Go Long! Predictors of Positive Relationship Outcomes in Long Distance Dating Relationships

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In Press. Journal of Sex & Marital Therapy.

Abstract

Little is known about one common relationship type: long distance dating relationships (LDDRs). The purpose of this study was to investigate differences between LDDRs and geographically close relationships (GCRs) and to explore predictors of relationship quality. In total, 474 females and 243 males in LDDRs, and 314 females and 111 males in GCRs participated in an online study. Few differences existed between LDDRs and GCRs, while individual and relationship characteristics predicted relationship quality. These results indicate that those in LDDRs are not at a disadvantage, and that relationship and individual characteristics predict relationship quality. This knowledge could be a powerful tool for helping those in LDDRs.

Keywords: Long Distance Dating Relationships, Relationship Quality, Quality Predictors

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Romantic relationships play a key role in many people's lives and can either bring joy and happiness, or create distress and dysfunction. Being in a long distance dating relationship (LDDR) is one hurdle faced by many couples in the course of their relationship(s). Despite the high prevalence of LDDRs, especially among university students (43.2%, Dellmann-Jenkins, Bernard-Paolucci, & Rushing, 1994; 30%, Guldner, 1996), this relationship type has been understudied, and many important facets remain unexplored. While many, including popular media, regard LDDRs as less satisfying and functional than geographically close relationships (GCRs), some have suggested that not everyone in an LDDR is unhappy. It has even been posited that certain relationship and individual characteristics predict positive outcomes. For example, relationship quality may vary as a function of the amount distance between partners, prospect of reuniting, perceived success of the relationship, and more. Unfortunately, the research literature is fraught with contradictions, making it difficult to predict relationship outcomes and offer advice. Because romantic relationships play such an important part in a person's life, it is important to understand what factors predict satisfaction and quality. Such an exploration has implications for future research and treatment, and may also serve to inform perceptions and communications in popular media.

Contradictory Messages

The inconsistent results concerning relationship quality fail to provide a clear understanding of how LDDRs function. For example, some studies report that individuals in LDDRs have comparable or greater relationship quality than individuals in GCRs. In fact, researchers have reported that being in an LDDR is not related to a decrease in important

relationship factors such as perceived levels of intimacy, satisfaction, commitment, or trust (Dellmann-Jenkins et al., 1994; Guldner & Swensen, 1995). Similarly, one study demonstrated that in comparison to people in GCRs, people in LDDRs break up less often, report being more in love, and are just as satisfied, or more so, with their relationship and communication (Stafford & Reske, 1990). More recently, Kelmer, Rhoades, Stanley, and Markman (2013) reported that those in LDDRs had higher relationship adjustment, love, and conversational quality, paired with less minor psychological aggression and dysfunctional communication. Other studies, however, provide different patterns of findings. For example, a study by Van Horn and colleagues (1997) found that individuals in LDDRs report less relationship satisfaction and fewer characteristics of intimate relationships, such as descriptive self-disclosure and companionship. Interestingly, they also found that those in LDDRs and GCRs were equally likely to break up. Further, though individuals in LDDRs are often optimistic about their likelihood of dissolution, their rates of breakup are similar to those in GCRs (Kelmer et al., 2013). Overall, this literature suggests that dichotomizing people based on LDDR versus GCR may not be the most effective method of predicting relationship success, dissolution, or quality, and that other explanations such as relationship characteristics and subjective perceptions should be explored.

Characteristics of LDDR Relationships

Perhaps the question should be: "what *type* of LDDR are you in?" Not all LDDRs are the same, and some researchers have suggested that the differences between LDDRs themselves may account for the discrepant findings reported in the literature. For example, LDDRs could be categorized based on how often partners see each other, how far apart partners are from one another, etc. Indeed, some have suggested that certain subtypes might have advantages over others. For example, Dainton and Aylor (2001) found that individuals in LDDRs who had "some

face-to-face contact" with their partners reported greater levels of relationship trust than individuals in GCRs, but individuals in LDDRs with "little-to-no face-to-face contact" with their partners reported significantly lower levels of trust than individuals in GCRs and individuals in LDDRs who had some face-to-face contact. While this may seem to be an obvious conclusion, it does support the hypothesis that specific relationship characteristics need to be strongly considered. Similarly, Holt and Stone (1988) found that couples that were further apart for longer periods of time reported significantly lower levels of relationship satisfaction than those who were geographically closer and had more face-to-face contact. These results suggest that greater distance and time between visits puts additional strain on a relationship and leads to poorer relationship outcomes. Alternately, Van Horn and colleagues (1997) found that satisfaction did not vary based on the frequency of visits. These results held despite the fact that the authors utilized a convenience sample of undergraduate students, similar to past studies finding opposite results. The measures used, however, were less comprehensive than other studies. Overall, the importance of time and distance apart remains unclear, and perhaps other factors underlie the quality of LDDRs.

