Predictors of Relationship Satisfaction in Online Romantic Relationships

Traci L. Anderson & Tara M. Emmers-Sommer

Based on traditional theories of interpersonal relationship development and on the hyperpersonal communication theory, this study examined predictors of relationship satisfaction for individuals involved in online romantic relationships. One hundred-fourteen individuals (N = 114) involved in online romantic relationships, and who had only engaged in computer-mediated communication (CMC) with their partners, completed an online questionnaire about their relationships. Intimacy, trust, and communication satisfaction were found to be the strongest predictors of relationship satisfaction for individuals involved in online romances. Additionally, perceptions of relationship variables differed depending on relationship length and time spent communicating. Implications for interpersonal and hyperpersonal communication theories, and future investigation of online relationships, are discussed.

Keywords: Computer-Mediated Communication; Relationship; Online; Satisfaction; Uncertainty; Hypersonal; Interpersonal

More people are becoming involved in computer-mediated romantic relationships. These individuals inhabit an interesting relational niche because they engage in relationships that are perceived by some scholars as either nontraditional or understudied (Emmers-Sommer, 2005). Given these atypical relational circumstances, such individuals might also lack information about online romantic relationships and social support networks from which to gain confirmation about their relationship.

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Although there is an abundance of research on romantic relationships in general, there is still much to be learned about relationships that form in online settings. Theoretically, current interpersonal theories do not completely account for the development of, or what occurs within, online romantic relationships (Merkle & Richardson, 2000). Practically speaking, it is possible that people in online romantic relationships will experience relationship problems or struggle with the stigma that comes from having an online romantic relationship (Wildermuth, 2004) as people tend to perceive online relationships negatively (Anderson, 2005), thus, people might seek counseling from a practitioner who, at the present time, would be hard pressed to find any substantial research on online romantic relationships.

To date, there has been minimal research conducted in the area of computer-mediated romantic relationships. Much of the existing research has been concerned with how online relationships are initially established or perceived and managed as “real” relationships (Parks & Floyd, 1996). Such research is indeed valuable, yet we must also study other aspects of these relationships, such as what contributes to online relationship success. Researchers are beginning to take note of this issue (e.g., Baker, 2002; Rumbough, 2001); however, few studies of online interpersonal relationship “success” or satisfaction have been published. We seek to establish which predictors of face-to-face (FTF) relationship satisfaction hold true for online romantic relationships. Indeed, to further our understanding of what contributes to successful online romantic relationships it would be fruitful to examine what predicts online romantic relationship satisfaction. Thus, the purpose of this study is to examine the extent to which similarity, commitment, intimacy, trust, attributional confidence, and communication satisfaction predicts relational satisfaction in online romantic relationships.

Computer-Mediated Communication and Relating

Initial research on computer-mediated communication (CMC) incorporated such theories as media richness theory (Draft, Lengel, & Trevino, 1987) and social presence theory (Short, Williams, & Christie, 1976), currently known as the “cues filtered out” perspective (Culnan & Markus, 1987). Proponents of the cues filtered out perspective advocated that CMC was not conducive for forming close ties online due to the minimal social context and nonverbal cues inherent to CMC. Some went so far as to suggest that online relationships, if formed, were “inauthentic” (e.g., Chenault, 1998). However, more recent research indicates that CMC does allow for people to achieve closeness through communicating online. By extending previous theoretical work on CMC, such as the social information processing (SIP) model (Walther, 1992) and the social identification/deindividuation (SIDE) model (Spears & Lea, 1994), Walther (1996) proposed a “hyperpersonal model” of CMC. He argued that online interpersonal communication lends itself to rapidly developing relationships because CMC is more intimate and moves more quickly than FTF communication. According to Walther, this closeness develops due to the sender’s ability to carefully present him- or herself, the afforded ability to edit messages before sending them, the receiver’s tendency to form positive and ideal partner attributions, and the dyad’s
level and intensity of self-disclosure. These factors then combine cyclically such that online communicators reinforce one another’s perceptions of the idealized partner.

Many researchers have conducted studies in which the cues filtered-out model was shown to be inaccurate for explaining much of what occurs in online interactions. Walther and Burgoon (1992) found that in the initial stages of online relationship development, individuals are less open and self-disclose more slowly. However, later studies (Walther, 1993, 1996) demonstrated that individuals in such relationships quickly adapt to the lack of bandwidth. Walther (1996) has noted that CMC overcomes certain limitations of FTF interactions by providing a context in which people can interact with relative anonymity (or pseudonymity). Once in an online environment, persons may alter their names, physical presence, or any other personal detail about which they might feel uncomfortable or self-conscious (Lea & Spears, 1995). The de-emphasis of physical presence is conducive to genuine, free, and open communication (e.g., Myers, 1987) and subsequently may reduce communication apprehension (Sproull & Kiesler, 1991).

