesis in Chapter 5.

Chapter Four: Study Three

Study Three:

4.1 Aim of Study Three

The aim of Study Three was to determine managers' opinions on a number of key issues identified in Studies One and Two. These issues lead to three research questions. Research question one asked what do managers perceive as the variables that could affect their team's motivational climate? Research question two asked how important is goal setting to a team, and what effect can it have on the team? Research question three was do managers state that social media could have an impact on a player's mental state, goal setting ability or a team's motivational climate?

4.2 Method

4.2.1 Design:

Study Three consisted of three semi-structured interviews. A semi-structured interview style was chosen for two reasons. First, to discuss specific areas of interest from Studies One and Two, such as, a team's motivational climate and the effect of social media on their teams. This may not have been possible if an un-structured interview was employed. Second, a semi-structured interview style would allow for the collection of rich data. The three managers were only asked six questions which allowed them to speak openly and in depth about their opinions on the topics and allowed the researcher to record data which may not have emerged in a structured interview. Mattern (2005) stated using interviews was a good way to gain context, this will allow for a better understanding of the participants opinions.

4.2.2 Participants:

Three managers from co-dependant team sports took part in Study Three. The managers were only selected if the team they managed was part of a club that maintained an active Twitter account. One manager was selected from each of Ireland's three main team co-dependant team sports in Ireland, namely, soccer, GAA and rugby. The participants in Study Three managed teams at either an elite level, (for example, players who compete for Inter-county hurling teams) or a semi-elite level (for example, players who play All-Ireland League (AIL) rugby team). The managers had worked with their current teams for between 2 and 5 years and had been managing teams in total for between 5 and 13 years.

4.2.3 Materials:

Interview Script:

An interview script was developed to conduct the semi-structured interview (see Appendix D). The script enabled the researcher to explore the managers' opinions on (1) the importance of the motivational climate, (2) what issues had an effect on a team's motivational climate, (3) their goal setting policy, and (4) what effect they thought social media could have on the motivational climate of their co-dependant team.

4.2.4 Pilot Study:

A pilot study was carried out in order to determine the suitability of the Interview Script and to attempt to determine whether it was an effective means to gain the desired information. The pilot study was carried out with a retired hurling coach. The research procedure was implemented in line with the research proposal, which had been approved by the IADT Institute Research Ethics Committee. The participant was presented with an information sheet (see Appendix E) and a consent form to read (see Appendix E) prior to the interviews taking place. Once the interview was completed the participant was given the debriefing sheet (see Appendix E) and he was asked to give feedback on the research procedure and materials for Study Three.

The participant stated the materials were clear and easy to understand. He suggested that it might be interesting to also discuss the other media, for example, newspapers or radio, (not just focusing on social media). The participant suggested this as in his opinion managers might not be well equipped to discuss social media as they may be from an older generation and thus may not fully understand the use of or impact of social media. Another suggestion made by the participant was to briefly discuss the type of questions (for example, open ended questions) that were included in the interview. The pilot interview took less than thirty minutes, not the sixty minutes as originally predicted. This was helpful to know, as coaches would perhaps be more willing to take part in such a shorter interview. The pilot study participant's suggestions were taken into consideration, and where appropriate, the materials were amended prior to contacting the managers who participated in Study Three.

4.2.5 Ethics:

A number of ethical issues were considered in Study Three. The main ethical issue identified was the possibility of social injury for the managers who took part in the interviews. Managers' signatures were recoded. To combat the possibility of social injury as a result of this interview, the managers were given pseudonyms in the results section below. The specific managers' responses were only known to the researcher and were kept in a secure filing cabinet in the researcher's private residence. The managers were made aware of the risk of social injury on both the information sheet and verbally by the researcher. The managers were also made aware of the procedures in place to protect them from identification and such social injury. Another important issue in Study Three was that the teams of the managers who participated should be protected (i.e. not made identifiable). One step taken to ensure this was that the managers, at no stage, were asked to disclose the name of the team they managed, or the names of any players on their team. The use of pseudonyms to protect the managers' identities also assisted in protecting the identity of the team and players they managed.

4.2.6 Procedure:

Managers of teams with active Twitter accounts were contacted and asked if they would be willing to take part in an interview to record their opinions of the motivational climate within their teams and the effect of social media on their co-dependant teams. If the manager was willing to participate in an interview, an appointment and meeting place for the interview was then organised.

Upon arriving at the designated location each manager was provided with an information sheet (see Appendix D) to read. The managers were then given the opportunity to ask any questions they might have about either the issues they would discuss during interview or the interview procedure. Once the managers were happy to proceed they were asked to sign the consent form (see Appendix D). The manager's signature was important as it enabled the researcher to identify which managers took part in the interview. If a manager wished to query one of his quotes at a later date, this procedure allowed the researcher to identify him easily from the transcripts. Once the managers signed the consent form, the dictaphone was turned on and the interview began.

The managers were asked each of the six questions on the interview script in the same order. One, how long have you been managing? Two, how long have you been managing your current team? Three, how would you describe your team's atmosphere? Four, how does your team set goals/aims? Five, do you think the type of goals you set have an effect on the climate you develop? Six, do you think social media can have an effect on the team? Once the interview finished, the researcher thanked each of the managers and the dictaphone was turned off. The managers were given the debriefing sheet (see Appendix D) which provided them with more information about Study Three, along with possible suggestions for further reading on the topics explored in the interview. The managers were then given the opportunity to ask any further questions about Study Three prior to ending the meeting.

4.2.7 Data Analysis:

The data was transcribed and the researcher coded the qualitative data obtained from the three research questions. The managers' comments were coded under three headings related to the three research questions, namely, "Team Climate", "Goal Setting" and "Social Media". The managers' opinions were then identified based on their comments on the three topics.

Research Question One: What do managers perceive as the variables that could affect their team's motivational climate?

The manager's opinions regarding which issues could have the biggest impact on their teams' motivational climate were classified as "Team Climate" (for example, whether the manager stated the players, or the coaching staff, had a greater potential effect on the team's motivational climate).

Research Question Two: How important is goal setting to a team, and what effect can it have on the team?

The data were coded as "Goal Setting" if the manager gave an opinion on some aspects of goal setting. "Goal Setting" responses included the manager posing opinions on different types of goals, the importance of goal setting, the issues that could affect a team or players' goals, or the manager's opinions on who, within his team, sets the team's goals.

Research Question Three: Do managers state that social media could have an impact on a player's mental state, goal setting ability or a team's motivational climate?

This final research question in Study Three allowed managers' comments on social media to be recorded. The managers' comments were coded as "social media" if the manager gave an opinion regarding the potential effect of social media on either his individual players (for example, their mental state) or the team as a whole (for example, the team's motivational climate). The manager's opinions were coded as social media if he mentioned any rules or regulations for social media use. Comments were also coded as "Social Media" if the managers discussed their own experiences of social media to date (i.e. problems with social media).

4.3 Results:

4.3.1 Descriptive Statistics

The interviews were conducted with three managers who had worked with their current team for between 2 and 5 years ($M=3.67$ years, $SD=1.53$ years). Managers also had in total between 5 and 12 years of experience in management ($M=9$ years, $SD=3.61$ years). All three managers were male and were managing teams at either an elite level or semi-elite level.

4.3.2 Manager Profiles:

Participant One:

John A was a GAA coach with twelve years of experience of coaching. He had been managing in his current team for four years. John A was a multiple GAA All-Ireland winning manager and had experience of managing at a number of different performance levels (i.e., at club, U-21 inter-county, and senior-inter-county levels). He has also managed both male and female teams.

Participant Two:

Anthony B was a rugby coach with five years of experience of coaching. He had been managing his current team for five years. Anthony B had experience of playing professional rugby at the highest levels, having played in both England and Ireland for professional teams, as well as representing his country at Ireland A level, and Ireland Sevens level.

Participant Three:

Steven C was a soccer manager who had been managing for almost ten years. He had been managing his current team for almost two years. Steven C had completed his "A" licence and had previous experience managing teams at a number of different performance levels (i.e. at amateur and elite level).

4.3.3 Findings

The interview was divided in three themes and focused on different elements; Team Climate, Goal Setting and Social Media. These themes were based on the three research questions of Study Three. These themes will be discussed below.

Research Question One: Team Climate:

Research Question One: What do managers perceive as the variables that could affect their team's motivational climate?

Overall, managers stated there were a number of variables that could affect a team's motivational climate. All the managers mentioned the importance of a good motivational climate. They also referred to who might have an impact in the motivational climate.

"Management, eh, has I think I suppose a big impact on it." (John A, Interview One, June 24, 2013).

Steven C suggested that management could have an impact on the team's climate and that having a good motivational climate was important.

"It is hugely important that we try and create an atmosphere that keeps them motivated, and keeps them enjoying themselves" (Steven C, Interview Three, July 1, 2013).

All three managers also stated players had a large role to play in the development of a good team climate. However, all three managers stated players could have varying effects on the team's motivational climate. Anthony B said:

"If there is strong leadership within the group itself, within the guys, fellows who can set a standard in terms of what's acceptable at training and they set their

own rules and code of how they approach things so I think em yeah" (Anthony B, Interview Two, June 25, 2013).

Steven C suggested players could have a large impact on the motivational climate, in a negative way. He stated that a “negative” player could significantly affect the attitudes and morale of the other players.

“One or two bad apples really do kind of bring down a dressing room if you’ve got a guy it causes it’s almost like a cancer” (Steven C, Interview Three, July 1, 2013).

One of the most interesting findings of Study Three was that all three managers stated players had a greater impact on the team’s motivational climate than the manager.

“I think the players can have the biggest impact” (John A, Interview One, June 24, 2013).

