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The Relationships between Communication, Trust, Success, Satisfaction, and Longevity
in Ice Dancing and Pairs Skating

Connie M. Wanlin

Dissertation submitted to the
School of Physical Education
At West Virginia University
for partial fulfillment
for the degree of

Doctor of Education
In Sport Psychology

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UMI Number: 3045058



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The relationships between communication, trust, success, satisfaction, and longevity in
ice dancing and pairs skating

Connie M. Wanlin

The purpose of this research was to examine the relationship between communication, trust, success (i.e., performance outcome), satisfaction, and longevity of competitive pairs and ice dancing teams. The participants were 102 ice dancers ($N = 74$) and pairs skaters ($N = 28$) ranging in age from 10-26 ($M = 17.40$) from training sites in Northeastern Canada and the United States. They represented all levels of competitive experience (Juvenile $N=6$, Intermediate / Pre-novice $N = 14$, Novice $N = 20$, Junior $N = 32$, and Senior $N = 30$). A survey package was completed which included: 1) a demographic questionnaire; 2) a measure of the participants perceived satisfaction with their relationship with their current partner (i.e., relational satisfaction) and their perceived satisfaction with the level of success they have achieved with their current partner (i.e., success satisfaction); 3) a measure of the skaters actual performance outcome was a weighted score based on the participant rankings during their most recent competitive season; 4) the Relational Communication Scale (Burgoon & Hale, 1987); 5) the Dyadic Trust Scale (Larzelere & Huston, 1980) examining interpersonal trust and; 6) a sport specific adapted form of the Dyadic Trust Scale examining physical trust. Results suggest that the communication theme "intimacy" may be a predictor of relational and success satisfaction. The RCS subscales were not significant predictors of longevity or performance outcome. Trust was a significantly correlated with relational satisfaction, success satisfaction and performance outcome. The type of relationship the participants reported had an impact on their scores on the RCS, DTS and adjusted DTS. The social validity assessment suggested that participants found the survey to be interesting and helpful. Limitations, suggestions for future research and significance of the study was discussed.

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Acknowledgements

First and foremost I want to thank my family....

Mom and Dad you always said, “We gave you your roots and now we give you your wings.” I could never have reached this point with out them. You were both there with me since the beginning and have provided me with an endless supply of emotional, financial and spiritual support. Lori, thanks for all your support and encouragement. You’ve been my long distance best friend, who else would have listened to all my crazy ups and downs? Andre, thanks for being you, I always knew you were there if I needed to chat.

To my Winnipeg crew...

Thanks to Karin Boyd

WOW, can you believe I made it? Our work together gave me the confidence to take West Virginia by storm. You taught me a new appreciation for “wordsmithing” that I’ve never forgotten. You were there when I never thought I’d find any kindred spirits south of the border. I’m glad that even across borders our friendship has endured.

Thanks to Ade (the Babe) Toogood-Leslie

It’s been a long and winding journey but I finally made it. You must know that I was always motivated by your enthusiasm and determination. You truly helped me get out of my shell. I how much of my success to your inspiration

Thanks to Tracey Sewell

It’s possible Tracey. People really can graduate. Thanks for all your support and encouragement along the way.

Thanks to Dr. Dennis Hrycaiko

Well I did it. You always told me that I'd have no problem finding a job if I got my doctorate. I wasn't always so sure... but here I am with an awesome job before I even graduated. I would never have gotten this far without your support, encouragement and guidance.

Thanks to Dr. Cal Botterill

You always said, you need to surround yourself with excellence to reach excellence. I think that motto truly fits in an acknowledgement section. You are definitely one of those excellent people. Thanks for all you help along the way.

Thanks to Dr. Garry Martin

I will never forget the day I sat in your office wanting to learn more about this new field I had heard about... Sport Psychology. Thanks for being such a great mentor over the years.

To my committee...

Thanks to Dr. Edward Etzel Jr.

There are not enough thank-you's in the world for all the help, and support you have given me. You were always there to listen and provide "feedback," not to mention the "blood, sweat and tears" you've lost editing my dissertation. You are AWSEOME.

Thanks to Dr. Frank Perna

You challenged me to try new methodologies and to always support my conclusions. Who would have thought I'd ever get statistics?

Thanks to Dr. Andrew Ostrow

Well your first Canadian student is finally graduating. Pretty cool eh! Thanks for all your help with the psychometrics. I'm not sure I could have figured out factor analysis without your help.

Thanks to Dr. Dana Brooks

I have to say you were an awesome pinch hitter, coming onto my committee at the last minute. I always enjoyed are chats about cohesion, qualitative research, international sports and Canada.

Thanks to Dr. Cyndee Kalodner

You were the first person I spoke with at WVU and the main reason I chose to come to Morgantown. I've always appreciated all of your help. You went out on the limb many times for me. I cannot thank you enough.

To my mentors...

Thanks to Dr. Nicolene Cavendish

I cannot tell you how much I have learned and am still learning from you. I think about you every time I meet a client. Thanks for being such a wonderful mentor. Your words and actions will be forever with me.

Thanks to Dr. Kate Hayes

Thanks for being such a wonderful role model. I have truely appreciated all your support, encouragement and guidance as I make my transition into professional life.

To my West Virginia Buddies...

Thanks to Dennis Sherwood and Mark Mattessi

You guys are AWESOME. Dennis I am still totally impressed that you got up early to come to my dissertation proposal and made it to my defense too. Mark thanks for your help with the stats (or was I helping you?) and coming to my defense... plus you even sat through my post defense melt down. You two were such a huge support.

Thanks to Samuel Zizzi

Wow it's done. I know I drove you totally crazy but I always appreciate your words of encouragement. You really helped me understand stats and for that I am seriously thankful. I also want to acknowledge the supreme influence you have had on my notions of communication and relationships. You taught me a whole new appreciation for the word "direct." Thanks.

Thanks to Ken Tubillejia and Thomas Pignone

You guys were always good friends and very supportive. Ken, what would I have done without your shoulder to cry on?

Thanks to Leslie (the queen) Frere

You always made me laugh. Remember all things are possible. You reminded me of this.

Thanks to Jeff Van Lone

You were my first kindred spirit at WVU. You always seemed to believe in me more than I believed in myself. I will never forget that.

Thanks to Robert Nelson and Jeff Wetheimer

You guys were great friends and helped me through many tough times at WVU.

Thanks to the Women of WVU Sport Psychology

Rebecca Alhgren, Cheryl Goldman, Renee Newcomer, Joni Cramer Roh, Marsha Beasley. You were all an inspiration. Thanks for being there!

Thanks to the Counseling Psychology Gang

Kelli Lee Watson, Lauren Krug, Sarah Haley, Julie States, Corey Clark. Thanks for being so much fun and such a good support.

Thanks to the Learning Center Crew

T. Anne Hawkins, Vanessa Harrison, Yvonne Simmerman, Garth Lindley, Janelle Coughlin. Thanks for all your support and encouragement

To those in the next stage of my journey...

Thanks to Matthew Robertson

Thanks for your help with some of the editing of my dissertation. You were blunt but kind. I really appreciated your help in my moment of need.

To the rest of the Gang at Columbia Rehabilitation Centre:

Perry Strauss, Stuart Jolliffe, Cynthia Chandler-Arsenault, Monique Maynard, Margaret Cuzzeto, Raymond Vong, Dr. Teresa Clark, Nadia Guglielmini, Mylee Ross, Kevin Berdusco, Rita Dhillion, Rhod Arrieta, Kyla Ashbrook, Stephanie Riddoch, Madhu Singh, Dr. Susan Mackie, Deana Root, Dr. Ansel Chu (and the dearly departed Greg, Luc, Hannah and Ricardo). Thanks for accepting me so easily and making the transition into my new professional life so much fun.

To Dr. Amripal Shergill and Dr. Jon Schwabach

Thanks for believing in me and giving me the opportunity to do what I love to do and make a living doing it.

To Drew Mitchell with Sport Medicine British Columbia

Thanks for helping me get started with sport psychology in BC. The possibilities are endless!

***MOST IMPORTANTLY TO ALL THE SKATERS WHO PARTICIPATED IN THE
STUDY THANKS FOR YOUR TIME, ENERGY AND THOUGHTFUL
PARTICIPATION.***

***To all those who have helped me along this winding journey that is my life I don't
think I will ever truly realize how blessed I am.***

The Relationships between Communication, Trust, Success, Satisfaction, and Longevity in Ice Dancing and Pairs Skating

The world has developed an intense fascination and curiosity for the sport of figure skating. Ice dancing and pairs skating are unique, as they are among the few disciplines in sport where a man and a woman work together in close physical proximity for competitive purposes. Not only do they perform together, but the sport also demands a very intimate relationship between the couple. Over the last ten years 37% of pair medallists and 30% of the ice dance medallists at the world championships have been either married or engaged to be married. In 1995 all three medallists in the pairs event were, or eventually became, married couples. Many in the skating community compare the pair and dance partnership to a marriage. This is due, in part, to the commitment and dedication needed to excel in the sport. Skating is also a very artistic sport, which requires skaters to exhibit passion and emotion on the ice. This, coupled with the very nature of the union, a man and woman training together for long periods of time, may lead to the development romantic relationships. Most often this leads to an intimate friendship.

The relationship that evolves in a pair or ice dancing couple is difficult to define. This is, apparently, a very close relationship. Many members of such partnerships refer to their partner as their “best friend.” This is probably the most accurate description of the relationship which may be applied to all types of ice dancing and pairs skating teams be they siblings, married or unmarried, dating or platonic. Fisher and Adams (1994) suggested that the phrase “very close relationship” referred to a specific kind of

relationship with high levels of intensity, intimacy, trust and commitment. They stated that:

These relationships are not merely friendships, they are friendships that are extremely close - as in the case of best friends. These relationships often (but not necessarily) include marital spouses and some family or kinship relations between, for example brothers and sisters or parents and children (Fisher & Adams, 1994 p. 392).

Kalbfleish (1993) stated that a best friendship, more than any other friendship, is “one perceived to share the closest emotional intimacy and the most unique relationship (p. 192).” In her study of female best friends, she found that they were described as honest or trustworthy, fun-loving and humorous, loyal or compassionate, like a family member, and physically attractive.

Reisman (1981) described three types of enduring friendships: 1) associative, 2) receptive, and the most intimate of these, 3) reciprocal. Associative friendships are those acquired through some common association such as work, school church or even being on an athletic team. In this type of relationship the commitment is situational. In many ice dancing and pair teams, their partnership will likely begin as an associative friendship. The second type of friendship is receptive based on a difference in status or control; for example a mentor and student relationship. In sport this could be a coach-athlete relationship. Finally, a very close relationship is most likely going to be reciprocal. In this type of relationship partners feel a commitment specifically to their interpersonal relationship. It seems accurate to surmise that as a skating relationship progresses, the

commitment moves from being specific to the sport to encompassing all other dimensions of the relationship. A good example of this is when Isabelle Brasseur spoke of her partner Lloyd Eisler, "If I am lost, he comes to get me. We could be 10,000 miles apart but if I needed him, he would drop everything for me, as I would for him" (Brasseur, Eisler, & Prouse, 1997, p. 190).

Kram and Isabella (1985) presented a similar set of definitions for workplace relationships. The first type was referred to as the information peer. This was a relationship characterized by communication regarding work and low levels of self-disclosure and trust. As the relationships build they may become more collegial. These types of relationships involve a greater degree of communication and trust and a greater degree of self-disclosure, emotional support and friendship develops. The third type, the special peer, may be the most intimate and most closely related to a "best friend" relationship. The special peer is characterized by communication regarding a variety of issues within and outside of the work environment, high levels of emotional support, personal feedback, trust, self-disclosure, and friendship. This definition sounds very much like the type of relationship that evolves within ice dancing and pairs skating.

Sharabany (1994) defined intimate friendship in children and preadolescents as a configuration of diverse, qualitatively related, commensurate elements involving eight dimensions. These eight dimensions characterize the unique dynamics occurring between intimate friends. Intimate friendship partners possess the ability to both self-disclose positive and negative aspects of their lives and to exchange honest feedback with each other, (i.e., they communicate). A member of a dance team may feel that their partner

needs to straighten their left leg in order to complete a particular step. It is important that they feel able to communicate this constructive criticism to their partner.

Non-verbal communication is another important feature of friendships (Sharabany, 1994). Friends are frank, spontaneous, and harbor a sense of empathy or understanding, which does not necessarily have to be achieved through speech (Sharabany, 1994). Often team members will be able to "know" what their partner wants them to do without verbalizing it.

In a friendship relationship there is a feeling of attachment and connectedness with the other partner and an intimate bond is developed (Sharabany, 1994). Members of such a relationship will choose to spend time with this partner over others because this relationship is uniquely fulfilling, and that is a preference (Sharabany, 1994). For example Torvill and Dean said, "we came to rely on each other in almost every way, because ice-dancing was the most important thing to us" (Torvill, Dean, & Man, 1995 p. 124). Finally, there is a degree to which a "friend" can be counted upon to maintain self-disclosures and be supportive (i.e., trusting) (Sharabany, 1994). In combination, these factors serve to determine the degree of intimacy in a relationship (Sharabany, 1994).

A study of relational satisfaction among best friends revealed many of these factors to be important to the participants' rating of relational satisfaction (Cole & Bradac, 1996). For example being family-oriented, emotionally balanced and sharing similar interests were thought to cause a variety of outcomes directly related to satisfaction (i.e., admits mistakes, not abusive, approachable). The causal structure suggested that certain sources of satisfaction play a relatively prominent role, such as being approachable and

having good communication skills. The results of this study indicated that being approachable was perceived to be the most immediate source of satisfaction among close friends (Cole & Bradac, 1996)

Research into the orientation of partners suggests that those with a “we” or “us” orientation are better able to use compromise, mediation, conciliation, and implementation procedures to resolve differences (Hawes & Smith, 1973). Those who are a self-only or partner-only orientation may find that this perspective interferes with the discovery of joint mutually acceptable resolutions to conflict. (Cahn, 1987; Cushman & Cahn, 1985). To extrapolate this to sport psychology, one could say that those with a “team” orientation might be more likely to be able to “compromise” and resolve differences.

The literature in the area of intimate relationships and friendships suggests that trust and communication are important features that may contribute to success in relationships (e.g., Cole & Bradac, 1996; Kalbfleish, 1993; Kram & Isabella, 1985; Reisman, 1981; Sharabany, 1994). A lack of trust has also been found to undermine various relationships (Argyle & Henderson, 1984; Larzelere & Huston, 1980; Van Yperen & Bunk, 1990).

Dance and pairs teams face many challenges achieving success, satisfaction and longevity during their skating careers. Preliminary research conducted by the author, involving the in-depth study of a young ice dancing couple, suggested that trust and communication were important to their success, satisfaction and longevity (Wanlin, 1998). The participants in this study stated: “You have to have 100% trust. Good

communication skills and you have to be in tune with the other person, know what the other person is thinking.” This theme is further supported by the comments of successful dancers and pairs teams in their autobiographies (e.g., Gordeeva & Smith, 1997; Prouse, Brasseur & Eisler, 1996; Torvill & Dean, 1997).

It makes intuitive sense that to be successful and satisfied, skating partners need to trust and communicate with one another. Physical trust would be required by both partners in order to have confidence that their physical well-being is being protected. A woman being held seven feet above the ice would want to trust that her partner would not drop her. A man who is throwing his partner in the air and catching her would need to trust that she would be in the correct position so that her blade would not hit him. If skating teams do not communicate with one another, serious injuries may occur. In order to prevent such disastrous accidents from happening, teams must communicate and trust that their partner will protect them. Further research is needed to examine this notion of “physical trust.”

Interpersonal trust, which is the belief that the partner is being honest and benevolent, is also important to the ice dancing and pairs skating partnership. If we think of the team in terms of a marriage, some marital therapy literature suggests that this type of trust is important to successful, satisfying relationships (e.g., Dandeneau & Johnson, 1994; Johnson & Talisman, 1996).

In their study, Dandeneau and Johnson (1994), investigated the effects of two sets of marital interventions taken from emotionally focused therapy (EFT) and Cognitive Marital Therapy (CMT) on levels of marital intimacy, dyadic trust and dyadic adjustment.

They found that both the EFT and CMT group post-test means were significantly higher than controls on the self-report measures of intimacy. An observational measure of intimacy revealed differential effects in favor of EFT. EFT incorporates more couple interaction rather than therapist-couple interaction as is the case with CMT. The couple's ability to interact and thus communicate with one another likely plays an important role in the development of intimacy. Dandeneau and Johnson (1994) suggested that if couples discovered and expressed the affection that underlies their interactional stances, particularly their vulnerabilities, and therefore encountered each other in a new way in the session, intimacy levels would tend to increase and continue after therapy ended. With this in mind it would seem useful to examine the impact that increased intimacy may have on long term relationship satisfaction.

Johnson and Talisman (1996) examined client variables expected to predict success in Emotionally Focused Marital Therapy (EFT), the second most empirically validated treatment for marital distress. The variables studied were: 1) the relationship of attachment quality, 2) level of emotional self-disclosure, 3) level of interpersonal trust, 4) marital adjustment, 5) intimacy, and 6) therapist ratings of improvement. This study found that the best prognosis was observed when partners, (female partners in particular), still had some trust for their partner, and whether they are able to respond to the other's vulnerability when it is expressed. The authors noted that difficulties with trust might also be the result of attachment history in the past or present relationship. These results suggest a link between trust and relationship satisfaction and therapeutic "success."

Generally speaking, success in marital therapy would result in the couple staying together, thus one could also postulate that trust is also important to longevity in the relationship.

One of the key components of EFT is facilitating a shift in interactional positions towards affiliation and engagement (Johnson & Greenberg, 1995). One could say that communication skills assist those in distressed relationships to develop more flexible interactions that allow for greater emotional engagement. Based on this, communication, specifically the ability to express emotions, may be linked to marital satisfactions and longevity.

More recently, Johnson and William-Keller (1998) have examined the use of emotionally focused marital therapy with couples where one or both of the partners have experienced significant trauma. The results of this study supported the use of EFT in treating relationship distress caused by trauma as well as individual symptoms of post-traumatic stress disorder (PTSD). Trust is believed to be an important component of secure attachments. As discussed earlier, Johnson and Talisman (1996), found that trust was an important component related to success of therapy and marital satisfaction. In this case the development of trust is likely important to both PTSD recovery and relationship success. The components of EFT appear to have some impact on trust, satisfaction, and marital longevity.

Research in the area of marital satisfaction has also suggested that communication is an important feature of successful and satisfying long-term relationships (Baucom, 1995; Burke, Weier, Harrison, 1976; Clark, 1974; Farber, 1979; Gottman & Krokoff,

1989; Hendrick, 1981; Markham, 1984; Patterson & Hops, 1972; Patterson, Hops, & Weiss, 1972; Weiss, Hops, & Patterson, 1973).