Attitudes and Perceptions

Thinking beyond objective markers of long distance, some studies suggest that attitudes and perceptions may play a key role in the trajectory of relationships. Van Horn and colleagues (1997) discovered that lower ratings of relationship satisfaction, a subjective variable, best predicted LDDRs and GCRs termination. Further, in one study assessing relationship certainty, individuals in LDDRs were asked if they were certain to live in the same city as their partner in the near future. They were also asked how satisfied they were with that potential outcome. Results showed that being uncertain was related to greater levels of distress, and lower levels of

satisfaction. Interestingly, regardless of certainty, greater *satisfaction* with that possible outcome predicted higher levels of overall relationship satisfaction and lower levels of relationship distress (Maguire, 2007). Based on this finding, it appears as if satisfaction with a relationship's predicted progression may play a key role in its survival that extends beyond more objective features. Thus, research on LDDRs may need to look not only at the conditions of the distance between the couple (a more objective feature), but also the perceptions of distance and the relative levels of satisfaction associated with the relationship's projected future (a more subjective feature).

Sexuality as a Relationship Quality Indicator

Another gap in the LDDR literature is the lack of attention paid to sexuality as a marker of relationship quality. One might assume that sexuality could be written off in a relationship where partners have little physical contact, but its absence cannot be used as an indicator for lack of importance. This dearth of research is particularly surprising since previous research has shown that sexuality is important to most romantic relationships. Christopher and Sprecher (2000) found that in marital relationships, sexual satisfaction is highly related to factors such as relationship satisfaction and love. Thus, sexual behaviour and satisfaction are important outcome variables when examining the quality of a relationship. Interestingly, another study of relationship and sexual satisfaction examined individuals' desire for sexual activities and frequency of those activities (Santtila et al., 2008). When their desired and actual frequencies of various sexual activities matched their partner's, perhaps indicating sexual satisfaction, participants reported greater relationship satisfaction. This study provides another example of the importance of perception/expectations and the subjective experience of a relationship playing an important role. Kelmer and colleagues (2013) reported no difference in sexual satisfaction

between those in LDDRs and those in GCRs, though such satisfaction was assessed by a single question. Given these findings, and that sexuality is impacted by distance, a more in-depth study of sexuality in LDDRs is warranted when exploring relationship quality. A more complete understanding could assist couples prepare for and cope with the special challenges brought on by this relationship type.

Current Study

Given the gaps and contradictory findings currently present in the LDDR literature, this study addressed two key research questions:

1) Are there relationship outcome differences between those in LDDRs and GCRs when using a more diverse sample than just heterosexually identified undergraduate students?

2) What objective and subjective relationship and individual characteristics predict more positive relationship outcomes for those in LDDRs?

In order to gain a complete picture of these relationships, several outcome variables were addressed, including: communication, relationship satisfaction, sexual satisfaction, sexual communication, intimacy, and commitment.

Hypotheses: Relationship Quality Differences

Even though some previous research has indicated that people in LDDRs and GCRs report comparable levels of relationship satisfaction, intimacy, and love (Dellmann-Jenkins et al., 1994; Guldner & Swensen, 1995; Stafford & Reske, 1990), the results from these samples are not necessarily generalizable due to the dependence on heterosexual student samples. These samples are restrictive, and it is possible that they share underlying characteristics which could have biased the results of the studies. For example, university students may perceive long distance to be a “necessary evil” that must be endured while pursuing their education - a

viewpoint that may differ from individuals in an LDDR outside of an educational context. Therefore, it was hypothesized that those in LDDRs would report significantly poorer relationship quality than those in GCRs when a more diverse sample was utilized.

Hypotheses: Predicting Relationship Quality

As previously mentioned, several factors have been hypothesized to predict positive relationship outcomes. The first were objective factors such as distance apart and frequency of face-to-face contact. Since contradictory results have been reported (e.g., Holt & Stone, 1988; Stafford & Reske, 1990), the possibility of such relationships cannot be ruled out. Therefore, it was hypothesized that a greater degree of distance apart and less frequent face-to-face contact would predict lower scores on all relationship quality outcomes.

Next, it has been established that attitudes about the prospect of one's relationship are related to relationship outcomes. Therefore, it was hypothesized that being more certain about one's relationship prospects would predict greater relationship quality outcomes. Further, it was hypothesized that greater satisfaction with one's level of certainty would predict greater relationship quality. It was also hypothesized that the consideration of certainty and certainty satisfaction would add significantly to the prediction of relationship quality variance after controlling for distance apart and face-to-face contact.