Anthony B also suggested that players have a more considerable impact on motivational climate, however, he stated this was only the case in successful teams.

“Players have a bigger affect in my mind on the climate, I think, in successful teams” (Anthony B, Interview Two, June 25, 2013).

An interesting point made by Steven C was that, even though he stated the players have a greater impact on the motivational climate, he stated the manager decides which players are selected for the team.

“It’s kind of a chicken and egg in that the manager decides what group of players he wants, me the manager decides, and that’s far more than just ability based and managers decides what kind of personalities he is going to put into a dressing room.” (Steven C, Interview Three, July 1, 2013).

When asked if other variables could affect the team’s climate all three managers stated there were a number of possible variables that could have an impact. However, the three managers had varying opinions on the way such variables could affect the team. Some managers stated outside influences, such as supporters, county boards, and club management could affect the team climate, for example, Anthony B said:

"Supporters can, the management above the management can, the people outside the group who are neither a supporter or manager but have some kind of input whether its friends or family can" (Interview Two, June 25, 2013).

John A stated that other variables, such as how well the team was being looked after, could have a large effect on motivational climate.

"Players maybe, county boards, if they don't feel like they are getting the support in regards facilities or how they are being looked after, gear, different things like that" (John A, Interview One, June 24, 2013).

Two of the managers stated that family and friends could have an impact on the team climate. However, these managers differed in their opinions on the degree they stated the team could be affected. One of the managers stated that family and friends of the players could have an effect on the whole team of players.

"Em, certainly outside influences in their own lives then as well would be something, something that we encountered in a huge way last year with the tragedy around Danny Furlong's girlfriend at the time so that, that without a shadow of a doubt disrupted not only Danny but even got in around the dressing room to a certain extent as would do, such a huge thing to happen so there can be outside influences." (Steven C, Interview Three, July 1, 2013).

Although Anthony B agreed the player's family and friends could have an effect on motivational climate, he stated the effect was more localised to the individual players.

"The individual family, friend's type things, I don't think they affect a whole peer group but they can certainly affect individuals" (Anthony B, Interview Two, June 25, 2013).

One other variable that was mentioned by all three managers was the effect the team's supporters could have on the team's motivational climate. As was the case with the influence of family and friends, the managers differed in their opinions regarding the extent of the impact supporters could have on the team's motivational climate. All three managers suggested that the level of support for a team, in addition to other variables,

could impact on the degree to which the team felt the actual effect of their supporters on their team's motivational climate.

"How other people see them and how they're perceived by people on the outside and the support" (John A, Interview One, June 24, 2013).

One interesting point John A mentioned was regarding his experience working with females. Although his female team were more successful than their male counterparts within his county in recent years, the females still did not receive the same amount of publicity, in either the newspapers, or among the support.

"Being involved in a female sport, its maybe not getting the recognition that they see some lads getting" (John A, Interview One, June 24, 2013).

Similarly another manager stated that support could have an effect on the team's motivational climate. However, he stated that it has a far greater effect at bigger clubs, who have more supporters.

"Support wouldn't be huge down here, I would imagine with kinda, teams with bigger support you know, the support can kinda turn on you but we wouldn't really have enough supporters down here for it to affect you either way" (Steven C, Interview Three, July 1, 2013).

Research Question Two: Goal Setting:

Research Question Two: How important is goal setting to a team, and what effect can it have on the team?

All three managers stated that goals were a vital part of the preparation, for both the team and the management. The managers stated that without setting good goals it is very difficult for the team to have a structure and a united aim.

"Absolutely huge em I mean as I say otherwise you don't really know what direction you are headed in" (Steven C, Interview Three, July 1, 2013).

John A said during the interview one.

"You have to have them (goals) cause otherwise you just drift along." (John A, Interview One, June 24, 2013).

One interesting finding that emerged from the interviews was the similarity between the three managers in the way they set their team goals. All of the managers stated it was important that players and management alike agreed on the goals.

"There is no point in the players deciding they want to win an All-Ireland if the managers think Jesus we don't have the players to do it. Vice versa there's no point in the manager coming and saying listen we are going to win an All-Ireland and the players not being there or not believing in it everyone has to buy into it because if they don't, because if you can get everyone to buy into it then you can work towards that goal" (John A, Interview One, June 24, 2013).

All three managers stated they had team meetings, and during those team meetings players and management set, what they stated were realistic goals together.

"Every year we will have a meeting before any training or anything is done and we will have a facilitator there, who will ... (A pause from the interviewee).... from everyone from management, from players will draw in, well what is our goals for the coming year" (John A, Interview One, June 24, 2013).

All three managers also stated that having such a goal setting meeting at the start of the year was very important, and all of the managers held such meetings early in the season.

"We held a (Goal Setting) meeting here at the start of the season" (Steven C, Interview Three, July 1, 2013)

John A stated that if a team did not set goals early, then they could not plan how they would reach those goals.

"There is no point in going through six months of the year kinda plodding along and then deciding in May well we are going to win the All-Ireland now. It's all about planning" (John A, Interview One, June 24, 2013).

Anthony B stated that the structure of these early goal setting meetings was very important. He stated that by dividing the players up into groups and allowing the team

to talk among themselves first helped to give more structure to the meetings and helped the players set more realistic goals. He stated that, by having an open meeting where people give their individual opinions, goals could become unrealistic.

"They tend to become like debates, and they tend to go around the circles until everyone starts to think well why shouldn't we win every match because if you are in a competitive environment you turn around and go, you know, how many games should we try and win" (Anthony B, Interview Two, June 25, 2013).

Anthony B also said that when such a debate begins it is hard to stop, and the team could end up setting unreasonable or even unrealistic goals.

"I've found invariably is that someone somewhere along the line will say why shouldn't we try and win that thing we are not talking about winning so it becomes this cyclical kind of debate and you are going round and round in circles and you basically end up with a goal of winning every match, which is unlikely and unreasonable. and so try to take it away from a results based goal setting to a more processed way of goal setting" (Anthony B, Interview Two, June 25, 2013).

This same point was made by Steven C who said he stated goals had to be something that team have control over. He stated that he continually used the phrase "*Trying to control the controllables*" (Steven C, Interview Three, July 1, 2013), while talking to his team about goal setting. He stated that his team did not have control over how other teams would perform and so a team needed to take control over the variables they can control and work from there. The other two managers talked about the importance of setting good goals, and how bad goal setting could have a negative effect on the team. Anthony B said that in his experience, setting bad goals could be a critical mistake. For example he said during his playing days, his managers set the goal of winning the first game of the season.

"They geared pretty much the best part of six to eight weeks towards the first game and we lost the first game and it completely affected in my mind, the group

mentality, the coach's mentality towards the group, everything" (Anthony B, Interview Two, June 25, 2013).

Another important part of goal setting that the managers discussed was the importance of setting an ultimate goal (for example, a team's goal for the end of the season), and building towards that goal. One of the managers asked the players to decide what they stated the ultimate team goal was.

"... go off and decide what do you think are realistic goals for you this season what do you think is a realistic points tally" (Steven C, Interview Three, July 1, 2013).

Once the ultimate goal is decided, it appears the team could work back from that and decide what smaller goals need to be set in order to reach that ultimate goal.

"You work back from them, how are we going to achieve the goal, what do we need to do in January, February, March; we need to get to a certain level of fitness, then April, May, June, we need to work on the skills, the fitness, the team work, team play team tactics, all of that" (John A, Interview One, June 24, 2013).

An interesting comment made was that these "ultimate goals" tended to be ego-orientated goals. Of the three managers, the most successful of them continually talked about how a team should set their ultimate goal, whether it was winning the All-Ireland, or winning their first game of the championship.

"If we can win one game in the championship, well then, your goal is that, and you're working everything to the beginning of June, whereas we were setting a goal of September to win an All-Ireland, so our goal was what we needed to do to get to September" (John A, Interview One, June 24, 2013).

However, all of the goals that led to the team's ultimate goal were task orientated, whether that was fitness or skill based goals. This mixture of task and ego based goals was something that was evident through the three interviewees' comments. All three managers talked about the importance of good goal setting. One of the most interesting points made was that, even though setting ultimate goals was an important step in a competitive sport setting, it could be dangerous to only have ego-orientated goals.

"That type of goal it is too, too many variables in competitive level sport that can affect a result, that if you throw all your eggs in one basket, as a goal, and you then suddenly have to sit around as a group and deal with the fact that if you have set one of those goals and its already gone then that affects, it's a bigger affect on morale" (Anthony B, Interview Two, June 25, 2013).

Another interesting finding was that managers reported they set more team goals than individual goals. One of the managers said that he was going to start setting individual goals. However, up until the interview he had concentrated on team goals.

"That is something I should start to do a little bit more and probably something that is actually going to start from, from this Friday on where I gave them kind of individual targets and different things like that that can, can they try and, you know, deliver on such and such amount of passes or maybe tackles, or maybe shots for a particular game and things like that" (Steven C, Interview Three, July 1, 2013).

One of the other managers stated that setting individual goals could stop players from concentrating on the overall team goals and he only sets individual goals, for injured players as a result.

"If you are wanting a team to work together and then you're setting an individual a target say, for instance you're setting a forward a target, listen, I need you to average three points a game. The danger with that is they become so focused on their individual goal that they forget the overall goal. For me it's about the team achieving whatever we set out to achieve, and every player has their contribution to play within that" (John A, Interview One, June 24, 2013).

Research Question Three: Social Media

Do managers state that social media could have an impact on a player's mental state, goal setting ability or a team's motivational climate?

During the final section of the interview, managers were asked about their opinions of social media. All of the managers stated that social media could have an effect on

players' performance, whether that was positive or negative. When asked whether he thought social media could have an effect, John A replied

"It can I mean very much nowadays" (John A, Interview One, June 24, 2013).

