

2012

# The influence of Facebook on perceptions of team cohesion: A team building perspective

Justin Bacchus

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THE INFLUENCE OF FACEBOOK ON PERCEPTIONS OF TEAM COHESION: A  
TEAM BUILDING PERSPECTIVE

by

Justin Bacchus

A Thesis  
Submitted to the Faculty of Graduate Studies  
through the Faculty of Human Kinetics  
in Partial Fulfillment of the Requirements for the  
Degree of Master of Human Kinetics at the  
University of Windsor

Windsor, Ontario, Canada

2012

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The Influence of Facebook on Perceptions of Team Cohesion: A Team Building  
Perspective

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## DECLARATION OF ORIGINALITY

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## ABSTRACT

The purpose of this study was to examine the use of Facebook as a method of team building. Semi-structured interviews were conducted with 10 varsity athletes (4 male, 6 females) playing on various interdependent sport teams. The participants ranged in age from 20-26 years. The participants described that Facebook influenced several aspects of team building. In particular, Facebook impacted a team's environment by making athletes feel more distinct, created feelings of togetherness, and feelings of proximity. In addition, Facebook also influenced the team's structure by impacting the team's norms, leadership, and clarifying an athlete's role within the team. Further, the team's processes were also impacted by Facebook as teams were able to communicate better and remain focused on their goals and objectives. Lastly, Facebook was associated with greater feelings of team cohesiveness. These results provide coaches and sport psychologists with an alternative method to enhance team cohesion.

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I am truly blessed to say that I obtained my Bachelor's of Human Kinetics (B.H.K.) and Master's of Human Kinetics (M.H.K.) at the University of Windsor. In addition to obtaining a master's degree, I learnt the true meaning of "will". The great Vince Lombardi said, "The difference between a successful person and others is not a lack of strength, lack of knowledge, but rather in a lack of will." In the last two years I learned one specific thing about myself; I learnt that I can accomplish a lot if I am willing to put in the work required for success. However, I do believe my success as a graduate student, researcher, and person were the product of many influential people that deserve acknowledgment.

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## RESEARCH ARTICLE

### **Introduction**

It has been suggested that cohesion is the most important small group variable (Golembiewski, 1962; Lott & Lott, 1965). Therefore, it is not surprising that when sport teams are the focus of study, cohesion has been a variable of interest (Carron & Brawley, 2000). Cohesion has been defined as “a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs” (Carron, Brawley, & Widmeyer, 1998, p. 213).

Carron (1982) advanced a conceptual model of cohesion (see Figure 1) in which he identified four categories of antecedents, (a) environmental factors, (b) personal factors, (c) leadership factors, and (d) team factors. First, the environmental factors represent the organizational system of the group and are viewed as the most general category contributing to cohesion. Second, Carron noted the personal factors which influence the cohesiveness of a group may include, although not limited to the following: task motivation, affiliation motivation, and self-motivation. Third, according to Schriesheim (1980) there are two leadership factors that have influenced group cohesiveness: leader behaviour and leadership style. The final component influencing group cohesion is the team factor, which includes aspects such as group task, group success, group orientation, group norms, group ability, and group stability. Another team factor Carron (1988) identifies as contributing to team cohesion is communication among team members. Carron noted that through communication “group members come to possess similar beliefs, hold similar attitudes, and increase the pressures on conformity to

the group norms” (p.168), which in turn will increase perceptions of cohesion. In fact, Widmeyer and Williams (1991) found a positive relationship between perceptions of cohesion and intrateam task communication in golf teams. Given that only task communication was assessed, it was hypothesized this variable would be a stronger predictor of task cohesion than social cohesion. The authors did indeed find the relationship between task communication and member’s perceptions of task cohesion; however this relationship was only present when examining a member’s perceptions of the group as a totality. The idea that task cohesion should be greater than social cohesion was not found when examining a member’s personal attraction to the group. However, it should be noted that task communication was a predictor of both task and social cohesion.

While a few studies have examined the relationship between cohesion and communication, several studies have found effective communication is important for team success (e.g., Connelly & Rotella, 1991; Harris & Harris 1984; Janssen & Dale, 2002). Interestingly, athletes have identified that good communication and successful team performance are synonymous (Dale & Wrisberg, 1996). In a study conducted by Dale and Wrisberg, the researchers used a performance profiling technique to describe how athletes characterized a successful team and coach. The results indicated that athletes believed in order to be successful both the team and the coach should communicate effectively. Despite, the importance of communication in relation to variables such as cohesion and team performance, the area of sport psychology has lagged behind in operationalizing and examining communication amongst teammates (Sullivan & Short, 2011). However, social psychologists Mabry and Barnes (1980)

defined communication as a social process occurring between two or more individuals that involves the social exchange of symbols and behaviors. The notion that communication is a social exchange between individuals is fundamental in a family of theories known as social exchange. Taken together these theories view social interactions amongst people as a series of interdependent exchanges (Cook & Rice, 2003). Foa and Foa's (1974) social exchange theory clarified several key points of these social interactions. The authors proposed that resources could vary from concrete (e.g., goods) to symbolic (e.g., status), and from universal (e.g., money) to particular (e.g., love). Although interactions can be defined by the exchanges of these resources, social behaviour is complex. Typically, resources are exchanged for similar resources.

Given the importance of communication as described in social exchange theories, one conceptual model that highlights the link between communication and cohesion is Carron and Spink's (1993) team building conceptual model. Researchers have defined team building from several different perspectives (Hardy & Crace, 1997). One approach defines team building as a method to help a group achieve four objectives: a) satisfy the needs of team members; b) increase team effectiveness; c) improve working conditions; and d) enhance team cohesion (Brawley & Paskevich, 1997). Another approach views team building as a method of assisting a team to promote an increased sense of unity and cohesiveness and enable the team to function more smoothly and effectively (Newman, 1984). A third perspective from Widmeyer and Ducharme (1997) describes team building as the process of attempting to enhance a team's locomotion as well as its maintenance. Locomotion is related to productivity or performance, whereas maintenance is reflective of a team's ability to stay together or be cohesive. Regardless of the definition, one thing

that remains clear is the emphasis placed on enhancing a team's cohesiveness (Carron, Spink, & Prapavessis, 1997).

In the Carron and Spink's model of team building (see Figure 2), cohesion is viewed as the outcome or end product influenced by three components; the team's environment, the team's structure, and the team's processes. Within each of the three components are a number of factors that are related to the enhancement of team cohesion. The team's environment refers to the physical and geographical characteristics that influence the team. These may include proximity, distinctiveness, and togetherness. The categories of proximity and togetherness target the notion that when group members are repetitively put in close physical proximity, feelings of cohesion increase (Carron et al., 1997). Distinctiveness is a team environment variable in which team building interventions have targeted to achieve group cohesiveness. Carron and Spink suggested that having a group name or group t-shirt can help groups feel more distinctive from others and consequently enhance feelings of cohesion.

The team's structure refers to the patterns of relationships among team members (Johnson & Johnson, 1997). The team structure variables that have been linked to cohesion are group norms, role clarity and acceptance, and team leadership (Carron & Hausenblas, 1998). Carron and Spink (1993) mentioned that as norms develop within a team, the team's structure becomes more stable. With a stable team structure, norms are highly resistant to change and the conformity to team norms contributes to enhanced cohesiveness. It was also mentioned that having members consistently occupy specific positions contributes to the development of a more stable team structure. Cohesion is enhanced when team members clearly understand, accept, and are satisfied with their

role. Team leadership, the final category of team structure, describes that task and social cohesiveness in the team are influenced by the behavior of the team leaders. A participative style of leadership contributes to feelings of enhanced cohesiveness.

The team's processes are viewed as the dynamic interactions characteristic of team membership (Carron & Hausenblas, 1998). Team processes can include team communication, team goals, and making sacrifices for the team both inside and outside of sport. The research examining the relationship between the team process of communication and cohesion from a team building perspective is limited. Pain and Harwood (2009) implemented a team building intervention with a soccer team during a competitive season where the researchers facilitated a series of team meetings in which team functioning was openly discussed. The results of the intervention led to improvements in perceptions of team cohesion. While this study did not examine communication per se, the results indicated that when there is good communication, team functioning is enhanced along with perceptions of cohesion.

Given that very little research has examined the relationship between the team process of communication and cohesion from a team building perspective, the current study attempted to fill this gap in the knowledge base by examining the relationship between social networking sites and cohesion. The use of social networking sites on the Internet has grown rapidly in popularity in recent years. Social networking sites are designed to foster social interactions in a virtual environment. Social networking websites, such as Facebook, are member-based Internet communities that allow users to post profile information, such as a username and photograph, and to communicate with others by innovating ways such as sending public or private online messages. For

instance, Facebook was created in 2004 and by 2007 it reported to have in excess of 21 million members that viewed 1.6 billion webpages each day (Ellison, Steinfield, & Lampe, 2007). Typically members spend approximately 20 minutes per day on the Facebook site with two-thirds of members logging in at least once a day (Cassidy, 2006). Further, Facebook is the most popular social network site for university students with 90% of students having an account (Stutzman, 2006). The average university student uses Facebook between 10-30 minutes per day (Ellison et al., 2007).

The majority of research examining Facebook has focused on privacy concerns (Gross & Acquisti, 2005). Thus, it is not surprising that few studies have examined Facebook in relation to sport. However, Lampe and Ellison (2010) recognized the influence that Facebook was having on university students and were interested in examining how student-athletes engaged with Facebook since this population tends to be more visible than the average university student. The participants of the study were a combination of student-athletes and students at a large U.S. university. A survey was given to 202 student-athletes to elicit information about how student-athletes used Facebook. The authors then administered the survey to a general population at the same university to see how their Facebook usage differed from student-athletes. A focus group which consisted of strictly student-athletes was also implemented to further investigate the differences. The results showed that student-athletes felt “out of touch” when they hadn’t logged into Facebook compared to the general student population. The results also mentioned the student-athletes felt that their Facebook use was positive, since it was easier for athletes to communicate with their teammates. Student-athletes also saw various risks and rewards of Facebook use. One common positive outcome was the use of

Facebook for team building in the off-season, where the use of Facebook helped coordinate team training over the off-season, keeping in touch with teammates, mentoring younger athletes, and publicizing team events. However, Facebook also introduced negative outcomes, which included mistaken perceptions that others made from the photos posted on Facebook and information which can be taken out of context and seen as either gossiping or arrogance.

The present study expanded the team building literature by examining how Facebook influenced perceptions of cohesion. Understanding how Facebook can be used as a team building strategy can provide knowledge and insight for coaches wanting to enhance cohesion on their teams. Therefore, the purpose of the present study was to qualitatively explore how Facebook was used as a team building activity to influence perceptions of team cohesion.

### **Method**

The methods section highlights the qualitative methodology used in the present study. The participants, procedures, data gathering, and trustworthiness elements are discussed. The data analysis for this study followed the guidelines established by Côté, Salmela, and Russell (1993).

The majority of team building studies in sport psychology have employed a single team, pre-post, non-experimental design (Martin, Carron, & Burke, 2009). More specifically, the most common method in studying team building has been through the use of quantitative methodologies, where cohesion was operationalized as the output variable to determine the effectiveness of the team building intervention (e.g., Stevens & Bloom, 2003; Sénécal, Loughead, & Bloom, 2008). It has been suggested that there is an

absence of systematic evaluation of team building processes in the sport psychology literature (Hardy & Crace, 1997). One way in which a phenomenon can be systematically evaluated is through the use of qualitative methodology (Patton, 2002). Through interpretive research methods (e.g., open-ended interviews), qualitative researchers provide in-depth descriptions of individuals' unique perceptions of specific experiences (Creswell, 2007). Furthermore, Strauss and Corbin (1990) noted that qualitative methods can be an appropriate way in researching a phenomenon when there is little known on the subject.

Within qualitative research, there are an extensive number and types of approaches for studying a phenomenon in the discipline of social sciences (e.g., ethnography, grounded theory, phenomenological research, case study). The current study adopted a phenomenological approach to examine the use of Facebook as a method of team building. This approach is particularly useful when researchers are attempting to describe the meaning, structure, and essence of the lived experience of a phenomenon from an individual or group of people (Patton, 2002). The operative word in phenomenological research is 'describe'. In order for the participant to describe the phenomenon, prospective participants must have considerable experience of the phenomenon in question and they must be able to describe that experience (Dale, 1996). Within the context of the present study, the aim was to describe as accurately as possible the phenomenon of athletes using Facebook as a team building activity.