Finally, since negative attitudes about LDDRs are fairly widespread, and one's perceptions play a central role in evaluating relationships, it was hypothesized that more positive attitudes about LDDRs would predict greater relationship quality, and that the consideration of these variables would also add significantly to the prediction of relationship quality variance after controlling for distance apart, face-to-face contact, relationship certainty, and certainty satisfaction.

Method

Participants

For this study, 474 females and 243 males in long distance dating relationships, and 314 females and 111 males in geographically close relationships were recruited from an Ontario university, the local community, and throughout North America. Participants were invited to classify themselves as either being in an LDDR or GCR using the following definitions: An LDDR was a relationship in which it is 'difficult or impossible for partners to see each other every day due to geographical distance.' A GCR was defined as a relationship in which it is 'possible for partners to see each other in person (face-to-face) every day if they wanted to.' Interested participants were eligible if they were in a committed relationship of at least 3 months in duration, were not cohabiting or married at the time of the survey, were over the age of 18, had access to the Internet, and were fluent in English.

Measures

Before completing seven validated questionnaires, participants answered a number of sociodemographic and relationship questions, including those that assessed their attitudes towards being in an LDDR. For example, participants were asked to rate the following two statements on a 5-point scale (1 = *less likely*, 5 = *more likely*): "are long distance dating relationships more or less likely to last than geographically close dating relationships?" and "are couples in long distance dating relationships more or less likely to be satisfied with their relationships than couples in geographically close dating relationships?"

Personal Assessment of Intimacy in Relationships (PAIR; Schaefer & Olson, 1981). This questionnaire consists of five subscales measuring different kinds of intimacy: emotional, social, sexual, intellectual, and recreational. In addition, it contains a conventionality scale,

which assesses the tendency to give socially desirable answers. There are a total of 36 items, which are rated on a 5-point scale (0 = *strongly disagree*, 4 = *strongly agree*). Each subscale was found to be internally reliable, Cronbach's $a > .70$, similar to what was found for the total score in the current study, $a = .92$.

Commitment Scale (CS; Lund, 1985). This questionnaire measures the level of commitment within a relationship. There are nine items rated on a 7-point scale (1 = *not at all*, 7 = *very much*). The author reported a high internal reliability of .82. Adequate reliability was demonstrated in the current study, $a = .69$.

Communication Subscale of ENRICH (CSENRICH; Tzeng, 1993). This questionnaire measures the level of communication within a given romantic relationship, and is a subscale of a larger marital inventory. There are ten items rated on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). The authors of the scale reported internal reliability of .82 (Fowers & Olson, 1989), similar to that found in the current study, $a = .84$.

Dyadic Adjustment Scale (DAS; Spanier, 1976). This questionnaire is a measure of relationship quality in couples. There are 32 items that are rated on various scales. For example, participants rate how often they disagree on matters such as "handling finances" and "demonstration of affection." The author reported a very high internal reliability of $a = .96$, similar to that found in the current study, $a = .91$.

Dyadic Sexual Communication Scale (DSCS; Catania, 1998). This questionnaire assesses perceived communication within the context of a sexual relationship. It consists of 13 items, which are rated on a 6-point scale (1 = *disagree strongly*, 6 = *agree strongly*). Previous research has demonstrated good internal reliability (.81), similar to that found in the current study, $a = .86$.

Female Sexual Function Inventory (FSFI; Rosen et al., 2000). This questionnaire is a measure of female sexual function. It consists of 19 items assessing desire, arousal, lubrication, orgasm, pain with sexual activity, and sexual satisfaction, which are measured on various scales. For this study, only the sexual satisfaction subscale was utilized. The authors demonstrated that the scale had a high internal reliability of .88, similar to that found in the current study for the satisfaction subscale, a = .91.

International Index of Erectile Function (IIEF; Rosen et al., 1997). This questionnaire is a measure of male sexual function, specifically pertaining to erectile function. It consists of 15 items assessing erectile function, orgasmic function, desire, and satisfaction, which are measured on various scales. For this study, only the sexual satisfaction subscale was utilized. The authors reported multiple tests of internal reliability, each of which demonstrated alpha levels greater than .90. The internal reliability for the sexual satisfaction subscale in the current study was adequate, a = .77.

Kessler Psychological Distress Scale (KPDS; Kessler et al., 2002). This questionnaire is a measure of how much psychological distress a person has felt within the past month, with focus on anxiety and depression. There are ten items, which are rated on a 5-point scale (1 = *none of the time*, 5 = *all of the time*). The authors reported a very high internal reliability (.93), similar to that found in the current study, a = .89.

