

Examining Collaboration on Interdisciplinary Sport Science Teams

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Running Head: Examining Collaboration

Manuscript Submitted: 2006

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Abstract

The attainment of optimal sport performance has become increasingly scientific and requires sport scientists to collaborate on training programs in order to take a holistic view of performance (Cherebetiu, 1980; Patrick, 2001). Collaborative approaches range from multidisciplinary teams - where sport scientists work with athletes in a singular fashion (Reid, Stewart, & Thorne, 2004; Thomas, 2001), to interdisciplinary teams - where experts work together by sharing and synthesizing information to create new knowledge (Burwitz, Moore, & Wilkinson, 1994; Gordin & Henschen, 1989; Ray, 1998). Through interdisciplinary collaboration (IC), experts from different disciplines can consider additive relationships between sport sub-disciplines. Currently, IC is being utilized in Canada on Performance Enhancement Teams (PETs), where team members work jointly with the coach to create and maintain athlete training programs. This paper examines IC on these PETs highlighting the collaborative processes used. More specifically, how information sharing occurs, how information is integrated by team members, and how confidentiality is addressed. Using a qualitative methodology, members of PETs were interviewed to gain an understanding of IC from the participants' perspectives. The results revealed that overlapping knowledge and knowledge integration into discipline specific plans played an important role in developing overall training programs. Additionally, the participants identified some benefits and barriers to IC on PETs, which are examined in relation to the current literature on interdisciplinary teams.

Key Words: collaboration, interdisciplinary

Interdisciplinary collaboration (IC) has been viewed as critical to maximize the potential for international success for elite athletes (Patrick, 2001). Research demonstrates that foundations of optimal performance include four dimensions; technical, tactical, physical, and mental (Gould & Damarjian, 1998; Hardy, Jones, & Gould, 1996). It is unlikely that a single individual, would have the depth and breadth of knowledge required in all dimensions to create optimal performance (Cherebetiu, 1980; Goldsmith, 2000), allowing an interdisciplinary approach to be beneficial.

The term interdisciplinary describes a group of professionals from several different disciplines who work together as a team with the same client (Ray, 1998), requiring collaboration. Collaboration has been described as the “coming together of diverse interests and people to achieve a common purpose via interactions, information sharing, and the coordination of activities” (Jassawalla & Sashittal, 1998, p. 239) commonly encompassing individuals from different disciplines (Amabile, Patterson, Mueller, & Wojcik, 2001). IC involves information sharing, team decision-making, specified roles, and strong relationships between team members because the integration of information from several subdisciplines of sport science is required.

To collaborate on training programs, members of interdisciplinary teams must have access to information from all team members, which could be viewed as infringing on an athlete’s right to confidentiality. In counseling, confidentiality is a means to provide the client with privacy. It safeguards personal information from harm and authorizes clients the right to dispose of information as they see fit (Kell, 1999). When confidences are open to other staff members that may work with the client (e.g., interdisciplinary team): “confidentiality nets” should be established (Mearns, 1998). This allows confidentiality to be bound by the confines of a practice rather than strictly between counselor and client. Regardless, in interdisciplinary settings, the

depth of information shared is largely dependent on the professional code of ethics/guidelines relating to confidentiality of each team member (National Sport Centre Manitoba, 1998) and the level trust developed amongst the members.

Trust has been explored extensively and the breadth of this literature offers insight into some common elements of trust. For example, Rousseau et al. (1998) defined trust as a psychological state including the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another. Similarly, Lewicki and colleagues (1998) describe trust as an individual's belief in, and willingness to act on the basis of, words, actions, and decisions of others. Solomon (2003) suggested that trust is a process that is usually only arrived at through other people and for that, trust must be present. Thus, the need for trust arises from interdependencies with others and is associated with cooperation, information sharing, and problem solving. Initially, trust is built on shared goals and common expectations about outcomes, which is understood through repeated interactions, (Vangen, & Huxham, 2003) and is maintained through communication and sharing information on a range of issues (Cullen et al., 2000; Das & Teng, 1998).