Markham (1984) examined the ongoing development of satisfying exchange patterns before marriage and whether they were predictive of future marital satisfaction. The authors designed a longitudinal study to test the hypothesis that negative communication patterns preceded the development of marital distress. The study involved the couples completing five tasks that required problem-solving discussions and rating their interaction using the talk table. Couples were assessed after a year, 2.5 years, and 5.5 years. The results of this study suggested that premarital couples with high levels of communication skills were more satisfied with their marriage 2.5 and 5 years later as compared with couples with low levels. This study also suggested that good premarital communication may be associated with future marital happiness (Markham, 1984). Good premarital communication was occurred when the degree of intention being equal to the impact of the message sent (Markham, 1984). These results need to be tempered with caution because the validity of this interpretation depends on the interpretation of intent ratings, which are self-report measures. However, the intent ratings may be measuring perceptual accuracy or empathy. Past research has found perceptual accuracy to be positively related to marital happiness (e.g., Knudson, Sommers, & Golding, 1980; Murstein & Beck, 1972).

Reuna, Wiech and Zimmer (1984) examined the effects of a behavioral communication skill-training program adopted for marital therapy to improve communication in small groups. It was hypothesized that improved communication

would result in a subjective increase in individual satisfaction with group living as well as for the resolution of problems and conflicts that may arise. A variation of the Communication Skills Inventory was used to assess communication competence (Reuna, Wiech, & Zimmer, 1984). In addition, the marital pre-counseling inventory was used to assess satisfaction in day-to-day living. Significant positive changes for the treatment groups were found on the following: 1) experience of consideration and interest in others, 2) mutual understanding, 3) experience of openness and less constraint in the expression of agreements and disagreement, 4) general satisfaction with group living, 5) trust and closeness, and 6) increase in joint activities and satisfaction during this time. The authors suggested that the development of mutual trust came from exercises that focused on the expression of positive feelings, anxiety, and on training in how to react to the expression of negative emotions by others. This study suggested that there is a positive relationship between communication skill development and the development of trust and satisfaction.

Similarly, a series of replicated case studies found that teaching distressed couples communication skills followed by behavioral contracting resulted in improved communication and increased satisfaction with the relationship (Patterson & Hops, 1972; Patterson, Hops, & Weiss, 1972; Weiss, Hops, & Patterson, 1973). These results suggested that when couples were not taught communication skills their communication did not improve significantly (Baucom, 1995).

The type or theme of communication expressed seems to be an important factor associated with relational satisfaction. Cordova, Jacobson, and Christensen, (1998) examined the changes in couples communication over the course of integrative behavioral

couples therapy (BCT) and traditional behavioral couples therapy (TBCT). Both therapies attempt to facilitate change in the couples' communication patterns. The results suggested that BCT couples expressed more non-blaming descriptions of problems and more soft emotions than those in TBCT. Increases in non-blaming descriptions were significantly correlated with increases in marital satisfaction. Changes in couples' in-session communication seemed to be generally associated with changes in their global distress.

Gottman and Krokoff (1989) conducted two longitudinal studies of marital interaction using observational coding of couples attempting to resolve conflicts. They found that a different pattern of results predicted concurrent marital satisfaction. Contrary to expectations, disagreement and anger exchanges were found not to be harmful in the long run. These patterns were found to relate to unhappiness and negative interaction at home concurrently and they were predictive of improvement in marital satisfaction over time.

More recently, Gottman, Coan, Carrer and Swanson (1998) examined a number of marital interaction processes that are predictive of divorce or marital stability. These included: anger as a dangerous emotion, active listening, negative affect reciprocity, negative start-up by the wife, de-escalation, positive affect models and physiological soothing of the male. The authors were surprised to find that active listening was not predictive of marital stability. The only variable found to predict both marital stability and marital happiness among stable couples was the amount of positive affect during the conflict. The researchers concluded that a number of factors were important for couples to experience happy and stable marriages. These included a softened start-up by the wife,

the husband acceptance of his wife's influence, de-escalation of low-intensity negative affect by the husband, humor by the wife and the husbands use positive affect and de-escalation to effectively soothe himself. There may be very specific components of good communication, which may lead to relationship satisfaction. In particular the theme of affection seems to be important to relational satisfaction.

Every communication message has a relational and content component (Kelley & Burgoon, 1991). Relational messages are used by interactants to define their relationships and themselves. These definitions are influenced by the expectations of the participants and guide the production and interpretation of messages (Burgoon & Hale, 1984). For example, messages that reflect warmth may convey affection in terms of relational communication.

Burgoon and Hale (1984) synthesized a diverse body of literature, including anthropological and psychotherapeutic analysis of behavior, intraspecific displays, measurement of meaning, emotional expression, interpersonal evaluations (credibility, attraction, similarity, impression management), relational definitions and development, dyadic and group interaction categories, and verbal and interpersonal behavior. They came up with a schema of 12 conceptually distinct dimensions of relational communication. These themes were used as the foundation for the development of the Relational Communication Scale, which is composed of the following eight subscales: 1) immediacy/affection, 2) similarity/depth, 3) receptivity/trust, 4) composure, 5) formality, 6) dominance, 7) equality, 8) task orientation.

Two studies conducted by Burgoon and colleagues have examined the relationship that exists between the relational communication themes and an individual's satisfaction (Kelley and Burgoon, 1991; Burgoon, Pfau, Parrott, Birk, Coker, and Burgoon, 1987). In their study of marital satisfaction and couple type as a function of relational expectations, Kelley and Burgoon (1991) found that the discrepancy between one's spouses expectations for his or her spouse's relational behavior and one's perceptions of his or her actual behavior significantly predicted marital satisfaction. Discrepancy scores for the relational dimensions of intimacy, distance, equality/trust, dominance and noncomposure/arousal appeared to be central in predicting satisfaction. While agreement between spouses on relational expectations significantly predicted satisfaction, expectation/perception discrepancies were stronger predictors than agreement scores. This research found no difference in relational expectations when compared across couple type, although intimacy and noncomposure displayed significant differences when compared across wives' individual marital type

Another variation of the relational communication scale has been used to examine relational communication, satisfaction, compliance-gaining strategies, and compliance in communication between physicians and patients. In their study Burgoon, Pfau, Parrott, Birk, Coker, and Burgoon (1987) examined six themes of physicians' relational communication and their ability to predict patient satisfaction and compliance. This study involved telephone interviews with 234 adults who were seen by a primary care physician within the past six months. The results of this study confirmed that relational communication was strongly related to affective, cognitive, and behavioral satisfaction.

More expressions of receptivity, immediacy, composure, similarity, formality, and less dominance by the physician were associated with greater patient satisfaction.

Communication and trust seem to be important in a variety of relational contexts for relationships to be “successful,” “satisfying,” and enduring. The question remains, is this true within sport and more specifically in the disciplines of ice dancing and pairs skating? Research in the area of team building in sport has suggested that a cohesive team is more likely to be “satisfied” and “successful.”

Based on the team building literature an effective team has many important characteristics. An effective team: a) consistently and efficiently achieves its goals while maintaining high levels of member satisfaction and loyalty; b) is engaged in continuous, ongoing diagnosis, planning and implementing changes; and c) has a shared sense of purpose, understanding of resources and effective processes (Anshel, 1994; Hanson & Lubin, 1988; Hirsh, 1992; Steiner, 1972.)

In their discussion of the foundations of team building, Hardy and Crace (1997) suggested that although team building has been defined in a number of different ways it is best seen as a team intervention that enhances team performance by positively effecting team processes or team synergy. They cited Mears and Voehl’s (1994) definition of team synergy as, “the interaction of two or more agents or forces so that their combined effort is far greater than the sum of their individual efforts.” (p. 4). There are multiple approaches to team building. Brawley and Paskevich (1997) suggested that team-building approaches focus on four areas: 1) goal-setting, 2) interpersonal relations 3) role

expectations, and 4) concern for production and people. Of specific interest to this discussion is the area of interpersonal relations.

The interpersonal relation's approach is seen to alter the group process in order to reduce interpersonal problems so that the team will function more effectively. This model uses the development of mutual support and trust to facilitate sharing of feelings and open communication. An increase in cohesion and cooperation, it can be assumed, will lead to an increase in commitment to the groups goals, higher levels of team effectiveness and productivity (Brawley & Paskevich, 1997). Cohesion is therefore used as a framework for developing group influence (Carron, Spink, & Prapavessis, 1997).

Cohesion has been defined as “a dynamic process that is selected in the tendency for a group to stick together and remain united in pursuit of it's goals and objectives” (Carron, 1982, p. 124). Cohesion in sport is a multidimensional phenomenon and is made up of task and social orientations as well as individual and group perceptions about the degree of unity that exists within the group and members feelings about the group itself. Social cohesion is particularly important to this discussion as it refers to the activities associated with the development and maintenance of harmonious and social relationships (Carron, Widmeyer, & Brawley, 1985).

Koys and Decotiis (1991) suggested that in organizations, the perception of closeness, sharing, liking, and collaboration between employees is important to work climate. They found that these relationship variables are important contributors to psychological climate along with autonomy, trust, pressure, support, recognition, fairness, and innovation.

Odden and Sias (1997) examined the association between psychological climate and the types of communication relationships employees' form with their peers. Their results suggested that a link exists between psychological climate and peer relationships. Climates perceived as high in cohesion were related to larger proportions of collegial and special peer relationships. A high proportion of collegial and special peer relationships may be indicative of an organization in which employees like one another, get along well, and help each other out. These significant relationships seem to indicate that the respondent who has a positive feeling about communication within the organization also has positive feelings regarding the organization's psychological environment. This research indicates a relationship between psychological climate and employee communication. The relationship between climate and peer communication relationships specifically, however, remains unexamined.

From an applied perspective Yukelson (1997) observed that communication is highly related to group cohesion and team effectiveness. Success is highly dependent upon teamwork and having consensus on group goals and objectives. For this reason Yukelson spends a great deal of time with teams working on strategies for developing and maintaining group cohesion. Similarly, Etzel and Lantz (1992) suggested that team building becomes an important intervention to facilitate teamwork, group problem solving, team solidarity and cooperative goal-directed action.

Yukelson (1997) emphasized a focus on communication within team building. He stated that:

Effective communication is based on trust, honesty, mutual sharing and mutual understanding. If a group is to function effectively, members must be able to communicate openly and honestly with one another about the efficiency of group functioned and or quality interpersonal relationships (p.86).

Regular team meetings to share information and process experiences is seen to increase the depth and creativity of decision-making, builds trust, mutual respect and mutual understanding (Orlick, 1986; Yukelson, 1993).

Are ice dancers and pairs skaters a team? Based on this definition they appear to be. These athletes share a common goal, are dependent on one another, and have specified roles. One could say that they form a team of two. The “team” of Torvill and Dean is a perfect illustration of this point. They began skating together based on a coaches recommendation. At the time when their coach asked them, “Do you think you’ll stay together?” They said, “we looked at each other, and um’d and ah’d and said we’d give it another week... it’s odd to think it’s now 20 years of just another month, just another year” (Torvill, Dean, & Mann, 1997, p.33). At that time all they had was a common desire to ice dance. As their relationship grew they came to “rely on each other in almost every way because ice-dancing was the most important thing” (Torvill, Dean, & Mann, 1997p.124). For Torvill and Dean their roles became defined and a “team” evolved.

No studies, to date, have specifically examined relationship issues in the sport of figure skating. Some research has investigated psychological factors through in-depth qualitative analysis of the experiences of former elite figure skaters. This research has

found that a skaters' social network revolves around the sport. (Scanlan, Stein, & Ravizza, 1989a). Most skaters' friendships and relationships are with other skaters. These social aspects of the sport were important sources of enjoyment (Scanlan et. al. 1989b).

Researchers found negative significant-other relationships to be one of five sources of stress for skaters (Gould, Jackson, & Finch, 1993; Scanlan, Stein & Ravizza, 1991).

Skaters spend countless hours training and working together. Pairs skating and ice dancing involves performing a number of complex maneuvers in synchrony.

Communication is important for skaters to learn and perfect these skills. Jackson (1992) studied the factors associated with "flow" experiences in figure skating. Flow is the term often associated with peak performance. Of interest to the present study, Jackson found that a sense of unity was necessary for a flow experience. Unity seems to be the way that two skaters work together towards a common goal. From a team building perspective unity may be synonymous with cohesion. While Jackson's work sheds light on optimal performance in skating, further research is needed to define unity and the factors associated with the development of unity.

In summary, the literature in the areas of intimate relationships, friendships, marital satisfaction and communication and marital therapy provides some insight into the role of trust and communication and the relationship to success, satisfaction and longevity in similar relationships outside of sport. In addition, the team building literature sheds some light into the role of communication and trust in sport and organization "teams." It is important, however, to keep in mind that there is no research that has specifically examined these factors in the sport of figure skating, and more specifically,

the disciplines of ice dancing and pairs skating. Further, most of the literature has focused on adult relationships, although Sharabany (1994) provided some insight into children's friendships. Caution must be taken when generalizing these findings to other populations. Accordingly, future research is needed to examine the role of communication and trust in diverse populations, among diverse age groups.

Purpose

The purpose of this research was to examine the relationships between communication, trust and the success (i.e., performance outcome), satisfaction, and longevity of competitive pairs and ice dancing teams. This knowledge may serve to facilitate the development of programs to increase success, satisfaction and longevity in ice dancing and pairs skating in the future.

Research Hypotheses

The following are the research hypotheses examined:

1. Scores for immediacy, similarity, receptivity and dominance from the RCS will be predictive of satisfaction with their partnership and satisfaction with their level of success.
2. Scores for immediacy, similarity, receptivity, and dominance from the RCS will be predictive of relationship longevity.
3. Scores for immediacy, similarity, receptivity, composure, and task orientation will be predictive of performance outcome.

4. Levels of interpersonal trust as measured by the DTS and physical trust as measured by an adapted version of the DTS will be predictive of success, satisfaction and relationship longevity.
5. The association between trust (both physical and interpersonal) and satisfaction will be stronger for women than for men.
6. There will be no differences between groups of skaters based on the type of relationship (e.g., married, sibling pairs etc.) on the DTS and the subscales of the RCS.

Method

Participants

The participants were 102 ice dancers ($N = 74$) and pairs skaters ($N = 28$) ranging in age from 10-26 ($M = 17.40$). Participants were surveyed at training sites in Northeastern Canada and the United States. They represented all levels of competitive experience (Juvenile $N = 6$, Intermediate / Pre-novice $N = 14$, Novice $N = 20$, Junior $N = 32$, and Senior $N = 30$). Participants also represented a variety of relationship types (Friends $N = 65$, Dating $N = 20$, Siblings $N = 6$, Married $N = 2$, Other $N = 9$).

Instrumentation

The survey package contained the following: 1) a demographic questionnaire which was administered to collect background information (see Appendix A); 2) a measure of the participant's perceived satisfaction with their relationship with their current partner (i.e., relational satisfaction) and their perceived satisfaction with the level of success they have achieved with their current partner (i.e., success satisfaction) (see Appendix B); 3) a measure of the skaters actual performance outcome was a weighted score based on the participant rankings during their most recent competitive season (see Appendix C); 4) the Relational Communication Scale (see Appendix D); 5) the Dyadic Trust Scale examining interpersonal trust (see Appendix E); and 6) a sport specific adapted form of the Dyadic Trust Scale examining physical trust.

Demographic questionnaire. This instrument asked skaters to list their gender, age, level of education, first language (i.e., English, French, other), citizenship (i.e., Canadian, American, other), competitive skating level (i.e., novice, junior, senior),

skating discipline (e.g., pairs or ice dance), number of skating partners, length of most recent skating partnership (i.e., longevity), and the perceived type of relationship they had with their partners (e.g. sibling, friends, married, dating, divorced, other) (see Appendix A).

Satisfaction. Skater's level of satisfaction was measured by two questions (see Appendix E). The first question inquired about the perceived level of satisfaction the skater has with their current partnership. The second question addressed the perceived level of satisfaction a skater had with the level of success he/she had achieved with their current partner. Each question asked the participants to rate their satisfaction using a ten-point Likert scale where one is very dissatisfied and ten is very satisfied (see Appendix E).

Performance outcome. In order to assess the skaters' level of success (performance outcome) they were asked to list their rankings with their current partner (i.e., the person they have skated the present skating season with) at sectionals, regionals, divisionals, nationals, internationals, world championships and/ or the Olympics over the course of the 1998-1999 competitive season. These ranking were verified to confirm their accuracy by consulting the United States Figure Skating Association and the Canadian Figure Skating Association web pages. A score was created based on the level of competition. The following weighting system was used. All competitions for which the participants competed were examined to assess the number of teams participating. No more than 21 teams ever participated in any one of these competitions. Points were therefore awarded based on placement. Skaters who place in the top three received seven

points, placements from fourth to sixth received six points, placements from seventh to ninth received five points, placements from tenth to twelfth received four points, and so on. Skaters were awarded points for participation in Sectionals, Regionals/Divisionals, Nationals, Internationals (top two in cases where there were more than one), Worlds, and the Olympics. Skaters who received a bye through regionals or divisionals were given points equivalent to placing in the top three. Using this point system a total score was computed.

Relational Communication Scale. The instrument used to measure communication was the Relational Communication Scale (RCS) (Burgoon & Hale, 1987) (See Appendix D). According to Burgoon and Hale (1987) the Relational Communication Scale was developed by, “examining all the measurement instruments used in a wide range of prior research and compiling from them concepts and wording applicable to relational communication (p. 20)”. New items were then created for nonrepresented topoi so that there were at least two items per theme. To discourage response bias, both positively and negatively worded items were developed. Graduate students from a seminar in relational communication contributed additional items representative of "statements" relational partners may make to one another. The resultant pool of 32 items was cast in Likert format with a range of one (strongly agree) to seven (strongly disagree).

Graham (1994) noted that although some of the dimensions of the RCS initially had more variability, this has been reduced in later investigations. In a personal communication Burgoon observed:

“The task-social dimension remains a problem for us. Sometimes it holds together; sometimes not. Sometimes it factors with formality items. We tend to rely on factor analysis and/or reliability analysis to determine what items to retain in a given study (and for many of our studies this measure isn’t even used) (J. Burgoon, personal communication, March 17, 1999).”

This dimension, however, is of interest within the present study because the cohesion research suggests that when there exists a dissonance in the orientation the degree of cohesion experienced by a team is effected.

Within the present study, each item was be rated using a seven point Likert scale ranging from strongly agree (1) to strongly disagree (7). Items 4, 9, 15, 16, 17, was reverse scored. A score will be calculated for each of the eight dimensions. A total score will also be calculated by adding up the scores from each of the eight dimensions as suggested by Burgoon (J. Burgoon, personal communication, March 17, 1999).

The authors of the RCS have suggested that when using this measure in future research, the type of the interaction and the relationship among interactants may effect the factor structure, causing more or less dimensions to emerge. For this reason it was important to assess the relationship types as they may affect factor analysis. The following is a brief description of the subscales.

Immediacy/affection Affection involves the perception that others desire close personal relations with oneself, and efforts to initiate more intimate relationships with a psychologically comfortable number of people (Burgoon & Hale, 1987). In terms of interpersonal evaluations, attraction plays an important role in impression management,

projecting sexual-oriented dimensions of sociability, social attraction, and physical attraction. Burgoon and Hale (1984) suggested that attraction implies a degree of affectionate or inclusive exchange. This supports the proposed relational message themes of affection, inclusion, intensity of involvement, and the larger theme of intimacy. The reported mean coefficient alpha reliability for immediacy/affection was 0.74 (Burgoon & Hale, 1987). Examples of items representing immediacy and affection were as follows: “My partner communicated coldness rather than warmth.” “My partner created a sense of distance between us.”