Procedures

This study was approved by the General Research Ethics Board at Queen's University, Kingston, ON. Participants were recruited using e-mail list-servs to classes at the local university as well as webgroups, ads on Facebook, word of mouth, online interest groups, and postings on websites that advertise for online studies. Interested participants were invited to go directly to the

secure survey website, or contact the research coordinator for more information. After reading a letter of information and consent form, they proceeded to a screening page where they answered the questions that determined their eligibility (e.g., age, relationship status). If they were eligible, they proceeded automatically to the survey and spent 30-40 minutes completing questionnaires on the website. If they were ineligible, they received a message thanking them for their willingness to participate.

Once all questionnaires were complete, participants read a debriefing form, and had the opportunity to enter their e-mail address into a draw for one of four monthly prizes valued at $50 each. Participants had the option to withdraw from the survey at any time by closing the browser they were using or by selecting the 'decline response' option for the remainder of the questions. If they withdrew by selecting decline response, they were given the option to enter the draw without penalty.

Data Considerations

Prior to conducting analyses, the data were examined for missing values, normality, and outliers. If variables violated the normality assumption, appropriate transformations were performed until normality was obtained. Relevant analyses were run first using the original and then the transformed variables. If the pattern of significance remained the same regardless of whether the variable was transformed, results are presented using the non-transformed variable for ease of interpretation. Otherwise, the results gleaned from transformed variables are presented. Overall, less than 5% of the data were coded as missing. Missing values were replaced for validated scales using item-mean imputation. Scores on validated measures were then generated only if a participant provided valid data for at least 80% of the questions in that measure.

Since sexual satisfaction was assessed separately for males (IIEF) and females (FSFI), *z*-scores were computed for each satisfaction subscale and combined to create a variable that represented sexual satisfaction for both genders. The variable containing the distance apart from one's partner was significantly positively skewed, so a log transformation was applied, producing a distribution that approached normal.

Results

Sample Characteristics

Characteristics of individuals in LDDR relationships can be found in Table 1, and other sample descriptive statistics can be found in Table 2. Of note, participants were in their early 20s, and the majority of our sample was composed of students, though more than 30% of participants were non-students. Further, there were no significant differences in length of relationship, age, or sexual orientation between participants in LDDRs or GCRs. Those in GCRs were more likely to be Canadian born, while those in LDDRs were more likely to be students. The demographic and relationship information presented indicate that those in LDDRs are not homogeneous. Couples reported a wide range of distances from one another, as well as great variation in how much a visit would cost. Almost half had always been long distance with their partner, while just over half indicated that their relationship cycled between being geographically close and long distance.

To determine whether differences existed between students and non-students on relevant relationship outcome variables two multivariate analyses of variance (MANOVAs) were performed. Relationship quality outcome variables were divided based on whether they addressed sexual or non-sexual aspects of one's relationship. Student status (student or non-student) was the independent variable. For the first MANOVA, intimacy, commitment,

communication, and relationship satisfaction were the dependent variables. The omnibus test was non-significant, $F(4, 1064) = 1.29$, $p > .05$. For the second MANOVA, sexual communication and satisfaction were the dependent variables. Similarly, the omnibus test was non-significant, $F(2, 1072) = 4.50$, $p > .05$.

To determine whether differences existed based on sexual orientation two MANOVAs were performed. Since some of the groups were quite small, participants were categorized as heterosexual versus gay/lesbian, bisexual, queer, or other, and this dichotomous variable served as the independent variable. Once again, relationship quality outcome variables were divided based on whether they addressed sexual or non-sexual aspects of one's relationship. The first MANOVA contained intimacy, commitment, communication, and relationship satisfaction, and once again the omnibus test was not significant, $F(4, 1068) = 1.33$, $p > .05$. The second MANOVA contained sexual communication and satisfaction, and was not significant, $F(2, 1078) = .03$, $p > .05$.

To determine whether differences existed based on relationship composition (those in same-sex versus mixed-sex relationships) two MANOVAs were performed. Once again, relationship quality outcome variables were divided based on whether they addressed sexual or non-sexual aspects of one's relationship. The first MANOVA contained intimacy, commitment, communication, and relationship satisfaction, and once again the omnibus test was not significant, $F(4, 1066) = 1.70$, $p > .05$. The second MANOVA contained sexual communication and satisfaction, and was not significant, $F(2, 1076) = 2.60$, $p > .05$.

Overall, these analyses indicate that no differences in relationship outcomes were observed based on student status, sexual orientation, or relationship composition. The sample,

therefore, was analyzed as a whole rather than separately based on orientation, relationship composition, or student status.