Steven C also replied.

"I do, absolutely yeah" (Interview Three, July 1, 2013)

One interesting point made was that social media could have a negative effect due to players getting criticised or over praised on such social media.

"You can have people who are getting slated on Twitter and it can affect them as individuals, and you can have guys who are getting huge amounts of positive reinforcement for what they might say on Twitter and it might be completely non related to what's actually happening in the reality of the team" (Anthony B, Interview Two, June 25, 2013).

This view was also shared by John A in the first interview who also stated that social media could cause problems for players' confidence, due to criticism being reviewed by social media.

"People can comment on teams, comment on the individual players, awh, they don't deserve to be on the team, or there not going well or they had an awful game" (John A, Interview One, June 24, 2013).

John A stated that as a coach, it can be difficult to stop players listening to these comments and it affecting their confidence. He also stated that players can be over praised on social media, which in turn can cause players to be over confident. Such praise could be beneficial, however, if players let it "go to their head" it could cause problems also.

"Consequently the other side of it is if someone is being bigged up or being praised or that it can build them up, but maybe it can give them ideas about themselves. They can start believing their own hype or the hype that people are, and maybe become bigger than the team and that they think, well I'm going to

be on this team, and then not working for the team as much as what they should be doing" (John A, Interview One, June 24, 2013).

One of the managers did state that social media was a bigger problem for teams playing at a professional level and that it was not as big a problem in amateur teams.

"Not at the level I'm coaching, I'm coaching at an amateur coach(ing) level essentially so, no, I would say on a professional level, yeah, I would say things like social media can" (Anthony B, Interview Two, June 25, 2013).

One of the managers also stated that social media was not as big an issue in female sport as it is in male sport. This, he stated, was due to female sport getting less support as a whole in the media.

"I suppose with the female sport it's not as bad as what it is with lads, you know, there is so much more comment (for male sport)" (John A, Interview One, June 24, 2013).

John A also stated that Twitter, in particular, was a bigger problem in sport than Facebook now due to how instant it is.

"Twitter is for me an absolute disaster when it comes to sport because it's just, it's too instant. People can say what they want" (John A, Interview One, June 24, 2013).

He stated that it was easy for people to make judgments from the stand at a game. As a manager he knew every decision he made had a consequence and people appeared to forget that.

"People can talk about, well, a manager should pick this person, pick that person or do this, that, or the other, but its easy say it when there is actually no consequences. But as a manager myself I know, if I'm on the line and I make a move it's going to have a consequence on the game" (John A, Interview One, June 24, 2013).

While all three managers stated that social media could have an effect on the teams motivational climate, only one of the teams had rules for their players' use of social

media. However, all three managers did have guidelines for the players' use of social media. The managers had similar guidelines for social media use, for example, not revealing team information, and not commenting on other teams or players.

"The big thing for us is, say what you like, but don't be commenting on the team, on the squad or other teams in the championship at all" (John A, Interview One, June 24, 2013)

Anthony B said that he did not have rules, however, if he did they would be similar to those reported by John A:

"Don't divulge details about what went on in training or things that I think, you know, without putting a definition, on it, things that would be considered part of the inner sanctum of a team" (Anthony B, Interview Two, June 25, 2013)

An interesting point made by the soccer manager was that the FAI is heavily involved in teams' and players' use of Twitter in Ireland.

"It's a big thing in the FAI at the moment. We were brought in on a course on Twitter recently" (Steven C, Interview Three, July 1, 2013)

He stated that the FAI were constantly monitoring teams, and players, and were able to give detailed statistics on Twitter use among the players, such as teams' most prolific tweeters, and tweets that had been published. He also stated that a manager had been warned about one of his player's conduct on Twitter the previous season. Overall, although the three managers appeared to have a negative view of Twitter, only one of the managers have had an issue with Twitter to date, and that was a player who had been tweeting after midnight the night prior to a match.

"The only issue I would have with them tweeting this year is I have managed to pull lads and tell them that I've been shown tweets that they have been sending at half one the night before a game and that is no way to prepare for a game the next day" (Steven C, Interview Three, July 1, 2013)

These interviews with managers have highlighted a number of interesting points. These findings will now be summarised and discussed.

4.3.4 Summary of Results

Overall, the three managers had a number of interesting points to make about the key issues the researcher was attempting to examine. The main points that emerged from the interviews were as follows:

Team Climate:

- The managers stated that, even though management had an impact on the team's climate, players had a greater impact on it.
- The managers stated that apart from management and players, there are a number of different variables that could affect the team's motivational climate and these included friends, family and supporters.
- The managers stated that the level at which a team participated played a vital role in how external factors, such as support, affect a team's climate (i.e. the more support a team has the more likely support is to affect the team's motivational climate).

Goal Setting:

- Having clear goals was a vital part of good planning.
- It was important for a team to clearly state its overall objectives for the season. This then dictated the other goals it set in attempting to achieve the overall goal.
- It was important that both management, and players, were in agreement on what the goals were.
- It was vital that a team's overall goal was achievable. However, this did not mean setting easy goals. It was important to set goals that both challenge the team, but were achievable.
- Goals could have a large impact on a team's performance, in particular, bad goals could cause a team to lose confidence in each other.

Social Media:

- Social media could have a large impact on a team.
- Although social media could have a positive effect on players' performance, the three managers stated that it could have a negative impact, leading to over-confidence or by lowering players' confidence as a result of criticism.
- It was important that players did not "leak" information about their teams on social media as it would be seen as a breach of trust.

- Players should not talk about, either other teams, or other players on Twitter.
- Sports governing bodies, such as the FAI, were beginning to get involved in and taking note of what players are saying on Twitter, and other forms of social media (i.e. Facebook, blogs etc.).

4.4 Discussion

Manager's outlined a number of variables that could potentially impact a team's motivational climate, however the managers who took part in Study Three differed in determining to what degree these variables might have. These findings are supported by previous research (Appleton et al., 2011; O'Rourke et al., 2011; Ntoumanis, 2012). The managers, however, agreed on the two most likely variables that could affect a team's motivational climate namely, the management and the players. Appleton et al. (2011), Bryan Solomon (2012), Gråstén et al. (2012), Ntoumanis et al. (2012) and Tottegrosa et al. (2011) all carried out research whose findings supported this suggestion that management's interaction with players affects the players and the motivational climate. Equally previous research supports the manager's claims that the players themselves can affect the motivational climate. Fry et al. (2011) supported this while Whitehead (1993) added that a player's perception of an event has a greater affect than the event itself. With the exception of Fry et al. (2011) and Whitehead (1993) there is little other research examining the effect of players on the team's motivational climate. One of the managers, Anthony B, did suggest that players in a successful team have a large effect on motivational climate as they have the ability and confidence to make an impact, whereas he continued that in less successful team, management has a larger effect as players need to be guided by management. It might be interesting for future researchers to examine in depth the role players can have in influencing the development of a team's motivational climate.

Study One found the combined effect of the motivational climate and goal orientation had a significant impact on players' anxiety and self-confidence levels. A longitudinal study could allow a more in-depth examination of how these variables combine and the impact the motivational climate has over the course of number of seasons, when changes may take place within the team (i.e. arrival of new coaches and new players).

One interesting point made by the managers was that negative influences within a team could have a major effect on a team's motivational climate. Steven C stated that one player's bad influence could act like a cancer within the dressing room. O'Rourke et al. (2011) agreed that peers could have an effect on motivational climate and went further to suggest that social issues could also have a large impact on motivational climate. The managers confirmed this listing the player's family and friends as potential variables that could effect the motivational climate, however they differed on the extent to which family could affect the team. Anthony B stated the impact of family and friends could be more localised to individual players, he suggested that the effect of family and friends would only affect the players directly linked to those people. The managers' comments also support previous research carried out by Appleton et al. (2011) and Gershgoren et al. (2011) which found that parents in particular, could have a significant effect on young players' perfectionism and goal orientation respectively.

The three managers also stated that goal setting was vital in team planning. Steven C stated that goals are a huge part of organising a team. The managers stated that without good goals, teams did not have an aim and were likely to "drift" from game to game. The absence of a goal means teams cannot set either long term or short term plans and that can lead to lack of organisation and a lack of preparation. Previous research has suggested that both management set goals (i.e. motivational climate) and player set goals (i.e. goal orientation) have a significant effect on players' anxiety, (Nordin-Bates et al., 2011; Smith et al., 2007; van de Pol & Kavussanu, 2012), self-confidence (Mouratidis et al., 2008), enjoyment (Liukkonen et al., 2010; Totegrosa et al., 2011) and effort (Barić & Bucik, 2009).

An interesting point made by the three managers was the importance of setting team goals as opposed to individual goals in a co-dependant team sport setting. For example, John A stated that one of the keys to success in co-dependant team sport is getting your team to work together - if you set individual goals then you can cause players to become more fixated on reaching their own goals than reaching the team goal. John A suggested that instead of setting each of your six forwards (hurling) to score 2 points each you set the goal of them scoring 12 points in total, he suggested through doing this they are encouraged to work as a team as opposed to individuals. This is an

interesting point in light of the findings of Study One. Study One found that the combined effect of Motivational Climate and Goal Orientation had a significant effect on players' anxiety and self-confidence levels in co-dependant team sports. These findings were in contrast to Vosloo et al. (2009), who conducted a similar study with swimmers and reported no significant influence from the combined effect of Perceived Motivational Climate and Achievement Goal Orientation. Vosloo et al. (2009) suggested the relationship between players on co-dependant teams may affect this combination. The managers' suggestion in Study Three about the importance of setting team goals may be related to the difference between the results in the Study One and Vosloo et al. (2009). Future research is needed to examine the difference between co-dependant team sports and individual sports regarding their effect on players' perception of their manager's motivational climate.