The above might help to explain how people form online social and personal relationships. Parks and Roberts (1998) investigated personal relationships in various types of multi-user domains (MUDs) and discovered that nearly 94% of their 235 participants had formed an online relationship of some kind (friendship or romantic in nature). The authors indicated that participants reported relationship breadth and depth, commitment, predictability, and understanding of one another as being moderate to high. Furthermore, nearly one third of their sample had progressed to in-person meetings. Whitty and Gavin (2001) conducted interviews of 60 Internet users involved in online relationships and reported that participants indicated “traditional” relationship characteristics such as trust and commitment are equally important components in relationships formed online. Baker (2002) examined case studies of eight couples that met online to determine what characteristics led them to be successful after meeting FTF and found that increased communication time and effective conflict management skills were two factors that contributed to making the move to FTF. Wright (2004) examined the relational maintenance strategies used by persons in nonromantic online relationships and found that positivity and openness were the two most common strategies reported. These researchers are moving forward the study of online relationships, yet further research into the burgeoning realm of online relationships is warranted as personal relationships that develop online continue to increase and, in many cases, move off-line (McKenna, Green, & Gleason, 2002).

**Relationship Satisfaction**

Relationship satisfaction, the degree to which an individual is content and satisfied with his or her relationship, is a strong indicator of relationship length and success in traditional FTF intimate relationships. Therefore, relationship satisfaction is important not only for understanding successful online relationships but also as a potential indicator of an online relationship that might effectively move to an off-line, FTF relationship. Relationship satisfaction has been examined as both an
individual and dyadic construct, and researchers have found that it is affected by individuals’ perceptions of their partners’ various attitudes, behaviors, and communication (Guerrero, 1994). For example, Burleson, Kunkel, and Birch (1994) discovered that relationship satisfaction could in part be predicted by similarity in communication values. Additionally, Neimeyer (1984) suggested that similarity of interpersonal variables is a predictor of marital satisfaction.

Rusbult and Buunk (1993) found that couples that reported high relationship satisfaction also reported higher levels of intimacy and commitment. In fact, numerous studies that have examined the investment model show relationship satisfaction and commitment are positively correlated whereas they are negatively correlated with relationship alternatives. If an individual feels highly committed to an online partner and is anticipating future interaction with the partner in an off-line context then perceived commitment of the partner might influence satisfaction as the future success of the off-line relationship may hinge upon the partner’s commitment to the relationship as it stands. This is exacerbated by the knowledge that if the relationship does progress to FTF, it may likely continue (at least for some time) as a long distance relationship. This is because a large number of people who meet online are not geographically close and geographical distance may potentially lead to an increased need for trust and commitment (see Rohlfing, 1995 for review).

**Similarity**

One variable that has been shown to influence relationship satisfaction is similarity, the degree to which individuals perceive themselves as similar to others (e.g., Byrne, 1971; Duck, 1994). Barnes (2003) has suggested that similarity is important in online relationships because it takes the place of proximity; people may not be able to be close in physical location to someone with whom they are interacting online, yet they can find others who share common interests and attitudes. Research has shown that similarity attracts individuals to others with similar attitudes and backgrounds in online social support groups that are based on specific interest and hobbies (e.g., Wright, 2000). According to Walther’s hyperpersonal model (1996), in the absence of information not available online such as physical appearance, social status, and so forth, interactants may make over-attributions about their own and their partners’ similarities and encourage responses that confirm this. Thus, if someone perceives her/his online partner as highly similar, s/he may be interpersonally attracted to the conversational partner and experience greater relationship satisfaction. In addition, Barnes (2003) found that perceived similarity is a primary factor in deciding whether to develop an online relationship.

**Commitment**

Commitment—the extent to which people in romantic relationships experience relational cohesion (togetherness), exclusivity, and anticipated continuance of the relationship (dedication)—is another factor shown to be important to FTF
relationships (Rusbult, 1983). Researchers have found that commitment is linked to relationship satisfaction (Sprecher, 1999). Rusbult (1980) argued for an investment model of relationship development, positing that commitment is the result of individuals’ perceived alternatives to their current relationships, investment in the relationships, and relationship satisfaction. Thus, consistent with Rusbult’s model, a person’s perception of various factors in a relationship is central to that person’s relationship satisfaction (and own level of commitment). In fact, Rusbult and Buunk (1993) stated that “Highly committed individuals need their relationships, feel connected to their partners and have a more extended, long-term time perspective regarding their relationships” (p. 180). Focusing on CMC, Parks and Floyd (1996) examined online friendships formed in MUDs and reported that people experience moderate levels of commitment with their online friends. It is possible that people online would not only feel commitment toward online romantic partners but also that the level of commitment would positively influence online relationship satisfaction.