### **Participants**

One of the objectives of phenomenological research is to provide a rich textured description of the phenomenon lived. Patton (2002) suggested that using purposeful

sampling provides cases that are rich in information, which yields a greater insight and in-depth understanding. In order to reach specific target populations who have experienced the same phenomenon, criterion sampling was implemented. Criterion sampling involves selecting participants who meet a predetermined list of criteria (Creswell, 2007). The first criterion was that all participants played on a university varsity team. In addition, all participants were members of an interdependent sport team. Finally, all participants were required to have a Facebook account and use it at least 10 minutes per day. The final number of participants was determined by data saturation. Saturation occurs when the information obtained in interviews becomes redundant and no new themes emerge (Thomas & Pollio, 2002). In the current study no new themes emerged between interviews eight and nine and therefore a tenth interview was conducted to confirm data saturation.

As noted above, a total of ten varsity athletes participated in the current study. Specifically, the participants were 4 male and 6 female athletes, ranging in age from 20-26 years ( $M = 22.3$  yrs,  $SD = 1.83$ ). The participants competed in the sports of basketball, soccer, volleyball, and football. Demographic information for each participant is presented in Table 1.

### **Procedure**

After receiving ethics approval from the University of Windsor Research Ethics Board, the primary researcher first explored his bias. Rather than using pre-existing beliefs to provide participants with an explanation of the phenomenon under investigation, researchers seek to gather rich and thorough descriptions from the participants' own experiential perspectives. Therefore, it is important for qualitative

researchers to identify and attempt to suspend their own pre-existing beliefs that may impose biases through the research process. A bracketing interview was used to accomplish this task (Dale, 1996). For the purpose of the present study, the researcher participated in a bracketing interview with an expert in qualitative methodology. All biases that emerged from the interview were recorded and the researcher then made every effort to eliminate these biases during subsequent interviews with participants and during the data analyses. This allowed the researcher to more openly examine the phenomenon of Facebook usage within sport teams.

A pilot interview was conducted prior to participant recruitment. A pilot interview was conducted with a former varsity swimmer (female, aged 25). The interview was transcribed verbatim and was analyzed to verify the quality of the research questions. Feedback was given from the participant on the terminology used in the questions during the interview. Based on the feedback, the interview guide was modified to create more clarity in relation to the questions being asked by the interviewer; therefore a term such as team cohesion was changed to team chemistry. Furthermore, some questions in the interview guide were changed to make them open-ended questions. The pilot interview also provided the researcher an opportunity to gain interview experience. In particular, it allowed the researcher to refine his interviewing skills on this particular topic. The researcher learnt the importance of probing the participant to increase the richness and depth of the responses from the questions being asked during the interview.

Following the pilot interview, the primary researcher contacted the coaches via email (see Appendix A). A description of the study was provided and permission was sought to forward a recruitment email to the players. If the coach agreed to forward the

email to their players, athletes were instructed to contact the researcher directly if interested in participating in the study. Any athlete interested in participating in the study was first sent the Facebook Questionnaire (Ross et al., 2009, see Appendix B). In order for athletes to be deemed eligible for the study, they had to complete and return the Facebook Questionnaire that indicated the participant had a Facebook account and used Facebook more than 10 minutes per day. If the athlete met the required criteria, the researcher and athlete decided on a mutually convenient time for an interview. Prior to the start of the interview, athletes were given a full explanation concerning the nature of the study and how data collection would occur. They were informed that their responses would remain confidential and were advised of their right to discontinue participation at any time without penalty. Participants were asked to sign a consent form (see Appendix C) and a consent form for audio taping (see Appendix D). The interviews ranged from 17 to 33 minutes in length and all interviews were conducted in the Sport and Exercise Psychology Lab located in the Human Kinetics building at the University of Windsor.

### **Facebook Questionnaire**

As noted earlier, all participants completed the Facebook Questionnaire (Ross et al., 2009) to determine whether they met the inclusion criteria and to obtain information concerning Facebook use prior to the scheduled interview. The original version of this questionnaire consists of 28 items that assesses three distinct categories: (a) a person's basic use of Facebook, (b) a person's attitude towards Facebook, and (c) the posting of personally-identifying information. For the purpose of the current study, seven items were retained from the first two categories assessing Facebook usage and attitudes

towards Facebook. The third category was omitted since it dealt with privacy issues not pertaining to the nature of the present study.

### **Data Gathering**

The current study collected data using semi-structured interviews since it is viewed as the most appropriate qualitative method in phenomenological research (Smith & Osborn, 2003). This form of interviewing allows the researcher and participant to engage in a dialogue whereby initial questions are modified in light of the participant's responses and the researcher is able to probe and investigate important areas which arise (Rubin & Rubin, 1995). Patton (2002) discussed the benefits of using semi-structured open-ended interviews: (1) the exact instrument used in the evaluation is available for inspection, (2) variation among interviewers can be minimized, (3) the interview is highly focused so that interviewee time is used efficiently, and (4) analysis is facilitated by making responses easy to find and compare. Semi-structured open-ended interviews are similar in style to an ordinary conversation with the interviewee doing most of the talking (Lincoln & Guba, 1985).

### **Interview Guide**

An interview guide (see Appendix E) was created by the primary researcher and by members of the research team with knowledge of social networking sites, cohesion, and team building. This guide was used for each participant in order to ensure consistency. The first section of the interview guide contained opening questions that helped build rapport between the interviewer and the interviewee. The objective of this first section was intended to introduce the topic and to initiate discussion. The second section addressed Facebook usage and how it relates to their team. The third section

contained questions that were developed deductively from the conceptual framework of team building (Carron & Spink, 1993). The objective of the questions in this section was to determine how a social networking site such as Facebook was used as a method of team building. Finally, the fourth section contained a concluding question that allowed participants the opportunity to add any information they believe was relevant and was not asked in the first three sections. During the interview process, three types of questions were asked: main, probe, and follow-up (Rubin & Rubin, 1995). Main questions allowed for participants to describe and elaborate on their knowledge pertaining to the topics of interest in the study (Patton, 2002). Probe questions increased the richness and depth of responses by allowing the participants to further develop the areas considered relevant. Finally, follow-up questions provided the researcher with the opportunity to clarify areas of the participant's knowledge and experience that may have been overlooked (Rubin & Rubin, 1995).

### **Data Analysis**

The goal of the data analysis was to create a system of emerging categories that represented the use of Facebook within a university sport team and how Facebook was used as a method of team building. It should be noted that the analysis of the use of Facebook as a team building approach used a combination of inductive and deductive approaches. Higher-ordered categories were deductively created from the conceptual framework of the team building model (Carron & Spink, 1993). However, many lower-ordered categories were inductively formed. This inductive approach included: creating meaning units, tags, and categories (Côté et al., 1993).

Prior to data analysis, each transcript was transcribed verbatim and participant's names were changed to code numbers to ensure participant confidentiality. In order to create categories, the first step was to create tags. Creating tags is a procedure that involves dividing the text of each interview into text segments called "meaning units". Therefore each interview was analyzed line-by-line and broken down into meaning units. Tesch (1990) described meaning units as a segment of text composed of words, sentences, or entire paragraphs that corresponds to the same idea and relate to the same topic. Meaning units were organized and stored using Nvivo9, a computer software program designed specifically for qualitative data.

The second step consisted of creating categories, which involves listing and comparing the tags derived in the first step. Tags with similar meaning are gathered together and a label that captures the substance of the topic is created to identify the cluster of tags (Miles & Huberman, 1984). The purpose of the second step is to re-contextualize the information into distinct categories, resulting in a set of categories that serve as a preliminary organizing system (Tesch, 1990). The data were examined until saturation was reached and no new tag/category emerged at each level of classification (Côté et al., 1993).

### **Validation**

Qualitative researchers are required to implement strategies in order to minimize the potential misinterpretation of data (Lincoln & Guba, 1985). Patton (2002) discussed that validity in quantitative research depends on careful instrument construction to ensure that the instrument measures what is suppose to measure. Similarly, certain validations

techniques were implemented to the current study to ensure the validity of the data in the present study.

**Thick description.** Thick description is referred by Lincoln and Guba (1985) as a technique to achieve external validity. Thick description of a human behaviour not only explains behaviour, but its context as well. The result of combining both the behaviour and context and describing a phenomenon in great detail, researchers can be to evaluate the transferability of conclusions to other times, settings, situations, and people (Creswell, 2007).

**Prolonged engagement.** Prolonged engagement allows researchers to build trust with the participants (Lincoln & Guba, 1985). The fact that the researcher was familiar with the culture and vocabulary of Facebook helped validate the credibility of the researcher. The researcher had extensive knowledge in the areas of social networking sites, cohesion, and team building. In addition, the researcher gained interview knowledge by reading qualitative research material (e.g., Patton, 2002) and acquired interviewing skills by conducting a pilot interview.

**Triangulation.** Triangulation is based on the premise that no single method ever adequately solves the problem of rival explanations. By triangulating with multiple data sources, observers, methods, and/or theories, researchers can make substantial strides in overcoming the skepticism that greets singular methods, lone analysts, and singular-perspective interpretations (Patton, 2002). In the present study, the researcher was aware that inconsistencies would arise in the data analysis process. Therefore, a peer reviewer was used to provide a check on bias in the data analysis. The peer reviewer was a graduate student in sport psychology. She was presented with portions of the interview

that was considered highly dense of meaning units and was asked to place each meaningful unit into a tag that was previously generated by the primary researcher. Following that, the researcher went over the meaning units that were coded with the peer reviewer and initially there was a 92% agreement rate. When there was a disagreement, the researcher and peer reviewer discussed the statement until consensus was reached.

**Member checks.** Member checks are an essential technique for establishing credibility (Lincoln & Guba, 1985). In this study, member checks occurred on two different occasions. The first occurred at the end of each interview where all the participants were given the opportunity to add or modify any response or idea communicated during the interview. The second check consisted of sending the participants a full verbatim transcript of the interview. The participants were given the opportunity to add, clarify, or eliminate any comments made during the interview. All transcripts of the interview remained unmodified as participants agreed that the transcript was an accurate description of their Facebook usage.

## **Results**

This section of the study will present the results of the ten interviews conducted with the participants. First, a summary concerning the nature of the data including a description of the findings that emerged from the analysis will be presented. Further, the four higher-order categories that were used in the analysis are presented, which include *team environment, team structure, team processes, and team outcome*. A variety of quotes from the interviews are provided that describe the athlete's use of Facebook and how it was used as a method of team building. Each quote will be followed by a label (P1 to P10) to credit the athlete that provided the excerpt.

## **Nature of the Data**

The ten interviews resulted in a total of 269 meaning units. The higher-ordered categories coincided with Carron and Spink's (1993) team building model. From the 264 meaning units, 38 tags were found. Table 2 presents the frequency of the team building topics discussed by each participant. The number of meaning units discussed by each participant varied from 14 (P10) to 53 (P1). However, it is important to note that a higher number of meaning units does not necessarily imply better information was forwarded by the participant. Some athletes may have conveyed an idea in a more lucid manner than some of the other participants. For example, P1 viewed the use of Facebook as an opportunity to demonstrate leadership. In contrast, some participants may have felt that leadership in Facebook was not as important as P1 believed. In addition, not all themes were noted by each athlete. This type of variation may highlight the relative importance of the topic. For instance, the tag *enhance communication* was cited frequently by the athletes which may reflect the importance that Facebook played in the communication process amongst teammates. Conversely, tags such as *role clarity* and *voice an opinion* were rarely discussed by the athletes. These two tags were mentioned by one or two athletes.

The analysis consisted of assembling 34 categories into four higher-order categories following the same inductive and deductive procedure that was used earlier. The four categories that emerged were *team environment*, *team structure*, *team processes*, and *team outcome*.

## **Team Environment**

The higher-order category of *team environment* included 64 meaning units and represented 24% of the total data analyzed. This category included distinctiveness, togetherness, and proximity

**Distinctiveness.** This property explained when group perceive themselves and their team as being perceptually different, or unique, it resulting in group members developing a stronger sense of “we” and distinguishing themselves from non-group members. The athletes mentioned that having a team Facebook page, the posting of photos, having the opportunity to communicate with teammates in a private group on Facebook, and the use of humour on Facebook gave teams the ability to develop a stronger sense of “we”.