Managers also talked about the importance of the style of goals that you set. All three managers talked about the importance of having one main objective, and that this dictated other goals that the team might set to reach that main objective, for example, One interesting observation made was that the main goals tended to be more ego based goals, for example, "Winning the All-Ireland". This observation is interesting as previous research reported that task orientated goals were more beneficial than ego orientated goals (Braithwaite et al., 2011; Fry et al., 2011; Liukkonen et al., 2010; van de Pol & Kavussanu, 2012; Whitehead, 1993a) and yet managers set ego based goals as the main driving force. The three managers did however refer to the benefits of task orientated goals, due to the number of variables that can impact performance in competitive sport. Anthony B suggested that through only setting ego orientated goals you need to rely to a certain degree on the performances of opposing teams. This can lead to ego goals being difficult to reach. If these goals are not reached it could potentially have a negative effect on the team's morale. Previous research highlights a number of other benefits to setting task orientated goals, such as enhancing players' effort in training (Barić & Bucik, 2009; van de Pol & Kavussanu, 2012), reducing players' anxiety (Behzadi al., 2011; Mouratidis et al., 2009), and helping to increase players' intrinsic motivation (Barić & Bucik, 2009; Whitehead, 1993) yet none of the managers mentioned these.

On a separate note managers also discussed the potential effect of social media in team sport. One of the most interesting comments made by the three managers regarding the potential effect of social media was the contention that social media could have a negative effect in two ways, players could (1) suffer a lack of confidence due to criticism from other social media users, (2) start to suffer from over confidence due to unwarranted praise from other social media users. Anthony B stated that players could get criticised unfairly by other users of social media and this could potentially have a detrimental effect on those players' confidence. John A also stated that players' confidence can be dramatically affected by what other individuals say about them on social media. He stated players can be over praised on social media, which may cause them to suffer from over confidence, or to think they are bigger than the team.

Another interesting point made by Anthony B regarding social media was that teams performing at higher levels in their chosen sport are under more pressure from social media users than teams at an amateur level. Anthony B stated that the team he managed played at an amateur level and therefore is likely to receive less coverage than teams who play at a professional level. Professional teams are likely to have more support and receive more attention from the general media. John A made a similar point regarding female sport that is it has not been as impacted by social media as male sport, due to the greater popularity of male sport. He stated that male sport tends to get more coverage than female sport therefore female player are less likely to be singled out on social media as their male counterparts. The managers, in general, stated that social media was more likely to have a negative impact on a team's climate. However, one of the managers stated that Twitter, in particular, was a big problem for teams due to the instant nature of its messages. John A stated people are free to comment on managers or players mistakes and all of this is broadcast in real time. This can be dangerous as people do not appreciate all the factors to be taken into account in managing a team.

One of the most interesting findings of Study Three was that even though all three managers stated that social media was more likely to have a negative impact, none of them had rules for players' use of social media. This is in contrast to athletes at the London 2012 Olympic Games who were given guidelines for their use of social media (Zmuda, 2012). All three managers stated if they had guidelines for players' use of social

media they would set down two rules; players should not divulge any team information and they should not comment on other teams. Anthony B stated players should not talk about the team first and foremost on Twitter, as this could be seen as a breach of trust with in the team. John A continued to state that players should not comment on other teams as he uses comments by opposing managers and players as a way to motivate the team and therefore he does not want his team giving opposing teams ammunition to use. Overall, the managers' opinions of social media were negative. This is in contrast to the findings of research carried out in an organisational setting (Cunningham, 2010; Ou et al., 2010; Sparta, 2012), however, the findings appear to support some managers' and players' comments in the media. For example, Raheem Sterling deleted his Twitter account early 2013 because he wanted to be more professional. Sterling stated "I'm going to be more and more professional" (Raheem Sterling, Rice, 2013). Future research is needed to extend the findings of Study Three, and to attempt to build a better understanding of social media usage within sports teams. Further suggestions for future research regarding Twitter and social media will be discussed later in the main discussion section of this thesis.

As with Study Two one of the main strengths of Study Three is that it is one of the primary studies to examine social media in a sporting domain. One potential limitation of Study Three is that players were not interviewed. Anecdotally it is players and not managers that use social media, therefore, it would be interesting to ask players their opinions on social media, as this may uncover the possible effect of it on variables such as players' perceptions of their teams' motivational climate, and whether they feel comments by their peers, or fans, can affect their own confidence levels for performing in their sport. Due to the lack of research in this area, and the findings of Study Three, there is a need for more studies examining social media and its possible effects on athletes' perception of their motivational climate, anxiety and self-confidence. A number of other strengths, limitations and suggestions for future research will be discussed in the following section.

Chapter Five: Discussion

Discussion

5.1 Focus of the Research

The current research identified four major gaps in the previous literature. First, previous researchers had examined the effect of the Perceived Motivational Climate and Achievement Goal Orientation as separate entities, however, few studies (Barić & Bucik, 2009; Vosloo et al., 2009) had examined the combined effect of these two variables on the anxiety and self-confidence of players.

Second, there was a lack of research examining adult players in a competitive setting. Mouratidis et al. (2008) stated that one of the major limitations of the research in this area to date was that a considerable amount of research had taken place in an educational setting, or was conducted on youth players. Little research had examined adult players. Vansteenkiste (2010) suggested, due to the impact of a variable, such as the experience of adult players, the findings of research conducted with youth participants may not be generalisable to an adult population.

The third gap examined was the discrepancy in the results of Barić and Bucik (2009) and Vosloo et al. (2009). Vosloo et al. (2009) suggested their findings may have been affected by the relationships between the players on a non-co-dependant team sport (i.e., non-relay swimming), in comparison to Barić and Bucik (2009) who examined soccer players, with soccer being a co-dependant sport. Therefore, the current research examined players who competed in the four most popular co-dependant team sports in Ireland (i.e., soccer, rugby, hurling and Gaelic football). Behzadi et al. (2011), Hanrahan and Cerin (2009), and van de Pol and Kavussanu (2012) discovered that players in individual sports reacted differently to variables such as goal orientation, motivation and anxiety to players in team sports, therefore Study One examined co-dependant team sports to attempt to determine whether the difference in the results of Vosloo et al. (2009) and Baric and Bucik could be due to the type of sport they examined.

Finally, a considerable gap in the previous research was the lack of studies examining the effect of social media on players' in the sports domain. The current research aimed to add to knowledge of the impact of social media in two ways. One, by examining clubs' Twitter accounts in order to determine their possible effects on

players, and two, by interviewing managers to determine their views on the possible effects of social media on teams' motivational climates in co-dependant sports teams. Appleton et al. (2011) suggested the "narrow" approach of previous research when examining social influences on motivational climate (for example, the media, friends and family), and future research should consider this. Similarly, Vosloo et al. (2009) also suggested that social influences needed to be taken into consideration in future research. Study Two and Study Three are among the first of their kind to examine the possible effects of social media on teams in the sport, exercise and performance domains.

These gaps in the previous research informed the research questions for this research study. Study One's research question stated: Does the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation have a significant effect on players' anxiety and self-confidence levels? Study One used measures that had previously been used by researchers examining motivational climate and goal orientation. The PMCSQ-2 (Newton et al., 2000) measures the climate a player perceives a manager to have developed compared to the climate the manager aimed to develop. Fry et al. (2011) suggested that a player's perception of his team climate, compared to the climate a manager has attempted to develop may be critical to the way it impacts a player. Moreno-Murcia et al. (2011) noted little research had examined the way players perceived their motivational climate, and that more examination could lead to some interesting findings. Study One used the same measure of anxiety and self-confidence as Vosloo et al. (2009) and Barić and Bucik (2009). The CSAI-2R (Cox et al., 2003) examines players' somatic anxiety, cognitive anxiety and self-confidence. The CSAI-2R (Cox et al., 2003) was chosen due to its use in these previous studies (Barić & Bucik, 2009; Vosloo et al., 2009). It also allowed the researcher to examine both somatic and cognitive anxiety. Liukkonen, et al. (2010) suggested that future research should determine the effect of various motivational climates on different aspects of anxiety, as they may be affected differently. This was not found in Study One, with players' somatic and cognitive anxiety scores being higher in the ego orientated motivational climate than in the task orientated motivational climate. Finally, the POSQ (Robert et al., 19980) was used to measure goal orientation in Study One for two reasons, first, due to its use

in previous research in the area (Vosloo et al., 2009), and second, due to the number of questionnaires being administered to participants, as the POSQ (Roberts et al., 1998) is shorter than other similar questionnaires, such as the Task and Ego Orientation in Sport Questionnaire (TEOSQ, Duda, 1989)

Study Two examined the potential effect of social media on co-dependant team sports and answered three research questions. Research question one stated, will clubs tweet about their players' mental state prior to, during or after matches (e.g., will they refer to the players' anxiety and self-confidence levels)? Research question two, stated, will clubs from different sport types (for example, soccer and rugby) use Twitter in the same way (for example, will they post similar types of tweets)?

During Study Three, social media's potential impact on a team's motivational climate was further examined by conducting interviews with managers, to determine their opinions of (i) the motivational climate of their teams, (ii) the importance of goal setting and (iii) the impact of social media. This led to three research questions. Research question one stated, what do managers perceive as the variables that could affect their team's motivational climate? Research question two asked how important is goal setting to a team, can it have on the team? Finally, research question three stated, do managers state that social media could have an impact on a player's mental state, goal setting ability or a team's motivational climate?