Intimacy

A significant factor in the development of and satisfaction in relationships is intimacy. Social penetration theory posits that there is a significant alteration in patterns of communication as intimacy develops in relationships (Altman & Taylor, 1973). Furthermore, intimacy has been closely linked with communication satisfaction (e.g., Hecht, 1978, 1984). Walther (1993, 1996) and others have explained that people who engage in CMC tend to adapt to the low bandwidth of the context and use other means to indicate nonverbal (including vocal) behaviors that connote intimacy. Methods of adapting include the use of emoticons that can be used to convey intimacy in online contexts and to positively influence the development of online relationships (Utz, 2000; Walther & D’Addario, 2001). Walther (1996, 1997) reported that even among those who had not met previously, people achieved higher levels of intimacy through CMC than in similar FTF interactions. Corroborating Walther’s findings, Hian, Chuan, Trevor, and Detenber (2004) examined how intimacy develops in FTF versus CMC contexts and reported that intimacy develops more quickly in the CMC context due to the high frequency of interaction. Because intimacy is likely to develop quickly and intensely in CMC due to the way persons process information online in personal relationships, we can expect high levels of intimacy among romantic online partners. In turn, we know that intimacy is a primary component in the development of relationships; thus, heightened levels of intimacy may contribute to relationship satisfaction in online romantic relationships.

Trust

According to uncertainty reduction theory, people will seek to gain information about their relational partners in an effort to reduce uncertainty about those partners (Berger, 1979; Berger & Calabrese, 1975). Because a central component of trust is a relational partner’s behavioral predictability, a person in an intimate relationship will
engage uncertainty-reducing strategies to gain knowledge of a partner’s relationship-oriented behaviors. People high in uncertainty and subsequently low in trust possess greater motivation to examine and assess their partner’s level of commitment than do people high in certainty and trust (Holmes & Rempel, 1989). Although this lack of trust can be caused by any number of personal and/or relational issues, people with uncertainty and lacking in trust are inclined to react negatively to information about their partners that they perceive to be unfavorable. According to Holmes and Rempel, the very goal of uncertainty reduction is to ascertain a sense of security in the relationship based on the partner’s level of attachment. Because online relationships are forming and involve having trust in a relational partner (which is gained, in part, through the development of intimacy), the degree to which one trusts an online partner may affect level of relationship satisfaction. In addition, researchers have recently found that strong levels of trust are not only possible when communicating interpersonally online (Henderson & Gilding, 2004; Parvaneh, Lazar, & Preece, 2004) but may be facilitated by CMC (Hardey, 2004).

**Attributional confidence**

Clatterbuck (1979) argued that increasing one’s attributional confidence is tantamount to reducing uncertainty. Thus, a person has attributional confidence when s/he perceives that information obtained about the relational partner is sufficient to explain the partner’s current behaviors and predict future behaviors. When one does not feel confidence about her/his ability to predict behaviors, s/he will experience uncertainty, which is the inability to explain and to predict a relational partner’s actions (Berger & Bradac, 1982). Uncertainty and its subsequent reduction have been posited to be a primary factor in the initiation and development of relationships (e.g., Berger & Bradac, 1982; Berger & Calabrese, 1975). In recent years, researchers have turned their attention to the investigation of uncertainty in CMC environments (e.g., Pratt, Wiseman, Cody, & Wendt, 1999). Tidwell and Walther (2002) found interactants using CMC tend to adapt their uncertainty management strategies to the context and engage in more interactive strategies and fewer passive and active strategies than do persons communicating FTF. Key elements in uncertainty reduction in relationships such as attraction and nonverbal affiliative expressiveness may not take the same role in relationships where partners do not interact FTF. Uncertainty or degree of predictability of a partner’s level of commitment and feelings of intimacy could affect relationship satisfaction. In CMC contexts the possibility of feedback delays and lack of social and visual cues may lead to higher uncertainty due to the inability to reduce uncertainty about the partner’s behavior (Parks & Floyd, 1996). Thus, level of uncertainty/certainty may influence one’s relationship satisfaction; we might expect that as one’s attributional confidence goes up, so will relationship satisfaction.

**Communication satisfaction**

According to the social exchange perspective, relationships continue to develop as rewards exceed costs (Thibaut & Kelley, 1959). Because communication is a building
block of relationships (Duck & Pittman, 1994), satisfying interpersonal communication should aid in relationship development (Hecht, 1978). Satisfying communication occurs when one’s expectations for the interaction are met and fulfilled. In addition, when a person feels understood by her or his partner, this person experiences greater relationship happiness (e.g., Cahn, 1983). Perceptions of understanding and success in communication interactions contribute to communication satisfaction. In an examination of FTF relationships, Emmers-Sommer (2004) found that communication satisfaction contributed to relational closeness and satisfaction. It is of interest to examine this pattern in an online context as well.