In particular, three athletes mentioned that having a team Facebook page helped with distinguishing their team from other varsity teams within the university and from other universities. A team Facebook page was described as a public page in which any Facebook user can view. The page allowed team members to share their stories and connect with the general public and fans. These public Facebook pages were customized by posting stories, pictures, videos, and events. The following quote describes that having a public Facebook page was mostly used to communicate with fans and help promote the team in the community.

I invited a bunch of people from Windsor who I don't even know to join the Facebook page. It's my way to try to get fans to come to the games. If they can't come to the games, they still know if we won or not. If we have fundraisers or if

the game is on TV, we would post the link to watch online. It's mostly for the fans, so it's available to everyone. (P3)

The athletes also mentioned that having a public Facebook page helped increase the popularity of the team. The athletes mentioned team's popularity helped to create a distinctive identity compared to other varsity sport teams. P7 mentioned that her team did not have a Facebook page and explained the importance of having one.

I do think Facebook is good for teams and I think it would be better if teams have a page to help promote interest from the community. So I think it would be beneficial if people can see what's going on in our team. (P7)

Posting pictures on Facebook was also mentioned to help create a distinction with other teams. Several athletes mentioned that putting up a team photo as their profile picture was a common behaviour used to help create this distinction.

One athlete mentioned that having a private group in which only the members of team can view and write contributed to feelings of distinctiveness. Teams that used Facebook to communicate privately with other team members discussed various aspects of the group. Information ranged from practice and meeting times, fitness results, or the planning of social events. P8 mentioned that within large teams such as football, groups can emerge to create a distinction within the team.

In the group I would talk with everyone. The only distinction would be between offense and defense. More specifically, I know the offensive line has their own group, so they would do things together. (P8)

Humour was also mentioned as a way that helps create a team feeling distinct. Eight participants mentioned that a majority of jokes emerge through communicating

with their teammates on Facebook, which helped the group to develop stronger feelings of “we”.

Our inside jokes are the best. Anything that we post on Facebook, only we would understand. Sometimes our coaches won't understand the jokes we make. It's so amazing to feel that and be a part of that. And when you see the joke, you feel good because you are a part of that. (P1)

**Togetherness.** This property contained information concerning togetherness and was viewed as the quality, state, or condition of athletes and teams feeling together. In particular, athletes discussed methods used to develop togetherness such as having the entire team as Facebook friends, through the use of the inbox and group communication tools on Facebook and the posting of pictures.

The majority of athletes pointed out that having all teammates on Facebook as friends was beneficial to creating a sense of togetherness amongst teammates. The overwhelming benefit mentioned of having all teammates on Facebook was that it created a sense of team unity. This unity was created through the use of Facebook's group or inbox messaging function. The following quotes explained the benefit of having a group or inbox message on Facebook.

When there is a message that is sent out to the team, it's kind of like we're all there together. It makes us feel more of group, more of a team. (P4)

I think when you have a group on Facebook it helps bring the team together. So if you don't like someone on your team it forces you to communicate with everyone. When you communicate with them it builds relationships and then that

communication leads to doing little things like writing on people's wall like "good game". I think it helps the relationship and it brings people together. (P7)

I guess it helps with the dynamics to include everyone because some shy girls on the team may say something on Facebook, or say something funny, or initiate a hang out and everybody gets closer from that. (P9)

The posting of photos also contributed to a sense of togetherness. Six athletes mentioned that photos posted on Facebook that were taken at games or at social gatherings made individuals feel more united with other members of the team.

When you see pictures and you remember where it's from, the way you felt, you remember everything and you know you only had this with these girls and no one else. So when you look back at the photos, you only are going to feel that with those girls. You're never going to feel that with anyone else because they were not there. (P9)

**Virtual proximity.** The current property deals with how the use of Facebook can help to create a sense of proximity amongst teammates, albeit when teammates are physically separated from one another. Specifically, the results of the current study suggested that Facebook elicits feelings of virtual proximity when group members are physically apart from each other allowing team members to feel close to one another. In particular, the use of Facebook during the off-season was found to be most effective in maintaining this sense of closeness.

Facebook helped us during the off-seasons, it helped us to stay closer and when you get back you don't feel lost as to what is going on in our teammates' lives.

We have some players that live out east and some live out west and so you can see what they are up to and we can talk for free. (P6)

### **Team Structure**

The higher-order category of *team structure* included 103 meaning units and represented 39% of the total data analyzed. This category included norms, leadership, and roles.

**Norms.** The use of Facebook helped enforce certain team norms. One norm that was highly enforced on Facebook was punctuality. Five participants mentioned that Facebook helped other members conform to the norm of being punctual. Punctuality referred to the expectation for arriving on time and being present for various team functions. The context of the norms for being punctual varied from team workouts, team social functions, practices, and competitions. The following quotes are examples describing how Facebook influenced teammates to be on time.

Sometimes we have workouts early in the morning, so someone will tell us what time we're working out on Facebook. We would say, "Work out at 6 am, but be there by 5:45 am." Or if there's a situation where we would be worried about a certain guy being late, we would post on the group "Make sure you are on time." All in capital letters. (P8)

I remember there have been times where it's expected to be early when we leave for away games and on Facebook team members would remind everyone to show up for this time so that we all arrive early for the bus. (P9)

Facebook was also used to promote the norm of productivity, which refers to expectations related about performance. One athlete noted that she would use Facebook to remind teammates on the importance of training.

Facebook helps getting you into shape. Two days ago I wrote on a teammate's wall to try and get her to train with me. Everyone is always asking who's working out today, or what time are you working out, have you started the workout program? (P9)

It is important to note that Facebook was used to remind teammates of norms. The following quote explains that the norms were not initially discussed on Facebook.

I think most of these expectations are done at the beginning of the year and usually done in person. I think sometimes it can be used as a reminder if someone forgets these expectations. (P5)

An interesting finding was that new expectations emerged through the use of Facebook. The majority of the participants mentioned that all athletes would have to conform to certain expectations on Facebook. For instance, it was expected that the entire team be added as friends on Facebook. Also, it was expected that once a social function was organized, all members should get an invitation to the event. Lastly, writing negative comments about the team and posting pictures that included alcoholic beverages wearing team apparel was strictly forbidden.

**Leadership.** Facebook was viewed by all participants as a way to demonstrate leadership. While there were several leadership behaviours that were highlighted, two behaviours that were discussed frequently were social support and inspirational motivation. Social support was viewed as showing a concern for teammates. This

leadership behaviour was mentioned by all 10 participants to be demonstrated on Facebook. The following quotes were examples of social support.

Some of the rookies felt more comfortable coming to the older guys to talk to, especially since everybody wasn't around if they wanted to talk about certain issues, personal issues. I remember one time last season, a guy just broke up with his girlfriend and he started talking to me on Facebook. And he just vented to me. (P6)

I do think Facebook gives a good feeling from using it with your team. Like if somebody is sick or injured, it's common for the team to write stuff like "feel better" on their wall. So those little messages do help. I think it helps sustain good relationships. (P5)

Another leadership behaviour that was mentioned by the majority of participants was inspirational motivation. Inspirational motivation occurred when teammates behaved in ways that motivated and inspired those around them. The following quotes were representative of inspirational motivation.

I can tell you all season we get so motivated and inspired by our usage of Facebook. I know it sounds weird, but before every game someone will post a status or post something on their wall. It would get everyone so pumped and motivated. I'm famous for doing that, that's what I loved Facebook for, especially during the season. (P1)

There were times when one of the captains would see that the team was down and she would try to then motivate the team on Facebook telling them, "It's ok." She would always make sure the team was staying positive. (P7)

Other leadership behaviours demonstrated on Facebook were positive feedback, team management, and idealized influence. Positive feedback were behaviours on Facebook that reinforced an athlete by recognizing and rewarding good performance. Four participants mentioned they would frequently write on their teammate's wall if someone performed well during competition or practice. Team management was described when an athlete intervened on Facebook after a noncompliant behaviour had occurred or when a teammate committed an error detrimental to the team. For instance, five participants utilized Facebook to communicate with other teammates who had been noncompliant. The participants mentioned that they preferred using Facebook over communicating in person because Facebook can eliminate the tension that can arise after confronting teammates. The follow quote was representative of team management.

Facebook helps because if you want to confront a teammate, sometimes people can't do it to each other's faces. Facebook helps I guess. You're not being rude; you're just looking out for the best interest of your team. (P1)

Lastly, idealized influence was when leaders behaved in a way that resulted in being a role model. Some of the participants mentioned that being a positive role model was displayed by initiating team communication on Facebook, inviting all teammates to team social functions, and avoid negative postings.

**Roles.** This property incorporated information about ways in which team members used Facebook to clarify and fulfill their roles. One athlete mentioned the benefit of having a coach on Facebook was to clarify any role related issues indicating how to execute certain tasks.

The results also found that Facebook was used to fulfill the role of social convener, an athlete who was responsible in the planning and organizing of social gatherings. These individuals would use Facebook to communicate and organize the events with the rest of the team. The following quote is from an athlete who had a clear understanding that one of his roles was to plan and organize social gatherings.

I was the guy to set everything up if we were having a team outing or if something came up. I'm typically the guy to initiate the conversation or subject to everyone else. It's an easy way for me to execute my job. You jump on the computer and type in everyone's name, "hey guys, tomorrow at so and so's house, everyone is welcome." (P2)

### **Team Processes**

The higher-order category of *team processes* included 56 meaning units and represented 21% of the total data analyzed. This category included intra-team communication and goal setting.

**Intra-team communication.** The group process of communication was found to be most influenced by Facebook. Intra-team communication was increased by utilizing various tools on Facebook including Facebook chat, Facebook group, inbox messages, a member's wall, and through "liking" another teammate's pictures, videos, or status. Given that the main purpose of the current study was to examine Facebook as a method of team building, Table 3 summarizes the various methods teammates used to communicate with other teammates on Facebook. The various methods teammates used to communicate with other teammates on Facebook resulted in 108 meaning units, which was not included in the findings for this study.

From a team building perspective, Facebook enhanced intra-team communication. Facebook was viewed as an efficient and effective way to communicate with the entire team. The participants believed that Facebook was more effective than sending an email or text message.

Facebook is good to reach everyone at once. So if we have a team meeting, we can post on the group that we have a meeting instead of text messaging 30 guys, so it's very convenient. (P8)

Many participants mentioned multiple team building benefits of interacting and communication through a social network site such as Facebook. One benefit noted was that Facebook helped the entire team voice their opinions, regardless of individual status within the team. This was best illustrated by the following quote.

What Facebook does is if we are in person, all communicating, we all have that subconscious understanding of who the spoken leaders are. So if all the wide receivers are hanging out, everyone knows that [name of player], who's our 5<sup>th</sup> year guy, All-Canadian, he's the leader, so when he says something it just goes. And then the rookies, they are on the bottom of the ladder, so if they are told to do something they have to do it. On Facebook, there is less of a hierarchy, so it kind of gives the opportunity for those guys at the bottom rung of the ladder to voice their opinion. If you comment and I comment, it's not like my comment is louder. It creates a medium that everyone can voice their opinion and be heard. (P8)

Another benefit mentioned was the ability to get to know individual teammates better. This was especially apparent for individuals who were described as being

introverted. The following quote describes that certain teammates would reveal more about themselves on Facebook than in person.

It makes it easier because I guess when some people are behind a computer they express themselves more easily. You get to see a side of them that you didn't see at practice, like "wow, you're really funny" or "you're really outgoing". (P1)

Facebook also helped integrate rookies on the team and provided a medium in which they developed bonds and relationships with the rest of the team. The following quote described how Facebook made rookies feel more comfortable in talking with veterans.

I'll say it gives rookies a chance to talk to the older guys. A lot of the times at the start of the season, I wouldn't know many of them. And then I ended up getting them on Facebook and then you end up seeing what they are all about. It made them more comfortable with us because they believe that we were friends just because we're friends on Facebook. (P6)

Although Facebook was used throughout the entire season, five of the participants stressed its importance in the off-season. Participants mentioned that during the season the athletes would see each other every day, however during the off-season communication can diminish because teammates are not with each other as often. Facebook was mentioned as a way to keep the channels of communication open during the off-season.