In order to examine these research questions, a number of suggestions from previous research were considered. A mixed methods approach was employed to allow a more in-depth examination of social media. Gonçalves et al. (2010) suggested that such a mixed method approach (i.e., qualitative and quantitative data) allows for a more in-depth examination of the variable such research is examining, than either quantitative or qualitative data collection methods alone. Study Three involved completing interviews with managers. Mattern (2005) suggested the use of interviews was a good way to include context, which is not possible in quantitative research, and which was considered important in this study.

The participants who took part in Study One were adult players. These participants were recruited due to the lack of research examining such adult groups.

Nordin-Bates et al. (2011) and Vosloo et al. (2009) suggested the length of time a player is immersed in a motivational climate could be a moderating factor in determining the effect of the motivational climate on variables such as anxiety and self-confidence, therefore, research needed to take this into consideration. Vosloo et al. (2009) stated the length of time players spend with their teams may also be important in determining the effect of the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation on anxiety and self-confidence, because players competing at an elite level spend more time immersed in their team's motivational climate as they have more training sessions and matches than those at a novice level, and therefore are more likely to be influenced by the climate. The level a player competed at was, therefore, taken into consideration in Study One. Players were allocated to one of three levels of participation namely, elite, semi-elite and novice.

Finally, the current study considered the difference between causal and correlational data. Mouratidis et al. (2008) suggested that by collecting data that allowed for a causal relationship to be inferred, it could lead to a better understanding of a team's motivational climate and how it can affect players. By meeting these suggestions for future research, the researcher was able to design a study that addressed the four gaps in the previous literature. A number of interesting findings became evident from this research and will now be outlined.

5.2 Research Findings

The findings for Hypothesis One in Study One supported the findings of previous research (Liukkonen et al., 2010; Mouratidis et al., 2008; Smith et al., 2007). The Perceived Motivational Climate was found to have a significant effect on players' anxiety and self-confidence levels (i.e., task orientated players were lower in anxiety, and higher in self-confidence, than those in an ego orientated setting). This added further support for the positive impact of a task orientated motivational climate on athletes' performances.

Hypothesis Two was supported and implied that Achievement Goal Orientation had a significant effect on cognitive anxiety and self-confidence, however, goal orientation did not affect the players' somatic anxiety. One interesting finding was that, unlike some of the previous research (Barić & Bucik, 2009; Mouratidis et al., 2008),

players' in the High Task group did not have the most positive scores related to anxiety and self-confidence (i.e., low anxiety and high self-confidence scores). Players in the High Task/ High Ego group had the most positive anxiety and self-confidence levels. This finding was similar to that of Roebken (2007). Players in highly-competitive settings may find a task and ego orientated climate more beneficial, because when playing at a competitive level, some ego goals are often appropriate. Vansteenkiste et al. (2010) suggested that when a player joins a team (for example, a soccer team), it is a competitive setting and he/she needs to first outplay his/her teammates to be selected for the team. They then must 'out play' the opposition in order to win the match. This suggestion was supported by managers' comments in Study Three, when they suggested that their ultimate goal was an ego orientated goal (i.e., to win the All-Ireland). However, their teams set task orientated goals in order to reach that ego goal. Finally goal orientation was not found to have a significant impact on somatic anxiety. This supports the findings of Voight et al. (2000).

Hypothesis Three examined the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation, and found the interaction to have a significant effect on players' somatic anxiety, cognitive anxiety and self-confidence. These findings support those of Barić and Bucik (2009) who also found the combined effect of Perceived Motivational Climate and Achievement Goal Orientation to have a significant impact on players' anxiety and self-confidence levels. However, such findings are in contrast to the findings of Vosloo et al. (2009). This discrepancy may be due to the difference in participants recruited for each study. Study One and Barić and Bucik (2009) both recruited participants who competed in co-dependant team sports. In contrast, Vosloo et al. (2009) examined swimmers (i.e., individual performers). Vosloo et al. (2009) suggested that their findings may have been different if they examined co-dependant team sports, and Study One supported this notion. These findings from Study One suggest that further research is required to better understand the effect of the combined effect of Perceived Motivational Climate and Achievement Goal Orientation on athletes' performance, as it may lead to a better understanding of goal setting, and its effect on anxiety and self-confidence.

Study Two examined social media and the possible effect of Twitter posts on teams' motivational climates. A key word search for words related to anxiety, self-confidence and motivational climate revealed no interesting findings for the potential effect of tweets. However, this may suggest that clubs were aware of the possible effect Twitter posts could have on their teams' mental state. Clubs may not want to broadcast the "mental state" of their own teams as this may give opposing teams an advantage.

Phase Two of Study Two did uncover a number of interesting findings. For example, once tweets were allocated to themes and sub themes, two themes were identified as having a potential effect on a team's motivational climate. Tweets classified as "Team Interaction" were identified as possibly affecting a team's motivational climate. However, these tweets only accounted for 3.68% of the total tweets studied. Once sub themes were examined it emerged that "Performance Updates" could also affect a team's climate. When combined with the "Team Interaction" tweets, 11.11% of tweets directly commented on team or player performance, and therefore, could affect the teams' climate, or the players' mental state on that team, however, it should be noted with such a small percentage of tweets it appears unlikely that club tweets could have a significant impact.

The findings of hypothesis two in Study Two suggested that teams from different sports use Twitter in a marginally different way. Soccer teams were more likely to use Twitter for Public Relations (41.01%) than rugby teams (28.75%) and GAA teams (21.99%). Both rugby and GAA teams most common tweet type was Match Update (Rugby = 37.72%, GAA = 37.67%). These findings may have been affected by the level of performance of the teams followed. The soccer teams examined were elite level teams, while the rugby and GAA teams were a mixture of semi-elite and novice teams. Teams also differed in their second most likely type of tweet soccer Match Update (33.38%), rugby Public Relations (28.75%) and GAA News (31.05%). It is difficult to determine the reasons for these difference, however, it is likely the Twitter accounts are based on the needs of the followers and the supporter. Furthermore in-depth research examining the followers would be required to determine reasons for the type of tweets that clubs post. The only similarity between the sports was the least common theme to appear was Team Interaction (Soccer = 1.18%, Rugby = 5.27% & GAA = 9.30%). As suggested earlier

this difference in sports may be due to level the teams in the Study Three competed at. A second possible reason could be that sports' governing bodies have become more aware of Twitter, and are starting to monitor teams' and players' tweets, this was also alluded to by the soccer manager in Study Three who stated that he recently attended a seminar on Twitter use held by the FAI. This monitoring of social media by governing bodies may suggest that they are taking notice of social media use by their teams and its potential negative effects on their sport and players. Similar to the findings of hypothesis one this suggests that it is unlikely that team Twitter accounts would have a significant impact on a team's or a player's mental state, however, further research is need to further examine this.

Overall, managers who took part in Study Three stated there were a number of variables that could affect a team's motivational climate. For example, Anthony B stated supporters, management, players, even players' family and friends could potentially have an effect. Managers also stated that both management and players were the two main influences on a team's motivational climate. One interesting finding to come from Study Three was that all of the managers said players had the most significant impact on the climate. It would be interesting to examine the context of the motivational climate, as much of research in this area has focused on the motivational climate developed by managers (Liukkonen et al., 2010; Mouratidis et al., 2008; Smith et al., 2007).

Study Three also examined managers' opinions of goal setting. A number of interesting findings emerged from this part of the interviews as managers stated goals were an important part of organising a successful team. Steven C stated that he considered goal setting to be "*Absolutely huge, em, I mean as I say otherwise you don't really know what direction you are headed in*" (Interview Three, July 1, 2013). Overall, managers suggested that a mixture of task and ego orientated goals was the optimum way to set goals. Managers suggested that when teams set an ultimate goal, this goal was usually ego orientated. Based on this ultimate goal, teams then set a number of smaller goals (usually task orientated) which led to achieving that ego goal. John A stated that you have to work back from your ultimate goal and set a number of smaller goals that assist you in completing your final ultimate goal. This supports the suggestion of

Roebken (2007), and the findings of the Study One, that a combination of task and ego orientated goals are more beneficial than task orientated goals alone.

Finally managers stated social media could have a significant impact on a team. John A stated that he felt that in modern times it can have an effect. John A stated that social media can have a negative effect on players, in particular Twitter due to its instant nature. It was agreed by all managers that social media would have a negative effect. The managers stated that social media can have a negative impact on players in two ways, either through the over-praising of players' performances on Twitter, or by negative comments. This perspective on social media by managers was an interesting finding, and future research should examine the potential impact of such tweet content in more detail. These findings did not support those of Ou et al. (2010) who found that instant messaging was beneficial to teams' productivity (in organisational settings). However, it is difficult to compare these two sets of results as the participants are from two different populations. The managers indicated they did not set rules for players' use of Twitter. However, the managers agreed that if they did set guidelines, the main guideline would be that players not divulge information about their own team on Twitter. Anthony B stated that he would advise they do not talk about anything that happens within the team and not to comment on other teams or players. John A stated "*the big thing for us is say what you like but don't be commenting on the team, on the squad or other teams in the championship at all*" (Interview One, June 24, 2013).

In summary, the three studies have uncovered a number of interesting findings, and identified possible avenues for future research. Study One highlighted the impact of the combined effect of Perceived Motivational Climate and Achievement Goal Orientation on players' anxiety and self-confidence levels. This suggested that the relationships between players in co-dependant teams did act as a moderating factor within this combination, as suggested by Vosloo et al. (2009). Studies Two and Three suggested that social media may have the potential to affect co-dependant teams, and may specifically affect a teams' climate, or players' mental states. Therefore, due to the findings of Studies Two and Three, and the lack of research on social media in sport, further research is required to help understand the true effect of social media on co-dependent team sports.