Research has shown that these aforementioned relational variables—similarity, commitment, intimacy, trust, attributional confidence, and communication satisfaction—influence relational outcomes and often predict relationship satisfaction. For example, Gottman (1999) reported that intimacy, relationship satisfaction, and communication are positively related. However, it is unknown how these variables affect relationship satisfaction in online romantic relationships. Following Walther’s premise that online interactants are prone to a engaging in a cyclical process in which they selectively edit messages and information when presenting themselves, make positive over-attributions about CMC partners and increase levels of self-disclosure, persons in online romantic relationships may have heightened perceptions of relational variables that will positively influence online relationship satisfaction. In addition, it is important to examine which relational variables function together to predict online relationship satisfaction because satisfaction predicts the stability of a relationship to large extent (Rohlfing, 1995). Therefore, we posit the following question:

RQ1: To what degree do similarity, commitment, intimacy, trust, attributional confidence, and communication satisfaction predict relationship satisfaction for individuals in online romantic relationships?

In addition, prior research indicates that CMC becomes more personal over time and, as interaction increases, perceptions of CMC partners become positively skewed (Hian, Chuan, Trevor, & Detenber, 2004; Walther, 1996). However, we do not know how perceptions of similarity, commitment, intimacy, trust, attributional confidence, and communication satisfaction are affected by amount of communication time. We may expect that those people in online relationships who spend more time communicating may perceive their relationships differently than those who communicate fewer hours. However, because CMC can become intimate so quickly, differences may not be as extensive. Additionally, relationship length may positively affect perceptions as well because if hyperpersonal interaction is occurring then over time people may intensify their idealized notions of their partners. Thus:

RQ2: For individuals in online romantic relationships do perceptions of similarity, commitment, intimacy, trust, attributional confidence, and communication satisfaction differ depending on relationship length?

RQ3: For individuals in online romantic relationships do perceptions of similarity, commitment, intimacy, trust, attributional confidence, and communication satisfaction differ depending on amount of communication?
Method

Participants and Sampling Protocol

One hundred-fourteen ($N = 114$) voluntary participants who were in exclusively online-based romantic relationships completed a Web-based survey. Participants had not met their romantic partner in person nor had spoken to them on the telephone. To solicit participants, a researcher entered online chat rooms that focus on online friendships, relationships, and long-distance relationships to request volunteers. Additionally, the researcher posted messages asking for volunteers in Usenet romance-related men’s and women’s newsgroups.

The participants were demographically diverse and, although the majority was from the United States, they represented many countries. The sample was comprised of 32 (28.1%) men and 82 (71.9%) women, with ages ranging from 18 to 62 ($M = 31.49$, $SD = 9.88$). Participants’ levels of education ranged from some high school to a doctorate degree, with most participants having earned a bachelor’s degree. Ninety participants (78.9%) met their online romantic partners serendipitously in a synchronous communication environment (e.g., chatting), 10 (8.8%) participants met their partners serendipitously in a listserv or bulletin board, and 14 (12.3%) participants met their partners through an online dating service. The average length of relationships was 27.17 weeks ($SD = 20.03$).

Measures

Similarity

The Measure of Perceived Homophily (McCroskey, Richmond, & Daly, 1975) was used to assess the degree to which participants perceive they are similar to their respective online relational partners. The eight item, seven-point semantic differential scale assesses two dimensions, attitude and background homophily, and has been shown to be reliable in past research (e.g., Elliot, 1979). The current study yielded Cronbach’s alphas $= .79$ for both attitude and background dimensions.

Commitment

Perception of both online and off-line relational alternatives was conceptualized as the degree to which one possesses alternatives (other relational partners, either on- or off-line) to the current relationship. Relational commitment was measured using eight seven-point, Likert-type scale items adapted from Rusbult’s (1980) tests of her investment model. The scale assesses one’s dedication to the relationship and one’s perceived relational alternatives, which are fundamental to the notion of commitment. Previous research for this measure has demonstrated a reliability of .90 (Cloven & Roloff, 1993). Cronbach’s alpha $= .92$ in the current study.

Intimacy

Feelings of intimacy were assessed using Miller’s Social Intimacy scale (MSIS) (Miller & Lefcourt, 1982). Baxter (1988) reported that this scale yielded high reliability scores
and in the current study the scale yielded a Cronbach’s alpha = .90. The measure contains 17 items measured on a 10-point Likert-type scale that assess degree and frequency of perceived closeness as achieved through behaviors and communication interactions. The MSIS taps into the dimension of psychological intimacy only, which is most appropriate for this study given that participants are not geographically close to partners.

**Trust**
The Dyadic Trust Scale (Larzelere & Huston, 1980) was used to measure the participants’ degree of trust for their respective partners. The measure contains eight, seven-point Likert-type items. Larzelere and Huston reported an alpha reliability of .93, and Baxter (1988) has argued that, based on evidence from prior studies, the Dyadic Trust Scale has greater construct validity and internal reliability than other trust measures. Cronbach’s alpha = .90 in the current study.