I think in the off-season Facebook definitely helps the team's chemistry, it keeps people in touch, and thinking about each other. It helps us to focus for the upcoming season. We have a lot of people go home for the summer, so it helps

because you're still connected in their lives so when they get back you ask them "oh, how was home, I saw you did this". (P10)

Finally, another benefit mentioned of communicating effectively on Facebook was the ability to clarify or answer any team-related queries.

It's a way if some guys have questions they can ask on the page to clarify some things. So if you don't know when the workout is or if you don't know what we are doing tonight, you can ask and find out. (P8)

**Goals.** It was stated that Facebook reminded players about team goals and objectives that were developed at the start of the season. This was especially apparent with outcome goals like winning a championship. An athlete remarked that he posted a picture of his team that was taken the previous year after they had lost in the playoffs. He wanted to remind the team of that feeling of losing a playoff game and the consequence of not achieving their team goals.

I posted a picture this year of our playoff game last year and put a caption underneath it saying "I will never forget this moment", we lost that playoff game, and that was a way to remind the team that we want to win this year. (P2)

The participants also discussed the usefulness of Facebook in relation to individual goals. Some participants revealed that they would set or challenge their teammates to accomplish individual goals during competition. The following quote describes how Facebook was used to help teammates establish individual goals.

Sometimes we kind of joke around and give each other individual goals for the upcoming game. I remember one time that somebody posted a status, it was sort of a challenge, challenging two teammates to make 5 three point shots. (P3)

While it was common to post a teammate's goal, some participants pointed out that they refrained from posting their own individual goals that they had set for themselves.

For individual goals, I think we may shy away from it. Like if a defensive back says I'm going to get 3 picks today, people might see it and say like "easy there big guy." And then if guys only say they are going for one interception, they some guys might say stuff like "why don't you pick your game up." So the individual goals don't really work on Facebook. (P8)

### **Team Outcomes**

All of the participants cited that the product or outcome of communicating with the team on Facebook was increased team unity or enhanced cohesiveness. There were 27 meaning units that referred to Facebook influencing team cohesion.

I think Facebook helps our team's chemistry because we are staying connected so often. Instead of saying goodbye after practice or after a game, you always see people on Facebook to talk to. You always have people to talk to after practice if you want to, or you always see someone writing something funny. It helps keep everything light, especially when things get stressful. So I think it's good for our team's chemistry. (P7)

I think building cohesion through Facebook is huge. People start to make hang out dates and "oh let's do this or this" and once you start hanging out with these people and you start developing a relationship with these people, it's huge for your team environment. (P1)

While most of comments from the participants highlighted how Facebook

positively influenced cohesion, some of the participants mentioned how Facebook can negatively influence cohesion. One participant declared that a miscommunication on Facebook could hinder feeling of team cohesiveness.

It may be a team breaker in some cases, for example if someone wrote on other teammate's wall to go to this party and this other person wasn't invited and saw that, it can make people feel excluded which affects the relationship between teammates and can ultimately cause problems on the court. (P7)

Participants mentioned other potential implications of using Facebook which included losing focus, an increased risk of gossiping of teammates, and cliques forming within the team.

If someone posts a status or said someone about another teammate where everybody can read it, it can lead to "this guy said something about this guy." Blah blah blah and it can carry over in practices. (P2)

In some ways Facebook can be a distraction, in some ways it can start a fire. It can create drama which can cause some problems within the team. (P1)

### **Discussion**

Facebook has become an integral part of a university student's daily activities, where the average university student uses Facebook between 10-30 minutes per day (Ellison et al., 2007). The results of the current study showed that student-athletes are spending up to 3.5 hours a week on Facebook. One participant indicated that she spends 1-2 hours a day on Facebook. Given its prevalence with student-athletes, the current study sought to investigate how Facebook was used as a method of team building. In general, the results of the present study suggested that when athletes communicate with

their teammates on Facebook it helped to enhance perceptions of team cohesion. The finding of enhanced cohesion was achieved since Facebook impacted other variables related to the team building process. Beyond these general findings, a number of aspects related with these results should be highlighted.

The results of the present study offer theoretical support for Carron and Spink's (1993) model of team building. In general, the majority of team building approaches using the Carron and Spink team building model have used strategies such as goal setting, adventure programming, or omnibus strategies where numerous strategies are adopted over a certain time period (see Martin et al., 2009). The results of the present study expanded the knowledge base by suggesting that Facebook may be a useful team building tool. For instance, minimal research has examined the *team environment* component from the team building model. Carron and Spink highlighted specific examples of strategies that can be used to create distinctiveness amongst teammates, such as wearing a team t-shirt. However, little research within sport psychology has provided other methods to influence the team's environment. The present study not only suggests that Facebook helps to create a sense of distinctiveness, but it can also influence the other variables contained within the *team environment* component. In particular, the results of the current study indicate that Facebook can influence the notion of proximity, without being physically near teammates. Carron and Spink primarily viewed togetherness or proximity more in a physical sense. That is, being close physically to one another, such as spending time together as a group. However, the current study expands the team building model by indicating that togetherness or proximity can also be achieved through virtual proximity. Specifically, the results of the current study suggest in today's technological

age, social networking sites, such as Facebook, have various methods such as video and instant message communication to help group members feel connected with teammates without being physically present with other teammates.

Leadership was found to be the most cited variable that was discussed in the *team structure* component of the team building model. Given that the participants in the current study were athletes, it has been suggested that athlete leadership is an important source of leadership within a team (Loughead, Hardy, & Eys, 2006). Price and Weiss (2011) found teams which had more athletes displaying leadership behaviours experienced greater perceptions of task and social cohesion. Similarly, Vincer and Loughead (2010) found that specific athlete leader behaviours (i.e., training and instruction, social support, positive feedback, and democratic behaviour) were related to perceptions of task and social cohesion. The athletes in the current study mentioned numerous leadership behaviours were present on Facebook; however one behaviour that was mentioned by the majority of athletes was social support. Yukelson (1993) suggested that social support behaviours were relevant for team building. He mentioned that at the university level there were so many opportunities for teammates to support one another. The results of the current study allude that Facebook was a medium in which athletes displayed emotional support for one another. The type of social support provided by the athletes helped to create a family-like atmosphere within teams. Hardy and Crace (1991) noted that when teammates feel like a family, every individual, no matter what happens, good or bad, sticks together for the betterment of the team. Another variable Facebook was found to influence in *team structure* was role clarity. Team building interventions look to create ways for team members to clearly understand their role because when team

members clearly understand their role, cohesiveness is enhanced. Furthermore, athletes look to the coach to provide them with clear expectations on what his or her role is on the team (Carron & Spink, 1993). Therefore, it is not surprising that role clarity was only mentioned by one participant given that majority of athletes did not have their head coach on Facebook. However, one participant that did have his coach on Facebook mentioned that he asked questions to his coach about his role on the team. Taken together, the results of the current study suggest that Facebook was not only beneficial for teammate to teammate communication, but also between the coach and athlete.

An overwhelming number of meaning units in the current study concerned intra team communication; this was not surprising given the nature of social networking sites. Facebook was mentioned by two participants to be a useful tool that encouraged all team members to voice their opinion. The results of the present study support the basic premise of social exchange theories that view social interactions as an exchange of valued commodities (Foa & Foa, 1974). The results of the present study demonstrated that communicating on Facebook allowed everyone to voice their opinions concerning team matters. The results also expand social exchange theories in that Facebook eliminates status hierarchies that could hinder communication amongst group member. Social exchange theories have noted that communication between higher status players on a team (i.e., the captain or assistant captain) are less inclined to communicate with team members of lower status (i.e., the rookies). However, the results indicated that communicating on Facebook reduced the status hierarchy within a team; therefore communication between teammates of different statuses is not uncommon. The fact that teammates communicate with each other, regardless of status, helps to create an

environment of open communication within the team. Yukelson (1993) suggests that a team functions more effectively when members are able to communicate openly and honestly with one another. Therefore, Yukelson suggests that mutual sharing is fundamental for effective communication. It would appear that Facebook openly allows for mutual sharing to occur between teammates. Pain and Harwood (2009) found that team building interventions that focused on promoting open team discussion and sharing of information led to improvements in perception of team cohesion.

The *team outcome* that was examined in the current study was cohesion. The results of the study suggest that Facebook influenced various aspects of team environment, structure, and processes, which in turn created a more cohesive team. It is interesting to note that Facebook influenced team cohesion both directly and indirectly. For instance, Facebook directly helped build team cohesion through the posting of team pictures. Further, Facebook indirectly influenced team cohesion, for example, when teammates organized team social functions on Facebook and after the social function the team members felt more cohesive. In addition to the theoretical implications of the study, there are several practical implications that should be noted. From a practical perspective, coaches and sport psychology consultants should consider the use of Facebook as a method of team building. Bloom, Stevens, and Wickwire (2003) found coaches were always looking to acquire new team building ideas to implement throughout the season. Facebook allows teams to improve team cohesion throughout the season and during the off-season since it is a tool that allows athletes to be constantly in touch with one another. Also, Facebook allows teams to improve team cohesion without investing a considerable amount of financial or human resources as would be required with other team building

activities (e.g., ropes course).

The results of present study suggest when teammates communicate over Facebook it can lead to them feeling more cohesive with their teammates. Coaches and sport psychology consultants should promote intra-team communication by taking advantage of certain features contained within Facebook. One suggestion would be to create a private group on Facebook which is available to all the team members. The results revealed that the participants believed that a private group was an effective method of enhancing intra-team communication. On “the walls” of these private groups athletes could post pictures, make jokes, organize team social functions, and discuss pertinent team issues; all behaviours that were found to influence cohesion. As discussed earlier, teammates seeing pictures of themselves with the team competing during competition or pictures of the team during team social functions influenced the team’s environment. Therefore, coaches should encourage the posting of team pictures on Facebook.

It should be noted that some caution must be taken with teams when using Facebook. As discussed in the results, the use of Facebook can also hinder cohesion. Potential implications of using Facebook included losing focus, miscommunication, an increased risk of gossiping, and cliques forming within the team. Based on the results of the current study, a strong leadership presence and the conformity to team norms can limit these problems. Furthermore, coaches may consider implementing rules regarding the use of social networking sites at critical times of the season. There was an overwhelming agreement amongst the participants concerning the benefits of Facebook during the off-season; however coaches should consider that the benefit of using

Facebook to build cohesion during the playoffs would be minimal.

The current study is not without its limitations. The first limitation was the sample used for the current study. All athletes attended the same university; therefore the results may lack generalizability across different university teams. Furthermore, the results can only be generalized to athletes who use Facebook. Athletes who do not use Facebook may not perceive similar experiences the same way as participants did in the current study.

A second limitation was that the current study examined one type of social networking site. Currently there are other popular social networking sites that serve the general function of communicating online such as MySpace and Twitter. However, it should be noted that Facebook is currently the most popular social networking site (eBizMBA Inc., 2012).

A third limitation is that the data are cross-sectional; therefore no cause-effect relationship can be inferred. Using multiple observations over the course of the season would help to determine which aspects of the team building model enhances (or hinders) perceptions of cohesion when teams use Facebook. Also, monitoring the content of Facebook postings over the course of a season would offer insight into the types of postings that can impact the team's environment. Future research should implement an experimental design that allows the research to answer the questions of whether Facebook can influence cohesion over time, does cohesion persist over time, and whether Facebook produces immediate results. Therefore future research should implement a Facebook intervention with the practical suggestions given in the current study and quantitatively measure cohesion during different points of a season.

Given that the purpose of the current study was to examine the use of Facebook as a team building method, future research should examine the advantages and disadvantages of having a coach on Facebook. A coach's involvement on social networking sites is still unknown and how it impacts team functioning. The current study displayed one advantage of having a coach on Facebook as it lead to an increase in role clarity; however many participants mentioned their discontent of having coaches on Facebook. Therefore, future research is needed to determine whether coaches should be in charge of team building activities on Facebook or whether coaches should remain in the background while athlete leaders take on the responsibility of monitoring their team's activity on Facebook.

