Theses and Dissertations--Family Sciences — Family Sciences

2021

Sexual Expression and Self-Confidence in Long-Distance Relationships

Morgann Kidwell
University of Kentucky, mmhe234@g.uky.edu
Digital Object Identifier: https://doi.org/10.13023/etd.2021.234

Right click to open a feedback form in a new tab to let us know how this document benefits you.

STUDENT AGREEMENT:

I represent that my thesis or dissertation and abstract are my original work. Proper attribution has been given to all outside sources. I understand that I am solely responsible for obtaining any needed copyright permissions. I have obtained needed written permission statement(s) from the owner(s) of each third-party copyrighted matter to be included in my work, allowing electronic distribution (if such use is not permitted by the fair use doctrine) which will be submitted to UKnowledge as Additional File.

I hereby grant to The University of Kentucky and its agents the irrevocable, non-exclusive, and royalty-free license to archive and make accessible my work in whole or in part in all forms of media, now or hereafter known. I agree that the document mentioned above may be made available immediately for worldwide access unless an embargo applies.

I retain all other ownership rights to the copyright of my work. I also retain the right to use in future works (such as articles or books) all or part of my work. I understand that I am free to register the copyright to my work.

REVIEW, APPROVAL AND ACCEPTANCE

The document mentioned above has been reviewed and accepted by the student's advisor, on behalf of the advisory committee, and by the Director of Graduate Studies (DGS), on behalf of the program; we verify that this is the final, approved version of the student's thesis including all changes required by the advisory committee. The undersigned agree to abide by the statements above.

<div align="right">

Morgann Kidwell, Student

Dr. Jason Hans, Major Professor

Dr. Hyungsoo Kim, Director of Graduate Studies

</div>

SEXUAL EXPRESSION AND SELF-CONFIDENCE IN LONG-
DISTANCE RELATIONSHIPS

_____

THESIS

_____

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of Science in Family
Sciences in the College of Agriculture, Food and Environment
at the University of Kentucky

By

Morgann Kidwell

Lexington, Kentucky

Director: Dr. Jason Hans, Professor of Family Sciences

Lexington, Kentucky

2021

Copyright © Morgann Kidwell 2021

ABSTRACT OF THESIS

SEXUAL EXPRESSION AND SELF-CONFIDENCE IN LONG-DISTANCE

RELATIONSHIPS

Little is known about the impact of distance on sexual expression and self-confidence in long-distance relationships, especially as mediated by technology. The purpose of the present study is to investigate how sexual expression and self-confidence vary in romantic relationships between those in long- versus short-distance relationships. Data from 327 participants—156 in long-distance relationships and 171 in short-distance relationships— were collected via Amazon MTurk. Results indicate that forms of technology-mediated sexual expression are widely used in long-distance relationships. Technology-mediated sexual expression is positively associated with sexual satisfaction in both long- and shortdistance relationships; however, technology-mediated sexual expression was not statistically associated with self-confidence, and self-confidence was negatively predictive of self-uncertainty and partner uncertainty, and self-uncertainty and partner uncertainty was positively predictive of relational uncertainty. These results indicate that technology is an important tool that can be utilized for sexual expression in long-distance relationships, but the negative association of its use with self-confidence needs to be better understood.
KEYWORDS: Long-distance, Sexual Expression, Self-Confidence, Relational Uncertainty.

Morgann Kidwell

_____

06/25/2021

_____

Date

SEXUAL EXPRESSION AND SELF-CONFIDENCE IN LONG-DISTANCE

RELATIONSHIPS

By

Morgann Kidwell

Dr. Jason Hans

Director of Thesis

Dr. Hyungsoo Kim

Director of Graduate Studies

06/25/2021

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1. LITURATURE REVIEW

The idioms "absence makes the heart grow fonder" and "out of sight, out of mind" suggest that physical distance can have inconsistent effects when people are away from one another. Specific to long-distance romantic relationships, it is unclear a large majority of the empirical literature has focused on the viability and success of long-distance relationships compared to short-distance relationships. However, little is known about how sexual expression and perceptions of self factor into outcomes of long- versus short-distance relationships. Thus, the purpose of the present study is to investigate how sexual expression and self-confidence vary in romantic relationships according to the distance between partners.