**Attributional confidence**
The short version of the Attributional Confidence Scale (CL7) (Clatterbuck, 1979) was used to assess participants’ perceived level of certainty about their online relationships. Specific to this investigation, the CL7 was utilized to measure the degree to which individuals could make attributions with confidence (i.e., with certainty) about occurrences in their online relationships. Certainty is measured on a 0% to 100% scale. This short, proactive version of the scale—which focuses on one’s confidence in making attributions before events occur instead of retroactively making attributions—is preferred over the longer version of the scale (CL65) due to ease of administration. Prior research has yielded reliabilities of .76 to .97 (e.g., Clatterbuck, 1979). Cronbach’s alpha = .89 in the current study.

**Communication satisfaction**
Interpersonal communication satisfaction was conceptualized as “the emotional reaction to communication which is both successful and expectation fulfilling” (Hecht, 1984, p. 201). This predictor variable was assessed using a shortened version of Hecht’s (1978) seven-point Likert-type measure of communication satisfaction. This eight-item abridged version has been factor analyzed and shown to be reliable (α = .93) in previous cross-sectional and longitudinal studies (VanLear, 1988, 1991) and had an alpha of .96 in the current study.

**Relationship satisfaction**
Relationship satisfaction is the degree to which an individual is content with his or her current relationship. To assess relationship satisfaction the researchers used a version of Norton’s (1983) Quality Marriage Index (QMI) adapted for persons in (nonmarital) online romantic relationships. The QMI is a six-item Likert-type scale.
Norton’s measure is considered by many to be an improvement on early measures of relationship satisfaction and has yielded Cronbach alpha scores ranging from .88 to .96 (e.g., Baxter, 1988; VanLear, 1991). Additionally, the measure has remained reliable in previous studies when adapted for nonmarried persons (VanLear, 1991). Cronbach’s alpha = .95 in the current study.

**Relationship length**
Relationship length was measured by asking participants to report how many weeks they had been involved with their current online romantic partner. Length ranged from 3 to 53 weeks with an average of 27.17 weeks ($SD = 20.03$).

**Amount of online communication**
The time spent communicating online was measured by asking participants how many hours per week, in general, they communicated online with their partners including all forms of communication (e.g., sending and reading e-mail, interacting in a MUD). Communication time ranged from 1 to 40 hours a week with an average 17.64 hours ($SD = 14.20$). “Amount” was operationalized not in terms of “how often”; rather, it was operationalized as “how much”.

**Results**
All tests were conducted at the $p < .05$ level. Only significant results are reported and addressed in the discussion.

The first research question asked what relational variables predicted relationship satisfaction for individuals in online romantic relationships. To test RQ1, we conducted a forced entry linear regression, which showed that the predictor variables (attitude similarity, background similarity, commitment, intimacy, trust, attributional confidence, and communication satisfaction) accounted for 85% of the variance in online relationship satisfaction, $R^2 = .85$, adjusted $R^2 = .84$, $F (7, 106) = 98.96$, $p < .001$. Results of the regression model indicated that three predictors—intimacy, trust, and communication satisfaction—were significant at an alpha of less than .01. Standardized beta coefficients, t-values, and partial correlations (holding the effects of all other predictor variables constant) for these three variables are listed in Table 1.

The second research question asked whether perceptions of similarity (attitude and background), commitment, intimacy, trust, attributional confidence, and communication satisfaction differ depending on relationship length. The authors conducted analyses of variance to examine whether the perceived levels of the reported relational variables differed based on length of relationship (short, average, long). The ANOVA scores were significant for attitude similarity $F (2, 111) = 4.58$, $p = .01$, $\eta^2 = 0.08$, intimacy $F (2, 111) = 15.23$, $p < .001$, $\eta^2 = 0.22$, trust $F (2, 111) = 10.37$, $p < .001$, $\eta^2 = 0.16$, and attributional confidence, $F (2, 111) = 5.65$, $p < .01$, $\eta^2 = 0.09$. Multiple comparison procedures were conducted using the Tukey
HSD test. Results indicate that levels of perceived attitude similarity differed significantly between those persons whose relationship length was average and those persons who were in a lengthy online relationship. For perceived intimacy, levels differed significantly between people in long relationships and average-length relationships, and between people in average-length relationships and short relationships. Specifically, those who had been in their online relationships a greater amount of time reported greater levels of intimacy. For trust, there were significant differences between those who had been together the longest and those who were together an average length of time. There were also differences in trust levels between those who had the longest and shortest relationships. Finally, regarding attributional confidence, means differed significantly between those persons who had been in their online relationships the shortest length of time and those who had been involved the longest. Means and standard deviations for attitude similarity, intimacy, trust, and attributional confidence are listed in Table 2.