In conclusion, the results of the present study support the notion that Facebook can positively influence cohesion. Furthermore, Facebook can be used as a method of team building to help improve team cohesiveness by influencing a team's environment, structure, and processes. It should be noted that some Facebook postings can hinder team cohesion, however with proper leadership and the enforcement of team norms, this form of social networking can be beneficial to a team's functioning.

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Table 1

*Demographic Information of the Participants*

<b>Participant</b>	<b>Gender</b>	<b>Age</b>	<b>Sport</b>	<b>Time Spent on Facebook per Day in Minutes</b>
P1	Female	20	Soccer	11-30
P2	Male	23	Volleyball	11-30
P3	Female	22	Basketball	31-60
P4	Male	22	Volleyball	11-30
P5	Female	26	Basketball	11-30
P6	Male	23	Volleyball	11-30
P7	Female	22	Volleyball	11-30
P8	Male	21	Football	11-30
P9	Female	20	Soccer	31-60
P10	Female	24	Soccer	60-120

Table 2

*Properties and Tags with Frequencies as Expressed by Each Participant*

<b>Properties and Tags</b>	<b>N</b>	<b>P1</b>	<b>P2</b>	<b>P3</b>	<b>P4</b>	<b>P5</b>	<b>P6</b>	<b>P7</b>	<b>P8</b>	<b>P9</b>	<b>P10</b>
<b>Team Environment</b>	64	9	7	12	6	7	5	4	5	7	2
Distinctiveness	30	5	5	5	1	2	3	1	4	3	1
Group messaging	2	0	0	0	0	0	0	0	2	0	0
Humour	20	3	4	3	0	2	3	1	1	3	0
Pictures	5	2	0	1	0	0	0	0	1	0	1
Team page	3	0	1	1	1	0	0	0	0	0	0
Virtual Proximity	5	0	0	1	2	1	1	0	0	0	0
Togetherness	29	4	2	6	3	4	1	3	1	4	1
Group or Inbox messaging	8	1	1	1	1	0	1	2	0	1	0
Having all teammates as friends	12	2	1	3	1	1	0	1	1	2	0
Pictures	9	1	0	2	1	3	0	0	0	1	1
<b>Team Structure</b>	103	26	11	12	9	8	12	8	5	7	5
Leadership	78	23	7	11	5	8	7	7	1	4	5
Idealized influence	16	0	1	4	2	1	2	4	1	1	0
Inspirational motivation	27	15	2	2	2	2	1	1	0	0	2
Positive feedback	4	1	1	0	0	0	0	1	0	0	1
Social Support	22	4	2	5	1	2	4	1	0	2	1
Team management	9	3	1	0	0	3	0	0	0	1	1

Norms	19	3	2	1	2	0	4	1	3	3	0
Facebook norms	6	1	2	1	0	0	1	1	0	0	0
Productivity	3	0	0	0	0	0	2	0	0	1	0
Punctuality	10	2	0	0	2	0	1	0	3	2	0
Roles	6	0	2	0	2	0	1	0	1	0	0
Role clarity	1	0	0	0	0	0	0	0	1	0	0
Social coordinator	5	0	2	0	2	0	1	0	0	0	0
<b>Team Processes</b>	<b>56</b>	<b>7</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>9</b>	<b>3</b>	<b>12</b>	<b>3</b>	<b>5</b>
Enhance communication	48	5	2	3	6	1	9	3	11	3	5
Accessible on phone	5	0	0	1	0	0	0	1	0	2	1
Clarify issues	4	1	0	0	1	0	0	0	2	0	0
Easy to use	10	0	2	0	1	0	3	0	3	0	1
Learn about teammates	11	3	0	1	0	0	2	0	4	1	0
Off-season	10	0	0	1	2	0	3	1	0	0	3
Reach everybody	6	0	0	0	2	1	1	1	1	0	0
Voice opinion	2	1	0	0	0	0	0	0	1	0	0
Goals	8	2	3	1	0	1	0	0	1	0	0
<b>Team Outcomes</b>	<b>41</b>	<b>11</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>2</b>
Cohesion	29	6	4	2	2	5	1	1	2	4	2
Negative consequences	12	5	1	1	1	1	2	1	0	0	0
<b>TOTAL</b>	<b>264</b>	<b>53</b>	<b>28</b>	<b>31</b>	<b>24</b>	<b>23</b>	<b>29</b>	<b>17</b>	<b>24</b>	<b>21</b>	<b>14</b>

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Table 3

*Higher and Lower Order Themes of Athlete Communication on Facebook and Representative Meaning Unit*

<b>Higher Order Themes</b>	<b>Lower Order Themes</b>	<b>Representative Meaning Unit</b>
Facebook chat	Serious talks	For all serious talks is through chat
	Personal information	I would talk about personal information with my teammate
	Close friends	I would chat with the ones who I am close with
Group message	Meetings	If we had an offensive meeting, we would post it on the group
	Practices	If we need to post something like if practice was cancelled or to set up scrimmages
	Social events	We would write on the group to see who wanted to play beach volleyball
Inbox message	Personal information	I would use inbox to talk about personal information with my teammate
	Practices	Practice has been changed to 3 p.m.
	Social events	I would message the entire team for a big event, such as an end of the year get together
“Like”	Support	To show support to what my teammate was saying
	Agree	I agreed to what my teammate was saying
	Laugh	I liked their status to show that I laughed
Wall	Status	I post a lot of inspirational statuses
	Photos	I would comment on photos that have been taken from a party
	Videos	We would post funny YouTube videos on each other’s walls





## **LITERATURE REVIEW**

The present thesis will examine the influence of social media on team cohesion and team building. The review of the literature will contain three sections: (a) cohesion, (b) team building, and (c) social media.

### **Cohesion**

For the following section, the concept of cohesion will be discussed. First, the construct of cohesion will be defined. Second, the characteristics of cohesion will be explored. Third, a conceptual model of cohesion will be explained, followed by an examination of a measurement tool utilized to evaluate perceptions of cohesion.

#### **Definition of Cohesion**

In the 1950s, research examining group cohesiveness emerged in social psychology (Mudrack, 1989). James (1951) estimated that there were 4 or 5 million groups in existence at any given time; therefore the prevalence of groups led social scientists to recognize their importance. Moreover, military psychologists (e.g., Chodoff, 1983), sport sociologists (e.g., Gruber, 1981), and sport psychologists (e.g., Straub, 1975) tended to view cohesion as an essential component for effective and efficient team functioning.

Festinger, Schachter, and Back (1950) were the first to introduce a definition of cohesion and viewed it as “the total field of forces that act on members to remain in the group” (p. 164). Later that year, Festinger (1950) made a subtle, but critical change to his earlier definition of cohesion. Festinger offered this reinterpretation of cohesiveness as “the resultant of all the forces acting on members to remain in the group” (p. 274). The “resultant of all the forces” suggests that when examining cohesion, one does not have to

identity all the forces that influence an individual's decision to remain or to leave a group.

Gross and Martin (1952) criticized the Festinger et al. (1950) view of cohesiveness as a "total field of forces" and proposed instead that cohesiveness be viewed as "the resistance of a group to disruptive forces" (p. 553). Regardless of the definition adopted to define cohesion, there was one major limitation—the definitions were virtually impossible to operationalize.

In response to the issue of operationalizing a definition of cohesion, Libo (1953) suggested that cohesion be defined as simply "the attraction to the group", which made it easy to measure. Although this definition was easy to operationalize, two limitations emerged: (a) it focused only on the individual, and (b) it viewed cohesion as a unidimensional construct. Unidimensional constructs of cohesion are problematic because their usefulness seems to be limited to certain types of groups (Loughead & Hardy, 2005).

Yukelson, Weinberg, and Jackson (1984) were the first researchers to describe cohesion as a multidimensional construct. In their study, a sample of female and male basketball players completed a 41-item questionnaire addressing team cohesion. Two factor analytic techniques were used to determine if there were any common factors. Results revealed four robust common factors which accounted for greater than 80% of the variance of the total common factor structure. The four factors were (a) quality of teamwork, (b) attraction to the group, (c) unity of purpose, and (d) valued roles.

Following these initial attempts to define cohesion, Carron (1982) advanced the most widely accepted definition of cohesion that was based on a multidimensional model.

Carron argued that the definition of cohesion needed to consider both task and interpersonal behaviours of individuals. Therefore, Carron initially defined cohesion as a “dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives” (p. 124). This definition was revised by Carron, Brawley, and Widmeyer (1998) to include an affective component. The revised definition viewed cohesion as “a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs” (p. 213). To date, this is the most widely accepted definition of cohesion.

### **Characteristics of Cohesion**

The definition forwarded Carron et al. (1998) highlighted four important characteristics of cohesion. The first characteristic of cohesion is that it is multidimensional. There are many factors that help a group to stick together and remain united. The factors that cause one group to stick together may not be present in equal weight for another group. Thus, for example, one group may be highly united around its task objectives; while a second group may be very cohesive socially, but lack task unity.

The second characteristic of cohesion is that it is dynamic. Cohesion is not as transitory as a state, but neither is it as stable as a trait. Cohesion in a group can (and most likely does) change over time in both its extent and its various dimensions of cohesion. Thus, for example, during the early stages of group formation, cohesion may be reflected in the completion of a task. However, after a period of time, where members have had a chance to communicate and interact with one another, close personal ties may become more prominent.

The third characteristic highlights the instrumental nature of cohesion. All groups, whether sport teams or work groups, form for a specific purpose. Even if the purpose of the group is considered purely “social” in nature, the group still has an instrumental basis for their formation. Thus, for example, members who form a social club may have an instrumental basis to develop friendships as to oppose to a task objective (Carron & Brawley, 2000).

The final characteristic of cohesion is it contains an affective component. The social bonding and/or task unity provides an individual with a certain satisfaction when an individual joins a group or team. Baumeister and Leary (1995) pointed out that the need to belong is a fundamental human motive.

### **Conceptual Model of Cohesion**

Carron, Widmeyer, and Brawley (1985) advanced a multidimensional conceptual model of cohesion that was based on three fundamental assumptions. The first assumption was derived from social cognition theory suggesting that cohesion can be evaluated through perceptions of individual group members. Individuals within groups experience various situations in which they begin to formulate beliefs about the group, which they can integrate into perceptions concerning the group.

The second assumption was the need to distinguish between the group and the individual. As a result, Carron et al. (1985) assumed that each group member held cognitions concerning the cohesiveness of the group which were related to the group as a totality and the degree to which the group satisfied personal needs and objectives. They labeled these two types of cognitions as (a) group integration, and (b) individual attractions to the group. Group integration is the category that represents the closeness,

similarity, and bonding within the group as a whole. In contrast, individual attractions to group reflects the individual's perception about personal motivations acting to retain the individual in the group. An individual's attraction to the group can be determined by the member's feelings about the group, their personal involvement, and involvement with other members.

The third assumption, which was based on the group dynamics literature, distinguished between task and social oriented concerns of the group and its members. Therefore, Carron et al. (1985) incorporated a task and social distinction in its conceptualization of cohesion. The task orientation represented the general orientation or motivation towards achieving the group's goals. In contrast, the social orientation represents the general orientation or motivation towards maintaining and developing social relationships within the group.

Using the above mentioned assumptions, Carron et al. (1985) advanced a four dimension conceptual model of cohesion (see Figure 3). First, individual attractions to the group-task (ATG-T) refers to the attractiveness of the group's task, productivity, and goals for the individual personally. Second, individual attractions to the group-social (ATG-S) is viewed as each group member's feelings on their personal acceptance and social interaction with the group. Third, group integration-task (GI-T) refers to the individual's perceptions of the similarity, closeness, and bonding within the group as a whole pertaining to the group's task. And finally, group integration-social (GI-S) is viewed as an individual's perceptions about the similarity, closeness, and bonding within the group as a social unit (Carron et al., 1998).

### **A Measurement of Cohesion: The Group Environment Questionnaire**

Using the conceptual model of cohesion, Carron et al. (1985) also developed an inventory to assess the four dimensions of cohesion known as the Group Environment Questionnaire (GEQ). The GEQ is an 18-item inventory, in which items are measured on a 9-point Likert scale. Each item is anchored at the extremes by 1 (*strongly disagree*) and 9 (*strongly agree*). Of the 18 items, 12 items are negatively worded and thus need to be reversed coded. Thus, higher scores from the GEQ reflect higher perceptions of cohesion.