In healthcare, Powell and Sable (2001) stated that IC offered the best opportunity for a holistic approach to meet the complex needs of individuals, where team success was indicated by progress toward achieving the goals of collaboration and effective team functioning (Amabile et al., 2001). In sport, an IC approach has been recommended (Anshel, 1997; Dishman, 1990; Gould, 1982; Mills, 1996; Morgan, 1989; Newell, 1990) because collaboration could provide additional information that would not normally be available. For instance, a recommendation may seem appropriate from one discipline, but might only be part of the solution when information from other disciplines is considered (Botterill & Wilson, 2002). As a result, IC

considers the additive relationships between many variables within sport science and creates a holistic view of athlete performance. IC requires the various disciplines to understand each other; signifying that they have some shared borders (Collins, Moore, Mitchell, & Alpress, 1999).

In Canada, interdisciplinary teams (PETs: Performance Enhancement Teams) have been developed at the Canadian Sport Centres (CSCs). The CSCs have two objectives: to achieve podium performance, and to promote the holistic development of athletes from community to international levels (Robertson, 1997). PETs utilize IC by including various sport scientists (SS) who work together to provide both athletes and coaches with practical information that allows them to train and work to their highest potential (Smith & Norris, 2000). The PET has input into the coaches' yearly plan and meets with the coach on a regular basis (McGovern, 1998; Robertson, 1997). A confidentiality net is used by the PETs, which is signed by all team members and the athletes using the services of that team allowing team members to discuss a particular conditions/cases/scenarios that might be affecting a specific athletes' performance. As a result PETs utilize IC that is characterized by discipline-specific assessments with sharing and synthesizing of information across disciplines.

With different SS involved and varying codes of ethics used, it might seem unrealistic to effectively share information and collaborate on athlete training programs. The lack of empirical evidence for this approach in sport also invites a curiosity around the process used to collaborate. In order to develop an understanding of how IC is being used by SS, this paper explores the use of IC among PET members; highlighting how IC occurred, what information was shared, and how confidentiality was addressed. Developing an understanding of IC on these teams could highlight methods needed for sport organizations and SS who wish to adopt this approach by

highlighting the processes used to collaborate in interdisciplinary settings. In addition, the benefits and barriers of using IC are examined using literature from outside sport.

Method

Participants

Participants were chosen using a purposive sampling technique (Schloss & Smith, 1999) that involves selecting participants based on informational considerations with the purpose to maximize information (Lincoln & Guba, 1985). The participants (females $n = 5$, males $n = 8$) were members from three different CSCs as a coach or service provider. The SS represented sport medicine, nutrition, sport psychology, strength training, physiology, and physiotherapy.

Procedure

Ethical clearance for this study was obtained from a University Research Ethics Board prior to data collection. Potential participants were identified via the CSCs and with consent of the general managers. Information letters and consent forms were distributed to these participants. One-on-one interviews took place in person ($n = 6$) or over the phone ($n = 7$) at a time of convenience for the participant and were conducted by one of the authors. The interviews were tape-recorded and the tapes and transcripts were kept in a locked cabinet not accessible to anyone outside the study. In addition, confidentiality was upheld by changing participants' names and withholding any specific identifying qualities (e.g., sport).

Data Collection

Data collection involved semi-structured interviews (Smith, 1995), non-participant observation, and document analysis. The interviews proceeded like a conversation rather than a structured question and answer session allowing the respondents a strong role in determining how the interview proceeded. An interview guide was developed to indicate general areas of

interest and to provide cues to the participant when they had difficulties answering questions. It contained a broad range of possible topics based on relevant literature and personal experience, and included questions related to areas of interest (e.g., What specifically do you do as a member of a PET?, How do you use suggestions from other members to integrate nutrition into an overall training program?). A pilot interview with a PET member (not involved in the study) was conducted to determine the usefulness and clarity of the questions in the interview guide. All PET members were interviewed once with some members up to three times (average length = 90 mins). All interviews were transcribed verbatim for analysis.

Interactions were observed among PET members, in dyads, triads, or groups (6 sessions ranging from 20 minutes to 2 hours). For example, some members were observed during meetings, others interacting at training venues. Field notes were written immediately following every session (Bogdewic, 1992), which aided in remembering key events or behaviors. For example, thoughts and descriptions were noted along with environmental and participant characteristics.

Documents were collected from the CSCs to confirm or raise questions about observations or interview statements and were useful for making inferences. For example, a confidentially form was collected that directed the PETs on information sharing. Documents also highlighted organizational structures that inhibited or directed the participants in the PET meetings.

Data Analysis

Using an inductive procedure, analysis was set into motion with the first site visit as initial ideas were recorded as field notes. A systematic pattern of data collection-analysis-collection-analysis took place as some of the data were analyzed before all the data collection had occurred. The data were analyzed and interpreted while attempting to capture the richness of the themes

that emerged rather than reducing the data to preconceived categories (Seidman, 1998; Smith, 1995).