The third research question asked whether perceptions of similarity (attitude and background), commitment, intimacy, trust, attributional confidence, and communication satisfaction differ depending on amount of time spent communicating with one’s partner. Again, the authors conducted a series of ANOVAs to examine whether the levels of the reported relational variables differed based on time spent communicating with one’s partner (low, moderate, and high). The tests were significant for attitude similarity $F (2, 111) = 24.07, p < .001, \eta^2 = 0.30$, background similarity $F (2, 111) = 8.33, p < .001, \eta^2 = 0.13$, commitment $F (2, 111) = 27.93, p < .001, \eta^2 = 0.34$, intimacy $F (2, 111) = 17.19, p < .001, \eta^2 = 0.24$, trust $F (2, 111) = 19.05, p < .001, \eta^2 = 0.26$, attributional confidence $F (2, 111) = 7.40, p = .001, \eta^2 = 0.19$, and communication satisfaction $F (2, 111) = 7.52, p = .001, \eta^2 = 0.20$.

Post hoc tests for the analyses of variance indicate there are significant differences in perceptions of attitude similarity. Specifically, low and high communicators, as well as moderate and high communicators, were significantly different from one another with the higher communication groups reporting greater perceived attitude similarity. For background similarity, moderate communicators differed significantly from both low and high communicators, such that the moderate communicators reported higher levels of perceived background similarity. Regarding commitment, low and moderate communicators, and moderate and high communicators, reported significantly different commitment levels; as communication time went up so did...
perceived commitment. Perceptions of intimacy differed among all groups. High communicators reported significantly more intimacy than did moderate or low communicators, and moderate communicators reported significantly less intimacy than low communicators. For trust, both low and moderate communicators reported significantly lower levels of trust than did high communicators. Levels of attributional confidence differed significantly between those persons who communicated at moderate and high levels, with those communicating a greater amount reporting higher attributional confidence. Last, regarding communication satisfaction, both the low and moderate groups reported significantly lower satisfaction than did the high communication group. Means and standard deviations for these variables are listed in Table 3.

Table 2 Means and Standard Deviations for Relationship Variables with Significant Differences Based on Relationship Length*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Relationship length</th>
<th>Mean</th>
<th>SD</th>
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<tbody>
<tr>
<td>Attitude similarity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short</td>
<td>5.57</td>
<td>1.35</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>5.18***</td>
<td>1.39</td>
<td></td>
</tr>
<tr>
<td>Long</td>
<td>6.04***</td>
<td>1.05</td>
<td></td>
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<tr>
<td>Intimacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short</td>
<td>8.50**</td>
<td>1.08</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>8.93**</td>
<td>.55</td>
<td></td>
</tr>
<tr>
<td>Long</td>
<td>9.47**</td>
<td>.56</td>
<td></td>
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<tr>
<td>Trust</td>
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<td></td>
</tr>
<tr>
<td>Short</td>
<td>5.62</td>
<td>1.32</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>5.97</td>
<td>1.10</td>
<td></td>
</tr>
<tr>
<td>Long</td>
<td>6.66****</td>
<td>.42</td>
<td></td>
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<tr>
<td>Attributional confidence</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Short</td>
<td>80.17***</td>
<td>17.56</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>85.86</td>
<td>7.14</td>
<td></td>
</tr>
<tr>
<td>Long</td>
<td>90.15***</td>
<td>12.2</td>
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</tbody>
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*n sizes for each respective relationship group are as follows: short = 34, average = 40, long = 40.

**each group significantly different from the other at p < .05.

***groups significantly different from one another at p < .05.

****group significantly different from other groups at p < .05.

Discussion

The purpose of this study was to determine key predictors of relationship satisfaction in online romantic relationships. Specifically, to what extent do similarity, commitment, intimacy, trust, attributional confidence, and communication satisfaction
affect and predict the degree to which a person feels relationally satisfied when involved with another person romantically online. In addition, we were interested in examining whether differences existed among these variables based on online relationship length and amount of time online partners communicated with each other.

**Table 3** Means and Standard Deviations for Relationship Variables with Significant Differences Based on Amount of Communication

<table>
<thead>
<tr>
<th>Variable</th>
<th>Amt. of com time</th>
<th>Mean</th>
<th>SD</th>
</tr>
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<tbody>
<tr>
<td>Attitude similarity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>4.78</td>
<td>.19</td>
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<tr>
<td>Moderate</td>
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<td>5.33</td>
<td>.18</td>
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<tr>
<td>High</td>
<td></td>
<td>6.48**</td>
<td>1.70</td>
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<tr>
<td>Background similarity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>5.24</td>
<td>.25</td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
<td>4.00***</td>
<td>.24</td>
</tr>
<tr>
<td>High</td>
<td></td>
<td>5.13</td>
<td>.23</td>
</tr>
<tr>
<td>Commitment</td>
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<tr>
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<td></td>
<td>4.70**</td>
<td>1.80</td>
</tr>
<tr>
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<td></td>
<td>5.80**</td>
<td>1.26</td>
</tr>
<tr>
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<td>6.81**</td>
<td>.30</td>
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<tr>
<td>Low</td>
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<td>8.41**</td>
<td>.83</td>
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<tr>
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<td>9.02**</td>
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<td>High</td>
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<td>9.42**</td>
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<td>91.16***</td>
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<tr>
<td>High</td>
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<td>6.94***</td>
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</table>

* n sizes for each respective amount of communication group are as follows: low = 33, moderate = 38, high = 43.