5.3 Strengths, Limitations and Future Direction

There were a number of strengths and limitations to the current studies examination of Perceived Motivational Climate and Achievement Goal Orientation .i.e. a number of suggestions for future research were considered when designing the research. Study One built on the findings and suggestions for future research of similar research. Study One also was more generalizable to an adult sporting population unlike much of the previous research. The use of a mixed methods approach was also a strength of this research. Mattern (2005) stated that a mixed methods approach would allow for a more in-depth examination of motivational climate. During Study Three the researcher conducted interviews with managers to determine their opinions of goal setting and the importance of the motivational climate on team performances. This mixed methods approach to the data collection allowed the researcher to gather both quantitative (Study One) and qualitative data (Study Three). This is unlike much of the previous research examining the Perceived Motivational Climate and Achievement Goal Orientation, which was mainly quantitative in nature. These and other strengths are discussed in more detail in the Chapter 2 and Chapter 4, the limitations and findings of this research has led to a number of potential directions for future research.

A longitudinal study would help to determine whether the Perceived Motivational Climate has an effect on players' goal orientation, or whether players' goal orientation is affected by their perception of the motivational climate. It would be interesting to observe changes in both of these variables over the course of a season, and to examine whether they affect each other. Another way to examine the effect of change on goal orientation and the motivational climate would be to examine a team before and after a new manager, or management team, is hired. This would also allow researchers to examine any possible changes in the goal orientation of players, based on the ideas and processes of the new management. Bois et al. (2009) and Copeland et al. (2009) suggested that a longitudinal study could help to develop a greater understanding of the effect of anxiety on performance. A longitudinal study would allow for a better understanding of the combined effect of the variables examined, for example, anxiety and self-confidence. If future research is conducted to examine the combination effect of the Perceived Motivational Climate and Achievement Goal

Orientation on player anxiety and self-confidence, then a longitudinal study could allow for a better examination of these variables and how they interact to impact on anxiety and self-confidence

The reasons why players set specific goals was beyond the scope of this study and needs to be examined, as Vansteenkiste et al. (2010) stated that although two players' goals may be the same, the reasons for setting those goals may be different for each individual player, and they suggested that although players may set ego orientated goals, they may not use ego orientated reasoning. When players step onto a pitch they may see the opposing team as a challenger to be outperformed. Gonçalves et al. (2010) stated the potential in being able to predict players' attitudes to the goals they set could be vital in the development of managers' training plans with young players. A number of other variables that could impact on the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation were beyond the scope of Study One, however, they could be interesting to examine in future research. Variables such as gender affects, a detailed examination of the level a player competes at (i.e., elite, semi-elite or novice level), the location of the teams (i.e., in an urban or rural setting) were beyond the scope of this research, however, an investigation of these variables may help to understand athletes' Achievement Goal Orientation in more depth.

The second topic examined was the potential effect of Social Media on players and teams. The main strength and limitation of this studies examination of Social Media is that it is one of the primary studies to examine the potential effect of Social Media in a sports setting. The individual strengths and limitations of Study Two and Study Three are discussed in more detail in the relevant chapters. The combined findings of Study Two and Study Three suggest that further examination of the impact of social media is warranted. Future research examining social media would benefit from a longitudinal design. Research conducted over a longer period of time, examining a larger population and "following" players on Twitter, as well as clubs, to gain a better understanding of their use of Twitter and other forms of social media could be productive in adding to the knowledge of the motivational climate and goal orientation. The current study was only able to examine clubs' tweets. However, tweets by fans and in particular, by players,

could reveal the possible effects of social media on such individuals in the sport exercise and performance domain. Managers' opinions in Study Three were negative regarding the possible effects of social media in co-dependant team sports, with them saying that players can either be given unfair criticism or given undeserved praise on such social media. It would be interesting to hear players' specific views on social media, as this may uncover the possible effect of it on variables such as players' perceptions of their teams' motivational climate, and whether they feel comments by their peers, or fans, can affect their own confidence levels for performing in their sport. Future research should also examine teams over a larger demographic area, this study only examined teams in Dublin and Wexford due to time pressure. A study of a larger geographical area may allow for a more even spread of teams across different sports that was not possible in this research. Due to the lack of research in this area, and the findings of Study Two and Study Three, there is a need for more studies examining social media and its possible effects on athletes' perception of their motivational climate, anxiety and self-confidence.

As stated earlier there are a number of strengths and limitations to these three studies. Due to the limitations there are a number of areas that future research could examine. However, there were also a number of strengths for the study. Therefore, the current research has added to the knowledge base regarding the impact of the Perceived Motivational Climate and Achievement Goal Orientation on co-dependant players' anxiety and self-confidence levels. Also, Study Two and Study Three highlighted the potential effect of social media on co-dependant team sport.

5.4 Conclusion

Co-dependant team sports are an important part of Irish society and the findings of these three studies have highlighted a number of relevant issues. Study One found that the combined effect of players' perception of their Motivational Climate and their Achievement Goal Orientation had a significant impact on their anxiety and self-confidence levels. The relationships between players on co-dependant teams appeared to act as a confounding variable, in the combined effect of the Perceived Motivational Climate and Achievement Goal Orientation. Therefore, this relationship needs to be examined further. Also, the effect of social media on teams was highlighted, in

particular, in the interviews with the three managers from three sports in Study Three. The managers suggested that social media could have a negative effect on their players, either through over-praise or through criticism via tweets especially.

These findings have uncovered a number of variables that could affect teams and individual athletes' performances, for example, their goal orientation, the motivational climate and the impact of social media. Further research is required to understand the extent of the impact of these variables. Future studies examining anxiety, self-confidence and goal orientation may increase the current knowledge of players' motives for competing in their specific chosen sports. Research on the motivational climate, and social media, may also enhance the knowledge of variables that affect players' motivation levels in their sport.

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Appendices

Appendix A.....Research Pack For Study One

Appendix B.....T-Test Tables 1, 2 and 3

Appendix C.....ANOVA Tables 1, 2, 3, 4, 5 and 6

**Appendix D.....Information Sheet and Consent Forms & Debrief Form For
Study Three**

Appendix EInterview Script

Appendix A

Research Pack

Consent Form. (Participant Copy)

This is to state that I agree to participate in a programme of research being conducted by Patrick Healy as part of his research under the supervision of Dr. Olivia Hurley and Dr. Marion Palmer, IADT Dun Laoghaire.

Purpose

I understand that the purpose of this study is to look at the effects of motivation on my anxiety and confidence.

My Rights and Responsibilities.

- I am participating in this study of my own free will.
- I know that I will be asked to fill out three questionnaires while taking part in the study.
- I know that I will be asked questions about my anxiety and confidence levels.
- I know I do not have to complete the questionnaire if I do not wish to.
- I know that I can withdraw my data from the study up until 1st June 2013
- I know that my individual data will be kept confidential and will not be seen by anyone except Patrick Healy and his supervisors Dr. Olivia Hurley and Dr. Marion Palmer.
- I know that the results of this study will be used in publication of a thesis and may be used in the publication of an article or further research.
- I know that my participation in the study and my answers will be kept anonymous.
- I am aware that I do not have to answer any questions that I do not wish to.
- I am happy that I have been given enough information.
- I understand my rights and responsibilities and am happy to take part in this study.

To ensure anonymity please tick the box to state that you consent to participate in this study.

Date: _____.

If at any time you have questions about your rights as a research participant, please contact Patrick Healy, at 086 399 7861 or by email at patrick.healy@iadt.ie or the researcher's supervisors Dr. Olivia Hurley at olivia.hurley@iadt.ie or Dr. Marion Palmer at marion.palmer@iadt.ie

Consent Form. (Researcher Copy)

This is to state that I agree to participate in a programme of research being conducted by Patrick Healy as part of his research under the supervision of Dr. Olivia Hurley and Dr. Marion Palmer, IADT Dun Laoghaire.

Purpose

I understand that the purpose of this study is to look at the effects of motivation on my anxiety and confidence.

My Rights and Responsibilities.

- I am participating in this study of my own free will.
- I know that I will be asked to fill out three questionnaires while taking part in the study.
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- I know that my individual data will be kept confidential and will not be seen by anyone except Patrick Healy and his supervisors Dr. Olivia Hurley and Dr. Marion Palmer.
- I know that the results of this study will be used in publication of a thesis and may be used in the publication of an article or further research.
- I know that my participation in the study and my answers will be kept anonymous.
- I am aware that I do not have to answer any questions that I do not wish to.
- I am happy that I have been given enough information.
- I understand my rights and responsibilities and am happy to take part in this study.

To ensure anonymity please tick the box to state that you consent to participate in this study.

Date: _____.

If at any time you have questions about your rights as a research participant, please contact Patrick Healy, at 086 399 7861 or by email at patrick.healy@iadt.ie or the researcher's supervisors Dr. Olivia Hurley at olivia.hurley@iadt.ie or Dr. Marion Palmer at marion.palmer@iadt.ie.

Demographic Questions

1. Gender:

Male

Female

2. Age:

3. How many years have you been playing you
been competing at your current sport?

4. Are you a starter, sub or other for the
upcoming match?

Starter

Sub

Other

Perception of Success Questionnaire (Adult Version)

What does success in sport mean to you? There are no right or wrong answers. We ask you to circle the letter that best indicates how you feel.