The individual attractions to group-task (ATG-T) dimension contains 4 items and an example item is “This team does not give me enough opportunities to improve my personal performance”. The individual attractions to group-social (ATG-S) dimension contains 5 items and an example item is “For me, this team is one of the most important social groups to which I belong”. The group integration-task (GI-T) dimension contains 5 items and an example item is “Our team is united in trying to reach its goals for performance”. Finally, the group integration-social (GI-S) dimension contains 4 items and an example item is “Members of our team would rather go out on their own than get together as a team”.

Since the development of the GEQ (Carron et al., 1985), several studies have examined its psychometric properties. Patterson, Carron, and Loughhead (2005) found acceptable internal consistency values: ATG-T,  $\alpha = .75$ ; ATG-S,  $\alpha = .70$ ; GI-T,  $\alpha = .72$ ; and GI-S,  $\alpha = .76$ . In addition, Carron et al. (1985) demonstrated content validity, which assesses the degree to which scale items reflect the construct being measured. The following procedures were taken in order to ensure content validity: (a) a broad literature search, (b) participants used to help create concept definitions, (c) use of the conceptual

model to provide rationale for development of items, (d) assessment of item content made by independent experts, and (e) intercorrelations of each item.

Concurrent validity is found when an instrument, such as the GEQ, correlates moderately well (i.e.,  $r = 0.35$  to  $0.60$ ) with other similar instruments. Brawley, Carron, and Widmeyer (1987) correlated the GEQ with the Sport Cohesiveness Questionnaire (SCQ; Martens, Landers, & Loy, 1971) and the Team Climate Questionnaire (TCQ; Grand & Carron, 1982). All four cohesion scales correlated well with the SCQ and the task dimensions of the GEQ correlated well of the TCQ.

Predictive validity involves using an instrument to predict a theoretically related outcome. Brawley et al. (1987) used a variety of adult sport teams, whereby 247 athletes were used to test the predictive validity of the GEQ. Results included that both task and social cohesion were considered to have predictive validity. The strongest support was found in the task scales (GI-T and ATG-T). Tentative support was found for one of the GEQ's social scales (GI-S). Carron, Widmeyer, and Brawley (1988) later found that all dimensions of cohesion successfully predicted adherence for members of a team, therefore displaying predictive validity.

Lastly, Carron et al. (1985) examined the GEQ's factorial validity, to ensure that the four dimensions of cohesion (ATG-T, ATG-S, GI-T, GI-S) were distinct dimensions. The factor analysis chosen was principal factoring with oblique rotation. The goal of oblique rotation is to achieve the most theoretically meaningful and simplest factor structure (Harris, 1975). Results revealed a factor structure was representative of the conceptual model of cohesion with four dimensions.

### **Examining the Antecedents and Consequences of Cohesion**

Carron (1982) advanced a conceptual framework for examining the relationships between cohesion and its antecedents and consequences. That is, this conceptual framework is comprised of a linear model consisting of inputs, throughputs, and outputs (see Figure 1). According to Carron, the inputs are the antecedents of cohesion, the throughputs are the different manifestations of cohesion, and the outputs are viewed as the consequences of cohesion. The antecedents contributing to cohesion are categorized into four factors: environmental, personal, leadership, and group. The first antecedent of cohesion is environmental factors. Environmental factors represent the organizational system of the group and are viewed as the most general category contributing to cohesion. Carron highlighted two different types of environmental factors: contractual responsibility and organizational orientation. Contractual responsibility refers to the eligibility of the athlete, transfer rules, geographical restrictions, and the contractual obligations. This environmental factor represents a major difference between a social club and the sport team, where members can leave a social group if they wish; they cannot do so as easily in most sport situations. The second environmental factor that contributes to cohesion is organizational orientation. For instance, teams can differ in their goals, strategies, age, gender, and maturity of their participants. Research examining environmental factors of cohesion included examining the group resistance to disruption-cohesion relationship (Brawley, Carron, & Widmeyer, 1988) and group size (Widmeyer, Brawley, & Carron, 1990).

The second factor contributing to cohesion is personal factors. Carron (1982) noted that it is difficult to outline an all-inclusive list of personal factors. However, Bass

(1962) has stated that an individual group member is oriented in three directions: towards the completion of the group's task, toward the establishment and maintenance of a harmonious relationship within the group, and/or toward the achievement of direct personal satisfaction from the group and its activities.

The third component influencing cohesion can be categorized as the leadership factor. Two leadership factors have been observed to influence group cohesion, leader behaviour and leadership style (Schriesheim, 1980). Similarly, the dynamics of the coach-athlete relationship (Carron & Chelladurai, 1981), coach-team relationship (Schachter, Ellertson, McBride, & Gregory, 1951), and athlete leaders (Vincer & Loughead, 2010) have been shown to be related to perceptions of cohesion. Majority of research in examining the leadership factor has focused on the relationship between coaching and cohesion (e.g., Carron & Chelladurai, 1981; Jowett & Chaundy, 2004). However, recently researchers have begun to examine the impact of athlete leadership on perceptions of cohesion in sport (Bakker, 2010; Spalding, 2010; Vincer & Loughead, 2010).

The fourth factor influencing cohesion is the group. One of the group factors includes group orientation. As mentioned previously, cohesion is a multidimensional construct, where individuals are attracted to groups based on social and task demands. Thus, in order to assess the impact of cohesion on performance, it is essential to assess the relative degree to which each of these demands is present. Other factors include group success, group norms, team ability, and team stability. Research examining norms and cohesion include Gammage, Carron, and Estabrooks (2001) and Patterson et al. (2005).

As for the consequences of cohesion, a wide variety of group processes have been examined. An outcome found to be an important topic when conducting sport research is individual and team performance. The conceptual framework classifies the consequences of cohesion into individual and group outcomes. In addition, both these outcomes can be further classified in terms of actual and relative perceptions of performances. Using absolute performance is dependent on whether the success can be readily defined from the observable outcome. However, there are many types of performances that are not absolute (e.g., a golfer who has finally broken a score of 100 strokes after years of practice), therefore researchers have considered a wide range of cross section outcomes in cohesion research. These might include group outcomes such as team stability. Or similarly, individual outcomes could also be examined, such as role clarity, absolute individual performance, satisfaction with individual performance, satisfaction with leadership, and satisfaction with the group (Carron, 1982). The consequences of cohesion that has been the most studied include athlete satisfaction (Widmeyer & Williams, 1991) and performance (Carron, Colman, Wheeler, & Stevens, 2002). Given that the present thesis will examine social networking sites, which is a form of communication, it would be useful to highlight some of the research examining communication and cohesion in sport. It should be noted that research examining communication within the realm of sport psychology is limited.

Effective communication has been identified as important to team success (Connelly & Rotella, 1991; Harris & Harris, 1984; Janssen & Dale, 2002). The communication which is typically involved in sport is interpersonal communication. Interpersonal communication refers to “a symbolic process by which two people, bound

together in a relationship, provide each other with resources, or negotiate the exchange of resources” (Roloff, 1981, p. 30). When individuals work together in groups, communication, coordination, and interaction are essential (Carron & Hausenblas, 1998). When a team is functioning effectively, team members communicate easily and efficiently with one another (Shaw, 1981). In contrast, many interpersonal problems on teams stem from poor communication, which results in miscommunication or misunderstanding. Henschen and Miner (1989) have identified five types of misunderstandings that often surface within groups: (1) a difference of opinion, (2) a clash of personalities in a the group, (3) a conflict of task or social roles among group members, (4) a struggle for power between one or more individuals, and (5) a breakdown of communication between the leader and the group or among members of the group itself. It has been stated that the more open a team can be with each other, the more cohesive the team is and is able to achieve both individual and team goals (Orlick, 1986). Thus, it is important for coaches and athletes to learn how to express their thoughts and feelings about various issues that affect them directly. Team building can be an appropriate method in enhancing team communication because team building requires a group climate of openness in which airing problems and matters of concern is encouraged (Yukelson, 1993).

Harris and Harris (1984) offer an interesting framework to examine communication processes in athletic teams. The framework consists of coach-team, coach-athlete, and athlete-athlete interactions. The framework which social media is most likely used between athlete-athlete interactions.

As for athlete-athlete communication, it is important that teammates establish and maintain harmonious working relationships with each other. Ideally, they should show genuine support and care for each other both on and off the athletic field. Athletes can be a source of support for one another; they often spend a lot of time together and share common experiences that are unique to their own peer subculture. In order for teams to get to know one another better, it is important for them to personally disclose information about themselves through mutual sharing. It has been suggested by (Yukelson, 1993) to employ team building activities that promote personal disclosure through mutual sharing.

To aid in the systematic process of studying communication, Sullivan and Feltz (2003) developed the Scale for Effective Communication in Team Sports (SECTS). This scale measures four resources of communication: Distinctiveness, Acceptance, Positive Conflict, and Negative Conflict. Distinctiveness refers to those messages that serve to promote a shared and inclusive team identity (e.g., nicknames). Acceptance includes those messages that support individual members. Positive Conflict messages are those that deal with team disagreements in a positive, productive fashion, whereas Negative Conflict messages are those that agitate and personalize such disagreements. The results from Sullivan and Feltz demonstrated the importance of effective communication on cohesion. The relationship between the four resources and cohesion were impressive, it appears that teams that accept one another, are distinct from other groups, and promote positive conflict while minimizing negative conflict will be more cohesive.

### **Team Building**

This section of the literature review will examine team building within sport teams. Initially, team building will be defined. Following this, the literature review will

also consist of examining: (a) multiple approaches to team building, (b) objectives of team building, (c) direct vs. indirect team building interventions, (d) stages of team building, and (e) research on team building.

### **Definition of Team Building**

When a team is productive and cohesive, it has been described by many athletes and coaches as the most gratifying experience (Orlick, 1990). However, to achieve this desirable state takes considerable amount of time and effort. It also requires teamwork; an area often looked as a simple task. Effective teamwork is the difference between success and failure in teams. In order to be successful, team members must interact, work towards shared goals, adapt to environmental demands, and balance their individual needs with the needs of team members (Hanson & Lubin, 1988).

Practitioners have adopted a strategy known as team building to promote consistent and effective teamwork. Team building has been one of the most enduring themes in the organizational development literature (Beer, 1976; Buller, 1986). Beer (1980) originally defined team building as a process by which members of a group diagnose how they work together and plan changes which will improve their effectiveness. Similarly, Huse (1980) stated that team building is the process of helping a work group become more effective in accomplishing its task and in satisfying the needs of group members. Finally, Dyer (1977) has described team building as an intervention conducted in a work unit as an action to deal with conditions seen as needing improvement.

It should be noted that the above definitions of team building are ambiguous. The clarity and precision for systematically describing, planning, or testing the effectiveness

of a team building intervention is limited. Consequently, it becomes difficult to generalize results across settings and people because of this unstable foundation for measurement and intervention. However, Brawley and Paskevich (1997) examined these various definitions offered in the organizational development literature and concluded that team building can be defined as a method of helping the group to a) increase effectiveness, b) satisfy the needs of its members, and/or c) improve work conditions.

### **Objectives of Team Building**

Even with numerous definitions of the term “team building”, there appears to be one fundamental objective that is relatively consistent. Newman (1984) noted that the goal of team building is to promote an increased sense of unity and cohesiveness, and to enable the team to function together more smoothly and effectively. That is, team building interventions are designed to increase group effectiveness by enhancing group cohesiveness.

Cohesion has been identified as *the* most important small group variable (Lott & Lott, 1965) because cohesion is critical for group development, group maintenance, and the group’s collective pursuit of its goals and objectives. Consequently, the core of all team building programs should focus on producing a more unified group to work effectively.

### **Conceptual Model for Team Building in Sport**

The conceptual model used for the implementation of a team building program in a sport or exercise setting has been proposed by Carron and Spink (1993). Their conceptual framework (see Figure 2) is presented in the form of a linear model consisting of inputs, throughputs, and outputs. Inputs are conceptualized as individual and team

characteristics which need to be considered prior to any team building intervention.

Throughputs are the processes by which the inputs are converted into outputs, while outputs reflect changes in individual and/or team behaviour. Cohesion has generally served as the output variable of interest in the sport and exercise literature.