1.1 Prevalence of Long-Distance Relationships

Research findings concerning long-distant relationships have been inconsistent, in part because there is no universal definition of what constitutes a long-distance relationship. Most notably, the geographical distance used to operationally differentiate long-distance relationships from short-distance relationships has varied across research studies. For example, Kelmer et al. (2013) used the U.S. Department of Transportation classification of 50 miles or more as the threshold for defining a trip as long-distance, whereas Borelli et al. (2015) defined long-distance relationships as being over 100 miles apart. Alternatively, other researchers have asked study participants to self-define whether their relationship is long-distance or short-distance (e.g., Belus et al., 2019; Dellmann-Jenkins et al., 1994; Maguire, 2007). These varied operational definitions of what constitutes a long- or short-distance relationship lead to inconsistent results across studies that might seem to be on the same topic and examining the same populations, but

ultimately are incomparable with one another. Inconsistency in the operational definition of what constitutes a long-distance relationship have thereby clouded knowledge concerning the prevalence and processes of long-distance romantic relationships.

Due to this inconsistency, it is difficult to infer the true prevalence of long-distance relationships, but Bergen et al. (2007) reported that approximately 2.5 to 3.0 million married American spouses are in long-distance relationships for career-related reasons. Long-distance romantic relationships are also common among college students; estimates suggest that between 40% (Du Bois et al., 2016) and 75% (Guldener & Swensen, 1995) of college students are in a long-distance relationship at some point in their college career. Although the accuracy of these estimates are questionable given the aforementioned inconsistency in measurement, there is no doubt that a substantial number of Americans spend at least some time in a long-distance relationship, and it is therefore important to understand the unique relational processes that occur in long-distance romantic relationships.

1.2 Reasons for Long-Distance Relationships

There is a multitude of reasons couples are in committed long-distance relationships, including career advancement, military service, finances, and family caregiving. The reason a couple enters a long-distance relationship may be associated with different individual experiences of the relationship. For example, a couple entering a long-distance relationship for a military deployment is likely to experience their distance in different ways than a couple separated for voluntary or unexpected reasons. Additionally, the circumstances that prompt

couples to enter or transition into long-distance relationships might be associated with the severity of common challenges they encounter.

1.3 Risks and Outcomes of Long-Distance Relationships

Those in long-distance relationships are at heightened risk for several potential relationship challenges (Firmin et al., 2014; Goldsmith & Byers, 2018; Santtila et al., 2007). Individuals in long-distance relationships also tend to idealize their partner or relationship during the time spent apart, and doing so is related to a higher likelihood of relationship dissolution once the period of distance ends (Maguire, 2007; Stafford & Merolla, 2007). Lack of face-to-face contact with one's partner is also associated with feelings of loneliness; in particular, loneliness increases after periods of in-person contact, but is moderated by socialization with family and peers and a busy schedule (Firmin et al., 2014). Long-distance couples might also encounter stress associated with the financial burden of maintaining two households, which is more expensive than maintaining one household due to economies of scale. Finally, individuals in long-distance relationships might experience stigma or negativity due to cultural views concerning long-distance relationships.

Although perceptions of long-distance relationships have become more favorable in recent years, some negative perceptions remain (Bergen et al., 2007; Goldsmith & Byers, 2018). Specifically, although relationship satisfaction and relationship outcomes are similar for long-distance and short-distance romantic relationships (Cameron & Ross, 2007; Cionea et al., 2019; Du Bois et al., 2016; Firmin et al., 2014; Goldsmith & Byers, 2018; Pistole & Roberts, 2011), long-distance relationships are often perceived to be less valid, unhappy,

3

dysfunctional, less faithful, and unsuccessful than short-distance relationships (Goldsmith & Byers, 2018).