Comparing LDDRs and GCRs

For the first research question that addressed differences in outcome variables between individuals in LDDRs and GCRs (Table 3), two multivariate analyses of variance (MANOVAs) were performed. Relationship quality outcome variables were divided based on whether they addressed sexual or non-sexual aspects of one's relationship. Relationship type (LDDR or GCR) was the independent variable. For the first MANOVA, intimacy, commitment, communication, and relationship satisfaction were the dependent variables. The omnibus test was non-significant, $F(4, 1068) = 1.91$, $p > .05$. For the second MANOVA, sexual communication and satisfaction were the dependent variables. Similarly, the omnibus test was non-significant, $F(2, 1078) = 1.24$, $p > .05$.

Predicting Relationship Outcomes

For the second research question examining objective and subjective relationship and individual characteristics that may predict greater relationship outcomes for those in LDDRs, Multiple Hierarchical Regression analyses were conducted for each criterion variable (relationship outcome) using six predictors. Because greater psychological distress was negatively associated with many of the outcome variables (rs > -.18, ps < .01), it was treated as a covariate in the following analyses and entered in Step 1.

The relationship predictors were sorted into steps based on their established ability to predict relationship quality and whether they were subjective or objective relationship or individual characteristics. Distance apart and face-to-face contact (Step 2) have been most frequently used to explain variation in relationship quality, followed by relationship certainty and

certainty satisfaction (Step 3). Since LDDR attitudes have not been previously examined, they were entered last (Step 4). Further, the order of these variables moves from more objective relationship characteristics to more subjective individual characteristics. This way, we could comment on the predictive value of subjective individual and relationship characteristics after accounting for more objective features.

Step 1: Psychological distress

Step 2: The number of kilometers apart (km); the amount of face-to-face contact

Step 3: Relationship certainty (i.e., whether the partners would be in the same city some day); certainty satisfaction (i.e., how happy they were about their relationship certainty)

Step 4: LDDR attitudes (i.e., how likely are LDDRs to last; are people in LDDRs more likely to be satisfied)

Before entering these variables into the multiple regression models, they were examined for relationships among each other (Table 4). The correlation was strong for relationship certainty and certainty satisfaction, as well as for the two LDDR attitude variables. The relationship between distance apart and amount of face-to-face contact was moderate. This indicates that each step was represented by similar, though not identical, constructs. When examining psychological distress, this variable was not significantly related to either objective variable (distance apart and amount of face-to-face contact), but was weakly related to the four subjective variables. No issues of multicollinearity in the following regression analyses were present.

Because the Distance variable was significantly positively skewed, these analyses were conducted with a transformed and untransformed version of the variable. Since the use of the

transformed Distance variable produced discrepant results, only the transformed data are presented in subsequent analyses. Table 5 displays the influence of each predictor variable at each stage of the multiple regressions for each outcome variable. Table 6 displays a summary of which predictors were significantly associated with each relationship outcome variable in Step 4.

Intimacy. Each step predicted a significant amount of variance in PAIR scores, accounting for a total of 24% of the variance in intimacy, $F(7, 616) = 28.33$, $p < .001$. Participants who reported less distress, greater distance apart, more relationship certainty, higher certainty satisfaction, and more positive attitudes about the satisfaction of those in LDDRs also reported higher intimacy.

Commitment. All but the second step (objective characteristics) added significantly to the prediction of LUND scores, resulting in 24% of the variance of commitment being accounted for by all of the variables, $F(7, 590) = 25.62$, $p < .001$. Participants who reported less distress, more relationship certainty, higher certainty satisfaction, more negative attitudes about the likelihood of LDDRs lasting, and more positive attitudes about the satisfaction of those in LDDRs also reported higher commitment.

Communication. Each step predicted a significant amount of variance in ENRICH scores, accounting for 22% of the variance in communication being accounted for by all of the variables together, $F(7, 620) = 24.36$, $p < .001$. Participants who reported less distress, a greater distance, greater relationship certainty, higher certainty satisfaction, and more positive attitudes about the likelihood of LDDRs lasting and the satisfaction of those in LDDRs also had higher scores in communication.

Relationship Satisfaction. Each step predicted a significant amount of variance in DAS scores, accounting for a total of 23% of the variance in relationship satisfaction, $F(7, 612) =$

25.49, $p < .001$. Participants who reported less distress, greater distance, greater relationship certainty, higher certainty satisfaction, more positive attitudes about the likelihood of LDDRs lasting and the satisfaction of those in LDDRs also reported greater relationship satisfaction.

Sexual Satisfaction. All but the fourth step (LDDR attitudes) added significantly to the prediction of sexual satisfaction scores, resulting in the prediction of 6% of the variance by all of the variables together, $F(7, 603) = 5.82$, $p < .001$. Participants who reported less distress, more face-to-face contact, and greater relationship certainty also reported higher levels of sexual satisfaction.

Sexual Communication. Each step predicted a significant amount of variance in DSCS scores, accounting for a total of 8% of the variance in sexual communication, $F(7, 593) = 7.53$, $p < .001$. Participants who reported less distress, greater distance, and greater relationship certainty also reported higher levels of sexual communication.