Similarity / depth. Hale and Burgoon (1987) found that greater similarity promotes a greater sense of familiarity and willingness to move a relationship to a deeper more intimate level, thus the coupling of similarity and depth. The reported mean coefficient alpha reliability for similarity/depth was 0.80 (Burgoon & Hale, 1987). Examples of items representing immediacy and affection are: “My partner seemed to desire further communication with me.” “ My partner made me feel he/she was similar to me.”

Receptivity / trust. Hale and Burgoon (1984) stated, "given that the status of trust as a cornerstone in the development of close interpersonal relationships, we should expect a class of messages explicitly designed to convey one's trustworthiness, as well as one's belief in another's sincerity, beneficence, and so forth (p. 200-201)." In the development of the RCS the authors found that receptivity loaded highly with trust (Burgoon & Hale, 1987). They suggested that, "these intimacy-related themes are intertwined and the greater inclusiveness usually goes hand in hand with a sense of trust (p.39)." The

reported mean coefficient alpha reliability for receptivity / trust was 0.79 (Burgoon & Hale, 1987). Examples of items representing formality are: “My partner was interested in talking with me.” “My partner was honest in communicating with me.”

Composure and formality. Burgoon and Hale (1987) suggested that, “the composure and formality themes are likely to form composites with other topoi when circumstances dictate a relaxed, informal, and non-aroused communication style (p.39).” When composites such as arousal/composure/formality and task orientation are used they form distinct and recognizable themes. The reported mean coefficient alpha reliability for composure was 0.74 alpha (Burgoon & Hale, 1987). Examples of items representing composure (or non-composure) are: “My partner felt very related talking with me.” “My partner seemed nervous in my presence.”

Formality is somewhat less independent. Like similarity and intimacy messages the formality theme also has inclusion implications. An informal demeanor corresponds to responsive and disclosive. These elements suggested some relationship with intimacy. The reported mean coefficient alpha reliability for formality was 0.73 alpha. Examples of items representing formality are: “My partner made the interaction very formal.” “My partner wanted the discussion to be casual.”

Dominance. Burgoon and Hale (1984) suggested that dominance-submission, or relational control, is one of the most widely recognized and studied facet of relational communication. This control refers to the need to establish a comfortable degree of influence that one exercises over the behavior of others and is exercised over oneself. Dominance consistently emerged as an independent theme during factor analysis using

orthogonal solutions. Dominance is composed of such elements as competitiveness, aggressiveness, ingratiating, and persuasive intent. The reported mean coefficient alpha reliability for dominance was 0.69 (Burgoon & Hale, 1987). An example of an item assessing dominance on the RCS would be: "My partner attempted to persuade me."

Equality. In terms of marital relationships, equality as a relational communication theme plays an important role. Kelley and Burgoon (1991) found that equality played a role in predicting satisfaction. This theme takes into consideration the notion of mutual respect. The reported mean coefficient alpha reliability for equality was 0.67 (Burgoon & Hale, 1987). Examples of items representing equality are: "My partner considered us equals." "My partner didn't treat me as an equal."

Task orientation. Messages at the task end of the continuum include being work-oriented, sincere, non-hostile, reasonable, and not being more interested in the social situation than the task. The social orientation might have been seen as a less serious attitude to the study. Of the eight dimensions of the RCS this is the weakest. The reported mean coefficient alpha reliability for task orientation was 0.42 (Burgoon & Hale, 1987). As discussed earlier, during the development of the RCS, the authors found that social and task items loaded together in oblique solutions but separated in orthogonal solutions and failed to obtain sufficiently high loading to merit labeling on those factors. The problem with this factor may lie in the fact that the items may not represent conceptual poles. That is that task and social orientations may not be mutually exclusive categories. Of interest to the present study, Kelley and Burgoon (1991) suggested that this dimension may be less relevant in marital relationships. However, little is said about it's

relevance with other types of relationships. Examples of items representing task orientation are: “My partner wanted to stick to the main purpose.” “My partner was more interested in social conversation than the task at hand.”

Dyadic Trust Scale. Trust is a very important component of pairs skating and ice dancing. Trust promotes a sense of security in a relationship, reduces inhibitions and defensiveness, and free individuals to share their feeling and dreams with one another (Fredman & Sherman, 1987). The Dyadic Trust Scale (DTS) (Larzelere & Huston, 1980), though only eight items long, has been found to be a reliable measure of the belief in a partner’s benevolence and honesty.

In the development of this scale a total of 57 items were borrowed or adapted from seven previous scales that measure trust (Fredman & Sherman, 1987). Factor analysis was used to identify items that related highly with each other. The final pool of items was selected to minimize social desirability, to maximize a wide range of responses, and to eliminate repetitiveness. An effort was made to distinguish trust in a partner from the general feeling of trust in humankind.

The participants involved in the development of this scale were 322 individuals, 190 females and 132 males (Larzelere & Huston, 1980). This sample included 16 casually dating, 90 exclusively dating, 54 engaged or living together, 35 reporting about past dates, 40 newlyweds, 42 longer married partners, and 45 separated or divorced individuals. The dating group had a mean age of 20.8, the newlyweds 23.5 the longer marrieds 35.8 and the divorced 33.0. Most of the dating sample was college students enrolled in marriage courses at The Pennsylvania State University. The married partners

were volunteers from a large number selected at random from the local phone book. The divorced or separated partners were volunteers who had just completed another study.

The reported alpha coefficient for internal consistency of the DTS was .93, which is considered to be high for an eight-item scale. Typically more items are need to achieve this level of consistency. The authors did not publish test-retest reliability estimates. The DTS does not correlate with measures of social desirability or generalized trust. However, it does correlate highly with love scales and moderately with measures of self-disclosure.

This inventory demonstrated good face validity, high internal consistency, and a relatively high correlation with love and self-disclosure. The fact that the married partners were all volunteers and the dating individuals were students might have some effect on the scale scores. It should also be noted, however, that the divorced participants were also volunteers.

Fredman and Sherman (1987) suggest that since the authors persist in using the term “dyad” rather than “couple” to describe the scale, it may be able to measure other two person relationships. This would be particularly useful in assessing trust in pairs skating and ice dancing.

A variation of this scale was also be used to assess physical trust, which is specific to ice dancing, and pairs skating. The items remained the same. However, the instructions were altered. Skaters were told to answer the questions in terms of the physical trust they have for their skating partner. That is, they were asked to rate the degree they trusted that their partner would protect them from physical harm.

In order to control for the order of presentation, the survey instruments were counterbalanced so that some surveys contained the trust inventories first while others contained the communication scale first.

Procedure

Skating club administrators and coaches were contacted by mail and/or fax to provide initial information about the study. Telephone calls were then made to follow-up. Verbal and written permission was obtained to survey the skaters at the training sites. The training sites were contacted and times were set up in order to survey the athletes. In most cases the head coaches of the pairs/dance programs facilitated the data collection logistics. An information package was faxed to the training sites that included an information guide (see Appendix F) and the assent and consent forms (see Appendix G and H).

Athletes and parents were provided with the assent and consent forms as approved by the Institutional Review Board of West Virginia University (see Appendix H & I). Parental consent was required for skaters under the age of 18. The participants were provided with a survey packet by the investigator, which took approximately 10-20 minutes to complete. Due to the field setting of this study the survey was administered in the following ways. In some cases the coach brought all participants from one training site together, introduced the experimenter and then the experimenter proceeded to explain the purpose of the study (as explained in the information guide) and how to complete the survey ($N = 20$). In most cases, however, the coach introduced the experimenter to the participants individually and the experimenter gave individualized explanations ($N = 82$).

Skaters attempted to complete the survey in the presence of the experimenter ($N = 38$). Unfortunately, due to the busy training schedule of most teams, skaters often brought the survey home to complete and returned the survey to the experimenter the next day ($N = 54$) or sent the survey back in the mail ($N = 10$).

Skaters were asked to respond to the best of their ability and to do so independently. Specifically related to the demographic section, skaters were asked to describe their relationship with their partner using the descriptors provided and to take them as literally as possible. That is, although they might have considered their relationship to be like a marriage or like a sibling, they were only to use that descriptor if in fact this were the case. Skaters had the option of choosing “other” and were instructed to use this option if none of the other options applied. In these cases they were to provide their own descriptor.

Factor Analysis

A principal components factor analysis with varimax rotation was conducted to examine the structure of the RCS and to confirm its eight-factors. The decision to stop extracting factors was based on the eigenvalues (>1) and a scree plot. Previous research by Burgoon and Hale (1987) set loadings of .50 or greater as the cut off point for inclusion in the factors. The original RCS was an eight factor scale. The factor analysis in this study produced only seven factors with eigenvalues greater than 1.0 and with loadings of .50 or greater, which accounted for approximately 65% of the cumulative variance. The means and standard deviations for the individual items of the RCS are presented in Table 1.

Insert Table 1 about here

Appendix L highlights the items as they occurred in the original scale and how they factored into the present version. Table 2 depicts item loadings of .50 or greater for each item, and eigenvalues, percent variance and reliability alpha for each factor. The factor loadings and factor items, of the seventh factor retained only two items (item number 8 and 19) meeting the criteria for inclusion. These items did not seem to fit well together (i.e., these items did not have sufficient face validity). In past research by Burgoon and Hale (1987) items that did not fit with a factor were dropped. Therefore, these two items and any item that did not load onto any of the other factors were dropped from further analysis. These four items are highlighted in Table 2. The factor analysis served to collapse the scale for similarity/depth, receptivity/trust, and equality into one factor, which was renamed “intimacy.” The means and standard deviations for the subscales of the RCS are presented in Table 3.

Insert Tables 2 and 3 about here

Data analysis

Based on the results of the above factor analysis, scores for the subscales of the RCS, DTS and adapted DTS were totaled and mean scores were calculated for statistical analysis. Discrepancy scores were calculated by finding the absolute value difference

between the individual mean scores for each member of the partnership. Alpha levels were set at $p < .01$ in order to control for type one error. Descriptive statistics were used to illustrate demographic data. Factor analysis was used to examine the RCS and confirm its eight-factor structure. Multiple regression analysis were performed to test hypotheses one, two, three and four. Z-scores were used to test hypothesis five. MANOVA's were utilized to test hypothesis 6. Upon consideration of the developmental level and ability of the participants to complete the survey package the data collected from the 6 young participants was omitted from further analysis. By dropping these participants the sample size was reduced to only 86 participants. In addition dropping the lower ages resulted in fewer complete teams when the discrepancy scores were analyzed. After dropping the younger participants and their partners from the analysis only, 36 pairs remained to analyze the discrepancy scores.

Results

Descriptive Statistics

Approximately 300 surveys were distributed to potential participants and coaches of potential participants. One hundred and twenty seven surveys were completed, however, only 102 were useable. Only surveys where both members returned their completed survey were used in the analysis. The overall rate of return was approximately 42%. The rate of return for the useable surveys was approximately 34%.

The overall sample surveyed was made up of an approximately 30% pairs skaters and 70% ice dancers. The distribution between the levels of skaters was fairly even, although most of the participants were novice, junior, and senior level competitors.

A total of 51 pairs completed the survey. Participants ranged in age from 10 to 26 years of age ($M = 17.40$, $SD = 4.0$). The mean age for the male participants was 18.47 years of age ($SD = 4.26$) while the mean age for the females was 16.43 years of age ($SD = 3.47$). Participants represented all competitive levels (Juvenile $N = 6$, Intermediate/ Pre-novice $N = 14$, Novice $N = 20$, Junior $N = 32$, and Senior $N = 30$). The mean level of education was 10.77 years ($SD = 2.5$). Forty-eight participants had graduated from high school. Twenty had completed at least one year of university and three had graduated with a degree. The mean number of skating partners was 2.69 ($SD = 1.83$) during their skating career. The mean number of partners was 3.12 ($SD = 2.09$) for males while the mean for females was 2.27 ($SD = 1.43$). The mean duration in months with their current partner was 33.72 months ($SD = 35.17$), almost three years. Frequency percentages of

participants based on discipline, citizenship, language, and relationship type are presented in Table 4.

Insert Table 4 about here

Pearson product moment correlations were calculated to determine the strength of the relationship between all variables for the demographic variables, the subscales of the RCS, and both versions of the DTS. These correlations are presented in Table 5. Table 6 represents the correlations for the subscales of the RCS and the DTS and adapted DTS.

Insert Table 5 and 6 about here

Hypotheses

Individual mean scores for each factor as well as mean discrepancy scores for each factor were analyzed to test the following hypotheses.

Hypothesis 1. It was hypothesized that scores for immediacy/affection, intimacy and dominance from the RCS would be predictive of relational and success satisfaction. In order to test this hypothesis multiple regression equations were performed for each criterion variable (i.e., relational and success satisfaction) using both the individual subscale scores and the discrepancy factor scores from the RCS.

The first model tested the ability of the RCS scores for immediacy/affection, intimacy and dominance to predict relational satisfaction using the individual and

discrepancy scores. This model predicted relational satisfaction based on individual RCS scores. The percentage of variance accounted for by this model was 42%. The results are presented in Table 7. Significant results were not found when discrepancy scores were examined $F(3,35) = .18, p < .90, R^2 = .08$.

Insert Table 7 about here

The second model tested the ability of the RCS scores for immediacy/affection, intimacy, and dominance to predict success satisfaction using the individual and discrepancy scores. This model predicted success satisfaction based on individual scores. However, the percentage of variance accounted for by this model was only 12%. These results are also presented in Table 7. No significant results were found when discrepancy scores were used $F(3, 35) = .30, p < .82, R^2 = .06$.

In summary, the models which included immediacy / affection, intimacy and dominance were predictive of relational and success satisfaction. These models accounted for a small percentage of the variance and intimacy was the only variable which was a significance as a predictor of both relational and success satisfaction. The discrepancy scores were not significant predictors of relational and success satisfaction.

Hypothesis 2. It was hypothesized that scores for immediacy/affection, intimacy, and dominance from the RCS would be predictive of relationship longevity. In order to test this hypothesis multiple regression equations were performed for longevity using both the individual scores and the discrepancy scores from the RCS. This model did not

result in any significant findings for the individual scores, overall $F(3, 82) = .44, p < .73$, $R^2 = .02$. No significant results were found when discrepancy scores were used $F(3, 35) = .13, p < .94, R^2 = .08$.

Further analysis was conducted based on the univariate correlations to see what variables, if any, predicted longevity. The model encompassing performance outcome, relationship type, discipline, level of experience, gender, relationship satisfaction and success satisfaction proved to be significant at $F(7, 78) = 9.55, p < .001, R^2 = .41$. The only significant predictor of longevity among these variables was performance outcome with a standardized coefficient of .68, $t = 6.831, p < .001$. These variables were selected, as they had not been used in any previous model.

In summary, immediacy / affection, intimacy, and dominance did not predict longevity. Performance outcome was the only significant predictor of longevity. The discrepancy scores were not significant predictors of longevity.

Hypothesis 3. It was hypothesized that scores for immediacy/affection, intimacy, composure, and task orientation would be predictive of performance outcome. In order to test this hypothesis, multiple regression equations were performed for performance outcome for the individual scores. This model did not result in a significant finding, $F(4, 81) = 2.28, p < .06, R^2 = .06$. The only factor within this model to be significant was task orientation which had a standardized coefficient of .23, $t = 2.01, p < .04$. No significant results were found when discrepancy scores were examined $F(3, 35) = .26, p < .90, R^2 = .09$.

In summary, the model of immediacy / affection, intimacy, composure and task orientation was not a significant predictor of performance outcome. Task orientation, was the only variable which was a significant predictor of performance outcome. The discrepancy scores were not significant predictors of performance outcome.

Hypothesis 4. Levels of interpersonal trust as measured by the DTS and physical trust as measured by the adapted version of the DTS were thought to predict performance outcome, relational and success satisfaction and relationship longevity. Each participant produced two trust scores, one for the measure of physical trust and one for the measure of interpersonal trust. Based on the univariate correlations it is clear that interpersonal and physical trust are highly correlated (alpha coefficient = .89) therefore this hypothesis was tested by examining the univariate correlations (see table 6).

Based on the correlations presented in table 6 physical trust is significantly correlated with relational satisfaction, success satisfaction, and performance outcome but not longevity. Interpersonal trust was found to be significantly correlated with only relational and success satisfaction.

Hypothesis 5. It was hypothesized that the association between trust (both physical and interpersonal) and satisfaction (relational and success) would be stronger for women than for men. The correlations by gender are presented in Table 8.

Insert Table 8 about here

Correlations were converted into Fisher z-scores in order to make comparisons between the two groups. This statistical procedure revealed no statistically significant results. There were no statistical differences between the correlations for trust and satisfaction for men and women.

Hypothesis 6. It was hypothesized that there would be no differences between groups of skating partnerships based on the type of relationship (e.g., married, sibling, dating, friends, and other) on the DTS and the adapted DTS and the subscales of the RCS. Interactions of type of relationship with other independent variables (e.g., gender, experience and skating discipline) were examined using a series of MANOVA's. Means and standard deviations of communication and trust scores for the various relationship types are presented in Table 9. Means and standard deviations for trust by gender discipline and competitive level are found in Table 10.

Insert Tables 9 and 10 about here

The 2 (gender) X 5 (relationship type) MANOVA for the subscale of the RCS, using Wilks' Lambda, showed no significant effects for relationship type $F(24, 296) = 1.49, p < .07$, for gender $F(6, 71) = .36, p < .90$, and for the interaction between gender and relationship type $F(24, 296) = .98, p < .48$.

The 2 (discipline) X 5 (relationship type) MANOVA for the subscale of the RCS, using Wilks' Lambda, showed a significant main effect for relationship type $F(24, 252) = 1.94, p < .01$. No significant main effect for discipline $F(6, 72) = 1.89, p < .09$ or the

interaction of discipline by relationship type $F(18, 222) = .86, p=.63$ was found. The between-subjects tests results showed that the scores for intimacy $F(4, 77) = 5.91, p<.001$ and task orientation $F(4,77) = 4.03, p<.005$, and formality $F(4,77) = 3.44, p<.01$ were the only communication subscales that were significantly different for the variable relationship type. A Scheffe post hoc test showed significant differences between friends and other and dating and other (see Table 9).

The 3 (competitive level) X 5 (relationship type) MANOVA for the subscale of the RCS, using Wilks' Lambda, showed a significant main effect for relationship type $F(24, 241.92) = 1.81, p<.01$. No significant main effect for level $F(12, 138) = .79, p =.66$ and the interaction between competitive level and relationship type $F(30, 278) = 1.152, p =.27$, were found. Since the number of participants in the two youngest age groups were so small, these groups were combined. This group made up juvenile, pre/novice, and novice skaters. The between-subjects tests results showed that the scores for intimacy $F(4, 74) = 4.06, p =.005$ was the only significant subscale that was significantly different for the variable relationship type. A Scheffe post hoc test showed significant differences between dating and other (see Table 9).