Relationship quality and individual characteristics (e.g., psychological distress, attitudes toward relationship) have been found to be more predictive of relationship outcome than proximal distance to partner (Dargie et al., 2015). Additionally, no statistical differences in physical or mental health have been observed among those in short- versus long-distance relationships (Anand et al., 2018; Du Bois et al., 2016). Those in long-distance relationships have reported less felt-constraints compared to those in short-distance relationships (Kelmer et al., 2013), which is likely related to the separation of finances, social spaces, and living spaces in long-distance relationships.

1.4 Maintaining Long-Distance Relationships

The similarity of relationship satisfaction and outcomes between long- and short-distance relationships may partially be attributed to relationship maintenance behaviors. Relationship maintenance behaviors are purposeful actions taken by partners to sustain desired relationship features overtime (Stafford, 2010). The five prominent relationship maintenance behaviors are positivity, assurance, openness, sharing tasks, and networking (Stafford, 2010). Compared to short-distance relationships, those in long-distance relationships have reported greater self-disclosure, greater positivity, and adaptation of how time is experienced (Jiang & Hancock, 2013; Jurkane-Hobein, 2015). These relationship maintenance behaviors may contribute to greater levels of trust, patience, and communication, along with greater development of time

4

management skills, independence, and non-physical intimacy (Mietzner & Li-Wen, 2005).

The challenges faced by long-distance partners may shape the ability to utilize relationship maintenance behaviors. For example, large time-zone differences or limited access to the internet—issues that might be especially prevalent in international couples and military couples during deployment—can inhibit communication and relationship maintenance behaviors (Jiang & Hancock, 2013). Relationship maintenance behaviors help to hold relationships together and improve satisfaction despite communication challenges. However, relationship maintenance behaviors tend to be less effective among those experiencing relationship insecurity (Fanny et al., 2010; Maguire, 2007). Partners who do not feel hopeful about the future of their relationship also tend to engage in fewer relationship maintenance behaviors, which can result in lower relationship satisfaction. Nonetheless, many couples overcome periods of relationship insecurity and continue with a successful relationship upon reunion, especially if a specific end date to the distance is known (Maguire, 2007).

Technological advances have helped short- and long-distance couples alike perform relationship maintenance behaviors and engage in frequent communication when apart, although those in long-distance relationships may benefit from technology the most. For example, individuals in long-distance relationships have reported more social media use for relationship maintenance purposes than those in short-distance relationships (Du Bois et al., 2016). Technological advances have also played a role in shaping forms of sexual expression in long-distance relationships.

1.5 Sexual Expression in Long-Distance Relationships

The term *sexual expression* has been defined in a multitude of ways by researchers. For the purposes of this study, sexual expression is operationalized as verbal or nonverbal communication and activities intended to express sexuality, arouse one's partner, or to sexually stimulate self or partner. These actions can be communicated in numerous ways and do not require in-person contact; for instance, partners can engage in sexual expression via sexting.

A key defining aspect of a long-distance relationship is the inability to have physical contact between partners. Although individuals in short- and long-distance relationships alike have reported similar levels of sexual satisfaction and rates of extradyadic affairs (Goldsmith & Byers, 2018), research regarding sexual expression in long-distance relationships is scant. What is known, however, is that just as relationship development and maintenance is often computer-mediated in long-distance relationships (Belus et al., 2019; Hertlein & Ancheta, 2014), sexual interactions (i.e., instances of sexual expression between partners) themselves are also most likely to occur via computer-mediated communication in long-distance relationships (Shaughnessy et al., 2011).