Discussion

The purpose of this study was to explore relationship outcomes for individuals in long distance dating relationships. The first approach was to determine if there were relationship outcome differences between those in LDDRs and GCRs when using a more diverse sample than previously studied. The second approach was to determine what subjective and objective characteristics predicted more positive relationship outcomes for those in LDDRs. These results are of particular interest since the number of people in LDDRs is substantial, and the existing literature is quite sparse.

LDDRs versus GCRs

Individuals in LDDRs did not report lower levels of relationship or sexuality quality, which was contrary to the first hypothesis. These results indicate that those in LDDRs do not

report being worse off than their geographically close counterparts. Such similarities fit with studies that have found relationship factors that are equal or higher in LDDRs, such as intimacy (Dellmann-Jenkins et al., 1994; Guldner & Swensen, 1995), love and relationship satisfaction (Kelmer et al., 2013; Stafford & Reske, 1990), and communication (Kelmer et al., 2013; Mietzner & Lin, 2005; Stafford & Merolla, 2007). It was hypothesized that greater sample diversity would reveal negative patterns; however, it appears as though those in LDDRs are no less satisfied than those in GCRs, even when examining a sample that extends beyond an exclusively heterosexual undergraduate sample. Indeed, comparing participants based on sexual orientation, relationship composition, and student status revealed very similar relationship patterns. These results indicate that being in an LDDR does not guarantee negative relationship outcomes.

Predicting Positive Relationship Outcomes

It was hypothesized that certain factors might predict greater outcomes within the LDDR group. Since past research indicated the importance of both objective and subjective characteristics, both were included in the analyses: these factors ranged from objective relationship characteristics (distance apart; amount of face-to-face contact) to subjective relationship characteristics (how certain the individual was that they would live in the same city one day; how happy they were about their relationship certainty), and LDDR attitudes (their attitude about how likely LDDRs are to last and whether those in LDDRs are more likely to be satisfied with their relationship).

The results indicate that both objective and subjective characteristics warrant consideration when predicting relationship quality. Indeed, each cluster of predictors accounted for a significant amount of variance for intimacy, communication, relationship satisfaction, and

sexual communication. For commitment, all but the objective characteristics added a significant amount of variance, and for sexual satisfaction, all but LDDR attitudes made a substantial contribution. Such findings indicate that when predicting relationship quality, one must look beyond objective characteristics and take individual attitudes and relationship factors into account.

The Role of Psychological Distress

Interestingly, psychological distress (a non-relationship variable) was negatively associated with each of the relationship outcome variables among those in LDDRs. Thus, it was included in subsequent analyses to account for its impact. It merits, however, its own brief discussion, particularly since it remained a significant predictor for all variables in the multiple regression analyses. Because this study is correlational in nature, conclusions about causality cannot be drawn. It can be concluded, however, that lower relationship functioning is related to increased psychological distress, a pattern that is echoed in the general relationship literature (e.g., Simon & Barrett, 2010; Whitton & Kuryluk, 2012). One interpretation of this finding is that an individual may experience more distress because they are experiencing relationship problems. Alternatively, individuals who generally experience more psychological distress may be more prone to having relationship difficulties. Either way, it is likely that there is a bidirectional relationship between the two constructs, with each one contributing to a destructive feedback loop. Within LDDRs, if an individual is better able to manage their psychological distress, it may serve to improve the relationship quality and/or their perception of the relationship. Further, partners who are aware of the impact of psychological distress on their relationship may employ specific tactics to alleviate such distress, therefore bringing the partners together and enhancing their relationship.

Relationship Certainty

Less certainty about the future of one's relationship was consistently related to poorer relationship outcomes. This finding lends credence to the conclusion that distance does not put long distance couples at a disadvantage. Those with greater certainty about the future of their relationship may have something more concrete to look forward to and take solace in. Further, those with poor relationship quality may naturally feel uncertain about their future and whether they would be willing to join their partner elsewhere. It is also possible that some participants met their partners online, and have different expectations about being geographically close.

To cope with long distance, it may be helpful to work on the attitude and approach one takes to discussing and planning one's relationship when school or work leads to geographical separation. Encouraging couples to have open, solution-focused discussions about planning for the future and increasing relationship quality may lend a sense of stability to the relationship. If partners are encouraged to work together as a unit towards common goals, they may be able to better overcome the emotional and logistical challenge of being apart from one another. Finally, using an acceptance-based model may be useful in assisting individuals and couples deal with the uncertainty they face in their relationship.