The 2 (gender) X 5 (relationship type) MANOVA for trust, using Wilks' Lambda, showed a significant effects for relationship type $F(8, 150) = 3.80, p<.001$. No significant results were found for gender $F(2, 75) = .20, p<.82$, or for the interaction between gender and relationship type $F(8, 150) = .45, p<.89$. . The between-subjects tests results showed that the scores for physical trust $F(4, 76) = 3.46, p<.01$ and interpersonal trust $F(4, 76) =$

4.64, $p < .002$ were significantly different for the variable relationship type. A Scheffe post hoc test showed significant differences between dating and other (see Table 9).

The 2 (discipline) X 5 (relationship type) MANOVA for trust, using Wilks' Lambda, showed a significant effects for relationship type $F(8, 152) = 4.64, p < .001$. No significant results were found for discipline $F(2, 76) = 3.91, p < .02$, or for the interaction between discipline and relationship type $F(6, 152) = 1.36, p < .24$. The between-subjects tests results showed that the scores for physical trust $F(4, 77) = 6.17, p < .001$ and interpersonal trust $F(4, 77) = 6.60, p < .001$ were significantly different for the variable relationship type. A significant result was also found for physical trust and the variable discipline $F(1, 77) = 7.90, p < .006$. A Scheffe post hoc test showed significant differences between dating and other and friends and other for physical trust and dating and other for interpersonal trust (see Table 9).

The 3 (competitive level) X 5 (relationship type) MANOVA for the subscale of the RCS, using Wilks' Lambda, showed a significant main effect for relationship type $F(8, 146) = 5.05, p < .001$ and the interaction between competitive level and relationship type $F(10, 146) = 3.71, p = .001$. No significant main effect for level $F(4, 146) = 2.49, p = .05$ was found. Since the number of participants in the two youngest age groups were so small, these groups were combined. This group made up juvenile, pre/novice, and novice skaters. The between-subjects tests results showed that the scores for physical trust $F(4, 74) = 3.65, p < .009$ and interpersonal trust $F(4, 74) = 4.03, p < .005$ were significantly different for the variable relationship type. A Scheffe post hoc test showed

significant differences between dating and other and friends and other for physical trust and dating and other for interpersonal trust (see Table 11).

In summary, significant differences existed between groups of skaters based on their relationship types for the subscale intimacy of the RCS as well as the DTS and adapted DTS. In particular these differences existed between those that were dating and those that described their relationship as something other than siblings, friends, dating or married. Differences also existed between friends and other for the intimacy subscale.

Social Validity

The practical assessment of this study involved evaluating the practical importance of the survey as it pertained to the population being studied. This evaluation is commonly referred to as “social validation” (Wolf, 1978). Generally this procedure is used to assess behavior change. In this instance this procedure was used to assess the face validity of the study as perceived by the participant.

Seventy seven percent of the participants wrote comments related to their participation in this study. Seventy four percent of the comments recorded by the participants were positive. The remaining twenty six percent of the comments provided suggestions on how to improve the survey or aspects of the survey the participants did not like. Table 11 presents the key themes that arose based on an analysis of the comments made by the participants.

These results are presented in terms of the positive aspects of the survey and the areas that were problematic.

Insert Table 11 about here

Discussion

The present study examined the relationships between communication, trust, success, satisfaction, and longevity in 51 ice dance and pairs skating teams ranging in age from 10 to 26 years of age. Each participant was given a survey package which was used to gather background information and measure the level of perceived relational satisfaction, success satisfaction, level performance outcome, relational communication, interpersonal and physical trust.

Within the present study there was a large age range with 6 participants under the age of 13 and as old as 26. Upon consideration of the developmental level and ability of the participants to complete the survey package the data collected from the 6 young participants was omitted from further analysis. By dropping these participants the sample size was reduced to only 86 participants.

In general, the male participants were older than the female participants, which is consistent with most pairs and ice dancing teams. Skaters seemed to have more than one partner over the course of their careers. The results show that males tended to have more partners than females. This makes sense since the male participants are generally older than the female participants. This may also explain why the standard deviation for the duration of partnerships is almost 3 years.

The correlational data suggested that it is important for skaters to communicate a degree of intimacy, immediacy and affection, and focus or task orientation, to maintain a satisfying relationship. It also makes practical sense that if themes of dominance and formality were prevalent, the relationship would be less satisfying, particularly for the

individual being dominated. Earlier research by the author (Wanlin, 1998) suggested that a major issue for ice dancers was that the male partner tends to dominate the partnership. Partnerships that were high in dominance had lower levels of satisfaction with performance and success level. In terms of performance outcome, an objective measure of success, statistically significant correlations were found between performance outcome and a number of other characteristics (i.e., intimacy, task orientation, immediacy /affection and physical trust). However, none of these correlations were particularly strong. This suggests that the conclusions drawn from these results need to be made with caution.

Overall, the communication subscales did not predict longevity or performance outcome. The RCS subscale intimacy, however, was predictive of relational and success satisfaction. Performance outcome was the only significant predictor of partnership longevity. Physical and interpersonal trust were highly correlated. Physical was significantly correlated with relational satisfaction, success satisfaction and performance outcome but not partnership longevity, while interpersonal trust was significantly correlated with relational and success satisfaction. There were no statistically significant differences between the correlations of trust and satisfaction for men and women.

Differences were found to exist between groups of skaters based on their relationship types for the subscale intimacy of the RCS as well as the DTS and adapted DTS. Specifically, differences existed between those that were dating and those that described their relationship as “other.” Differences also existed between friends and other for the intimacy subscale.

It was hypothesized that scores for immediacy / affection, intimacy and dominance from the RCS would be predictive of relational and success satisfaction. The results provided some support for this hypothesis, which suggests that skater's perceptions of themes associated with immediacy / affection, intimacy, and dominance in communication may be predictive of relational and to a lesser extent success satisfaction. Intimacy seemed to be the most important subscale. It makes intuitive sense that for skaters to rate their relationship positively and to be satisfied with their success, they may need to perceive a degree of intimacy in their communications. The fact that the majority of the participants described their relationship as a friendship or romantic relationship suggest that they acknowledge the intimate nature of their partnership.

Kalbfleish (1993) stated that a best friendship, more than any other friendship, is "one perceived to share the closest emotional intimacy and the most unique relationship (p. 192)". A study of relational satisfaction among best friends revealed many of these factors to be important to the participant's rating of relational satisfaction (Cole & Bradac, 1996). For example, being family-oriented, emotionally balanced and sharing similar interests were thought to cause a variety of outcomes directly related to satisfaction (i.e., admits mistakes, not abusive, approachable). The causal structure suggested that certain sources of satisfaction play a relatively prominent role such as being approachable and having good communication skills. The results of the present study lent some support to this research. Ice dancers and pairs skaters who reported their relationships to be higher in perceived relational satisfaction and success satisfaction also had higher levels of intimacy.

This hypothesis also supports previous research by Meeks, Hendrick, and Hendrick (1998) who found that self and partner communication variables and love orientations were significant predictors of relationship satisfaction. Clearly, variables associated with intimacy are important to the perception of relational satisfaction.

In contrast research by Burleson, and Samter (1996) and also by Miles, Patrick and King (1996) has suggested that communication is not always a predictor of satisfaction. The specific type of satisfaction and circumstances surrounding the communication may effect the results. This may explain the inability of the subscales of the RCS to predict success satisfaction. Perhaps a different type of communication measure may be an effective in assessing this hypothesis.

It was hypothesized that scores for immediacy/affection, intimacy, and dominance from the RCS would be predictive of relationship longevity. No data supported this hypothesis. Although communication and trust seemed to play a minor role in predicting satisfaction and performance outcome for ice dancers and pairs skaters, these variables did not significantly predict relationship longevity. Unlike other intimate relationships, where communication is often important for relational longevity, other factors seemed to be more important in the ice dancing and pairs skating partnership. This may be associated more with the goal directed nature of the union. For example, it may be possible for partners to remain friends even after their partnership has been dissolved.

Interestingly, performance outcome (success) was found to be a strong predictor of partnership longevity. Evidently success is important for teams to stay together. Although communication and trust were not significant predictors of performance

outcome it remains plausible that there is a combination effect. For example, if the partners communicate well with one another and have a high degree of trust they may be more likely to perform better together. Similarly, trust was found to be correlated with performance outcome. Being able to feel safe and protected must also be important to teams being successful.

In terms of longevity, the correlation results suggest that age and competitive level are also important determinants of whether a team will stay together. Senior teams tend to be older skaters. These teams also tend to have been together longer. It makes sense that if two skaters have been skating together for a while that they would feel invested in the partnership, which may explain why they remain together. Within the present study three of the senior teams had been together for over ten years. This may also have played a role in the results. If we were to examine senior level skating teams in general it seems likely that, for the most part, these teams have been skating together for at least a couple of years. For example for the medallists at the most recent Winter Olympics the average duration of the partnerships in pairs was 3.6 years and in ice dancing the duration of the partnerships was 5.1 years.

The model of immediacy / affection, intimacy, composure and task orientation was not a significant predictor of performance outcome. Task orientation, however did present some potential as a predictor of performance outcome. Yukelson (1997) emphasized a focus on communication and trust within team building. The results provide some support for the importance of communication and trust not only for team building but also for successful performance outcome. More specifically, communication

that is focused on “the task at hand” seemed to be the best predictor. This also supports the team building and cohesion research that emphasize the need for a common goal.

Both physical and interpersonal trust, were highly correlated. Based on this we can conclude that the two constructs were measuring similar phenomena. The purpose for having a separate measure of physical and interpersonal trust was to account for the issue of potential physical danger. In this sport there is potential for harm if either party is not careful and trustworthy, purely from a physical safety perspective. The following may help explain this finding: 1) The original DTS scale was not designed to measure physical trust and was not sensitive enough to discriminate between these two forms of trust; and 2) interpersonal trust and physical trust may be equally important to ice dancing and pairs skating relationships, particularly since many of these relationships are of an intimate nature. In fact, the communication of intimate themes was found to be a predictor of interpersonal and physical trust in ice dancer and pairs skaters.

Trust was found to correlated with both success and satisfaction. Physical trust is significantly correlated with relational satisfaction, success satisfaction, and performance outcome but not longevity. Interpersonal trust was found to be significantly correlated with only relational and success satisfaction.

Interestingly, trust unlike communication was correlated with success (i.e., performance outcome). However, trust and intimacy were highly correlated therefore there may be an indirect relationship. This is consistent with the research on Emotion Focus Therapy, which had a focus on the communication of trust and intimate themes (Johnson & Greenberg, 1995; Johnson & Talisman, 1996; Johnson & William-Keller,

1998). The EFT research suggested that the ability to develop more flexible interactions allows for greater emotional engagement (Johnson & Greenberg, 1995; Johnson & Talisman, 1996; Johnson & William-Keller, 1998). Past research has also suggested that the mutual trust may be developed through communication skills training (Reuna, Wiech, & Zimmer, 1984).

It was hypothesized that the relationship between trust and satisfaction would be greater for women than for men. In terms of physical trust, this was based on the assumption that there may be a higher degree of risk or danger for the female partner in the team than for the male partner. In pairs skating, for example, the woman is often held in a precarious position eight feet above the ice. In terms of interpersonal trust, Johnson and Talisman, (1996) suggested that trust may be more important to females perceived relational satisfaction than males. The present results did not support this hypothesis. It may be that the risk involved in ice dancing and pairs skating is equally high for both participants and trust that is equally important for the relational and success satisfaction of both genders.

Recently, there have been some very serious accidents in the discipline of pairs skating. A particularly traumatic accident occurred when a male skater fell while attempting a lift, resulting in the male fracturing his skull. This accident serves to illustrate and support the present results since pairs skating is equally dangerous for both parties, trust is likely equally important to the satisfaction of both partners.

It was hypothesized that the discrepancy between the partners' scores may have some influence on the success, satisfaction and longevity of the partnerships. The results,

however, did not support this assumption. This is contrary to research by Hansen and Schuldt (1984) and Kelley and Burgoon (1991) who found discrepancy scores to play a role in predicting spousal satisfaction. Apparently members of a skating partnership do not have to perceive their communication and trust to be the same. What is more important is that they rate the perceptions of the intimacy and trust highly.

The results suggest that while communication and trust may be important factors associated with the “relational” components of the partnership, they have less impact on the “outcome” factors related to the partnership. Although communication and trust seem to be important for the teams’ satisfaction scores, these factors do not seem to be strongly related, at least directly, to performance outcome or longevity.

Two questions, remain: 1) what makes teams stay together and be successful? and 2) what roles do communication and trust play? It appears that trust has a weak association with performance outcome (success), however the results do not support a direct association between communication, performance outcome (success), and longevity. Perhaps an indirect link may exist between these variables.

From a theoretical perspective, the results may be used to better understand cohesion in the disciplines of ice dancing and pairs skating. Cohesion and team building research has focused, in the past, on groups of more than two. It has been suggested that cohesion is “a dynamic process that is selected in the tendency for a group to stick together and remain united in pursuit of it’s goals and objectives” (Carron, 1982, p. 124). Cohesion in sport is a multidimensional phenomenon and is made up of task and social orientations as well as individual and group perceptions about the degree of unity that

exists within the group and members' feelings about the group itself. Social cohesion is particularly important to this discussion as it refers to the activities associated with the development and maintenance of harmonious and social relationships (Carron, Widmeyer, & Brawley, 1985).

Data from this research suggests that both a social (intimate) and task orientation are important communication themes related to success and satisfaction. Carron (1980) proposed a model whereby cohesion predicted success, which predicted satisfaction. The results from the present study seem to support and expand the model suggesting that communication, specifically task-oriented communication messages, may contribute to success, and thus cohesion. Satisfaction, however, was predicted by messages reflecting intimacy or a more social orientation. Satisfaction may then lead to success and cohesion. Trust may also play a role in facilitating cohesion in as much as it is a predictor of satisfaction. Not only do communication and trust play a role both in achieving success and satisfaction but also in the development of cohesion, which may help to maintain both success and satisfaction.

The relationships that evolve in pair or ice dancing couples are difficult to characterize. These relationships are apparently very close. Most teams (63.7%) described their relationships in terms of a friendship. Based on the data, skating partners for the most part are very close. Not only did the majority of teams surveyed describe their partnership as a friendship, but a substantial percentage of ice dancers and pairs skaters reported that they were involved in a romantic relationship with their partner (i.e., 19.6% were dating and 2% were married). Clearly these teams formed intimate bonds.

Based on the demographic data, ice dancers and pairs skaters form diverse types of relationships. It was hypothesized that the type of relationship would not have an effect on communication and trust and that these attributes are equally important in all types of relationships. The results indicated that the type of relationships formed effect the communication and trust between ice dancers and pairs skaters. Those who described their relationships as either friendships or romantic relationships had significantly higher scores for intimacy and trust than those who considered their relationships to be something other than friendships or romantic relationships.

Competitive level also had an influence on the communication and trust scores. Not surprisingly, senior level skaters had significantly different scores than pre-novice level skaters. Senior skaters have likely more developed communication skills and thus exhibited higher degrees of intimacy and trust. In addition, senior skaters tended to have been with their partners for longer periods of time, which may also played a role in their communication and trust scores.

In addition to confirming a number of hypotheses, the present study served to validate the usefulness of the RCS within the sport of ice dancing and pairs skating. Through factor analysis the RCS was reduced from eight to six factors. Similar to past research the first factor collapsed similarity/depth, receptivity/trust and equality into one scale (Burgoon & Hale, 1987). The resulting subscale was a more efficient measure as the reliability alpha was stronger. The other factors generally evolved as they had in past research. Of significance to the present study, the factor representing task orientation that had been weak in past research was a much better measure, with alpha reliability scores

of .74 versus .41 of past studies. Task orientation may be an important component of cohesion.

The generalizability, of the results of this factor analysis must be tempered, as this was a relatively small sample. Ideally, a sample of 10 individuals per survey item would be preferred, which would have meant an $N = 320$ in this study. These results do suggest that the RCS may be a useful tool in assessing communication themes within ice dancing and pairs skating partnerships and perhaps other similar sports.

Social Validity

The comments of the participants provided some important insights into the value and potential uses of the survey. It should be noted that the participants who returned their survey represented a fairly accurate sample of the actual population surveyed. Of course, as with any type of survey, those who are more committed to the project are more likely to complete their survey. Therefore these participants were likely to be more positive in their comments of the experience. This should be taken into consideration when interpreting the results.

In general, participants enjoyed and found the survey to be helpful. Many commented that simply completing the survey helped them to better understand their relationship with their partner and how they communicated. This feedback provided some support for the hypothesis that the survey itself may have functioned as an intervention tool.

Participants also commented on the individual items. In general, they found the instrument questions to be appropriate, valid and important, thorough and easy to

understand. However, some participants did comment that the questions were confusing. This is important to know because if the survey was too complicated and confusing the results would be somewhat tainted. The fact that questions were perceived to be valid and important speaks to the face validity of the study.

The degree to which the questionnaire probed personal issues seemed to be important to the skaters. In general, the participants were satisfied with the depth of the questions. In terms of areas to improve on, participants noted that the questions tended to be rather general. More specific questions were needed. This was particularly true for those participants who reported being in long-term partnerships and sibling partnerships.

Limitations

The present research was a descriptive study, which attempted to examine the relationships that existed between the variables. This is considered the least scientific of all designs and is quasi-experimental (Campbell & Stanley, 1963). No causal relationships between variables should be assumed based on the results of this study.

Another limitation involved was the self-report nature of the study. Although it was assumed that participants responded honestly to the questions posed to them, this could not be guaranteed. Since the participants met the experimenter in person there may have been a social desirability effect. Skaters may have tried to answer the surveys to cooperate with the experimenter or present a good impression of themselves.

Data was collected during the off-season, which may have limited the availability of participants. Because data was collected in late spring many skaters were in the process of finishing their school years. In some cases participants were writing exams

and some were preparing to graduate from high school. Consequently, these demands may have affected the care taken to complete the survey. Due to the nature of the sport and the time of year, the use of consistent administration procedures were not always possible. At times, the survey was administered in groups and at other times individually. In a number of cases participants completed the survey at home. These differences in administration protocol may have tainted the results.

The main threat to the external validity in the present study sampling. This was not a random sample but a sample of convenience. The target population in this study was ice dancers and pairs skaters in general. The experimentally accessible population was limited to those participants who were training in the eastern regions of Canada and the United States. However, the sample was not randomly selected but rather made up of individuals who were self-selected or were volunteers. In order to control for potential sampling threats a large sample was selected. It was presumed that the chosen sample was representative of the population. Almost the entire population of teams training in Eastern Canada and the United States was surveyed, however, not all participants produced useful data (i.e., there was a 34% return rate). It is important to note that the largest and most competitive training centers in the world are located in the sampled region. The sample did contain participants from a variety of competitive levels, ages, relationship types, and abilities.

Sampling may have played a role in two additional ways. First, the type of participants sampled may have skewed the results. For example, comparisons were made between partners who were siblings and partners who were married. Differences found

supporting hypothesis 6 may not be so much related to the relationship type as to other issues. Secondly, the sample size was relatively small. This likely affected all of the results. A larger sample size would increase the power of the present study.

A final limitation of this study was the number of statistical procedures completed to test the hypotheses. With every multiple regression and MANOVA procedure used the chances of committing a Type I error increased.