The inputs are identified as two broad categories called group environment and group structure. Under group environment, two factors are emphasized: distinctiveness and togetherness. Carron and Spink (1993) suggested that when aspects related to the group's immediate environment and/or the appearance of group members themselves are distinctive, perceptually different, or unique, members develop a stronger sense of "we", more readily distinguish themselves from non-group members (i.e., "they"), and ultimately develop stronger perceptions of cohesion. There are three factors under the group structure category: group norms, leadership and individual positions in the group. When a group has a better understanding of what is expected of them, the group's structure will become more stable. It is also noted that having members consistently occupy specific positions also contributes to the development of a more stable group structure. Therefore, when a group has a stable group structure, it contributes to a stronger sense of "we", greater mutual interdependence, conformity, and ultimately greater cohesiveness. These two inputs are assumed to influence the throughputs, which consists of group processes, and is defined as the dynamic interactions characteristic of group membership (Carron & Hausenblas, 1998). The three factors under group processes are goal setting, interaction and communication, and sacrifices. Evidence supports the importance of group processes for enhanced perceptions of cohesion.

## **Approaches to Team Building**

Within the team building literature, two general approaches have been advanced by researchers. The first approach is the sport psychology consultant working directly with the coaching staff, who in turn, implements the team building strategies. This approach has been termed the *indirect approach* to team building (Carron, Spink, & Prapavessis, 1997). To assist in implementing the indirect approach, Carron and Spink (1993) developed a protocol that has been used in the sport environment. This protocol is a four stage process comprised of an introductory stage, a conceptual stage, a practical stage, and an intervention stage. The first three stages occur in a workshop conducted by the sport psychology consultant with the coaches, while the fourth stage includes the implementation by the coaches of the team building strategies with their athletes.

The purpose of the introductory stage is to provide coaches with a brief overview of the general benefits of group cohesion. When team building is used in the sport setting, the relationship between perceptions of cohesion and the benefits of enhancing team dynamics are discussed between the practitioner and the coach (Brawley, Carron, & Widmeyer, 1988). The introductory stage usually last between 15 to 20 minutes.

In the conceptual stage, Carron and Spink's (1993) conceptual model of team building is introduced. The use of this conceptual model is beneficial for three reasons: (a) to explain complex concepts (e.g., cohesion) to coaches, (b) demonstrate the interrelatedness of the various constructs contained within the team building model, and (c) possible interventions are more readily indentified (Carron & Spink, 1993).

In the practical stage, coaches attempt to generate as many specific strategies as possible to use for team building in their group. Having the coaches generate specific

intervention strategies is desirable for three reasons. First, coaches differ in personality and preferences; a strategy which might be implemented by one coach might not be by another. Second, teams differ and coaches are the individuals most familiar with their athletes. Third, research has shown that motivation is enhanced when individuals, like coaches, are given greater control over personal behaviour (Charms, 1976).

In the final stage, the intervention stage is where the team building protocols are introduced and maintained by the coaches. The duration of the team building intervention varies across situations. To ensure that team building is being used, trained assistants monitor the session on a regular basis.

The second approach to team building has been labeled the direct approach (Stevens, 2002). The major difference in the direct approach (compared to the indirect approach) is that the sport psychologist works directly with the athletes to implement the team building program (Carron et al., 1997). Yukelson (1997) developed a four stage protocol for implementing the direct approach in sport. The first stage is assessment of the situation, this is where the sport psychologists talks to the coaches, athletes, and support staff to learn about the team. The object in this stage is for the consultant to gain an understanding of the dynamics surrounding the team.

In the second stage, called education, the consultant describes the rationale underlying the team building program by explaining to the team members that the main objective is to enhance cohesion. The third stage, brainstorming, is where team members identify areas for team improvement. From there, an action plan is developed in the fourth stage and implementation of team building activities occur.

## Research on Team Building

Martin, Carron, and Burke (2009) conducted a meta-analysis to examine the effectiveness of team building interventions in sport. A secondary purpose for the study was to examine the influence of specific moderator variables. A total of 17 sport specific studies were used in this meta-analysis. The majority of studies included in the meta-analysis used female samples (58.8%), were between the ages of 15-25 years of age (64.7%), played on varsity teams (82.4%), and were from interdependent sport teams (58.8%). Overall, the analysis found that the effectiveness of team building interventions in sport was positive and moderate in size ( $ES = .43$ ).

In terms of the moderators examined, Martin et al. (2009) found that the type of team building intervention was a significant factor. In particular, the results showed that team goal setting ( $ES = .71$ ) and adventure programming ( $ES = .47$ ) were significantly better than interpersonal relations and using multiple team building interventions simultaneously. In terms of approaches to team building, the findings showed that both direct and indirect methods of delivery did not differ in effectiveness. Both methods produced positive moderate effects. The authors also examined the duration of team building interventions. The authors classified their results into three groupings: interventions lasting less than 2 weeks, 2 to 20 weeks, or 20 weeks and longer. The results indicated that interventions lasting between 2 to 20 weeks, and 20 weeks and longer were both effective; while interventions less than 2 weeks were ineffective. In terms of the participant characteristics, gender, type of sport, and skill level were examined in the meta-analysis. Team building interventions that involved males, females, and co-ed teams revealed no significant differences; that is everyone gained a benefit

from team building. In terms of skill level, the results showed that intercollegiate athletes had significant gains from being involved in team building, whereas non-significant effects for both high school and post collegiate levels were reported. The final set of results pertains to the dependent variables analyzed. Team building had no significant effect on task cohesion, however a small positive effect was found for social cohesion. Larger positive effects were found for both performance and enhanced cognitions.

### **Social Media**

This section of the literature review will examine social media. First, the classification of social media will be discussed, followed by the prevalence of social networking sites. The remaining section of the literature review will focus mainly on Facebook because of its relevance to this thesis. The sections on Facebook will discuss (a) the usage of Facebook, (b) an overview of Facebook, and (c) research that has examined Facebook.

#### **Classification of Social Media**

One type of online application that has grown rapidly in popularity in recent years is social networking on the internet (Pempek, Yermolayeva, & Calvert, 2009). Social networking sites are designed to foster social interactions in a virtual environment. Social networking websites, such as Facebook, MySpace, and Twitter are member-based Internet communities that allow users to post profile information, such as a username and photograph, and to communicate with others by sending a public or private online message. The internet provides users with many opportunities for social interaction in a virtual environment. To provide a classification scheme, theories in the field of media research (e.g., social presence, media richness) and social processes (e.g., self-

presentation, self-disclosure) are often used. Regarding the media research related component of social media, social presence theory (Short, Williams, & Christie, 1976) states that media differ in the degree of social presence. Social presence is influenced by the intimacy and immediacy of the medium. For instance, if someone has higher social presence over others, then they will experience larger social influence over other's behaviour. Closely related to the idea of social presence is the concept of media richness. Media richness theory (Daft & Lengel, 1986) is based on the assumption that the goal of any communication is the resolution of ambiguity and the reduction of uncertainty. The theory states that media differ in the degree of richness they possess; that is, the amount of information they allow to be transmitted in a given time interval and therefore some media are more effective than others in resolving ambiguity and uncertainty.

With respect to the social dimension of social media, the concept of self presentation states in any type of social interaction people have the desire to control the impressions other people form of them (Goffman, 1959). The key reason why people decide to create a personal webpage is to present themselves in cyberspace (Schau & Gilly, 2003). Usually, such a presentation is done through self-disclosure, that is, the conscious or unconscious revelation of personal information (e.g., thoughts, feelings, likes, dislikes) that is consistent with the image one would like to give. Self-disclosure is a critical step in the development of close relationships and new relationships.

### **Prevalence of Social Networking Sites**

Social networking sites are becoming the most popular social media used by the public. In the spring of 2006, Nielsen/NetRatings (2006) reported that the top 10 social networking sites in the U.S. grew in number of users from 46.8 million to 68.8 million

during the previous year. These sites reveal important information about how individuals are interacting with one another in today's technological society.

Social networking sites have captured the interest of many adolescents and young adults. Lenhart, Purcell, Smith and Zickuhr (2010) found that both teen and adult use of social networking sites has risen significantly. As of September 2009, 73% of American teens use social networking websites. Older teens are more likely to report using online social networks than younger teens. It was reported that 82% of teens between the ages of 14-17 years use online social networks, while 55% of teens between the ages of 12-13 use social networking sites. As mentioned, the number of adults who use social networking websites has grown rapidly over the last several years. As of September, 2009, 47% of online adults used a social networking website. Just as with teens, usage of social networking websites by adults varies dramatically by age. Nearly three-quarters (72%) of online 18-29 year olds use social media sites. The results also found that men and women are equally likely to use these sites. Lenhart et al. (2010) found that the percentage of social networking site users who use more than one social networking site has increased. As of September 2009, the percentage of profile owners with only one profile had fallen by nine percentage points to 45%, while the percentage with two profiles had grown from 29% to 36% of profile owners.

### **Facebook Usage**

As of January 2009, the online social networking application Facebook registered more than 175 million active users (Kaplan & Haenlein, 2010). Among undergraduate college students, the three most visited social networking websites are Facebook, MySpace, and Friendster. Stutzman (2006) found Facebook as the most popular social

network for college students with 90% of participants using Facebook. The average undergraduate student uses Facebook between 10-30 minutes per day (Ellison, Steinfield, & Lampe, 2007). Students and alumni use Facebook to communicate, connect, and remain in contact with others (Charnigo & Barnett-Ellis, 2007). Also, undergraduate students typically use Facebook for fun and “killing time” rather than gathering information (Ellison et al., 2007).

### **Overview of Facebook**

Facebook originated in 2004 to facilitate social interaction exclusively among college students (Ellison et al., 2007). By 2007, Facebook reported having more than 21 million registered members generating 1.6 billion page views each day (Cassidy, 2006). The site now includes more than 49 million users and is available for use by anyone with a valid email address. Facebook operates by allowing users to select one or more networks to which they belong to, such as a specific high school or university, geographical area or city, or a company. Each user has their own profile, which contains basic information such as the individual’s year of graduation and home town, as well as personal information, such as his or her name, date of birth, or relationship status. Users may inform others about what they are doing by changing their “current status” message that appears on their profile.

In addition, Facebook allows users to designate “friends”. An individual who is invited to be a member’s Facebook friend may either accept or reject the offer, thus providing individual control over one’s list of friends. The user can control how much information to post and who can view this information by editing their privacy setting.

Facebook members can upload digital pictures into virtual photo albums. A user can be “tagged” in these pictures so that his or her name appears in the caption as a link to his or her profile. Members are able to post comments on photos, which appear as messages below the picture. Similarly, it is possible to post videos on Facebook with the same settings as pictures.

Facebook offers several options for communication with others. Users can interact by sending private messages, in which only users can view, which would be similar to an email message. Members who are “friends” may also post public messages on each other’s “walls”, which are personal message boards. Communication may also occur in groups, which Facebook members can create and join. Offline social interactions can be facilitated through Facebook by creating invitations to events, or online notifications for meetings, parties, and other gatherings. Users may also post “notes” or blog-like entries that are liked to their profile pages.

### **Research on Facebook**

Mckenna, Katelyn, Green, Glenson, and Marci (2002) suggested the types of interactions that are made possible through a social networking sites (e.g., Facebook) may actually result in a stronger relationship that might be possible through face-to-face methods. One reason for the deeper relationships observed through online activities is that a different set of rules govern online interactions. For example, Tidwell and Walther (2002) observed that online interactions generate more self-disclosers and foster deeper personal questions than did face-to-face conversations. Without the types of restrictions that govern typical face-to-face conversations, those engaging in online conversations

were more able to ask deep personal questions (e.g., asking about a person's sexual orientation) without offending their conversation partner (Tidwell & Walther, 2002). Mckenna et al. (2002) suggested that the inherently interpersonal nature of social networking sites may produce many relationships. While these relationships are initially formed online, some of them may eventually result in real world contact. However, Ellison et al. (2007) found that with Facebook, users behave differently. Facebook was used to interact and maintain social ties with existent friendships and Facebook was not used as a tool to meet new people online. Lampe and Ellison (2010) conducted a study showing how student-athletes engage with the social network site Facebook compared to their fellow student. The results showed that student-athletes felt "out of touch" when they hadn't logged into Facebook compared to the general student population. Additionally, student-athletes indicated less agreement with the statement that their Facebook use had caused them problems. This was attributed to having adults (i.e., managers and coaches) monitoring their accounts. The results also mentioned that the student-athletes felt that their Facebook use was positive, in which Facebook made it easier for athletes to communicate with their teammates. Students also saw various risks and rewards of Facebook use. One common positive outcome was the use of Facebook for team building in the off-season, where the use of Facebook helped coordinate team training over the off-season, keeping in touch with teammates, mentoring younger athletes, and publicizing team events. However, Facebook also introduced negative outcomes, which included mistaken perceptions that others made from the photos posted on Facebook and information which can be taken out of context and seen as either gossiping or arrogance.