The initial coding process began by becoming familiar with the data by reading and re-reading the transcripts, highlighting sections of the text, and writing comments regarding anything striking (Hall, 1997; Morse & Richards, 2002; Patton, 2002). The second coding process involved attaching significance to what was found, making sense of the findings, offering explanations, and drawing conclusions (Patton, 2002; Smith, 1995). This highlighted new themes, allowed exploration and development of new categories or concepts, and created opportunities to pursue comparisons.

Strategies to enhance and maintain rigor took place during the data collection and as recommended by Creswell (1998), the following were used: (a) awareness of data saturation – data is considered saturated when it is detailed, rich, and informative. The data offered no new direction, no new questions, and there was a sense of having heard or seen it before (Morse & Richards, 2002); (b) peer debriefing - engaging colleagues knowledgeable in qualitative interviewing, in discussions of the findings, conclusions, and tentative analyses (Mayan, 2001); (c) data/analytic triangulation - involved using several sources of information (i.e., interview, observation, documentation) to provide a comprehensive perspective (Patton, 2002) and allowing the participants to review the final report to add new information, voice concerns, and give feedback (Stake, 2000); and (d) consideration of reflexivity - the subjectivity of the researcher can be another resource for understanding the experience (Brody, 1992; Glesne & Peshkin, 1992; Sparkes, 1998), so awareness of emotions and attachments to certain situations could direct what was paid attention to, how questions were formed, and how situations were viewed.

Results and Discussion

IC Process

PETs collaborated by communicating observations and sharing information in both formal and informal settings. Formal settings involved meetings and sharing documents, approximately every four to six weeks depending on the need for such meetings. One-on-one formal meetings also occurred between the SS and the coach as well as meetings in dyads or triads with the coach. Informal settings involved encounters in public places such as food areas or hallways (Espinosa, Lerch, & Kraut, 2004; Kraut & Streeter, 1995), which were often spontaneous yet permitted opportunities to share information. Alternative forms of communication were used in conjunction with face-to-face meetings.

Formal team meetings. Group meetings were developed so PET members could collaborate on the direction of training programs. Generally, the PETs met for two or three hours to discuss what was happening in each discipline and acquire specific feedback from each member of the group. The meetings were coach-driven and athlete-centered in orientation, which is consistent with the overall philosophy of the CSCs.

Coaches, as the PET leader, entered the meeting with “a list of things they wanted to cover and they updated [the PET] on where everyone was at, what performances had been like, or what people were like in training” (P4: Participant 4). The coach would “go around the table to see if anybody had anything to add; we briefly discussed that athlete and any action that needed to be taken, then, we moved on to the next athlete” (P3). In addition, there were discussions about logistics, such as who was traveling, when they were traveling, and how the athletes that weren't traveling were being managed. One strength trainer suggested that the “meetings were not an opportunity to go into micro detail about what each person's going to do” (P1). If details needed to be addressed, they were in smaller groups or in one-on-one settings with the coach.

One-on-one meetings. When the members wanted to expand on more detailed information or to discuss confidential information about an athlete they met in one-on-one settings with the coach. One member suggested that when “you have detail-oriented issues like what you're going to be doing on a whole, it's best done with the coach and whoever else needs to be there” (P1). For example, in nutrition, the coach “wanted to do some nutritional assessments during the competition phase to see how different they ate during that [phase] and what they were lacking” (P4), so an individual meeting was arranged to discuss how that would happen.

When issues needed to be addressed crossing different disciplines, the coach would hold meetings with small groups, commonly with the strength trainer and the physical therapist. A sport psychology consultant (SPC) agreed that “most problems have primary disciplines that are involved and then secondary ones” (P7) and although these meetings excluded members, the information was brought back to the entire team at the next meeting allowing an opportunity to provide feedback.

Informal meetings. Informal meetings occurred frequently and were regarded with equal importance. One SPC had an athlete who came up to her at the training venue “saying ‘I'm really tired, I can't train anymore’. So I talked to the coach and found out that this guy's kind of a whiner, or they have some issues at work” (P5). This quick check could save time on inappropriate assessments or strategies.