Suggestions for Future Research

Due to time constraints and the field nature of the present study, the sample size studied was relatively small. Only 17 pairs teams produced useful data in this study. As a result the majority of the participants are ice dancers. Further research is needed to examine the generalizability of these results to the general ice dance and pairs acting population. Of the participants in the present study, only seven percent came from outside of North America. Cultural differences related to communication and trust may also play a role in determining the degree to which these factors are important predictors of success, satisfaction and longevity. Future research could examine the role of communication and trust in the success, satisfaction and longevity of pairs skaters and ice dancers in other countries. In order to do this the scales would need to be translated into a number of foreign languages. It would be particularly interesting to examine this relationship with Russian skaters as they tend to dominate the podium in the sport.

Future researchers also might consider examining coaches' thoughts about the roles of communication and trust in their skaters' relationships. Based on informal conversations with skaters and coaches, as well as the social validity comments, it is

possible to that the RCS and DTS may have had an intervention effect. A follow-up study surveying the coaches of the participants might uncover the effects of participation in the present study. In addition, the communication and trust between the athletes and their coaches may also be important to their success, satisfaction and longevity.

The RCS and DTS have never been used in a sport context to this point. Further research is needed to assess the validity and reliability of using these scales in other sport contexts (e.g., doubles tennis, synchronized swimming pairs). The RCS may be a valuable tool to assess communication in other doubles and teams sports. This may also be a valuable tool to assess task and social communication styles related to cohesion. In addition, future research may consider comparing trust and communication scores of athletes with those of non-athletes.

Although the RCS provided valuable insight into the communication themes of pairs skaters and ice dancers it was not originally designed to measure the actual communication skills of the participants. Future researchers may consider using other types of communication inventories with ice dancers and pairs skaters.

The present study sheds some light on the relationships between communication, trust, success, satisfaction and longevity. This research also suggests that the type of the relationship played an influential role in the communication and trust of ice dancers and pairs skaters. This research does not tell us anything about the specific relationship issues that these teams face. For example, what are the challenges and consequences of being romantically involved with ones partner? Although it appears that intimacy is somehow important to these relationships, in terms of communication and satisfaction, future

research needs to assess in what ways is it important. Further qualitative research may provide some answers to these questions. In-depth interviews with ice dancers and pairs skaters would serve to narrow down the specifics of the relationships that were over looked in this general survey. In addition, the social validity data also suggested that a more in-depth qualitative approach is needed to identify more specific issues related to the partnerships.

As mentioned above, the RCS and DTS may have had an intervention effect, that is simply completing the survey may have had an impact on the relationship. Based on the results of this study, further research is needed to examine the effects of interventions geared to increase communication and trust and how they impact on the success, satisfaction and longevity in ice dancing and pairs skating partnerships.

Significance of Study

One of the major challenges that face national governing bodies, coaches, parents, and the participant of figure skating is the question of keeping ice dancing and pairs skating teams together. The information acquired through this research provided insight into the relationships between trust, communication, success, satisfaction and longevity in elite pairs and ice dancing partnerships. This knowledge may facilitate the development of programs to increase success, satisfaction and longevity in ice dancing and pairs skating. Interventions may also be developed to improve communication and trust to help develop cohesion.

The RCS and DTS appear to be useful tools to get skaters to begin a dialogue related to the way they relate to one another. The instruments themselves may serve as

valuable intervention tools when working with a variety of sports (e.g., mixed doubles tennis, badminton, ballroom dancing).

Finally, this research has provided a unique contribution to the sport psychology literature by examining specific relational characteristics that impact on sport performance and satisfaction. This research has begun a new line of study in the area of relationship issues in sport.

Table 1

Means and Standard Deviations for Items of the Relational Communication Scale

(N = 102)

Item	<u>M</u>	<u>SD</u>
1. My partner communicated coldness rather than warmth	3.06	1.68
2. My partner is interested in talking to me	5.57	1.29
3. My partner acts bored when we talk	2.93	1.74
4. My partner created a sense of distance between us.	5.44	1.53
5. My partner showed enthusiasm while talking to me	5.15	1.45
6. My partner made me feel that he/she is similar to me	4.83	1.62
7. My partner acted like we are good friends	5.42	1.49
8. My partner seemed to care if I like him/her	4.24	2.01
9. My partner seemed to desire further communication with me	2.80	1.60
10. My partner was honest in communicating with me	5.62	1.26
11. My partner was open to my ideas	5.36	1.28
12. My partner was sincere	5.59	1.33
13. My partner was willing to listen to me	5.33	1.34
14. My partner wanted me to trust him/her	5.80	1.19
15. My partner was very relaxed when talking with me	2.38	1.36
16. My partner seemed very tense when talking to me	5.43	1.54
17. My partner seemed nervous in my presence	6.01	1.23

18. My partner was calm and poised with me	5.32	1.31
19. My partner made the interaction very formal	2.98	1.63
20. My partner wanted the discussion to be casual	5.15	1.36
21. My partner wanted the discussion to be informal	5.22	1.39
22. My partner attempted to persuade me	3.88	1.46
23. My partner had the upper hand in our conversations	3.59	1.43
24. My partner tried to control our conversations	3.10	1.59
25. My partner didn't attempt to influence me	4.25	1.63
26. My partner wanted to cooperate with me	5.50	1.28
27. My partner considered us equals	5.38	1.47
28. My partner does not treat me as an equal	2.46	1.47
29. My partner was more interested in social conversations than the task at hand	3.09	1.68
30. My partner was more interested in working on the task at hand than on social conversations.	5.09	1.53
31. My partner was very work-oriented	5.19	1.42
32. My partner wanted to stick to the main purpose of the interaction/conversation	4.93	1.28

Table 2

Rotated Matrix Factor Loadings for Items of the RCS and Eigenvalues, Percentage of Variance and Reliability Coefficients for the Factor Subscale of the RCS ($N = 102$)

Items	<u>Factors</u>						
	1	2	3	4	5	6	7
1						-.70	
2	.65						
3						-.57	
4	.63						
5	.55					-.58	
6	.59						
7	.80						
8*							-.70
9	-.80						
10	.65						
11*							
12	.57						
13	.58						
14*							
15		-.65					
16		.84					

17			.72				
18			.79				
19*							.59
20					.69		
21					.76		
22			.73				
23			.63				
24			.79				
25			-.67				
26	.53						
27	.63						
28	-.65						
29				-.75			
30				.81			
31				.69			
32				.69			
Eigenvalues	9.76	2.72	2.33	1.89	1.58	1.29	1.2
% Variance	18.90	11.90	9.70	7.90	6.10	5.90	4.80
Alpha Coef.	.91	.82	.74	.75	.71	.74	-

Principal Component Analysis with Varimax with Kaiser Normalization.

*These items were discarded from further analysis

Factor 1 = Intimacy

Factor 2 = Composure

Factor 3 = Dominance

Factor 4 = Task Orientation

Factor 5 = Formality

Factor 6 = Immediacy / Affection

Table 3

Means and Standard Deviations for the Subscales of the RCS ($N = 102$)

RCS Subscales	<u>M</u>	<u>SD</u>
Intimacy	5.35	1.07
Immediacy / Affection	5.00	.79
Dominance	3.58	1.15
Composure	5.03	1.12
Formality	5.15	1.33
Task Orientation	5.18	1.21

Table 4

Percentage Participants ($N = 102$) by Demographic Variables

Variable	Percentage of participants
Experience level	
Juvenile	5.8
Intermediate/ Pre-novice	13.7
Novice	13.7
Junior	31.3
Senior	29.4
Citizenship	
Canadian	39.2
American	53.9
Other	6.9
Skating Discipline	
Ice Dancers	73.5
Pairs Skaters	26.5

Relationship Type

Friends	63.7
Dating	19.6
Siblings	5.8
Married	1.9
Divorced	0
Other	8.8

First Language

English	79.4
French	14.7
Other	5.9

Table 5

Correlations Among (*N* = 86) Demographic Data and RCS, DTS and Adapted DTS.

	Gender	Age	Competitive Level	Discipline	Relationship Type
Gender	1.00				
Age	-.26*	1.00			
Competitive Level	.000	.70*	1.00		
Discipline	.02	-.23	-.29*	1.00	
Relationship Type	-.16	.20	.20	.005	1.00
Relational Satisfaction	-.003	.09	.22	.009	-.08
Success Satisfaction	.10	-.15	.001	-.03	.26*
Intimacy	.21	.24	.27*	-.08	-.21
Composure	-.08	-.04	-.002	-.08	-.18
Dominance	-.04	-.24	-.19	.15	-.11
Task Orientation	-.02	.38*	.44*	-.30*	-.12
Immediacy / Affection	.23	.12	.15	-.13	-.15
Formality	.02	.06	.07	-.04	-.14
Physical Trust	.13	.24	.37*	-.13	-.20
Interpersonal Trust	.11	.23	.35*	-.16	-.11
Performance Outcome	.00	.43*	.49*	.03	.03
Longevity	.00	.35*	.70*	-.08	.13

* Correlation is significant at the .01 level (2-tailed)

Table 6

Correlations Among (*N* = 86) RCS, DTS and Adapted DTS Scores.

	RS	SS	I	C	D	TO	IA	F	PT	IT	PO	L
RS	1.00											
SS	.41*	1.00										
I	.59*	.33*	1.00									
C	.13	.08	.23	1.00								
D	-.29*	-.18	-.33*	.09	1.00							
TO	-.23	.27*	.23	.12	-.19	1.00						
IA	.51*	.27*	.74*	-.01	.32*	.20	1.00					
F	.37*	.10	.39*	.23*	-.03	-.06	.25	1.00				
PT	.66*	.40*	.80*	.18	-.43*	.43*	.65*	.40*	1.00			
IT	.59*	.32*	.78*	.19	-.41*	.41*	.60*	.32*	.89*	1.00		
PO	.14	.09	.20	.08	-.11	-.11	.29*	.06	.24*	.15	1.00	
L	.08	-.06	.07	.06	-.10	.13	.11	.09	.11	.06	.65*	1.00

* Correlation is significant at the .01 level (2-tailed)

RS = Relational Satisfaction IA = Immediacy / Affection TO = Task Orientation

SS = Success Satisfaction F = Formality L = Longevity

I = Intimacy PT = Physical Trust

C = Composure IT = Interpersonal Trust

D = Dominance PO = Performance Outcome (Success)

Table 7

Summary of Multiple Regression Analysis for RCS Subscales Predicting Relational and Success Satisfaction ($N = 86$)

Variables	<u>B</u>	<u>t</u>	<u>p</u>
*Relational Satisfaction			
Intimacy	.58	4.57	.001
Dominance	-.11	-1.31	.19
Immediacy / Affection	.05	.37	.71
**Success Satisfaction			
Intimacy	.38	2.46	.02
Dominance	-.09	-.83	.40
Immediacy / Affection	-.03	-.17	.86

* $F(3, 82) = 20.74, p < .001, R^2 = .41$

** $F(3, 82) = 11.22, p < .003, R^2 = .12$

Table 8

Correlations for Trust and Satisfaction by Gender (*N* = 86)

	Physical Trust	Interpersonal Trust	Relational Satisfaction	Success Satisfaction
Physical Trust				
Males	1.00			
Females	1.00			
Interpersonal Trust				
Males	.90*	1.00		
Females	.89*	1.00		
Relational Satisfaction				
Males	.75*	.72*	1.00	
Females	.61*	.54*	1.00	
Success Satisfaction				
Males	.39*	.28	.36*	1.00
Females	.43*	.36	.47*	1.00

* Correlation was significant at the 0.01 level (2-tailed).

Table 9

Means and Standard Deviations for the Subscales of the RCS and the DTS by Relationship Type (N = 86)

Scale	Siblings (N=4)		Friends (N=53)		Dating (N=20)		Married (N=2)		Other (N=7)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
RCS										
Intimacy	5.03	1.59	5.54 _a	.82	5.90 _{ab}	.69	6.05	.21	4.27 _b	1.34
Composure	5.00	.74	5.07	.64	4.80	1.12	5.25	.35	4.71	.91
Dominance	4.19	1.28	3.48	1.11	3.25	1.22	2.50	.00	3.36	.94
Task Orient.	5.00	1.74	5.25	1.02	5.26	.85	6.13	.18	4.18	.59
Immed./Aff.	4.58	1.55	5.28	1.32	5.62	.99	5.67	.94	3.81	1.51
Formality	5.38	1.38	5.22	1.12	5.68	1.16	4.00	.00	4.07	.84
DTS										
Interper.Trust	5.22	1.14	5.59	.90	6.14 _c	.80	6.06	.27	4.16 _c	2.04
DTS (Adapted)										
Physical	4.66	1.33	5.41	.97	5.91 _d	1.06	6.38	.38	4.30 _d	1.60
Trust										

Note: Means sharing subscripts are significantly different.

Immed. = Immediacy

Aff. = Affection

Interper. = Interpersonal

Table 10

Means and Standard Deviations for Trust by Gender, Discipline, and Competitive Level(N = 86)

	Interpersonal Trust		Physical Trust	
	M	SD	M	SD
Gender				
Females	5.71	1.10	5.58	1.13
Males	5.40	1.14	5.37	1.08
Discipline				
Pairs Skating	5.79	1.09	5.74	1.08
Ice Dancing	5.46	1.07	5.37	1.11
Competitive Level				
Juv. and Inter./Pre-novice	4.98	1.40	4.84	1.44
Novice	5.43	.72	5.64	.83
Junior	5.31	1.10	5.36	.98
Senior	5.79	1.20	5.87	1.14

Table 11

Social Validity: Key Themes Based on Participants Comments (*N* = 78)

<u>Positive aspects of the study</u>	<u>Aspects of the study which were problematic</u>
Interesting (12%)	Needs to be more specific (13%)
Good Survey (31%)	Not tailored to sibling teams
“Good idea”	Not tailored for long term partnerships
“Good selection of questions”	Repetitious (3%)
“Valid and important questions”	Confusing (3%)
“Covered important areas”	
“Easy to complete”	
Beneficial and helpful (29%)	
“Great way to evaluate partnership”	
“Caused me to think.”	
“Helped me to learn to understand my partner and the way we communicate.”	
“Helped me to see what we can do to improve.”	
Not too personal (2%)	
Thorough (4%)	

REVIEW OF LITERATURE

Intimate relationships

Intimacy refers to the perceived depth of a relationship between people (Fisher & Adams, 1994; McCrosky & Richmond, 1992). Those in an intimate relationship see themselves as highly connected to each other. Often an individual in such a relationship is reluctant to make a relatively minor decision that might affect the other person without first communicating to that person first. People in highly intimate relationships see their partner as an extension of themselves. In the American, culture highly intimate relationships provide the most common context for two things: 1) self-disclosure, and 2) sexual relations (McCrosky & Richmond, 1992). Intimacy has also been described as a reward of self-disclosure that leads to private and personal relationships (Veenendall & Feinstein, 1996). La Follette (1996) suggested that a relationship is intimate if both of the individuals in the relationship: a) share significant information about ourselves (either verbally or behaviorally), and do so b) privately, c) sensitively, and d) with trust. Close personal relationships, and thus intimacy, are not one-time achievements, but an ongoing processes of evolution. Trust and sensitivity serve to enhance the development of intimacy while their absence diminishes it.

Previous research has found that spouses who reported more self-disclosure in their marriage tended to report greater marital satisfaction (Burke, Weier, & Harrison, 1976; Clark, 1974; Farber, 1979; Hendrick, 1981). However, the majority of these studies, have focused on self-disclosure output, disclosure to spouse, and marital

satisfaction. Hansen and Schuldt (1984) examined both input and received self-disclosure. Husband's disclosure to their wives was positively related to, and predictive of husbands' marital satisfaction. Wives' disclosure to husbands' was a positive predictor of husbands' and wives' marital satisfaction. The amount of discrepancy between disclosure of husbands' and wives' was negatively related to, and a negative predictor of husbands' marital satisfaction.

In their study, Dandeneau and Johnson (1994), investigated the effects of two sets of marital interventions taken from emotionally focused therapy (EFT) and Cognitive Marital Therapy (CMT) on levels of marital intimacy, dyadic trust and dyadic adjustment. They found that both the EFT and CMT group posttest means were significantly higher than controls on the self-report measures of intimacy. Observational measure of intimacy revealed differential effects in favor of EFT. EFT incorporates more couple interaction rather than therapist-couple interaction as is the case with CMT. The couple's ability to interact and thus communicate with one another most likely plays an important role in the development of intimacy. Dandeneau and Johnson (1994) suggested that if couples discovered and expressed the affect that underlies their interactional stances, particularly vulnerabilities, and encounter each other in a new way in the session, intimacy levels would tend to increase and continue after therapy ended. With this in mind it would seem useful to examine the impact-increased intimacy may have on long term relationship satisfaction.

Marital satisfaction and communication

Markham (1984) examined the on going development of satisfying exchange patterns before marriage and whether they were predictive of future marital satisfaction. The authors designed a longitudinal study to test the hypothesis that negative communication patterns preceded the development of marital distress. The study involved the couples completing five tasks that required problem-solving discussions and rated their interaction.

Couples were assessed after a year, 2.5 years, and 5.5 years. The results of this study suggested that premarital couples with high levels of communication skills were more satisfied with their marriage 2.5 and 5 years later as compared with couples with low levels of communication. This study also suggested that good premarital communication might be associated with future marital happiness (Markham, 1984). Good premarital communication occurred when the degree of intention was equal to the impact of the message sent (Markham, 1984). These results need to be tempered with caution because the validity of this interpretation depends on the interpretation of intent ratings, which are self-report measures. However, the intent ratings may be measuring perceptual accuracy or empathy. Past research has found perceptual accuracy to be positively related to marital happiness (e.g., Knudson, Sommers, & Golding, 1980; Murstein & Beck, 1972).

Gottman and Krokoff (1989) conducted two longitudinal studies of marital interaction using observational coding of couples attempting to resolve conflicts. The authors found that a different pattern of results predicted concurrent marital satisfaction.

Contrary to expectations, disagreement and anger exchanges were found to not to be harmful in the long run.

More recently, Gottman, Coan, Carrer and Swanson (1998) examined a number of marital interaction processes that are predictive of divorce or marital stability. These included: anger as a dangerous emotion, active listening, negative affect reciprocity, negative start-up by the wife, de-escalation, positive affect models and physiological soothing of the male. The authors were surprised to find that active listening was not predictive of marital stability. The only variable found to predict both marital stability and marital happiness among stable couples was the amount of positive affect during the conflict. The researchers concluded that a number of factors were important for couples to experience happy and stable marriages. These included a softened start-up by the wife, the husband's acceptance of his wife's influence, de-escalation of low-intensity negative affect by the husband, humor by the wife and the husbands use of positive affect and de-escalation to effectively soothe himself. There may be very specific components of good communication, which may lead to relationship satisfaction.