Certainty Satisfaction and LDDR Satisfaction Attitudes

The next two variables that each predicted four of the relationship outcome variables were satisfaction with future certainty and the perception of satisfaction within LDDRs. Greater certainty satisfaction and more positive perceptions of LDDR satisfaction were related to more intimacy, commitment, communication, and relationship satisfaction. These findings provide additional merit to the theory that subjective variables play a key role in the quality of one's romantic relationship (e.g., Sprecher, 1999). Perhaps there is a self-fulfilling prophecy present,

whereby one's beliefs about LDDRs could result in attending to positive aspects of one's relationship, or even self-preservation. Providing education about the nature of LDDRs and strategies to enhance such relationships may serve to improve the chances of relationship quality and satisfaction by dispelling myths of LDDR failure. If a person believes that their relationship stands a chance at success and happiness, they may be more likely to engage in thoughts and behaviours that align with their beliefs.

Interestingly, neither of these variables predicted either of the sexuality-related variables (i.e., sexual satisfaction and sexual communication). This finding indicates that perceptions and attitudes about relationships may not generalize to one's particular sexual experiences. Perhaps attitudes and beliefs about sexuality would hold a greater impact. If that were the case, utilizing an acceptance-based model to establish realistic expectations and maximize sexual satisfaction would be optimal.

Distance Apart and Face-To-Face Contact

Distance from one's partner predicted four of the relationship outcome variables, while frequency of visits predicted only one. Greater distance apart predicted more intimacy, communication, relationship satisfaction, and sexual communication. Greater frequency of visits was associated with better sexual satisfaction.

Such results are somewhat surprising since popular opinion suggests that being far away from one's partner and not seeing them very often is what most people fear when considering an LDDR. This research, however, indicates that being farther away from one's partner in an LDDR may in fact result in reporting better outcomes. Such results may be accounted for by cognitive dissonance (i.e., convincing oneself of positive outcomes to justify engaging in a challenging relationship type) or idealization (i.e., focusing on positive relationship traits while ignoring

negative traits), patterns that have been previously observed in LDDRs. For example, Stafford and Merolla (2007) reported significantly more idealization in LDDRs than GCRs, and Stafford and Reske (1990) suggested that those in LDDRs might utilize certain thought patterns to focus on the positive aspects of their relationship, justifying their choice to continue their union despite great challenge. Kelmer and colleagues (2013) established that those in LDDRs were more optimistic about the future of their relationship than those in GCRs, but in reality were no less likely to end their relationship. Perhaps those whose partners are farther away perceive an even greater barrier to overcome and make great use of such cognitive coping strategies.

Alternately, perhaps couples that are farther apart invest additional resources into cultivating aspects of their relationship, such as their levels of intimacy and communication. They may also make the most of any time that they have together, while attributing negative relationship characteristics to the challenge of being in an LDDR, rather than problems inherent in the relationship itself. The technological advances of the past few decades may also account for the nature of these relationships. Access to inexpensive computer programs that allow people to communicate across long distances and share in many experiences may mitigate the impact of decreased face-to-face contact. Overall, it is possible that couples are utilizing the available resources to maximize their relationship quality, while also focusing on positive aspects of their relationship.

Further, it is not surprising that those who see their partners more often report greater sexual satisfaction, since most forms of partnered sexual activity require partners to be in each others' presence. To enhance satisfaction, individuals and couples could be counselled to discuss activities that would optimize their time together when they are face to face, and what strategies could be used to enhance the time between visits, such as the use of technology to engage in

sexual play. Since agreement on actual and desired sexual activity is related to relationship satisfaction (Santtila et al., 2008), it would be ideal to problem-solve and facilitate conversations that would bring partners closer to agreement about the nature of their sexual relationship.

The results are somewhat discrepant from past findings. Most authors suggest that either greater distance apart, less face-to-face contact, or a combination of the two, contribute to the deterioration of an LDDR. For example, Holt and Stone (1988) found that greater distance from one's partner and less time spent together lead to more negative relationship outcomes. Similarly, Dainton and Aylor (2001) concluded that those in LDDRs who have little in-person contact with one another are at a distinct disadvantage when compared to those with in-person contact. However, the authors also noted that this group reported significantly more relational uncertainty when compared with the other LDDR group and those in GCRs. Perhaps, similar to the current study, negative outcomes are related to subjective attitudes, at least in part. Further, the authors dichotomized their groups based on whether partners had more than a little face-to-face contact, rather than examining the range of possible outcomes. Conversely, Stafford and Merolla (2007) reported that less frequent visiting was not related to intimacy or relationship satisfaction in their sample. They also suggested that the less face-to-face contact a couple has, the more they idealize their partner and relationship, which might explain their findings. This latter study was conducted more recently, and thus the discrepant findings may be due to the advent and availability of technologies that allow individuals to interact as though they were face-to-face.

In sum, the results of the current study do not support the theory that greater distance apart and less face-to-face contact predict poorer relationship outcomes for those in LDDRs.