A strength trainer suggested that coming regularly to practice, talking about issues, and following up on actions made a difference to the athletes and the training program. This type of impromptu meeting was a key form of communication between members: “I would say that informal conversations are a typical scenario, and it is based on the premise that [members] make an effort to interact with the other people in an informal setting” (P3). In these meetings,

information was “picked up that was not necessarily given in a formal setting, and it allowed you to have a bigger picture of the whole athlete” (P3).

Overall, informal conversations were prevalent among PET members that led to establishing trust in the collaborative process and with each other. For instance, when a SPC, a physiologist, and a strength trainer all visited the training venue frequently, these members believed that it fostered a trusting relationship between them.

Communication between members was not always face-to-face; they often used electronic mail and phone calls to update members of the PET on specific issues. In one case, the first thing the physiologist did after a meeting with a coach or athlete was call the strength trainer to discuss key points and ask for feedback. However, PET members voiced a preference for the face-to-face meetings: “its easier to interact and respond with everyone there listening. Information can be exchanged in a quick, accurate way” (P4). Regardless of communication type, team members stressed that the content of the meeting was the most important not the format used to communicate it.

Sharing Information

A significant feature of IC involves sharing information and effective collaboration went beyond communicating actions in one discipline to communicating observations, both within and outside of a given discipline. PET members needed to help each other understand their discipline for information sharing to be meaningful.

The meetings were opportunities for members to share information that might be essential for the team to hear. On one PET, this scenario occurred:

there seemed to be a lot of groin injuries happening, and once we heard that from [several members], we came up with a new strategy, and as a group we all brought some ideas and thought about some things that might be causing it (P7).

Another example from a SPC supported the benefit of receiving information from all disciplines, *...the physiotherapist says 'right now this is where they are in their training', so when an athlete comes in and says 'I'm tired', I go, good, you're supposed to be tired, that's what the training program is supposed to do right now, in two weeks you're going to feel different, if I don't have that information, I might think, maybe [the athlete] is getting under recovered. So, it might be very general information, but it can still help in the process of each of our areas (P2).*

Overall, information from one discipline had direct implications for others. Thus, observations from other disciplines allowed members to make similar assessments of a situation.

Information sharing is challenging because each member had different ideas about what needed to be shared. Most SPCs were cautious about sharing information, “the only person that I share information with is the coach, if an athlete is struggling with something specifically, then, I would say [something to] the physio, or doctor.” (P2). When probing to ascertain what information had been shared in the past, this example was offered:

a concussion affects everybody and everybody has a bit of an input, so the physiologist can say, for every week he's out, it's going to take a month for him to get back. From my perspective, we need to help support [the athlete] through that because if he thinks he's coming back next week, ten weeks later, that's pretty tough on an athlete. So, sometimes it is specifics that we can all have that impact on (P2).

Sharing information also entailed a willingness to share observations about the athletes that might be important to other team members. One member's comment might trigger another member to think about the issue in a new light. The consequences of not sharing information or observations could result in creating new problems or making existing problems worse. For example, a strength trainer explained:

when someone has a weak back I'd train their back. But from a physiotherapy perspective, often a weak back can be a result of something else and training the back might exacerbate the problem. So, now I don't know what the issue might be; I tell the physio I've noticed this in this way, can you follow up with the [athlete] because I don't know what's going on. [Sharing observations] works well because I get informed on the issues I need to know about and take that information and apply it with each individual (P1).

Another member suggested that, “ultimately if we're not sharing, if we're not coming together then collaboration is lost, or it's not nearly as effective as it could have been otherwise” (P11).

Contextual Intelligence (CI). PETs work in collaborative environments that encourage sharing information, as such; members need to develop a general understanding of the other disciplines on the team, which could be attained by defining terminology and sharing knowledge about basic practice (Koskie & Freeze, 2000). In addition, factors related to CI on some interdisciplinary teams also highlighted team processes and knowledge of the performance context (Brown et al., 2005). On PETs, CI occurred through team discussions as members shared observations of, and interactions with, individual athletes. As teams developed CI, they offered observations and made recommendations in areas other than their own specialization (Koskie & Freeze), which allowed for a form of contextual intelligence (CI) that is rarely formally taught (Wagner, 1987).

Knowledge of other disciplines was a precursor to sharing observations. When a team member knew what was important from the perspective of another discipline, it was easier to decide what that member needed to hear. This led members to look at performance from a more holistic perspective; “I might be an expert in physiology, but if I don't understand the basics of psychology how can I interact with that member? If you think about all disciplines, you become more of the sport scientist rather than just a sport physiologist” (P10). Team members acknowledged that they were not going to be the “current professional, but for the team to work well together [they] needed to have some basic understanding of the different inherent disciplines” (P9).