Marital therapy: Relationships between communication, trust and satisfaction

Research in the area of marital therapy has also suggested that a relationship exists between communication, trust, satisfaction, success, and longevity. Reuna, Wiech and Zimmer (1984) examined the effects of a behavioral communication skill-training program adopted for marital therapy to improve communication in small groups. It was hypothesized that improved communication would result in a subjective increase in individual satisfaction with group living; as well as for the resolution of problems and

conflicts that may arise. A variation of the Communication Skills Inventory was used to assess communication competence (Reuna, Wiech and Zimmer, 1984). In addition, the marital Pre-counseling Inventory was used to assess satisfaction in day-to day living. Significant positives changes for the treatment groups were found on the following: 1) experience of consideration and interest in others, 2) mutual understanding, 3) experience of openness and less constraint in the expression of agreements and disagreements, 4) general satisfaction with group living, 5) trust and closeness, and 6) increase in joint activities and satisfaction during this time. The authors suggested that the development of mutual trust came from exercises that focused on the expression of positive feelings, anxiety, and on training in how to react to the expression of negative emotions by others. This study suggested that there is a positive relationship between communication skill development and the development of trust and satisfaction.

Behavioral marital therapy as been found to be an effective in aiding marital distressed couples. A series of replicated case studies found that teaching distressed couples communication skills followed by behavioral contracting resulted in improved communication and increased satisfaction with the relationship (Patterson & Hops, 1972; Patterson, Hops, & Weiss, 1972; Weiss, Hops, & Patterson, 1973). Of specific relation to communication skills the results suggested that when couples were not taught communication skills their communication did not improve significantly (Baucom, 1995).

Cordova, Jacobson, and Christensen, (1998) examined the changes in couples communication over the course of integrative behavioral couples therapy (BCT) and traditional behavioral couples therapy (TBCT). Both therapies attempted to facilitate

change in the couples communication patterns. The results suggested that IBCT couples expressed more non-blaming descriptions of problems and more soft emotions than those in TBCT. Increases in non-blaming descriptions were significantly correlated with increases in marital satisfaction. Changes in couples' in-session communication seemed to be generally associated with changes in their global distress.

Johnson and Talisman (1996) examined client variables expected to predict success in Emotionally Focused Marital Therapy (EFT), the second most empirically validated treatment for marital distress. The variables studied were: 1) the relationship of attachment quality, 2) level of emotional self-disclosure, 3) level of interpersonal trust, 4) marital adjustment, 5) intimacy, and 6) therapist ratings of improvement. This study found that the best prognosis was observed when partners, the female partners in particular, still had some trust for their partner, and were able to respond to their partners' vulnerability when it is expressed. The authors noted that difficulties with trust might also be the result of attachment history in the past or present relationship. These results suggest a link between trust and relationship satisfaction and therapeutic "success." Generally speaking success in marital therapy would result in the couple staying together, thus one could also postulate that trust is also important to longevity in the relationship.

One of the key components of EFT is facilitating a shift in interactional positions towards affiliation and engagement (Johnson & Greenberg, 1995). Communication skills are therefore important in distressed to allow for greater emotional engagement. Based on this communication, specifically the ability to express emotions may be linked to marital satisfactions and longevity.

Trust is believed to be an important component of secure attachments. As discussed earlier, Johnson and Talisman (1996), found that trust was an important component related to success of therapy and marital satisfaction. More recently, Johnson and William-Keller (1998) have examined the use of emotionally focused marital therapy with couples where one or both of the partners have experienced significant trauma. The results of this study supported the use of EFT in treating relationship distress caused by trauma as well as individual symptoms of post-traumatic stress disorder (PTSD). In this case the development of trust is likely important to both PTSD recovery and relationship success. The components of EFT appear to have some impact on trust, satisfaction, and marital longevity.

Communication and Relational Satisfaction

Burleson and Samter (1996) assessed how similarities in levels of social-cognitive and communication skills affected friendship choices by young adults. Participants (208 college students) completed a battery of tasks providing assessments of one social-cognitive and five communication skills. Sociometric procedures were used to determine interpersonal attraction and friendship patterns. The results of this study indicated that participants were attracted to peers having social skill levels similar to their own. In addition, pairs of friends had similar levels of communication skills related to the expression and management of emotional states. Moreover, pairs of friends having low levels of communication skills were just as satisfied with their relationships as were pairs of friends having high levels of skills. These results were viewed as consistent with a "rewards of interaction" analysis of the effects of similarity on interpersonal attraction.

This research suggested that communication may not have an impact on the level of satisfaction perceived by individuals in friendship relationships.

Miles, Patrick and King (1996) used 4 dimensions of superior-subordinate communication (positive relationship, upward openness, negative relationship, and job-relevant) to test a role theory (RTH) explanation for the moderating effect of job level on the communication-job satisfaction relationship in 595 hourly employees and 118 supervisors. A short form of the R. C. Huseman et al (1980) 56-item instrument and the Job Perception Scales were used to measure communication and job satisfaction (JS). Consistent with an RTH explanation, results indicate that the influence of a superior's communication on JS is significantly greater for supervisors than for hourly employees. All 4 dimensions were significant predictors of hourly employees' JS. While supervisors reported receiving more positive relationship and more upward openness communication, these 2 dimensions were not significant predictors of their JS.

Hojjat, (1998) examined the role of intrapersonal (individual conflict-resolution styles) and interpersonal (perceptions of one's own and partner's individual conflict-resolution styles) levels of analyses in understanding conflict-resolution processes and satisfaction in close relationship was examined. A typology, based on the two dimensions of activity and valence, was proposed which categorized styles of conflict resolution into four types: positive/active (POS/ACT), positive/passive (POS/PAS), negative/passive (NEG/PAS), and negative/active (NEG/ACT). At the intrapersonal level, the findings indicated criterion validity of the proposed typology as ratings of negative styles of CR (conflict resolution) related negatively to relationship satisfaction. The concurrent validity

of the proposed typology was also supported as ratings of the two negative styles of CR were shown to correlate negatively with the Mutual Constructive Communication Pattern subscale (Christensen & Sullaway, 1984). At the interpersonal level, the findings of this study confirmed the hypothesis that partners' perceptions of the comparability of their CR styles are positively and significantly related to relationship satisfaction. Individuals' accurate perceptions of their partners' CR styles related positively to the couple's satisfaction with their relationship. Gender differences, at the interpersonal level, indicated that while females perceived themselves to be significantly more NEG/ACT in their style of CR than males, males perceived themselves as significantly more POS/PAS in their style of CR compared with females. At the interpersonal level, males as POS/PAS were consistent with males' perceptions of themselves as such. It was suggested that the role of individual styles of CR in relationship conflicts deserved more attention. At the intrapersonal level, future research should investigate exactly what communication behaviors help partners attain accurate perceptions of each other's conflict-resolution strategies. These findings emphasized the importance of the interpersonal level of analysis as an important area for follow-up in dyadic research in general, and in research on conflict resolution in particular.

Gurien, (1998) proposed a reconceptualization of relational communication competence in which the dyad was the unit of analysis, developing a connection between conceptual and operational definitions of communication competence. Specifically, this project proposed that relationally competent communication was demonstrated by interaction in which couples adapted to each other's behaviors. Consistent with the

authors' definition of competence and conceptualization of conversational involvement, adaptation was argued to occur on four behavioral dimensions: interaction management, expressiveness, immediacy, and altercentrism. This study suggested that relationally competent communication was that which demonstrated patterns of adaptive communication, and that such patterns would be exhibited in either matching or complementarity. This study attempted to demonstrate that the interactant's level of conversational involvement could influence the adaptation pattern such that normal levels of involvement would yield matching patterns of interaction, while an unexpected change in the involvement level would elicit complementary levels of involvement. Eighty romantically-involved couples were asked to answer questions about their relationships, engage in a 10-minute videotaped interaction, and then answer questions about their conversations. The results revealed three general conclusions about adaptation as a measure of relational communication competence: (1) matching and complementarity does occur during mundane interaction; (2) preference for matching or complementary patterns will differ depending on the nature of the interaction; and (3) adaptation (as it was measured in this study) is weakly related to self-report measures of interpersonal communication competence. This is important to consider in light of the present research as we consider that as skaters are with one another for longer periods of time their communication competence may increase. The research of Gurien, (1998) suggests that this may not be the case.

Meeks, Hendrick, and Hendrick (1998) explored the importance of several communication-related variables, including perspective-taking, self-disclosure, conflict

tactics and relational competence, as well as love attitudes, in the prediction of relationship satisfaction. Some 140 dating couples completed several measures, including assessments of self as well as the romantic partner. Findings reveal that self and partner communication variables, and love orientations were significant predictors of relationship satisfaction. Clearly variables associated with intimacy are important to the perception of relational satisfaction.

More recently, Tucker and Anders (1999) investigated associations between attachment style, partner perception accuracy, and relationship satisfaction in a sample of 61 undergraduate dating couples (aged 17-27 yrs). Each partner completed questionnaires assessing own attachment style, own feelings about the relationship, and perceptions of the partner's feelings about the relationship. Their results indicated that more avoidantly attached men and more anxiously attached individuals of both sexes reported lower relationship satisfaction. However, only anxiously attached men showed consistently lower accuracy in perceiving their partner's feelings about the relationship. The lower satisfaction among anxiously attached men could be partially explained by their lower accuracy in perceiving their partner's feelings of love, and this lower accuracy was not due to the partner's self-reported level of communication. Clearly attachment level plays a role in how partners perceive their partner's communication and thus impacts on their relational satisfaction. This was important in the present study as the degree to which skaters were attached to their present partner may have played a role in how they perceived the relational communication themes as well as the level of trust exhibited by their partner.

Vangelisti, Corbin, Lucchetti, and Sprague (1999) examined 71 heterosexual romantic couples' (aged 17-31 yrs) concurrent cognitions, the thoughts they have during the course of interaction. Data were collected using a modification of "protocol analysis." Partners conversed over networked computers and also voiced what they were thinking. The results of this study indicated that those who were dissatisfied with their relationship expressed significantly more negative thoughts about their partner, fewer positive thoughts about their partner, and fewer positive thoughts about their relationship than did those who were satisfied. Dissatisfied men vocalized fewer negative thoughts about themselves than did those who were satisfied. Women's thoughts were not more focused on relationship-oriented issues than were men's; men expressed more negative cognitions about relationships. The findings confirm that there are distinctions between the concurrent cognitions of satisfied and dissatisfied partners. This was important in the present study as the role of perceptions may have had an impact on the ratings of relational and success satisfaction by the participants. This may also have influenced skaters ratings of task orientation in the RCS.

Communication and Trust between Siblings

A recent study by Teven, Martin and Neupauer (1998) focused on verbal aggression in the sibling relationship. The purposes of this study were to explore both the relationships between verbal aggression and relationship satisfaction and sex differences in siblings' use of verbally aggressive messages. 233 participants (mean age 20.36) reported on the frequency of one of their sibling's (mean age 21.33) amount of verbal aggression messages toward them. Participants also completed a measure of relational

satisfaction. Verbal aggressiveness was found to be negatively related to relational satisfaction. Differences in the amount of verbal aggression were found between male and female participants reporting on their target siblings. Women reported receiving more verbal aggression than men did.

Myers (1998) examined sibling communication satisfaction with a specific focus on interpersonal solidarity, individualized trust, and self-disclosure. In this study respondents ($N = 360$) were asked to report on a relationship with a sibling. The results of this study suggested that interpersonal solidarity is the largest predictor of sibling communication satisfaction followed by individualized trust and self-disclosure.

Pairs and ice dancers: Best friends?

The relationship that evolves in a pair or ice dancing couple is difficult to define. This is, apparently, a very close relationship. Many members of such partnership refer to their partner as their “best friend.” A close friendship is probably the most accurate description of the relationship which may be applied to all types of ice dancing and pairs skating teams be they siblings, married or unmarried, dating or platonic. Fisher and Adams (1994) suggested that the phrase “very close relationship” referred to a specific kind of relationship with high levels of intensity, intimacy, trust and commitment. They stated that:

These relationships are not merely friendships, they are friendships that are extremely close - as in the case of best friends. These relationships often (but not necessarily) include marital spouses and some family or kinship relations

between, for example brothers and sisters or parents and children (Fisher & Adams, 1994 p. 392).

Kalbfleish (1993) stated that a best friendship, more than any other friendship, is “one perceived to share the closest emotional intimacy and the most unique relationship (p. 192).” In her study of female best friends, she found that they were described as honest or trustworthy, fun loving and humorous, loyal or compassionate, like a family member, and physically attractive.

Reisman (1981) described three types of enduring friendships: 1) associative, 2) receptive, and the most intimate of these being 3) reciprocal. Associative friendships are those acquired through some common association such as work, school, church or even being on an athletic team. In this type of relationship the commitment is situational. In many ice dancing and pairs teams, relationships may begin as associative friendships. The second type of friendship is receptive based on a difference in status or control such as in a mentor and student or coach-athlete relationship. A very close relationship is most likely going to be reciprocal. In this type of relationship partners feel a commitment specifically to their interpersonal relationship. Based on the document analysis discussed earlier it seems accurate to conclude that as a skating relationship progresses the commitment moves from being situational specific as in to the sport but to encompass the relationship in all it's dimensions. A good example of this is when Isabelle Brasseur spoke of her partner Lloyd Eisler, “If I am lost, he comes to get me. We could be 10, 000 miles apart but if I needed him, he would drop everything for me, as I would for him” (Brasseur, Eisler, & Prouse, 1997, p. 190).

Kram and Isabella (1985) presented a similar set of definitions for work place relationships. The first type was referred to as the information peer. This was a relationship characterized by communication regarding work and low levels of self-disclosure and trust. As the relationships build they may become more collegial. These types of relationships involve a greater degree of communication and trust, and a greater degree of self-disclosure, emotional support and then friendship develops. The third characteristic may be the most intimate and closely related to a “best friend” relationship. The special peer is characterized by communication regarding a variety of issues within and outside of the work environment, high levels of emotional support, personal feedback, trust, self-disclosure, and friendship. Relationship that within ice dancing and pairs skating evolve similarly..

Sharabany (1994) defined intimate friendship in children and pre-adolecents as a configuration of diverse related qualitatively commensurate elements involving eight dimensions. These eight dimensions characterize the unique dynamics occurring between intimate friends. Intimate friendship partners possess the ability to both self-disclose positive and negative aspects of their lives and to exchange honest feedback with each other i.e. they communicate. A member of a dance team may feel that their partner needs to straighten their left leg in order to complete a particular step. It is important that they feel able to communicate this constructive criticism to their partner. Non-verbal communication is another important feature of friendships. Friends are frank, spontaneous, and harbor a sense of empathy or understanding, which does not necessarily have to be achieved through speech. Often teams will be able to "know" what their

partner wants them to do without verbalizing it. In a friendship relationship there is a feeling of attachment and connectedness with the other partner. Members of such a relationship will choose to spend time with this partner over others because this relationship is uniquely fulfilling - preference. For example Torvill and Dean said, "we came to rely on each other in almost every way, because ice-dancing was the most important thing to us" (Torvill, Dean, & Man, 1995 p. 124). Finally, there is a degree to which a "friend" can be counted upon to maintain self-disclosures and be supportive (i.e. trusting). In combination, these factors serve to determine the degree of intimacy in a relationship (Sharabany, 1994).

A study of relational satisfaction among best friends revealed many of these factors to be important to the participants' rating of relational satisfaction (Cole & Bradac, 1996). For example, being family-oriented, emotionally balanced and sharing similar interests were thought to cause a variety of outcomes directly related to satisfaction (i.e., admits mistakes, not abusive, approachable). The causal structure suggested that certain sources of satisfaction play a relatively prominent role such as, being approachable and having good communication skills. The results of this study indicated that being approachable was perceived to be the most immediate source of satisfaction among close friends (Cole & Bradac, 1996).

Research into the orientation of partners suggests that those with a "we" or "us" orientation are better able to use compromise, mediation, conciliation, and implementation procedures to resolve differences (Hawes & Smith, 1973). Those who are a "self-only" or "partner-only" orientation may find that this perspective interferes

with the discovery of joint mutually acceptable resolutions to conflict. (Cahn, 1987; Cushman & Cahn, 1985). To extrapolate this to sport psychology, one could say that those with a “team” orientation might be more likely to be able to “compromise” and resolve difference.

The literature in the area of intimate relationships and friendships suggested that trust and communication are important features that contribute to success in relationships (e.g., Cole & Bradac, 1996; Kalbfleish, 1993; Kram & Isabella, 1985; Reisman, 1981; Sharabany, 1994). A lack of trust has been found to undermine various relationships (Argyle & Henderson, 1984; Larzelere & Huston, 1980; Van Yperen & Bunk, 1990). This is further supported by the literature on team building that suggested that a cohesive team is more likely to be “satisfied” and “successful.”

Ice dancing and pairs skating: A team of two

What is a team? Some say that a team is any group of people who must interact with each other in order to accomplish shared objectives (Woodcock & Francis, 1981). Others define team as two or more individuals who must interact interdependently and adaptively to achieved a specified, shared and valued goal (Salas, 1993). Each member of a team has a specific role to perform (Tannenbaum, Beard, & Salas, 1992).

Carron (1988) proposed that a sport team represents a special type of group. These are characterized by “a collective identity, a sense of shared purpose, structured patterns of interaction, structured methods of communication, personal and task interdependence and interpersonal attractions” (p.7). It would appear that a team has many of the characteristics of intimate and friendship relationships.

Teams are constantly changing in an attempt to respond to both internal and external factors. Although there is some difference of opinion most believe that teams are dynamic, passing through many stages as they developed (Hardy & Crace, 1997). Tuckman (1965) presented a four-stage model for team development. Those four stages are: 1) forming, 2) storming, 3) norming and 4) performing. In his model, athletes begin in the forming stage. The major objective is to become acquainted with one another. As athletes become better acquainted with one another they move into the next stage – storming. This stage involves being able to understand and respect teammates, accepting their idiosyncrasies for the good of the team. During this process athletes will normalize each other's behaviors – norming. Teammates begin to normalize the behaviors and idiosyncrasies of their teammates. They accept that that is just who they are. When the team reaches the final stage – performing, they will be able to be committed to the team and the team's goals. To achieve this they will need to have clear roles and responsibilities, features mentioned as important aspects of a "team", effective communication, and feelings of mutual respect and understanding (Tuckman & Jensen, 1977).

From an organizational perspective similar features of team building exist. Patten (1981) suggested that employees in effective organizations maintain group goals, share objectives, talk openly about issues that affect them, collaborate, and manage conflict in an open and constructive manner. Teamwork and mutual respect are the norm in these settings. These groups have managed to develop a "we" identity, and members of these groups are proud of their membership (Zander, 1982).

Based on the team building literature an effective team has many important characteristics. An effective team: a) consistently and efficiently achieves its goals while maintaining high levels of member satisfaction and loyalty; b) is engaged in continuous, ongoing diagnosis, planning and implementing changes; and c) has a shared sense of purpose, and an understanding of resources and effective processes (Anshel, 1994; Hanson & Lubin, 1988; Hirsh, 1992; Steiner, 1972.) Clearly, communication, trust and mutual respect appear to be important features of effective teams.

In their discussion of the foundations of team building, Hardy and Crace (1997) suggested that although team building has been defined in a number of different ways, it is best seen as a team intervention that enhances team performance by positively effecting team processes or team synergy. They cited Mears and Voehl's (1994) definition of team synergy as, "the interaction of two or more agents or forces so that their combined effort is far greater than the sum of their individual efforts." (p. 4). Brawley and Paskevich (1997) maintained that for results of team building interventions to be assessed greater clarity and precision is needed in its definition

There are multiple approaches to team building. Brawley and Paskevich (1997) suggested that team building approaches focus on four areas: 1) goal-setting, 2) interpersonal relations 3) role expectations, and 4) concern for production and people. Of specific interest to this discussion is the area of interpersonal relations.