In American media, long-distance relationships are often portrayed as having lower levels of sexual and romantic satisfaction. However, individuals report similar levels of sexual and romantic satisfaction regardless of whether they are in long- or short-distance relationships (Goldsmith & Byers, 2018). Although couples in long-distance relationships are unable to engage in physical sexual contact, sexual expression and intimacy can be conveyed through the use

of technology (Jiang & Hancock, 2013; Shaughnessy et al., 2011). Indeed, couples in long-distance relationships use phone calls, texting, and video calling as their main forms of communication (Belus et al., 2019). Furthermore, many technology-based forms of sexual expression employed in contemporary long-distance sexual expression (e.g., internet-connected reactive sex toys, internet-connected touch bracelets) have emerged in recent years, and little is known about their role in long-distance relationship maintenance and sex play. However, understanding the function of these new technology-based forms of sexual expression is important given that sexual communication is associated with less distress and more relationship certainty (Dargie et al., 2015) as well as more self-confidence (Naezer, 2018).

1.6 Self-Confidence

Eğeci and Gençöz (2006) illustrated how self-confidence—one's perceived ability to succeed or meet standards—is related to the ability to navigate relationship conflict and transition, and by extension factors into relationship satisfaction. Low self-confidence is associated with pessimistic perceptions of the future (Shrauger & Schohn, 1995), which could be detrimental in a long-distance relationship (Fanny et al., 2010; Maguire, 2007). Those who enter a long-distance relationship might experience increased *relational uncertainty*—how confident individuals feel about their involvement in their relationship (Ellis & Ledbetter, 2015; Maguire, 2007). Self-confidence and partner interdependence are positively correlated (Gabriel et al., 2007), illustrating the potential impact partners may have on each other's self-confidence. Furthermore, Overall et al. (2010) highlighted the impact of

7

partner support on self-improvement, including self-confidence. Given that those in long-distance relationships are more likely to engage in sexual expression through technology, it is also important to note that online forms of sexual expression are associated with greater self-confidence (Naezer, 2018).

CHAPTER 2. THEORETICAL FRAMEWORK

The relationship turbulence model (Solomon, 2015) posits that relationship events are intensified by *relational uncertainty* and *partner interference*—a partner's actions in working toward relationship goals—that compound throughout the development of the relationship, leading to relationship turbulence. Long-distance relationships tend to have more relational turbulence than short-distance relationships, but this relationship is mediated by partner interference (Ellis & Ledbetter, 2015). For example, the transition into a long-distance relationship may be more difficult if one of the partners feels uncertain that their relationship will be successful or worries about their partner's ability to function in a long-distance relationship. Focusing on sexual expression from a relationship turbulence perspective could provide unique insight into the functioning of long-distance romantic relationships.

2.1 The Present Study

The prevalence of long-distance romantic relationships has increased in recent years, aided by advancements in technology-enabled forms of communication (Aylor, 2014). Little is known about how sexual expression and self-confidence are related to geographical proximity to one's partner; additionally, little is known about the role technology-enabled forms of communication plays in this relationship. Measuring sexual expression is

challenging due to the multitude of behaviors that can be considered sexual. Given that those in long-distance relationships most likely engage in sexual expression through technology-mediated means when they are physically distant (Shaughnessy et al., 2011), this study was designed to discover ways technology is used for sexual expression in long-distance relationships. In particular, differences in the reported prevalence of sexual expression among adults in committed long- versus short-distance relationships will be identified, then I will explore whether any differences identified vary according to the level of self-confidence. Particular attention will be paid to the relationship between self-confidence and relationship turbulence to gain a richer understanding of long-distance relationships. Specifically, the following hypotheses will be tested:

H1: Partners in long-distance relationships report higher rates of technology-mediated sexual expression than those in short-distance relationships.

H2: Technology-mediated sexual expression is positively associated with both self-confidence and sexual satisfaction in long-distance relationships, but has no meaningful association in short-distance relationships.

H3: Use of technology-mediated forms of sexual expression is negatively associated with relational uncertainty in long-distance relationships, but has no meaningful association in short-distance relationships.

H4: Use of technology-mediated forms of sexual expression is positively associated with self-confidence, which is negatively associated with levels of

self and partner uncertainty, which in turn is also negatively associated with levels of relational uncertainty.