**each group significantly different from the other at \( p < .05 \).

***groups significantly different from one another at \( p < .05 \).

****group significantly different from other groups at \( p < .05 \).
other. The following section addresses some theoretical implications of this research, limitations, and suggestions for future research.

Results of our analysis reveal that intimacy, trust, and communication satisfaction significantly predicted online relationship satisfaction. Although it was surprising that some of the predictor variables did not significantly predict satisfaction, this finding does reveal that some important FTF relational components also contributed to satisfaction in online romantic relationships. When evaluating the role of trust in predicting online relationship satisfaction, because people rely on their perceptions of their partners when gauging partner’s trustworthiness, the hyperpersonal model may account for the relatively high levels of trust in this study and the effect of trust on relationship satisfaction. Additionally, those who are trusting use this trust to frame partner’s behaviors (Holmes & Rempel, 1989). Thus, interpretations of one’s partner may become a function of selective perception by which a partner’s behaviors are interpreted as consistent with one’s positive expectations (Murray & Holmes, 1993). Furthermore, one’s opportunity for an “enhanced performance” online and the development of a trustworthy reputation are two main components of online trust (Henderson & Gilding, 2004). Hyperpersonal interaction allows for such enhanced interactions online that in turn may facilitate a favorable reputation as perceived by one’s partner. Additionally, trust and intimacy are linked closely; as partners grow closer and depth increases, trust develops and as trust increases, so do levels of intimacy. Wright (2004) found that openness was one of two most commonly used maintenance strategies for online relationships, which suggests that relational behaviors of persons in online relationships tend to facilitate intimacy, and research has found intimacy develops quickly online (Hian et al., 2004; Walther, 1997). Furthermore, the role of intimacy in predicting relationship satisfaction in this study is consistent with a wealth of personal relationship research that indicates intimacy is a key component of relationship and marital satisfaction (e.g., Feeney, Noller, & Ward, 1997; Hassebrauck & Fehr, 2002).

It is not surprising that communication satisfaction predicted relationship satisfaction. Communication is a central component of establishing and developing relationships (e.g., Duck & Pittman, 1994), and in online relationships simple, everyday interaction allows partners to maintain their relationships (Rabby & Walther, 2003). In essence, given online partners’ inability to “go out,” have physical contact, or experience other components related to physical presence that are enmeshed in FTF romantic unions, the online communication is the relationship. Furthermore, researchers have found that communication satisfaction is positively correlated with, and predictive of, FTF relationship satisfaction (e.g., Emmers-Sommer, 2004; Guerrero, 1994). Additionally, persons lacking other cues in CMC are likely to attend more closely to the textual messages sent by one’s partner, while at the same time the CMC partner is likely editing and presenting oneself carefully, thus leading to the “idealized” perceptions of one’s communicative partner (Walther, 1996). Thus, following hyperpersonal theory, CMC provides an immense opportunity for perceived communication satisfaction. Because an online relationship is wholly dependent upon communication (albeit primary textual, such as chat and e-mail), communication
satisfaction is necessary for relationship satisfaction as there is little else on which to base perceptions of the relationship; if communication ceases, so does the relationship. Additionally, hyperpersonal interaction afforded by CMC may have enhanced perceptions of one’s communication with an online partner by facilitating idealized perceptions of that partner and her/his communication skills (Walther, 1996).

Results also indicated that individuals who communicated a greater amount of time per week reported higher communication satisfaction with their partners than those who communicated with their partners a fewer number of hours per week. This finding is encouraging as it relates to CMC. Specifically, in an examination of what best predicted relational satisfaction and intimacy—quality or quantity time—Emmers-Sommer (2004) found that quality of communication better predicted those outcomes than quantity of communication. Although a variety of mediums were evaluated, results indicated that FTF communication was key for quantity of communication. The findings of the present study, however, indicate that participants were satisfied with their online communication and the relational outcomes associated with CMC. Length of relationship did not account for as many differences in perceptions as did amount of communication; people who had been involved for longer periods of time with their online romantic partners reported greater levels of intimacy, trust, and attributional confidence than did those who had been dating online for shorter periods of time. Attributional confidence levels also differed according to amount of communication time, with those persons who communicated a greater amount reporting higher attributional confidence levels. Thus, amount of communication time (accounting for significant differences in attitude and background similarity, commitment, intimacy, trust, attributional confidence, and communication satisfaction) had a greater impact on perceptions than did length of relationship (accounting for differences in intimacy, trust, and attributional confidence only).