The interpersonal relation's approach may alter the group process in order to reduce interpersonal problems so that the team will function more effectively. This model uses the development of mutual support and trust to facilitate sharing of feelings

and open communication. An increase in cohesion and cooperation, it can be assumed, will lead to an increase in commitment to the groups goals and higher levels of team effectiveness and productivity (Brawley & Paskevich, 1997). Cohesion is therefore used as a framework for developing group influence (e.g., Carron, Spink & Prapavessis, 1997).

Cohesion has been defined as “a dynamic process that is selected in the tendency for a group to stick together and remain united in pursuit of it’s goals and objectives” (Carron, 1982, p. 124). Cohesion in sport is a multidimensional phenomenon and is made up of task and social orientations as well as individual and group perceptions about the degree of unity that exists within the group, and member’s feelings about the group itself. Social cohesion is particularly important to this discussion, as it refers to the activities associated with the development and maintenance of harmonious and social relationships (Carron, Widmeyer & Brawley, 1985).

Koys and Decotiis (1991) suggested that in organizations, the perception of closeness, sharing, liking, and collaboration between employees is important to the work climate. They found that these relationship variables are important contributors to psychological climate along with autonomy, trust, pressure, support, recognition, fairness, and innovation.

Odden and Sias (1997) examined the association between psychological climate and the types of communication relationships that employees form with their peers. Their results suggested that a link existed between psychological climate and peer relationships. Climates perceived as high in cohesion were related to larger proportions of collegial and

special peer relationships. A high proportion of collegial and special peer relationships may be indicative of an organization in which employees like one another, get along well, and help each other out. These significant relationships seem to indicate that the respondent who has a positive feeling about communication within the organization also has positive feelings regarding the organization's psychological environment. This research indicates a relationship between psychological climate and employee communication. The relationship between climate and peer communication relationships specifically, however, remains unexamined.

From an applied perspective Yukelson (1997) observed that communication is highly related to group cohesion and team effectiveness. Success is highly dependent upon teamwork and having consensus on group goals and objective. Yukelson spends a great deal of time with teams working on strategies for developing and maintaining group cohesion. Similarly, Etzel and Lantz (1992) suggested that team building becomes an important intervention to facilitate teamwork, group problem solving, team solidarity and cooperative goal-directed action.

Yukelson (1997) emphasized a focus on communication within team building. He stated that:

Effective communication is based on trust, honesty, mutual sharing and mutual understanding. If a group is to function effectively, members must be able to communicate openly and honestly with one another about the efficiency of group functioned and or quality interpersonal relationships (p.86).

Regular team meetings to share information and process experiences is seen to increase the depth and creativity of decision-making, trust building, mutual respect and mutual understanding (Orlick, 1986; Yukelson, 1993).

Are ice dancers and pairs skaters a team? Based on this discussion they appear to be. These athletes share a common goal, are interdependent on one another, and have specified roles. One could say that they form a team of two. The “team” of Torvill and Dean is a perfect illustration of this point. They began skating together based on a coach’s recommendation. At the time when their coach asked them, “Do you think you’ll stay together?” They said, “we looked at each other, and um’d and ah’d and said we’d give it another week... it’s odd to think it’s now 20 years of just another month, just another year” (Torvill, Dean & Mann, 1997, p.33). At that time all they had was a common desire to ice dance. As their relationship grew they came to “rely on each other in almost every way because ice-dancing was the most important thing” (Torvill, Dean & Mann, 1997p.124). For Torvill and Dean their roles became defined and a “team” evolved.

Based on this literature there is some indication of what is important for successful teams. However, the question remains what is needed to have a long-term, successful, fulfilling or satisfying ice dancing and pairs skating partnership.

Success: In ice dancing and pairs skating

Flow is a state of frequently associated with peak performance (Csikszentmihalyi, 1990). It is “the state in which people are so involved in an activity that nothing else seems to matter” (Csikszentmihalyi, 1990, p.4). Jackson (1988) suggested that flow may be a precursor to, or the psychological process underlying, a peak performance. Positive

mental attitude, positive pre-competitive and competitive affect, maintaining appropriate focus, and physical readiness, have been found to be important factors associated with achieving flow states (Jackson, 1992). In pair skating and ice dancing a sense of unity also contributes to the flow state. Jackson, (1992) suggested that in some way, the extent to which the couple works together has an impact on their success as a team. If the skaters do not discuss ahead of time what move they are going to perform next and they both take off doing something different an accident could happen. It is the position of this paper that trust and communication play a role in the development of unity.

Communication literature examines relationship communication in terms of "competence." A relationship is said to be competent or "successful" if it endures, is continuous, meets the expectation of its partners and serves various functions (Fisher & Adams, 1994). A team is "successful" if it meets similar criteria (to be discussed in greater detail in a later section).

In the sport of figure skating a perfect performance is scored a 6.0. Skaters receive two scores, one for artistic impression and one for technical merit. When scoring for artistic impression judges are looking for harmonious composition and conformity to music, utilization of space, ease of movement and sureness in time to the music, carriage, originality and expression of the character of the music. Technical merit is the assessment of the difficulty, variety, cleanness and sureness of the skills completed. (Canadian Figure Skating Association Rulebook, 1993).

Skaters are ordinally ranked from first place to last place. If a judge gives a particular team a 5.8, then the next team a 5.7 then the next team a 5.9 they have ranked

these teams in second, third, and first place. Performance success is the rankings given to a pair or dance team based on their performance in competition. Of course success in a more competitive and prestigious event is also important to the overall success. That is to say, a third place ranking at a national competition is a greater level of success than a third place ranking at a divisional competition by this definition.

Satisfaction in ice dancing and pairs skating

Satisfaction plays an important role in relationships. As discussed earlier, Cole and Bradac (1996) found that being approachable and having good communication skills was important to satisfying friendships. In sport, satisfaction may come from a number of factors such as success, social support, and feelings of accomplishment. In an in depth study of elite figure skaters' enjoyment, four major sources emerged: 1) social and life opportunities, 2) perceived competence, 3) social recognition of competence, and 4) the act of skating (Scanlan, Stein & Ravizza, 1989b).

Martens (1970) found that teams that were high in task motivation were more successful and satisfied than those teams that were low in task motivation. A number of subsequent studies have found similar results (e.g., Arnold & Straub, 1972; Carron, Ball & Chelladurai, 1977; Widmeyer, 1977). This suggests that a team having a common goal is more likely to experience success and satisfaction. Task motivation is an important component of effective teams.

Carron (1980) presented a model adapted from Martens and Paterson (1971) where cohesion was shown to facilitate success, which in turn enhanced satisfaction and enhanced cohesion. This was a cyclical model where each factor influenced the next.

Carron concluded, however that performance outcome, or success, was more likely to enhance cohesion and satisfaction than cohesion influencing performance.

The role athletes' play in their sport has an impact on their level of satisfaction. Rail (1987) found that four conditions were critical for satisfaction. The first factor was that the individual had the opportunity to use specialized skills or competencies in their role. For example, in a dance team one member may be particularly creative and their role might be more focused on the choreography of the team programs, while another member may be better at the technical aspects of the sport. Each member's talents are included in their role.

Feedback and recognition are also very important contributors to role satisfaction. The "organization" expert of the team may be very involved with the coach to make sure that all the minute details are in place. This can be a very tedious and often thankless task. Feedback and recognition for this role is important, not only for satisfaction to be increased, but also for the role to be maintained.

A third factor related to role satisfaction is role significance. It is important that the role have meaning to the individual. For example, it may be the role of one skater to select the music for the team. Music is an integral part of ice dancing and pairs skating and selecting the right music is crucial. The role of music selection is therefore very important.

Autonomy is the final factor contributing to role satisfaction. The members must have the opportunity to work independently. For the individual who is selecting the music, designing the costume, or planning schedules, they need to feel as if their partner

has confidence in their independent decisions. This is a situation where trust and communication may also be important.

Hackman and Goldman (1980) developed a conceptual model to illustrate job responsibility and satisfaction. They identified three critical psychological factors: 1) the perceived meaningfulness of the work, 2) the perceived personal responsibility for the work outcome, and 3) the knowledge of the results. As a member of an ice dancing or pairs skating team, a skaters performance will likely be influenced by these psychological factors.

Satisfaction may be divided into two categories: 1) achievement and/or success (task) satisfaction, and 2) social satisfaction. Achievement satisfaction may be comprised of enjoyment from performing competently in the sport of ice dancing and pairs skating. Social satisfaction focuses on the enjoyment/satisfaction that the ice dancers/ pairs skater gets from his or her relationship with his or her partner.

Relational communication

Every communication message has a relational and content component (Kelley & Burgoon, 1991). Relational messages are used by interactants to define their relationships and themselves. These definitions are influenced by the expectations of the participants and guide the production and interpretation of messages (Burgoon & Hale, 1984). For example, messages that reflect warmth may convey affection in terms of relational communication.

Burgoon and Hale (1984) synthesized a diverse body of literature, including anthropological and psychotherapeutic analysis of behavior, intraspecific displays,

measurement of meaning, emotional expression, interpersonal evaluations (credibility, attraction, similarity, impression management), relational definitions and development, dyadic and group interaction categories, and verbal and interpersonal behavior. They developed a schema of 12 conceptually distinct dimensions of relational communication. These themes were used as the foundation for the development of the Relational Communication Scale. The following is a discussion of the development of the RCS and a brief discussion of each dimension.

In their discussion of the development of the Relational Communication Scale, Burgoon and Hale (1987), summarized three measurement studies. In the first study, respondents were undergraduate students from communication courses along with their friends. Most participated in two dyadic interactions using the RCS to indicate what types of messages, verbal and nonverbal, they thought the other person had communicated to them during an interaction. A total of 202 pairs participated in this study.

Two types of factor analysis were completed on participants rating. The first, a principal component oblique solution with varimax rotation, was undertaken to assess the multidimensionality of relational communication themes. This method produced eight factors with eigenvalues of greater than 1.0, and at least two items per factor with loading of .50 or better. These eight factors became the eight dimensions or subscale of the RCS (i.e. immediacy/ affection, similarity/depth, receptivity/trust, composure, formality, dominance, equality, task orientation).

The second method used was an orthogonal factor analysis with varimax rotation. This was done to identify the minimum number of independent message clusters needed to represent the range of communication themes. The criteria for selecting a factor solution were: 1) all factors had to have eigenvalues of 1.0 or better; 2) the scree test had to indicate reasonable incremental improvement in variance accounted for by the addition of a given factor; 3) all retained factors had to contain at least three items with primary loading of .50 or better and secondary loading below .30 for those items; 4) all items retained had to have a primary loading of .50 or better; and 5) among solutions meeting the first three criteria, the one accounting for the most variance was selected.

Initial rotation solution produced four factors: 1) intimacy, 2) involvement / arousal / inclusion, 3) dominance, 4) nonimmediacy. Coefficient alpha reliabilities were computed on these four dimensions: .81 for intimacy, .72 for involvement, .69 for dominance, and .46 for nonimmediacy. The lower reliabilities for the latter two dimensions suggested a need to increase the number of items measuring each factor.

Related to this first study, two other experiments were conducted using the 32-item version of the relational message scale (Burgoon, Buller, Hale, de Turck, 1984; Buller, 1984). In one study, the scale was used by observers to rate the perceived meaning of five nonverbal immediacy behaviors, (i.e. distance, gaze, touch, body lean, and smiling), as they were varied by having two interactants appearing on videotape. Reliabilities for the scale were .86 for intimacy, .79 for nonimmediacy, .76 for involvement, and .60 for dominance. All four sets of message scales significantly differentiated between high and low amounts of nonverbal immediacy on two or more of

the dependent variables. In the other study, a 24-item abbreviated version of the scale was used in follow-up interviews with 177 respondents rated one of 10 interviewers they had just completed a telephone interview with. Coefficient alpha reliabilities for the four subscales were .70 for intimacy, .74 for immediacy, .71 for involvement, and .76 for dominance. All four dimensions significantly differentiated a hostile voice condition from a pleasant and neutral voice condition and this was correlated with credibility and personality attributes of the respondents.

A second study was completed to verify the dimensions utilizing a new sample (Burgoon & Hale, 1987). In this study, 300 undergraduate respondents were asked to recall the last dyadic conversation they had. They were asked to record the nature of their relationship with an interactant (e.g., parent, friend, acquaintance, work associate, supervisor) and to complete the relational message scales on their partner's communication during that particular interchange. The relational messages' measure was expanded to 68 items, i.e., the original 32 items plus 32 items reflecting their polar opposites and four new items.

A similar factor analysis procedure was used in the second study. The data was analyzed through oblique and principal components factor analysis with varimax rotation. The oblique analysis produced nine factors. These included the eight found in the first study (i.e., receptivity/inclusion/trust, persuasion/ingratiating, dominance/similarity, arousal/intensity of involvement, task/social orientation, formality, nonimmediacy, composure, and intimacy).

In this study the first factor, (receptivity/inclusion/trust), replicated and amplified a factor found in the first study. This factor combined the intimacy components of inclusion and trust. Due to the emphasis on rapport, openness and sincerity, this factor carries a strong connotation of receptivity. This factor also contains some aspects of similarity, which existed in the first study. However, similarity did not load exclusively on this factor. The results from the second (persuasion/ingratiating) and third factors (dominance/similarity), suggested that the previous dominance dimension is actually made up of two facets. One that includes more socially acceptable and favor seeking behavior and one that includes more direct control of another. The remaining similarity items load on the dominance dimension, with expressions of dissimilarity corresponding to the exercise of control.

The fourth (Arousal / Intensity of Involvement), fifth (Task vs. social orientation) and sixth (Formality) dimensions also replicate and expand on the factor by the same name found in the first study. The arousal /intensity of involvement factor includes the level of emotional activation, and degree of involvement or boredom that is expressed. These two activity dimensions continue to be related. The seventh factor, nonimmediacy, entails the degree of psychological and social distancing that the partner perceives. Distance carries with it some degree of negative affect, but it is clear that the degree of immediacy may be based on the amount of attraction and liking that is fostered. The eighth factor, composure, is a new factor, which relates to elements of comfort, relaxation, disclosiveness, and equality, which indicated that one, can communicate a level of poise that is separate from one's involvement and arousal. The final factor,

intimacy was a combination of a number of subcomponents of intimacy, namely, attraction, liking, depth, trust, and inclusion. The distinction from the first factor is that it is more centered on the liking theme, however the two overlap.

The orthogonal solution once again produced only four factors. These were similar to the first study and included: arousal / composure / formality / task orientation, intimacy / similarity / nonimmediacy and dominance. These factors preserved most of the themes by clustering them into four interrelated groupings.

Additional research testing, the 68-item version of the RCS, examined the effects of eye contact violations on hiring, credibility, attraction, and perceived relational communication (Burgoon, Manusov, Mineo, & Hale, 1985). The reliability scores reported for the four factors were .74 for arousal/ composure/ formality/ task orientation, .86 for intimacy/similarity, .83 for nonimmediacy and .76 for dominance. High degrees of gaze were found to communicate increased composure and informality, increased intimacy and similarity, and increased immediacy compared to gaze aversion. In a replication of this study Manusov (1984) reported coefficient alpha reliabilities of .70 for arousal / composure / formality / task orientation, .77 for intimacy/similarity, .78 for nonimmediacy and .68 for dominance. This study produced significant effects for two of the relational communication dimensions: 1) more "rewarding" interviewees were seen as communicating more composure, less formality, and less negative arousal; and 2) interviewees using high amounts of eye gaze were seen as expressing more immediacy than those engaging in gaze aversion.

In a third study Burgoon and Hale (1987) modified the RCS by adding new items intended to measure positive forms of arousal. Previous versions of the scale had only included negative forms of arousal such as hostility and frustration. In addition the pool of items was reduced to a more efficient and reliable set of subscales; those items that had failed to load consistently on any factors and had low communalities were eliminated. This resulted in a pool of 60 items, which was to be further reduced through factor analysis and reliability analysis.

In this study, respondents were 145 undergraduate communication students. Participants acted as interviewers, in a simulated interview, with confederate interviewees who were assigned one of two levels of reward and who manipulated one of three levels of gaze. Upon completion of the interview, participants were asked to evaluate the interview process and indicate their willingness to hire the interviewee. As part of the evaluation the participants completed the 60-item relational messages measure.

As in the first two studies, oblique factor analysis was performed on the 60-item measure. The authors noted that, "although it was recognized that the small sample size made an analysis less stable and potentially misleading, it was considered a necessary first step in reducing the pool of items to half by eliminating those with weak loadings and communalities" (p.32). Through this ten factors emerged. The reported alpha reliability coefficients for the 10 factors were: .88 for involvement, .58 for social distance, .74 for formality, .83 for composure, .58 for attraction, .75 for dominance, .52 for equality, .42 for task orientation, .85 for depth / similarity, and .76 for trust / receptivity. The goal of this study was to reduce the pool of items and to determine what independent

dimensions could be used for measurement purposes. Based on an analysis of the loadings and communalities of the three most viable factor solutions, the pool of 60 items was reduced to 30.

Orthogonal factor analysis with varimax rotation of these items produced seven independent factors. These factors were then subjected to ordinary least squares confirmatory factor analysis in order to verify the internal consistency. The data fit the seven-factor relational message solution. In this study four items were either not internally consistent with their factor and /or not parallel with other factors in the model. These items were dropped from their respective four factors, resulting in a 26-item pool. Items measuring task versus social orientation were removed as they had low communalities. The final, seven-factor solution produced factors that were internally consistent and parallel with other factors in the model. The alpha coefficients reliabilities for the seven factors in the 26-item measures were .81 for immediacy/affection, .77 for similarity/depth, .76 for receptivity/trust, .80 for composure, .61 for formality, .66 for dominance, and .52 for equality. The authors suggest that these seven factors represent, "a refinement over the four-factor orthogonal solutions produced previously and can be regarded as a more precise depiction of the distinctive message themes, or clusters of themes, recognized by interactants (p.32-36)."

Burgoon & Hale (1987) stated that, "for future measurement purposes, some addition to the current set of items may be warranted (p.36)." For example, if the task orientation facet of relational communication is considered to be pertinent then those

items should be added. Also, the dimensions of formality, dominance, and equality are said to yield higher reliabilities if some of the previously used items are restored.

The first three dimensions of the RCS, immediacy/affection, receptivity/trust, similarity/depth, have been found to be intertwined and are all considered to be related to intimacy. In one of the initial studies during the development of the RCS the authors found that messages related to trust, liking, attraction, depth and equality all loaded on the factor of intimacy (Burgoon & Hale, 1987). In addition, there was a smaller correlation with the similarity/receptivity theme. The authors suggested that this might be due to the affiliative implication of its component messages, which emphasize agreement, lack of difference, rapport, and willingness to listen. The label "receptivity" was introduced because it was seen as a better descriptor than its equivalent concept of inclusion (Burgoon & Hale, 1987). Hale and Burgoon (1987) stated that "a highly intimate interaction among friends who rate each other may cause all the intimacy factors to collapse into a single, global measure of intimacy (p. 40)." Since ice dancers and pairs skaters often form intimate friendships the resulting data from the first three dimensions, immediacy/affection, receptivity/trust, similarity/depth, may be collapsed into one score. The mean coefficient alpha reliability for intimacy was .80 (Burgoon & Hale, 1987).