CHAPTER 3. METHOD

3.1 Participants

The participants for this study consist of 327 adult individuals located in the United States who were in a committed and monogamous relationship of at least 3 months at the time of their participation in the study. Participants were recruited via Amazon's Mturk (www.mturk.com), a survey website through which participants are given a small monetary reward for survey completion. Participants could be voluntarily abstaining from some forms of sexual expression within their relationship provided they were in a committed and monogamous relationship. Participants were required to have a 95% Mturk approval rating based on 100 or more human intelligence tasks (HITs), as they are called in MTurk parlance, for monetary reward. Quota sampling was used to ensure that the sample included at least 150 participants in long-distance relationships and at least 150 participants in short-distance relationships, as well as 75 males and 75 females within each of those relationship categories. In total, 156 respondents were removed from the sample for not passing the attention check items.

Ultimately, the sample consisted of 176 females (81 in long-distance relationships, 95 in short-distance relationships) and 151 males (75 long-distance relationships, 76 in short-distance relationships). Participant ranged from 19 to 78 years of age (M = 33.9, SD = 9.7). A majority of participants

were married ($n = 193$); others were dating, ($n = 95$), not married but cohabitating ($n = 27$), or engaged to be married ($n = 12$). A plurality of participants (40.1%) reported being in a relationship with their current partner for 4 or more years; another 17.7% reported being in their current relationship for 3 months to 1 year, 18.7% reported 1–2 years, 13.5% reported 2–3 years, and 10.1% reported 3–4 years ,and 10.1% were 3-4 years. A majority of participants (58.2%) self-identified as White (non-Hispanic), 26.6% as Asian/Pacific Islander, 6.4% as Hispanic or Latino, 3.7% as Black or African American, 3.4% as Native American or American Indian, and 0.9% as Middle Eastern. Participants primarily identified as heterosexual (86.5%), 10.1% as bisexual, 1.2% as pansexual, 0.9% as gay, 0.9% as lesbian, and 0.3% as something else. Participants reported having 0 to 7 children ($M = 0.99$, $SD = 1.0$). The distance apart reported by those in long-distance relationships ranged from 10 to 10,000 miles ($M = 727.3$, $SD = 1498.2$). See Table 1 for more details on participants' demographics.

3.2 Measures

The 42-item online survey comprised three established measures and two author developed measures. The measures include items designed to collect demographic information, sexual expression, sexual satisfaction, self-confidence, and uncertainty in relationships. Additionally, two attention check questions were included in the survey. One attention check question was embedded in the demographic section; "Please select '$51,000–$60,000.'" This item is for verification purposes." The second attention check question was embedded in the Personal Evaluation Inventory and had four

response options, ranging from *strongly disagree* to *strongly agree*, but respondents were instructed, "If you are reading this question, select Mainly Agree."

3.2.1 Relationship Background and Demographics

Demographic questions elicited information on participants' gender, sexual orientation, age, racial or ethnic identity, relationship status, formal education, military status, and religious preference (see Appendix A). Additionally, an author-developed measure was designed to gain insight into relationship type, history, and context. Specifically, participants were asked whether they identify as being in a long-distance or short-distance relationship (Dellmann-Jenkins et al., 1994); they were also asked to provide information on relationship duration, approximate distance apart from their partner (in miles), and reasons for partner distance (e.g., military, college, family). Participants were prompted to briefly elaborate on their reasons for partner distance using an openended format.

3.2.2 Sexual Expression

The frequency of sexual expression in participants' current relationship over the previous month was assessed using 22 author-developed items (see Appendix B). This measure contained two subscales: non-technologically-mediated activities (15 items; e.g., solo masturbation without the use of technology, intimate touching/caressing of self), and technology-assisted mediated (7 items; viewing pornography online, using partnered sex toys, and sending or exchanging sexual photos or videos with one's partner). Participants were asked to report the approximate number of times each activity occurred in their relationship over the past month. Item response scores were summed for each subscale, and a

total frequency of sexual expression score was calculated too. Higher scores represent a higher prevalence of sexual expression.