WHEN PLAYING SPORT, I FEEL MOST SUCCESSFUL WHEN:

| | Strongly Agree | Neutral | Strongly Disagree | | |
|-------------------------------------|----------------|---------|-------------------|---|---|
| I beat other people | | | A | B | C |
| I am clearly superior | | | A | B | C |
| I am the best | | | A | B | C |
| I work hard | | | A | B | C |
| I show clear personal improvement | | | A | B | C |
| I outperform my opponents | | | A | B | C |
| I reach a goal | | | A | B | C |
| I overcome difficulties | | | A | B | C |
| I reach personal goals | | | A | B | C |
| I win | | | A | B | C |
| I show other people I am the best | | | A | B | C |
| I perform to the best of my ability | | | A | B | C |

Perceived Motivational Climate in Sports Questionnaire-2

PMCSQ-2

Directions: Please read each of the statements below and respond to each in terms of how you view your team. Please respond as honestly as possible and recall that there is no right or wrong answers.

| | | Strongly Disagree | Disagree | Not Sure/Neutral | Agree | Strongly Agree |
|-----|---|-------------------|----------|------------------|-------|----------------|
| 1. | On this team, the manager wants us to try new skills. | 1 | 2 | 3 | 4 | 5 |
| 2. | On the team, the manager gets mad when a player makes a mistake. | 1 | 2 | 3 | 4 | 5 |
| 3. | On this team, the manager gives most of his or her attention to the stars. | 1 | 2 | 3 | 4 | 5 |
| 4. | On this team, each player contributes in some important way. | 1 | 2 | 3 | 4 | 5 |
| 5. | On this team, the manager believes that all of us are crucial to the success of the team. | 1 | 2 | 3 | 4 | 5 |
| 6. | On this team, the manager praises players only when they outplay team-mates. | 1 | 2 | 3 | 4 | 5 |
| 7. | On this team, the manager thinks only the starters contribute to the success of the team. | 1 | 2 | 3 | 4 | 5 |
| 8. | On this team, players feel good when they try their best. | 1 | 2 | 3 | 4 | 5 |
| 9. | On this team, players are taken out of the game for mistakes. | 1 | 2 | 3 | 4 | 5 |
| 10. | On this team, players at all skill levels have an important role on the team. | 1 | 2 | 3 | 4 | 5 |
| 11. | On this team, players help each other learn. | 1 | 2 | 3 | 4 | 5 |

| | | Strongly Disagree | Disagree | Not Sure/Neutral | Agree | Strongly Agree |
|-----|--|-------------------|----------|------------------|-------|----------------|
| 12. | On this team, players are encouraged to outplay other players. | 1 | 2 | 3 | 4 | 5 |
| 13. | On this team, the manager has his or her own favourites. | 1 | 2 | 3 | 4 | 5 |
| 14. | On this team, the manager makes sure players improve skills they're not good at. | 1 | 2 | 3 | 4 | 5 |
| 15. | On this team, the manager yells at players for messing up. | 1 | 2 | 3 | 4 | 5 |
| 16. | On this team, players feel successful when they improve. | 1 | 2 | 3 | 4 | 5 |
| 17. | On this team, only the players with the best 'stats' get praise. | 1 | 2 | 3 | 4 | 5 |
| 18. | On this team, players are punished when they make a mistake. | 1 | 2 | 3 | 4 | 5 |
| 19. | On this team, each player has an important role. | 1 | 2 | 3 | 4 | 5 |
| 20. | On this team, trying hard is rewarded. | 1 | 2 | 3 | 4 | 5 |
| 21. | On this team, the manager encourages players to help each other. | 1 | 2 | 3 | 4 | 5 |
| 22. | On this team, the manager makes it clear who he or she thinks are the best players. | 1 | 2 | 3 | 4 | 5 |
| 23. | On this team, players are 'psyched' when they do better than their team-mates in a game. | 1 | 2 | 3 | 4 | 5 |
| 24. | On this team, if you want to play in a game you must be one of the best players. | 1 | 2 | 3 | 4 | 5 |

| | | Strongly Disagree | Disagree | Not Sure/Neutral | Agree | Strongly Agree |
|-----|--|-------------------|----------|------------------|-------|----------------|
| 25. | On this team, the manager emphasizes always trying your best. | 1 | 2 | 3 | 4 | 5 |
| 26. | On this team, only the top players 'get noticed' by the manager. | 1 | 2 | 3 | 4 | 5 |
| 27. | On this team, players are afraid to make mistakes. | 1 | 2 | 3 | 4 | 5 |
| 28. | On this team, players are encouraged to work on their weaknesses. | 1 | 2 | 3 | 4 | 5 |
| 29. | On this team, the manager favours some players more than others. | 1 | 2 | 3 | 4 | 5 |
| 30. | On this team, the focus is to improve each game/practice. | 1 | 2 | 3 | 4 | 5 |
| 31. | On this team, the players really 'work together' as a team. | 1 | 2 | 3 | 4 | 5 |
| 32. | On this team, each player feels as if they are an important team member. | 1 | 2 | 3 | 4 | 5 |
| 33. | On this team, the players help each other to get better and excel. | 1 | 2 | 3 | 4 | 5 |

Competitive State Anxiety Inventory-2Revised

CSAI-2R

Directions: A number of statements that players have used to describe their feelings before competition are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel right now - at this moment. There is no right or wrong answers. Do not spend too much time on any one statement, but choose the answer which describes your feelings right now.

| | Not At All | Somewhat | Moderately | Very Much |
|---|------------|----------|------------|-----------|
| | | | So | So |
| 1. I feel jittery. | 1 | 2 | 3 | 4 |
| 2. I am concerned that I may not do as well in this competition as I could. | 1 | 2 | 3 | 4 |
| 3. I feel self-confident. | 1 | 2 | 3 | 4 |
| 4. My body feels tense. | 1 | 2 | 3 | 4 |
| 5. I am concerned about losing. | 1 | 2 | 3 | 4 |
| 6. I feel tense in my stomach. | 1 | 2 | 3 | 4 |
| 7. I'm confident I can meet the challenge. | 1 | 2 | 3 | 4 |
| 8. I am concerned about choking under pressure. | 1 | 2 | 3 | 4 |
| 9. My heart is racing. | 1 | 2 | 3 | 4 |
| 10. I'm confident about performing well. | 1 | 2 | 3 | 4 |
| 11. I'm concerned about performing poorly. | 1 | 2 | 3 | 4 |
| 12. I feel my stomach sinking. | 1 | 2 | 3 | 4 |
| 13. I'm confident because I mentally picture myself reaching my goal. | 1 | 2 | 3 | 4 |

- | | | | | |
|---|---|---|---|---|
| 14. I'm concerned that others will be disappointed with my performance. | 1 | 2 | 3 | 4 |
| 15. My hands are clammy. | 1 | 2 | 3 | 4 |
| 16. I'm confident of coming through under pressure. | 1 | 2 | 3 | 4 |
| 17. My body feels tight. | 1 | 2 | 3 | 4 |
-

Debriefing Form

Some terms that have been used in the study that you may wish to learn more about.

Perceived Motivation Climate:

Motivational Climate is an aspect of achievement goal theory. A Perceived Motivational Climate is how you, as a player, perceive the setting that your manager creates. There are two types of motivational climate a manager creates in a team setting a “mastery climate” or an “ego climate” motivational climate.

Mastery Climate:

A “mastery climate” is when the manager places the emphasis on the player’s effort and skill development.

Ego Climate:

An “ego-orientated” motivational climate is one where the manager compares the players and pits them against each other. When players make mistakes they are punished or criticized.

The Perceived Motivational Climate in Sports Questionnaire-2 (PMCSQ-2):

The PMCSQ-2 was developed by Newton, Duda and Yin in 2000. It was developed to determine which motivational climate players believe their manager has created.

Goal Orientation

Goal Orientation is how a player measures success. There are two ways that players measure success they are “task orientation” and “ego orientation”.

Task Orientation

A task orientated player measure success by improvement in performance and statistics.

Ego Orientation

An ego orientated player measures success based on the results of games and by winning accolades.

Perception of Success Questionnaire (POSQ)

The POSQ was developed by Roberts, Treasure and Balague, 1998 to determine which type of goal orientation a player is.

Competitive State Anxiety Inventory -2 Revised (CSAI-2R):

The CSAI-2R was developed by Cox, Martens and Russell in 2003, it is a revised version of the CSAI-2 that was developed by Martens, Vealey and Burton in 1990. The inventory was developed to determine the anxiety and self-confidence levels the player is experiencing as they complete the questionnaire.

Samaritans

Samaritans provide a 24 hour service for individuals that may be experiencing problems with anxiety or other mental issues. They can be contacted at 1850 60 90 90 or jo@samaritans.org

Other information, including more articles or information on the study can also be attained by contacting the researcher at patrick.healy@iadt.ie and 086 399 7861, the researcher’s supervisors Dr. Olivia Hurley at olivia.hurley@iadt.ie or Dr. Marion Palmer at marion.palmer@iadt.ie

Appendix B
T-Test Tables 1, 2 and 3

Independent Samples Test

| | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-----------------|---|-------|------------------------------|--------|-----------------|-----------------|-----------------------|---|----------|
| | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | Lower | Upper |
| Somatic Anxiety | Equal variances assumed | 8.827 | .003 | -3.236 | 221 | .001 | -2.59924 | .80327 | -4.18229 |
| | Equal variances not assumed | | | -3.177 | 190.225 | .002 | -2.59924 | .81819 | -4.21313 |
| | | | | | | | | | -1.01618 |
| | | | | | | | | | -.98534 |

T-test examining the effect of Perceived Motivational Climate on Somatic Anxiety.

Independent Samples Test

| | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-------------------|---|-------|------------------------------|--------|-----------------|-----------------|-----------------------|---|----------|
| | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | Lower | Upper |
| Cognitive Anxiety | Equal variances assumed | 2.413 | .122 | -3.704 | 221 | .000 | -3.42021 | .92331 | -5.23982 |
| | Equal variances not assumed | | | -3.672 | 206.757 | .000 | -3.42021 | .93135 | -5.25637 |

T-test examining the effect of Perceived Motivational Climate on Cognitive Anxiety.