Immediacy/affection Affection involves the perception that others desire close personal relations with oneself, as well as efforts to initiate more intimate relationships with a psychologically comfortable number of people (Burgoon & Hale, 1987). In terms of interpersonal evaluations, attraction plays an important role in impression management, projecting sexually oriented dimensions of sociability, social attraction, and

physical attraction. Burgoon and Hale (1984) suggest that attraction implies a degree of affectionate or inclusive exchange. This supports the proposed relational message themes of affection, inclusion, intensity of involvement, and the larger theme of intimacy. The mean coefficient alpha reliability for immediacy/affection was 0.74 (Burgoon & Hale, 1987). Examples of items representing immediacy and affection: “My partner communicated coldness rather than warmth.” “My partner created a sense of distance between us.”

Similarity / depth. Hale and Burgoon (1987) found that greater similarity promotes a greater sense of familiarity and willingness to move a relationship to a deeper more intimate level. For this reason similarity and depth have been coupled. The mean coefficient alpha reliability for similarity/depth was 0.80 (Burgoon & Hale, 1987). Examples of items representing immediacy and affection are: “My partner seemed to desire further communication with me.” “My partner made me feel he/she was similar to me.”

Receptivity / trust. Hale and Burgoon (1984) stated, "given that the status of trust as a cornerstone in the development of close interpersonal relationships, we should expect a class of messages explicitly designed to convey one's trustworthiness, as well as one's belief in another's sincerity, beneficence, and so forth (p 200-201)." In the development of the RCS the authors found that receptivity loaded highly with trust (Burgoon & Hale, 1987). They suggest that, "these intimacy-related themes are intertwined and the greater inclusiveness usually goes hand in hand with a sense of trust (p.39)." The mean coefficient alpha reliability for receptivity / trust was 0.79 (Burgoon & Hale, 1987).

Examples of items representing formality are: “My partner was interested in talking with me.” “My partner was honest in communicating with me.”

Composure and Formality. Burgoon and Hale (1987) suggested that, “the composure and formality themes are likely to form composites with other topoi when circumstances dictate a relaxed, informal, and nonaroused communication style (p.39).” When composites such as arousal/composure/formality and task orientation are used they form distinct and recognizable themes. The mean coefficient alpha reliability for composure was 0.74 alpha (Burgoon & Hale, 1987). Examples of items representing composure (or noncomposure) are: “My partner felt very related talking with me.” “My partner seemed nervous in my presence.”

Formality is somewhat less independent. Like similarity and intimacy messages the formality theme also has inclusion implications. An informal demeanor corresponds to responsive and disclosive communication style. These elements suggested some relationship with intimacy. The mean coefficient alpha reliability for formality was 0.73 alpha. Examples of items representing formality are: “My partner made the interaction very formal.” “My partner wanted the discussion to be casual.”

Dominance. Burgoon and Hale (1984) suggested that dominance-submission, or relational control, is one of the most widely recognized and studied facets of relational communication. Relational control refers to the need to establish a comfortable degree of influence that one exercises over the behavior of others and is exercised over oneself. Dominance consistently emerged as an independent theme during factor analysis using

orthogonal solutions. Dominance is composed of such elements as competitiveness, aggressiveness, ingratiating, and persuasive intent. The mean coefficient alpha reliability for dominance was 0.69 (Burgoon & Hale, 1987). An example of an item assessing dominance on the RCS would be: "My partner attempted to persuade me."

Equality. In terms of marital relationships, equality as a relational communication theme plays an important role. Kelley and Burgoon (1991) found that equality played a role in predicting satisfaction. This theme takes into consideration the notion of mutual respect. The mean coefficient alpha reliability for equality was 0.67. Examples of items representing equality are: "My partner considered us equals." "My partner didn't treat me as an equal."

Task orientation. Messages at the task end of the continuum included being work-oriented, sincere, non-hostile, reasonable, and not being more interested in the social situation than the task. The social orientation might have been seen as a less serious attitude in the study. Of the eight dimensions of the RCS this is the weakest. The mean coefficient alpha reliability for task orientation was 0.42. As discussed earlier, during the development of the RCS, the authors found that social and task items loaded together in oblique solutions but separated in orthogonal solutions. This factor failed to obtain sufficiently high loading to merit labeling on those factors. The problem with this factor may lie in the fact that the items may not represent conceptual poles. Task and social orientations may not be mutually exclusive categories. Of interest to the proposed study Kelley & Burgoon (1991) suggested that this dimension may be less relevant in marital relationships, however little is said about its relevance with other types of relationships.

Examples of items representing task orientation are: "My partner wanted to stick to the main purpose." "My partner was more interested in social conversation than the task at hand."

Burgoon & Hale (1987) stated that, "for future measurement purposes, some addition to the current set of items may be warranted (p.36)." For example, if the task orientation facet of relational communication is considered to be pertinent those items should be added. Also, the dimensions of formality, dominance, and equality are said to yield higher reliabilities if some of the previously used items are restored.

Relational communication and satisfaction

Two studies conducted by Burgoon and colleagues have examined the relationship that exists between the relational communication themes and individuals satisfaction. In their study of marital satisfaction and couple type as a function of relational expectations, Kelley and Burgoon (1991) found that the discrepancy between one's spouses expectations for his or her spouse's relational behavior and one's perceptions of his or her actual behavior significantly predicted marital satisfaction. Discrepancy scores for the relational dimensions of intimacy, distance, equality/trust, dominance and noncomposure/arousal appeared to be central in predicting satisfaction. While agreement between spouses on relational expectations significantly predicted satisfaction, expectation/perception discrepancies were stronger predictors than agreement scores. This research found no difference in relational expectations when compared across couple type; although intimacy and noncomposure displayed significant differences when compared across wives' individual marital type

Another variation of the relational communication scale has been used to examine relational communication, satisfaction, compliance-gaining strategies, and compliance in communication between physicians and patients. In their study Burgoon, Pfau, Parrott, Birk, Coker, and Burgoon (1987) examined six themes of physicians' relational communication and their ability to predict patient satisfaction and compliance. This study involved telephone interviews with 234 adults who were seen by a primary care physician within the past six months. The results of this study confirmed that relational communication was strongly related to affective, cognitive, and behavioral satisfaction. More expressions of receptivity, immediacy, composure, similarity, formality, and less dominance by the physician were associated with greater patient satisfaction.

Methodological concerns

The literature suggests that trust and communication are important to relationships in terms of success, relationship satisfaction and longevity. It is important to keep in mind that there is no research that has specifically examined these factors in the sport of figure skating, and more specifically, the disciplines of ice dancing and pairs skating. Furthermore, most of the literature has focused on adult relationships, although; Sharabany (1994) provided some insight into children's friendships. Caution must be taken when generalizing these findings to the proposed research populations. Accordingly, future research is needed to examine the role of communication and trust in diverse populations and among diverse age groups.

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Appendix A

Relationships issues in Ice Dancing and Pairs Skating

Part A: Check the answer that best characterizes you.

1. Gender:

- ☐ Male
☐ Female

2. Age:

3. Highest level of education completed:

4. First Language

- ☐ English
☐ French
☐ Other: _____

5. Citizenship

6. Current Skating Level

- ☐ Juvenile
☐ Pre-Novice
☐ Novice
☐ Junior
☐ Senior

7. Discipline:

- ☐ Pairs Skating
☐ Ice Dancing

8. Number of different skating partners you had at each level:

- ☐ Juvenile: _____
☐ Pre-Novice: _____
☐ Novice: _____
☐ Junior: _____
☐ Senior: _____

9. Number of years/months you have been with your most recent partner:

10. How would you characterize your relationship with your current skating partner (check all that apply)

- ☐ Siblings
☐ Friends
☐ Dating
☐ Married
☐ Divorced
☐ Other: _____

Appendix B

1. Rate your level of satisfaction with your relationship with your current skating partner:

1	2	3	4	5	6	7	8	9	10
Very Dissatisfied		Dissatisfied		Neutral		Satisfied		Very satisfied	

2. Rate your level of satisfaction with your performance (success) with your current skating partner:

1	2	3	4	5	6	7	8	9	10
Very Dissatisfied		Dissatisfied		Neutral		Satisfied		Very satisfied	

Appendix C

13. List number of times and ranking for each level you have competed during the 1998-1999 season:

Competition Level	Ranking for each competition	Number of times competed at that level
Sectionals		
Regionals		
Divisionals		
Nationals		
Internationals		
World Championships		
Olympics		

Appendix D

Part B: Think back to conversations you have had with your partner. Below is a series of statements about the conversations you have had with your skating partner. For each one, please circle a number from 1 to 7, depending on the degree to which you agree or disagree with the statement.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

When my partner and I are having a conversation...

1. My partner communicated coldness rather than warmth

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

2. My partner is interested in talking to me

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

3. My partner acts bored when we talk

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

4. My partner created a sense of distance between us.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

5. My partner showed enthusiasm while talking to me

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

6. My partner made me feel that he/she is similar to me

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

7. My partner acted like we are good friends

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

8. My partner seemed to care if I like him/her						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
9. My partner seemed to desire further communication with me						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
10. My partner was honest in communicating with me						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
11. My partner was open to my ideas						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
12. My partner was sincere						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
13. My partner was willing to listen to me						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
14. My partner wanted me to trust him/her						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
15. My partner was very relaxed when talking with me						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
16. My partner seemed very tense when talking to me						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
17. My partner seemed nervous in my presence						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

18. My partner was calm and poised with me						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
19. My partner made the interaction very formal						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
20. My partner wanted the discussion to be casual						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
21. My partner wanted the discussion to be informal						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
22. My partner attempted to persuade me						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
23. My partner had the upper hand in our conversations						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
25. My partner didn't attempt to influence me						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
26. My partner wanted to cooperate with me						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
27. My partner considered us equals						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7
29. My partner was more interested in social conversations than the task at hand						
Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

30. My partner was more interested in working on the task at hand than on social conversations.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

31. My partner was very work-oriented

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

32. My partner wanted to stick to the main purpose of the interaction/conversation

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

Appendix E

Part C: Circle the answer that best fits for you.

1. My partner is primarily interested in his/her own welfare while we are skating together.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

2. There are times when my partner cannot be trusted while we are skating together.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

3. My partner is perfectly honest and truthful with me while we are skating together.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

4. I feel that I can trust my partner completely while we are skating together.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

5. My partner is truly sincere in his/her promises while we are skating together.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

6. I feel that my partner does not show me enough consideration while we are skating together.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

7. My partner treat me fairly and justly while we are skating together.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

8. I feel that my partner can be counted on to help me while we are skating together.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

Appendix F

Part D: Circle the answer that best fits for you.

1. My partner is primarily interested in his/her own welfare

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree	
1	2	3	4	5	6		7

2. There are times when my partner cannot be trust

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree	
1	2	3	4	5	6		7

3. My partner is perfectly honest and truthful with me

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree	
1	2	3	4	5	6		7

4. I feel that I can trust my partner completely

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree	
1	2	3	4	5	6		7

5. My partner is truly sincere in his/her promises

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree	
1	2	3	4	5	6		7

6. I feel that my partner does not show me enough consideration

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree	
1	2	3	4	5	6		7

7. My partner treat me fairly and justly

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree	
1	2	3	4	5	6		7

8. I feel that my partner can be counted on to help me

Strongly Disagree	Disagree	Disagree Somewhat	Neutral or unsure	Agree Somewhat	Agree	Strongly Agree	
1	2	3	4	5	6		7

Appendix G

Part E: Comments about participation:

What are your impressions of this survey?

Would you be interested in participating in an interview to discuss these issues in greater depth and detail? YES / NO

If yes, then how can you be reached?

When is a good time for the interview?

If no, thank you for all your help!

Appendix H

Assent Form

Relationship Issues in Ice Dancers and Pairs Skaters

Introduction. I, _____, have been asked to be in this research study, which has been explained to me by Connie Wanlin M. Sc..

Purposes of the Study. I have been told that the purpose of this study is to learn more about relationship issues among ice dancers and pairs skaters.

Description of Procedures. This study will be completed at the rink. I will be given a questionnaire that will take approximately 20 minutes to complete. I will be asked if I want to be interviewed. If I choose to be interviewed this will take an additional hour and a half. I do not have to answer all the questions.

Risks and Discomforts. Some of the questions may be challenging and I may not enjoy answering them.

Benefits. I understand that this study is not expected to be of direct benefit to me but the knowledge gained may be of benefit to others.

Confidentiality. I have been promised that anything that is learned about me in this study will be kept as private as possible.

Voluntary Participation. I have been told that I do not have to participate in this study. No one will be upset with me if I refuse to do this or if I quit. I have been allowed to ask questions about the research, and all of my questions were answered.

I agree to be a part of this research:

I willingly consent to participate in this research.

Signature of Participant: _____

Signature of Investigator: _____

Date: _____

Time: _____

Appendix I

Parental / Guardian Consent and Information Form Relationship Issues in Ice Dancers and Pairs Skaters

Introduction. I _____, have been asked to allow my child _____ to participate in this research study which has been explained to me by the researcher, Connie Wanlin. This research is being conducted as part of a graduate research project of West Virginia University.

Purposes of the Study. The purpose of this study is to learn more about relationship issues among ice dancers and pairs skaters.

Description of Procedures. This study will be completed at the rink. This is a two part study involving a survey package that will take approximately 20 minutes to complete. The second part of the study will involve an in-depth interview which is optional. The interview will take an additional hour and a half.

Risks and Discomforts. There are no known or expected risks from participating in this study, except for the mild frustration associated with completing the inventory.

Benefits. I understand that this study is not expected to be of direct benefit to my child, but the knowledge gained may be of benefit to others.

Contact Persons. For more information about this research, I can contact Connie Wanlin, at (304) 598-3666 or her advisor Dr. Ed Etzel at (304) 293-7062. For more information regarding my rights as a research participant, I may contact the Executive Secretary of the Institutional Review Board at (304) 293-7073.

Confidentiality. I understand that any information about me obtained, as a result of my child's participation in this research will be kept as confidential as legally possible. I understand that these research records, just like hospital records, may be subpoenaed by court order or may be inspected by federal regulatory authorities. My name or that of my child or any information from which we might be identified may not be published without my consent.

Voluntary Participation. Participation in this study is voluntary. I understand that I may withdraw my child from this study at any time. Refusal to participate or withdrawal will involve no penalty or loss of benefits for me or my child. I have been given the opportunity to ask questions about the research, and I have received answers concerning areas I did not understand.

Upon signing this form I will receive a copy.

I willingly consent to my child's participate in this research.

Signature of Parent or Guardian: _____

Signature of Investigator: _____

Date: _____

Time: _____

Appendix J

INFORMATION GUIDE

Relationship factors in Ice Dancing and Pairs Skating

Connie Wanlin M. Sc.

Doctoral Student, West Virginia University

The purpose of this study is to examine relationship issues in pairs skating and ice dancing. I am interested in learning more about what contributes to the success, satisfaction and longevity of ice dancing and pairs skating teams. It is my belief that if we can learn more about these relationships and how they achieve excellence we will be better equipped to help from a sport psychology perspective.

What will be involved?

- Completion a questionnaire packet that will take approximately 20 minutes to complete.

Upon completion of this study interested participants will be provided with feedback.

If you have any questions please feel free to contact me at: (304) 598-3666

Appendix K

Definition of Terms

Interpersonal Trust

Interpersonal trust was defined as a skater's belief in his / her partner's benevolence and honesty as measured by the Dyadic Trust Scale (DTS) (Larzelere & Huston, 1980).

Physical Trust

Physical trust was defined as a skater's belief that their partner will protect them from physical harm or injury as measured by an adapted version of the Dyadic Trust Scale (DTS adapted) (Larzelere & Huston, 1980).

Communication

Communication was defined in terms of the verbal and nonverbal themes (i. e., immediacy / affection, similarity / depth, receptivity / trust, composure, formality, dominance, equality, task orientation) present in the skater's interpersonal communication as measured by the Relational Communication Scale (RCS) (Burgoon & Hale, 1987).

Performance Outcome

Performance outcome was defined as the competitive rankings a pair or ice dance team received over the course of one competitive season.

Success Satisfaction

Success satisfaction was defined as the skater's perception of their success in their sport with their current partner.

Relational Satisfaction

Relational satisfaction was defined as the skater's perceptions of their satisfaction with the relationship they have with their current skating partner

Discrepancy Scores

Discrepancy scores are the absolute value of the difference between the scores of each skater in a partnership

Appendix L

Item	<u>Original Scale</u>	<u>Present Scale</u>
1. My partner communicated coldness rather than warmth	Immediacy / Affection	Immediacy / Affection
2. My partner is interested in talking to me	Immediacy / Affection	Intimacy
3. My partner acts bored when we talk	Immediacy / Affection	Immediacy / Affection
4. My partner created a sense of distance between us.	Immediacy / Affection	Intimacy
5. My partner showed enthusiasm while talking to me	Immediacy / Affection	Intimacy and Immediacy / Affection
6. My partner made me feel that he/she is similar to me	Similarity / Depth	Intimacy
7. My partner acted like we are good friends	Similarity / Depth	Intimacy
8. My partner seemed to care if I like him/her	Similarity / Depth	Dropped
9. My partner seemed to desire further communication with me	Similarity / Depth	Intimacy
10. My partner was honest in	Receptivity / Trust	Intimacy

communicating with me

11. My partner was open to my ideas	Receptivity / Trust	Dropped
12. My partner was sincere	Receptivity / Trust	Intimacy
13. My partner was willing to listen to me	Receptivity / Trust	Intimacy
14. My partner wanted me to trust him/her	Receptivity / Trust	Dropped
15. My partner was very relaxed when talking with me	Composure / Formality	Composure
16. My partner seemed very tense when talking to me	Composure / Formality	Composure
17. My partner seemed nervous in my presence	Composure / Formality	Composure
18. My partner was calm and poised with me	Composure / Formality	Composure
19. My partner made the interaction very formal	Composure / Formality	Dropped
20. My partner wanted the discussion to be casual	Composure / Formality	Formality
21. My partner wanted the discussion to be informal	Composure / Formality	Formality

22. My partner attempted to persuade me	Dominance	Dominance
23. My partner had the upper hand in our conversations	Dominance	Dominance
24. My partner tried to control our conversations	Dominance	Dominance
25. My partner didn't attempt to influence me	Dominance	Dominance
26. My partner wanted to cooperate with me	Equality	Intimacy
27. My partner considered us equals	Equality	Intimacy
28. My partner does not treat me as an equal	Equality	Intimacy
29. My partner was more interested in social conversations than the task at hand	Task Orientation	Task Orientation
30. My partner was more interested in working on the task at hand than on social conversations.	Task Orientation	Task Orientation
31. My partner was very work-oriented	Task Orientation	Task Orientation

32. My partner wanted to stick to the Task Orientation Task Orientation
main purpose of the
interaction/conversation