3.2.3 Sexual Satisfaction

The 7-item Sexual Satisfaction Scale (SSS; Ashdown et. al., 2011) was used to measure sexual satisfaction in the current relationship (see Appendix C). An example item is "I feel satisfied with my sex life." Eight response options ranged from *disagree completely* (1) to *agree completely* (8). Negatively phrased items were reverse coded so that higher scores indicate greater sexual satisfaction. The internal consistency (Cronbach's alpha) for the SSS in a sample of emerging adults was = .93 (Hackathorn et al., 2016).

3.2.4 Self-Confidence

Self-confidence was assessed using the 55-item Personal Evaluation Inventory, which comprises eight subscales: General (= .71), Speaking (= .86), Romantic (= .86), Athletics (= .90), Social (= .82), Appearance (= .83), Academic (= .77), and Mood (= .85; Schrauger & Schohn, 1995). Example items include: "Being poor at sports is an important weakness of mine," and "For me, meeting new people is an enjoyable experience that I look forward to" (see Appendix D). Four response options ranging from *strongly disagree* (1) to *strongly agree* (4) were provided for each item, and negatively phrased items were reverse coded so that higher scores indicate higher self-confidence. Response scores were summed to calculate overall subscale scores and an overall self-confidence score.

3.2.5 Uncertainty in Relationships

Uncertainty in interpersonal relationships may develop from a variety of sources. Knoblock and Solomon (2009) defined three sources of uncertainty: self-uncertainty, partner uncertainty, and relationship uncertainty. The Relationship Uncertainty Scale and the Self and Partner Uncertainty Scale were utilized in this study to assess the degree of uncertainty present in participants' current romantic relationships.

3.2.5.1 Relationship Uncertainty. The 16-item relationship uncertainty subscale was used to assess four distinct aspects of relationship uncertainty (using four items each): Behavioral Norms (= .73; e.g., "How certain are you about how you can behave around your partner?"); Mutuality (= .89; e.g., "How certain are you about how you and your partner view this relationship?"); Definition (= .86; "How certain are you about how you and your partner would describe this relationship?"); and future of the relationship (= .88; e.g., "How certain are you about the future of this relationship?"; (Knobloch & Solomon, 2009; see Appendix E). Respondents are asked to record their felt level of certainty in response to statements about aspects of their relationship, with response options ranging from *completely uncertain* (1) to *completely certain* (5). Responses were reverse scored and summed for an overall score, resulting in a total relational uncertainty score with higher scores representing greater uncertainty.

3.2.5.2 Self and Partner Uncertainty. The Self and Partner Uncertainty Scale (Knoblock & Solomon, 2009; see Appendix F) was used to measure participant uncertainty of self and partner on three subscales (18 items total):

14

Desire (= .90; e.g., "How certain are you about how committed are you [is your partner] to the relationship?"); Evaluation of the Relationship (= .85; e.g., "How certain are you about how much you are [your partner is] romantically interested in your partner [in you]?"); and Goals for the Future (= .96; e.g., "How certain are you about whether or not you [your partner] wants this relationship to last?"; Knobloch & Solomon, 2009). Five response options for each item range from *completely uncertain* (1) to *completely certain* (5). The scale was administered twice to respondents to capture both self and perceived partner uncertainty. Four items are retained exclusively for self-uncertainty and two items are retained for partner uncertainty (see Appendix F). Responses were reverse scored and summed to provide both a self-uncertainty and partner uncertainty score with higher scores representing greater uncertainty.

3.3 Procedure

The survey was only visible on Mturk by adults located in the United States, and advertised under the headline "Relationships and Sexual Expression." Those who clicked on the link were able to view a short study description providing information on the topic of the study, estimated completion time, and study eligibility requirements. Informed consent and survey data were collected using Qualtrics. The survey took participants a mean of 16.5 minutes to complete. After the screening and demographic items, survey instruments were presented in random order to minimize the risk of ordering effects.