Independent Samples Test

| | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | | |
|-----------------|---|------|------------------------------|-------|-----------------|-----------------|-----------------------|---|---------|---------|
| | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | | |
| | | | | | | | | Lower | Upper | |
| Self-Confidence | Equal variances assumed | .099 | .754 | 4.194 | 221 | .000 | 3.99453 | .95235 | 2.11768 | 5.87139 |
| | Equal variances not assumed | | | 4.187 | 215.383 | .000 | 3.99453 | .95404 | 2.11409 | 5.87498 |

T-test examining the effect of Perceived Motivational Climate on Self-confidence.

Appendix C
ANOVA Tables 1, 2, 3, 4, 5 and 6

ANOVA examining the effect of Achievement Goal Orientation on Somatic Anxiety.

ANOVA

Somatic Anxiety

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | 298.857 | 3 | 99.619 | 2.296 | .078 |
| Within Groups | 14970.159 | 345 | 43.392 | | |
| Total | 15269.017 | 348 | | | |

ANOVA examining the effect of Achievement Goal Orientation on Cognitive Anxiety

ANOVA

Cognitive Anxiety

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | 590.925 | 3 | 196.975 | 4.124 | .007 |
| Within Groups | 16480.111 | 345 | 47.768 | | |
| Total | 17071.035 | 348 | | | |

ANOVA examining the effect of Achievement Goal Orientation on Self-confidence

ANOVA

Self-Confidence

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | 1164.322 | 3 | 388.107 | 7.474 | .000 |
| Within Groups | 17915.645 | 345 | 51.929 | | |
| Total | 19079.968 | 348 | | | |

ANOVA examining the effect of the combined effect of Perceived Motivational Climate and Achievement Goal Orientation on Somatic Anxiety.

ANOVA

Somatic Anxiety

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | 861.428 | 7 | 123.061 | 3.562 | .001 |
| Within Groups | 7427.505 | 215 | 34.547 | | |
| Total | 8288.933 | 222 | | | |

ANOVA examining the effect of the combined effect of Perceived Motivational Climate and Achievement Goal Orientation on Somatic Anxiety.

ANOVA

Cognitive Anxiety

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | 1227.976 | 7 | 175.425 | 3.819 | .001 |
| Within Groups | 9877.078 | 215 | 45.940 | | |
| Total | 11105.054 | 222 | | | |

ANOVA examining the effect of the combined effect of Perceived Motivational Climate and Achievement Goal Orientation on Somatic Anxiety.

ANOVA

Self-Confidence

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|------|
| Between Groups | 1907.194 | 7 | 272.456 | 5.798 | .000 |
| Within Groups | 10102.382 | 215 | 46.988 | | |
| Total | 12009.576 | 222 | | | |

Appendix D

Study Three: Information Sheet, Consent Forms and Interview Debrief

From:

Information Sheet

Study Title: An Investigation of Motivation in Co-Dependent Team Sport

Purpose of the Research

The purpose of this interview is to determine managers' opinions on managerial style and the variables that may affect their teams' motivation. The interview will take approximately 30 minutes and will be recorded using a dictaphone.

Invitation

You are being invited to consider taking part in the research study "*An Exploration of Achievement Motivation within Co-dependent Team Sports*". This project is being undertaken by Patrick Healy of IADT Dun Laoghaire.

Before you decide whether or not you wish to take part, it is important for you to understand why this research is being done and what it will involve. Please take time to read this information carefully and discuss it with friends and relatives if you so wish. Please do not hesitate to ask if there is anything that is unclear about the procedure or project or if you would like more information on either.

Do I have to take part?

You are free to decide whether you wish to take part in the current research. Should you decide to take part you will be asked to sign two consent forms, one for you to keep and the other for our records? You are free to withdraw from this study at any time without any explanation for your decision.

If I take part, what do I have to do?

If you take part in the current research you will take part in an interview that will take approximately 30 minutes. You will be given time, both prior to the interview and preceding the interview.

What are the benefits and risks (if any) of taking part?

There are little benefits to taking part in the current research, however, should you have any questions regarding the current research, or the research topics, information can be provided.

The time taking part in the interview is one disadvantage of the current research, however, the researcher has taken as many steps as possible to reduce any further disadvantages such.

How will information about me be used and who will have access to it?

Only the answers to your questions during the interview will be used in the current research none of your personal information will be used in the research or in future publications.

The researcher and the research supervisors will be the only people who have access to the interview data in the current research. The information will be stored in a password protected computer. At no stage in the publishing of the research will you be identified and the data will be coded to ensure you confidentiality. The data will be kept for five years as the researcher hopes to publish the current research and this is a requirement of some academic journals. The research data will be deleted at the end of this time.

What if there is a problem?

If you have a concern about any aspect of this study, you may wish to speak to the researcher(s) who will do their best to answer your questions. Please feel free to contact Patrick Healy on 086 3997861 or at pmlgh2@gmail.com or to get in contact with the research supervisors Dr. Olivia Hurley at olivia.hurley@iadt.ie and Dr. Marion Palmer at marion.palmer@iadt.ie.

Thank you

Thank you for taking the time to read this document and for considering taking part in the current research.

Date: _____

Signature: _____

Consent Form

Title of Project: An Investigation of Motivation in Co-Dependent Team Sport

Name of Researcher/s: Patrick Healy

Name of Supervisor/s: Dr. Olivia Hurley and Dr. Marion Palmer

Please tick box

I confirm that I have read and understood the information sheet for the above study and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time. I am over the age of 18 years and I agree to take part in this study.

1. I agree to the interview being audio recorded.
2. I agree to allow the data collected to be used for future research projects.
3. I agree for my quotes to be published in a dissertation, presentation, academic publication and/or an online format in an anonymous fashion.

Name of participant

Date

Signature

Researcher

Date

Signature

Debriefing Form

The interview that you have just taken part in was part of research being carried out by Patrick Healy under the supervision of Dr. Olivia Hurley and Dr. Marion Palmer as part of a Masters by Research at IADT Dun Laoghaire.

The research is examining the importance of motivation in co-dependent team sports. The current phase of the research is attempting to determine managers' views on motivational climate (motivational climate is the atmosphere that a team develops) and managers' views on social media, especially whether social media can have an effect on the teams climate.

As a participant in the current research you have a number of right and responsibilities. Should you wish for your information to be removed you can contact the researcher until the 30th of June and your information shall be removed from the study. Your information shall be kept confidential and you will not be named in the research at any point.

The information will be used in the publication of a Masters Dissertation and may be used in the publication of articles and possibly be used in future research. Should you wish to contact the researcher with any questions or queries please do not hesitate to do so. Below you will find the contact details of the researcher and the research supervisors should you wish to contact any of them.

If you wish to learn more about the topics being covered in the current research please contact the researcher and you will be provided with more information on the topic as well as sources where you will find further information on the topic.

Thank you once again for your participation in the research study.

Extra Reading on the Topic:

Horn, T., S., (2008). *Advances in Sport Psychology* (3rd ed.), Human Kinetics: Leeds.

Karageorghis, C. I. & Terry, P. C. (2011). *Inside Sport Psychology*. Human Kinetics: Leeds.

Kremer, J. Moran, A. P. (2008). *Pure Sport: Practical Sport Psychology*. Routledge: Sussex

Moran, A. P. (2012). *Sport and Exercise Psychology: A Critical Introduction*. (2nd ed.) Routledge: Sussex.

Other information, including more articles or information on the study can also be attained by contacting the researcher at patrick.healy@iadt.ie and 0863997861, the researcher's supervisors

Dr. Olivia Hurley at olivia.hurley@iadt.ie or Dr. Marion Palmer at marion.palmer@iadt.ie

Appendix E

Interview Script

Interview

Welcome

Welcome, and thank you for participating in the research as part of my Masters Research. During the interview I will be looking for your opinions as a manager on a number of issues. The interview should only last about sixty minutes, and I will be recording the interview on a Dictaphone. You are free to leave at any stage should you wish to do so or should you not wish to answer a question you are free to refrain from doing so. Your answers will be kept confidential and I will not reveal your name or the name of your team during the process. Firstly take your time to read this consent form. It has a little more information about the interview process and your rights and responsibilities as a participant in the current research.

Aim

The aim of this interview is to determine managers' opinions on the team atmosphere (motivational climate) they attempt to develop. The questions are designed to determine your opinions as well as to determine what features you believe can have an effect on the team's atmosphere. Following this I will seek your opinions on social media and whether you think it has an effect on the team or on individual players on the team.

Clarification

Now do you have any questions or queries regarding the interview process?
If you are happy then we shall begin.

Interview

Section A: Managers' Information

1. How long have you been managing?
2. How long have you been managing your current team?

Section B: Team Atmosphere

3. How would you describe your team's atmosphere?
 - a. What do you think can affect it?
 - b. Who else has an input into the team?
 - c. Do you think players or managers develop the climate?

Section C: Goal Setting

4. How does your team set goals/aims?
 - a. Who sets them?
 - b. Individually or as a team?
 - c. Is that important?
5. Do you think the type of goals you set have an effect on the climate you develop?
 - a. What other features can affect it?

Section D: Social Media

6. Do you think social media can have an effect on the team?
 - a. Do you use it?
 - b. Does your club use it?
 - c. Have you any rules regarding social media?

Thanks

Firstly I would like to thank you for your time. Have you any questions that you would like me to answer regarding the interview process or any of the topics we have discussed?

This debriefing form has a little more information about the study as well as the contact details of my supervisors as well as my own personal contact information. Would you like to take a couple minutes to read through it?

Have you any further questions?

Thank you once again for your time. Should you wish to ask me any further questions please do not hesitate to contact me at my email address or on my mobile?