One method used to learn about the other disciplines included attending presentations given by other members. This helped them become familiar with the terminology and the practices used by that specific discipline: “I might be there in his talks and I understand what he's talking about, so I know what he's referring to at a different times, or he's been there through my workouts and he's learned what's gone on [in my field]” (P11).

Knowledge of all disciplines was a starting place for acquiring common terminology and opening communication, specifically with the coach. On the PETs, each member developed a style that the coach seemed comfortable with. For example, the physiologist talked “...about more, less, higher, slower, and without numbers” (P4). One member found that definitions depended on the demands of the sport,

the term ‘aerobic power’ to one person is different for another and what it means on the water is different than what it means on land. We need to get and use the coaches’ terminology more so then they need to understand ours (P12).

Several researchers have suggested that increasing CI, obtaining a breadth of knowledge, and developing experience working in interdisciplinary settings are fundamental for IC (Koskie & Freeze, 2000; Mitchell & Crittenden, 2000; Ruddy & Rhee, 2005).

Integration of Knowledge

Sharing knowledge is only part of the potential contribution of IC; the other is the integration of that knowledge into each area of expertise. Once team members had some familiarity with other disciplines, that knowledge was used regularly in discipline specific training programs. For example, the strength trainers were often in the position to motivate athletes while performing various physical tests by using psychological techniques shared by the SPC. This integration could illustrate to the athletes how to use mental skills in training along with reinforcing a consistent message. In addition, the strength trainer provided reminders to reinforce the physiologist's message:

The physiologist worked specifically with athletes to teach them how to fuel properly and I happen to be in a workout with them, then I give them the little reminder, 'Remember what you're supposed to do right now, well now's the time to do it because ...you've got twenty minutes before you get into the next workout (P11).

Integrating information between disciplines plays a role in how effective IC can be because integration contributes to a seamless program delivery between SS that is consistently reinforced. Because the process is largely dependent on the willingness of PET members to share information IC could be ineffective if members deem information to be confidential.

Confidentiality

As mentioned, confidentiality is a means to provide the client with safety and privacy (Kell, 1999). Since the effectiveness of PETs hinge on their ability to share information, an

understanding of what information can be shared is essential. The purpose of the CSC confidentiality form was to open up dialogue, knowing that any information related to the PET would remain confidential within the team. In other words, sharing information could be maintained without diminishing any professional responsibilities to the athlete. Adherence to this placed the PET members in the position of deciding what information would be shared about athletes and what would not (Perna et al., 1995).

One member believed that the team was "...disclosing 95% of information, there may be 5% of information that you feel is just not necessary for people to know" (P6) yet, deciding which information was confidential seemed inconsistent among PET members. One member suggested that if the information was not limiting performance then "the athlete should decide if the information needed to be shared among PET members" (P10). The coaches also had to make decisions about confidential information. As one coach stated,

occasionally there's stuff that the athletes will talk with us and it's clear - it's either stated or it's implied - that it just stays between the two of us, so every single thing is on the table. It's just things that are going to be useful for everyone to be aware of (P4).

The information would only be brought to the team if it affected the other disciplines, or it might be discussed among only two or three members.

Some PET members would ask the athletes for permission to share certain facts, particularly the SPCs:

I wouldn't ever share anything without them giving me permission. I don't necessarily give details, but I often ask the athlete if it is okay if I let the coach know that we had this conversation because I'm not going to be on the road with you, so we need someone else to check-in with you (P2).

Other SS would simply notify the athletes that they were going to share specific information, “if I see someone I’ll say ‘well, I’m going to talk to the coach and the physiotherapist about you and we’ll go from there’, and the fact that they don’t say no, that’s consent in of itself” (P5).

The longer a team worked with the same athletes, the more comfortable the members felt the athletes were with how information was shared because “the athletes over time will trust what’s not going to get shared, or I’ll let them know” (P9). This sentiment was affirmed by another member, “I’ve gotten more and more to a point with the athletes that I can almost share anything. From their perspective, they want me to they’re very comfortable with that” (P2).