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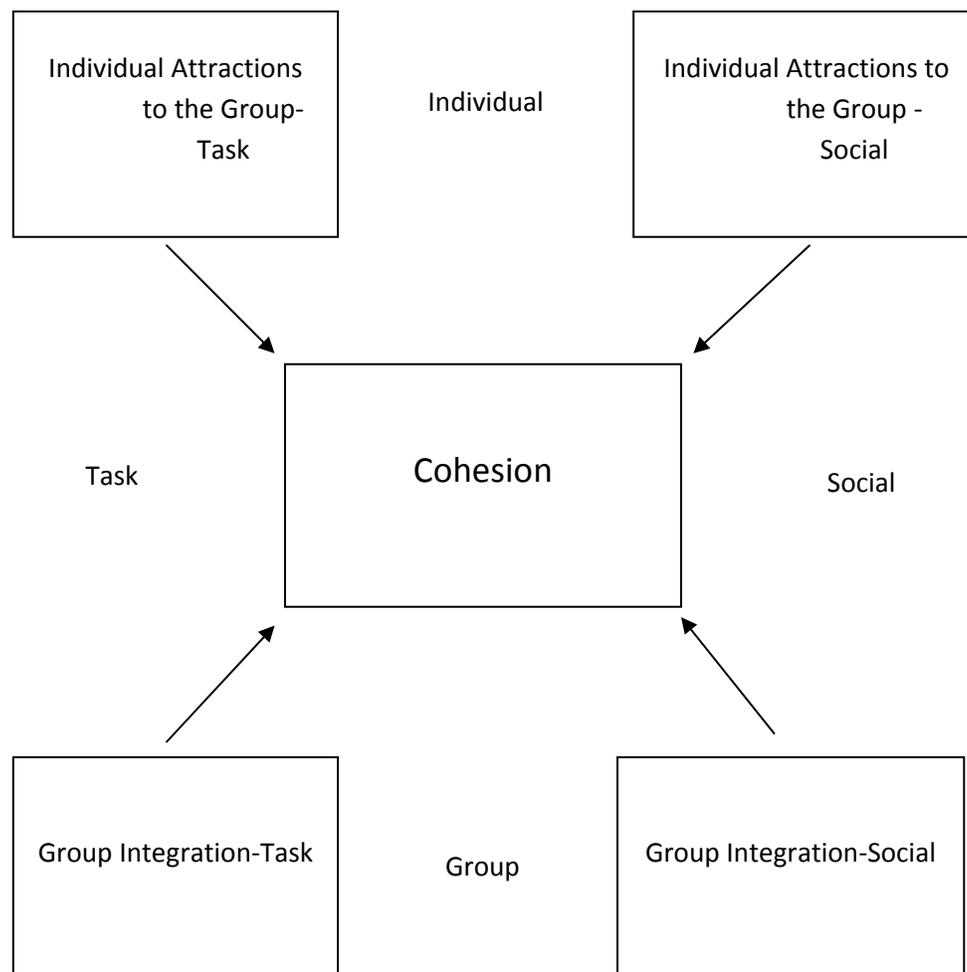
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Figure 3



Adapted from:

Carron, A. V., Widmeyer, W. N., & Brawley, L. R. (1985). The development of an instrument to assess cohesion in sport teams: The Group Environment Questionnaire. *Journal of Sport Psychology*, 7, 244-266.

## Appendix A

## Recruitment Script to Coaches

Hi \_\_\_\_\_,

My name is Justin Bacchus and I am currently a Masters student at the University of Windsor in the Faculty of Human Kinetics. I am completing a research project looking at Facebook and its influence on the team environment. The proposed research has been cleared by the University of Windsor's Research Ethics Board. I am hoping that you can forward the script below to the athletes on your team. Their participation includes completing a short survey which will take 2 minutes to complete and an interview which will take 45 to 60 minutes to complete and their participation is voluntary. They will also be given a \$10 gift certificate for their participation in my study.

Your assistance is greatly appreciated.

Take care,  
Justin Bacchus

## Recruitment Script to Athletes

Hi,

My name is Justin Bacchus and I am currently a Masters student at the University of Windsor in the Faculty of Human Kinetics. I am completing a research project looking at Facebook and its influence on the team environment. Your participation includes completing a short survey which takes 2 minutes to complete and an interview which will take 45 to 60 minutes to complete and your participation is voluntary. All information obtained will be confidential. If you agree to participate and meet the criteria of the proposed research, a time will be arranged to conduct an interview at the University of Windsor Sport and Exercise Psychology Lab. You will receive a \$10 gift certificate for you participation in my study. I would gladly answer any questions that you may have before you make the decision to participate.

You may contact me via email at [bacchusj@uwindsor.ca](mailto:bacchusj@uwindsor.ca) if you have any further questions or are interested in participating in this study.

Thank you in advance for your participation,

Justin Bacchus

## Appendix B

### Facebook Questionnaire

Name:

Age:

Sport / Position:

Starting status (check one): Starter    Non-starter

Do you currently have a Facebook account?                      Yes            No

1)      On average, approximately how many minutes per day do you spend on Facebook?

0 or less            10-30            31-60            1-2 h            2-3 h            3+ h

2)      Facebook is part of my everyday activity

Strongly Disagree            Disagree            Neutral            Agree            Strongly Agree

3)      I am proud to tell people I'm on Facebook

Strongly Disagree            Disagree            Neutral            Agree            Strongly Agree

4)      I dedicate a part of my daily schedule to Facebook

Strongly Disagree            Disagree            Neutral            Agree            Strongly Agree

5)      I feel out of touch when I haven't logged on to Facebook for awhile

Strongly Disagree            Disagree            Neutral            Agree            Strongly Agree

6) I feel I am part of the Facebook community

Strongly  
Disagree

Disagree

Neutral

Agree

Strongly Agree

7) I would be sad if Facebook shut down

Strongly  
Disagree

Disagree

Neutral

Agree

Strongly Agree

## Appendix C

### **LETTER OF INFORMATION FOR CONSENT TO PARTICIPATE IN RESEARCH**

#### **The Influence of Facebook on Perceptions of Team Cohesion: A Team Building Approach**

You are asked to participate in a research study conducted by Justin Bacchus (M.H.K Candidate) and Dr. Todd Loughead (Ph.D., Faculty Supervisor), from the Department of Kinesiology at the University of Windsor. The results of this study will contribute to the completion of a Master's thesis in sport psychology.

If you have any questions or concerns about the research, please feel to contact either Justin Bacchus at bacchusj@uwindsor.ca, or Dr. Todd Loughead at 519-253-3000 ext. 2450 or loughead@uwindsor.ca.

#### **PURPOSE OF THE STUDY**

To examine the influence of Facebook on perceptions of team cohesion.

#### **PROCEDURES**

If you volunteer to participate in this study, you will be asked to be interviewed that may take up to one to two hours to complete.

#### **POTENTIAL RISKS AND DISCOMFORTS**

There are no foreseeable psychological or physical risks or discomforts associated with participation in this study.

#### **POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

The information gained from this study will help advance knowledge in the field of sport psychology. The results will help to better understand how social networking sites influence the perception of team cohesion. This knowledge can be used by sport psychology consultants to enhance the development of sport teams.

#### **COMPENSATION FOR PARTICIPATION**

You will be compensated for your participation in this study. Upon completion of the study, the participant will receive a \$10 gift certificate to a sporting goods store.

#### **CONFIDENTIALITY**

Responses from the interview will remain anonymous and confidential. Only the researchers listed will have access to this data. Data will be kept secured for five years when it will then be destroyed.

#### **PARTICIPATION AND WITHDRAWAL**

Participation in this study is voluntary. If you volunteer to be in this study, you may withdraw at any time while you are completing the interview, without consequences of any kind. You may also refuse to answer any questions and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

### FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

The results will be posted at the University of Windsor's Kinesiology Research website by July, 2012 (<http://www.uwindsor.ca/kinesiology/research>).

### SUBSEQUENT USE OF DATA

This data may be used in subsequent studies.

### RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Dr. David Andrews, Chair Kinesiology Research Ethics Board, University of Windsor, Windsor, Ontario N9B 3P4; Telephone: 519-253-3000, ext. 2433; e-mail: [dandrews@uwindsor.ca](mailto:dandrews@uwindsor.ca)

### SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

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Signature of Investigator

---

Date

## Appendix D

**CONSENT FOR AUDIO TAPING**

Research Subject Name:

Title of the Project: The influence of Facebook on perceptions of team cohesion: A team building approach

I understand these are voluntary procedures and that I am free to withdraw at any time by requesting that the taping be stopped. I also understand that my name will not be revealed to anyone and that taping will be kept confidential. Tapes are filed by number only and store in a locked cabinet.

I understand that confidentiality will be respected and that the audio tape will be for professional use only.

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(Research Subject)

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(Date)

## Appendix E

### Interview Guide

#### Opening Questions

1. Please state your name?
2. Briefly discuss your athletic career.
3. How is your team performing this season?

#### Introductory Questions

4. Can you please comment on your Facebook usage?
  - How often do you use it?
  - Why do you use it?
  - What activities do you do on Facebook?
5. Facebook has many methods to communicate; I would like to know if you use Facebook to communicate with your teammates? And if so, how?
  - Examples should include: comment on pictures, like their status, write on their wall, chat
  - If athlete says they comment on pictures
    - Why do you comment on teammates' pictures?
  - If athlete says they "like" teammates' status
    - Why do you "like" teammates' status?
  - If athlete say he/she write on teammate's wall
    - Why do you write on your teammate's wall?
    - What do you usually write about?
  - If athlete say he/she chat with teammates
    - What do you usually chat about?
  - Do you believe Facebook facilitates communication on your team?
  - You've mentioned you communicate with teammates, I'm interested in who you are communicating with?
    - Are they your closest friends?
    - Are they the leaders of the team?
    - Are they the rookies?
    - Are there any other members of the team you are communicating with?
      - Head Coach
      - Assistant Coaches

- Training Staff
6. Could you comment on how many teammates have Facebook?
    - Have you added them all as friends?
      - Why or Why not?
    - Could you comment if you have any security settings for certain people on your team, which prevents certain teammates from seeing some Facebook activity?
  7. Does your team have their own Facebook page?
    - If yes, who has access to it?
    - What sorts of things are communicated on the page?

### **Key Questions**

8. Do you believe that Facebook can be used as a method of team building?
  - If so, please elaborate.
  - If not, please elaborate.
9. Do you believe Facebook influence the dynamics on your team? If so, how?
  - Structure
    - i. Norms
    - ii. Roles
    - iii. Leadership
  - Environment
    - i. Distinctiveness
    - ii. Togetherness
  - Processes
    - i. Sacrifices
    - ii. Goals
    - iii. Communication
10. Could you comment on whether Facebook's influences your team's chemistry?

### **Ending Questions**

11. Those are all the questions I would like to ask you. Is there anything that we should have talked about but didn't? That is, would you like to add anything else related to our interview? Please take a moment to think about the use of social networking sites within sport teams and please speak openly if you have any additional thoughts you would like to add?

## VITA AUCTORIS

NAME: Justin Bacchus

PLACE OF BIRTH: Windsor, Ontario, Canada

YEAR OF BIRTH: 1988

EDUCATION: University of Windsor, Windsor, Ontario,  
2010-2012, M.H.K.

University of Windsor, Windsor, Ontario,  
2006-2010, B. H. K. Honours Movement  
Science, Minor in Psychology

Vincent Massey Secondary School,  
Windsor, Ontario, 2002-2006