Increased communication time with online partners may have led to participants forming idealized/heightened perceptions of similarity, commitment, intimacy, trust, attributional confidence, and communication satisfaction because CMC interaction allows people to engage in hyperpersonal behaviors. That is, participants were able to attend to cues that confirmed their desired perceptions (cues that were carefully edited by their respective relational partners) and, due to information lacking in CMC, they did not have access to cues that may have contradicted those idealized perceptions. These findings are consistent with prior research that shows frequency of CMC affects perceptions of online partners (Walther, 1996; Wright, 2004). Additionally, intimacy, trust, and attributional confidence may be greater for those in longer relationships because, when communicating online, it takes longer for socioemotional indicators to manifest themselves (Walther, 1992, 1993; Walther & Burgoon, 1992).

One limitation of the current study was the use of a nonrandom convenience sample of persons in online romantic relationships, largely because it is impossible to obtain a list of the population of persons involved in online romantic relationships. In fact, because there is often a stigma for people in online relationships
(Wildermuth, 2001), people may be hesitant to identify themselves and participate in related research. The sample may have affected the relatively high levels of satisfaction reported by participants because it is possible that only those persons who were highly satisfied with their online relationships chose to participate. That is, self-selection might have been an issue. Another limitation was the use of a one shot cross-sectional design and the lack of a FTF comparison group. As it is worthwhile to explore whether perceptions in CMC differ from FTF (Parks & Roberts, 1998), a comparison of online and FTF relationship predictors is warranted to assess the degree to which predictors found in this study were influenced by the medium.

Future researchers could benefit from investigating the ways in which intimacy, trust, and communication satisfaction mutually influence one another in hyperpersonal interaction and how they work collectively to predict satisfaction in online romantic relationships. Additionally, researchers should examine whether predictors of relationship satisfaction in nonromantic relationships differ from the predictors noted here and whether hyperpersonal communication functions differently in romantic versus nonromantic relationships. Perhaps most importantly, future research should explore how perceptions of relationships formed via hyperpersonal communication affect perceptions once partners have met FTF and the extent to which these perceptions predict a successful move from an online to a FTF romantic relationship. Because many online relationships become long-distance relationships after moving to FTF, it may be fruitful to investigate how predictors of relationships satisfaction affect relationships and whether predictors of satisfaction change as these relationships move from online to primarily Internet-based (geographically separated) relationships (Wright, 2004), and from primarily Internet-based relationships to fully FTF (geographically close) relationships. Specifically, future research may focus on the extent to which perceptions of relational variables, established through hyperpersonal interaction, carry over to the relationships once they move off-line. Of additional importance and interest is whether positively skewed perceptions of online partners are maintained or disconfirmed if the relationship moves off-line; and, if disconfirmed, what this means for the future of relationships initiated online that progress off-line.

Notes

[1] Using a list of all chat rooms available on AOL that dealt with online friendship and romance, and long-distance relationships (e.g., social support and sexual chat rooms, for example, were not used), every 30th chat room was visited by the researcher for a total of 15 chat rooms.

[2] Country of origin break down for participants was as follows: United States (n = 77, 67.5%), Canada (n = 14, 12.3%), Australia (n = 8, 7%), France (n = 3, 2.6%), Germany (n = 2, 1.8%), Italy (n = 1, .9%), the Netherlands (n = 3, 2.6%), New Zealand (n = 1, .9%), and the United Kingdom (n = 3, 2.6%).

[3] Initially, we examined frequency of interaction as a predictor variable as well, but the variable suffered from lack of variability. Specifically, the mean, median, and mode were the same (7 on a scale of 1 to 7, with 7 = days a week). As a result, we removed frequency
of interaction from the current analyses. However, consistent with Walther’s work, we recognize frequency of interaction to be an important variable and one worthy of inclusion in future studies.

[4] We used criteria established by Stevens (1996) to test for high multicollinearity. These criteria included the examination of a correlation matrix for any bivariate correlation over .80 and the examination of the predictors’ variance inflation factors for any variance inflation factor (VIF) over 10.00, which identified one correlation higher than .80; trust and intimacy were correlated at .842 (p < .001). However, Meyers (1990) argues there is need for concern (and subsequent variable deletion) if a VIF exceeds 10 and, because neither VIF was above ten (trust VIF = 5.89; intimacy VIF = 5.86), both distinct variables were retained.

[5] Although beta coefficients indicate a positive relationship among trust, intimacy, and communication satisfaction, due to the prior decision rules established for dealing with multicollinearity, variables were kept as distinct entities and not combined into any composite variables.

[6] It should be taken into consideration that Emmers-Sommer (2004) did not collect data in an online forum, whereas the current study involves an online collection (i.e., participants might self-select medium based on preferences).

References