There seemed to be an assumption on the PETs that information could be shared unless the athlete openly objected. This raises some interesting questions in regards to confidentiality: Is this assumption based on the confidentiality net? Do the athletes accept this and how do they come to trust the SS? For example, when athletes are working with a SPC it might be more obvious to them what was confidential and what was not based on the discipline. But, what happens when the athlete divulges information on the massage table that is personal in nature, yet, directly affects performance?

Being able to share potentially sensitive information could be related to the amount of trust between PET members and with the athletes. The relationship of trust protects privacy, encourages responsibility, and leaves communication lines open (Kell, 1999). PET members developed trusting relationships by performing their duties competently and consistently, demonstrating concern for the athletes (e.g., athlete-centered behavior) and operating within the teams shared goals/vision. Lewiski and Tomlinson (2003) have identified these behaviors among others as steps to strengthen trust in others.

Trust might also be established through the CSC confidentiality agreement between PET members and their athletes: “I think the consent form helps everybody be on the understanding - PET as well as athletes - what goes on and what we do in terms of sharing information” (P5). A similar statement has been echoed in counseling: appropriate boundaries of confidentiality are crucial, but they should be held within the confines of the practice as a whole rather than between counselor and patient (Weiner & Sher, 1998). If team members trust each other’s qualifications, each other’s goal being athlete-centered, and the team’s shared philosophy, then sharing information becomes less risky for all involved.

Overall, SS face dilemmas frequently about information sharing. The most important concern to one member was sharing information that could be helpful or that could avoid mistakes in terms of athlete development. One member summarized the issue suitably, “ultimately we have to share some information otherwise no one would ever understand what's going on and you wouldn't be able to get anywhere” (P5). As it stands, team members must use their own discipline-related code of ethics in determining what information to share, even though those guidelines might be different.

Summary and Conclusion

Interdisciplinary collaboration allows experts in various performance domains to design and implement training programs with the coach, as seen on the PETs. As team members considered insights from all disciplines they were able to consider the additive relationships between different disciplines. Collaboration allowed the members to make similar assessments of a situation and sometimes, it was the subtle, unimportant pieces of information that had the biggest impact for others.

Collaborative approaches have both positive and negative aspects as a method of service delivery in sport. PET members identified six key benefits for adopting IC to assist with athletic development. These benefits have also been supported in the healthcare literature (McKenzie, 1999; Ray, 1998; Schofield & Amodeo, 1999) and include:

1. A heightened awareness and appreciation of one's own discipline.
2. A broader understanding and enriched respect for other disciplines.
3. The opportunity for cooperative research.
4. An increased use of different team members to meet athletes needs.
5. Greater objectivity in approaching performance or training problems.
6. A mindset for working cooperatively with shared values and attitudes.

Barriers or concerns about IC have also been acknowledged by PET members and have also been reported in the literature (McKenzie, 1999; Ray, 1998; Scholfield & Amodeo, 1999).

1. Varying levels of personal commitment among members.
2. Usage of dissimilar jargon and technologies.
3. Role confusion or the blurring of roles.
4. Fears of intrusion and the loss of control by members.
5. Differences in expectations regarding goals and objectives.
6. Untrained members in interdisciplinary teamwork.

PETs addressed these barriers by demonstrating competence in their own discipline, understanding and respecting how other disciplines approach problems, and using functional communication and group process skills. Mitchell and Crittenden (2000) have acknowledged these same skills as core competencies for IC and according to Huang and Perroud (2003),

collaboration requires knowing the jargon of each discipline and trusting the individuals' expertise.

IC can be an effective method for developing athlete training programs by sharing information and observations, integrating that information into discipline specific programs, and using a process that facilitates collaboration among members. For IC to be effective CI and trust must be established among the team members. Individuals have to be willing to 'check their egos at the door' because the interpersonal climate of a team is crucial for optimal collaboration. Since trust is often based on competence in practice, young professionals should engage in a variety of interdisciplinary experiences. Experience in interdisciplinary settings may also assist professionals in understanding confidentiality in interdisciplinary settings, specifically in understanding what information should be shared.

In order to maximize the potential for international success for elite athletes, sport organizations must look anew at the related competencies required to achieve this mission (Waide, 1999), specifically, at the benefits of IC. The paramount question that sport organizations must evaluate is whether collaboration will make a substantive difference in serving their athletes? Even though it is impossible to quantify which components of overall athlete development contribute the most to performance excellence, it has been suggested that "we must collaborate to survive" (Mitchell & Crittenden, 2000, p. 3) and conceivably, that includes achieving excellence in sport performance.

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