Attitudes About LDDRs Lasting

Finally, the perceived likelihood of LDDRs lasting predicted three variables: commitment, communication, and relationship satisfaction. Greater belief that LDDRs are more likely to last was associated with higher levels of communication and relationship satisfaction, but lower levels of commitment. The former results may reflect a willingness of a person to undergo this particular relationship challenge; if one believes that this relationship type is associated with longevity, they may be more likely to believe their own relationship will last, perhaps investing time in developing communication strategies. The latter results are somewhat perplexing: it was not expected that believing LDDRs to be long-lasting would be associated with lower levels of commitment to one's partner. Perhaps these findings reflect previously discussed perceptual biases: those who believe GCRs to be longer lasting may report greater levels of commitment to their long-distance partner in an attempt to convey their ability to overcome such difficulties. Overall, these results illustrate the importance of considering such beliefs, and warrant further investigation into a person's beliefs and attitudes.

Strength of the Regression Model

One final point merits attention: the amount of variance of each outcome variable explained by the predictors utilized. For the four non-sexual relationship outcomes (i.e., intimacy, commitment, communication, & relationship satisfaction), the predictors accounted for nearly one quarter of the variance. In other words, knowing how participants fared on the variables in all steps enabled understanding of the relationship outcome variables. Thus, the selected predictors are strong indicators for projecting relationship quality, and deserve attention in both clinical and research contexts. Interestingly, only 6% of the sexual satisfaction and 8% of the sexual communication variance was accounted for. For these sexuality variables, knowing

how participants fared on the variables in each step was not informative enough to enable much understanding of the sexuality variables. Indeed, a small effect was observed. Such results demonstrate that sexuality-related experiences are somewhat independent from feelings about the relationship as a whole. Perhaps a measure determining the extent to which one's sexual needs and expectations are met would better predict these outcomes in future studies, as might measures of frequency of sexual contact.

Implications

The results of this study hold implications for both research and clinical practice. Such results confirm that there are multiple factors related to relationship quality, and that merely being apart from one's partner does not indicate poor relationship quality. The beliefs a person holds about the trajectory of their relationship likely plays a significant role in how that person acts and what information they pay attention to. This is particularly important to note since LDDRs have a poor reputation in the media, which may predispose media consumers to hold negative attitudes even before embarking on an LDDR. The results of this study also highlight the importance of addressing and coping with one's own psychological distress. Likely true for any relationship, the better one is able to cope with distress as an individual the more available they would be to connect with their partner, and the less likely they would be to get caught up in disagreements and frustrations. Finally, the results of this study indicate that sexual functioning and general relationship quality require different approaches when working with couples in LDDRs.

Limitations

This study, although an improvement over others in breadth, sample composition, and methodology, is limited by several factors. First, the accuracy of self-report data could be

affected by memory and response bias. Additionally, given that the study was conducted online, people who do not have access to the Internet or who are not comfortable participating in relationship studies were not included, thereby potentially leading to participant bias. While some have argued that online research is inherently flawed, the literature suggests that the validity of online research is no different than in-person research (e.g., Ogolsky, Niehuis, & Ridley, 2009). Further, online research is ideally suited for LDDR research since, by definition, one partner would likely be geographically inaccessible. Another limitation is sample self-selection inherent in all relationship research. People in unhappy relationships break up more readily, leaving fewer dysfunctional relationships in existence at any given time. Also, it is possible that people who were more satisfied with their relationship would elect to participate in such a study. Indeed, average scores on measures of relationship quality were relatively high. Finally, even though this sample was more diverse than those in the existing literature, the sample still consisted largely of students. Since the make-up of LDDRs in the general population is unknown, it is hard to say whether or not these results would generalize to the rest of the population.

Conclusions and Future Directions

This study represents an important contribution to the sparse literature on LDDRs, as it expands upon previous findings with a more diverse sample by exploring what specific factors predict positive relationship outcomes. Contrary to popular belief, it appears as though LDDRs are not lower in quality than GCRs, and individuals in LDDRs often report better functioning in a number of areas. Further, the results of this study highlight the importance of addressing individual subjective experiences above and beyond the objective characteristics of the relationship. Individuals and couples should be taught coping skills and communication

strategies to mitigate the impact of being apart from one another. Moreover, attention should be paid to fostering a partnership geared towards the creation and completion of common goals.

The study results are encouraging since LDDRs are likely to become more common as access to jobs becomes more limited and competitive, more students pursue a university education, and more dual-career couples attempt to establish themselves. The more information that is known about these relationships, the better individuals and couples can prepare for this challenge. Future studies should address what factors best predict sexual satisfaction and communication, explore additional subjective relationship experiences, and include measures of idealization.

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