Participants were compensated on a tiered payment scale: Everyone who began the screening questionnaire via Mturk received $0.03 compensation, and

15

those who passed the screening questions but did not pass the attention check questions or complete at least 95% of the survey received an additional $0.10 bonus award, whereas those who passed the screening and attention check questions and completed at least 95% of the survey received an additional $2.00 bonus award. All respondents received a completion code at the end of the survey to paste into the box on the original HIT to receive credit for taking the survey.

CHAPTER 4. RESULTS

All analyses were conducted using the Statistical Package for the Social Sciences (SPSS). An independent samples t test indicated that the reported prevalence of sexual expression among adults was higher in committed long-distance relationships ($M = 221.35$, $SD = 202.70$) than in committed short-distance relationships ($M = 128.26$, $SD = 177.21$), $t(309.38) = -4.40$, $p < .001$, $d = 0.50$, thereby confirming Hypothesis 1. The most frequently reported technology-mediated forms of sexual expression for those in long-distance relationships was watching online pornography with a partner ($M = 47.71$), and for those in short-distance relationships it was using partnered sex toys ($M = 47.15$). The reported frequencies of other forms of sexual expression are provided in Table 2.

Pearson correlation coefficients were used to assess the correlation of technology-mediated sexual expression with both self-confidence and sexual satisfaction. In long-distance relationships, technology-mediated sexual expression was negatively associated with self-confidence ($r = -.17$, 95% CI [-.26, -.06, $p = .039$) but positively associated with sexual satisfaction ($r = .46$, 95% CI [.37, .54], $p < .001$). In short-distance relationships, technology-mediated sexual expression was not

statistically associated with self-confidence ($r = -.05$, 95% CI [-.16,.06], $p = .492$) but was positively correlated with sexual satisfaction ($r = 0.51$, 95% CI [.43, .59], $p < .001$). Thus, the findings were mixed concerning Hypothesis 2. Notably, descriptive statistics indicated that participants in long-distance relationships reported slightly higher levels on the romantic subscale of the PEI ($M = 16.59$, $SD = 2.91$) than those in short-distance relationships ($M = 15.73$, $SD = 2.45$), and that participants in long-distance relationships ($M = 19.48$, $SD = 3.44$) reported higher levels on the general confidence subscale than those in short-distance relationships ($M = 18.19$, $SD = 2.88$).

The relationship between technology-mediated sexual expression and relational uncertainty was also analyzed using Pearson correlation coefficients. Technology-mediated sexual expression was not statistically associated with relationship uncertainty in long-distance relationships ($r = .08$, 95% CI [-.03, .19], $p = .334$) or in short distance relationships ($r = -.04$, 95% CI [-.15, .07], $p = .580$). Thus, the anticipated negative association specific to long-distance relationships (see Hypothesis 3) was not found in these data.

Path analysis were used to analyze relationships between technology-mediated forms of sexual expression and self-confidence, to levels of self and partner uncertainty, and levels of relational uncertainty (see Figure 1 and Hypothesis 4). Results indicated that technology-mediated forms of sexual expression were not statistically associated with self-confidence (= .10, $p = .083$). Self-confidence predicted both self-uncertainty (= -.20, $p < .001$) and partner uncertainty (= -.26, $p < .001$). Self-uncertainty (= .52, $p < .001$) and partner uncertainty (= .37, $p < .001$) were positively related with relationship uncertainty, whereas self-confidence was negatively related with relationship uncertainty (= -.20, $p < .001$). Thus, the only hypothesized relationships supported by

17

these data were the negative associations between self-confidence and self-uncertainty, and between self-confidence and partner-uncertainty.

Thematic analysis was used to descriptively summarize participant responses to the question, "In your own words, what factors lead to your relationship being long-distance as opposed to short distance?" Responses were coded into themes inductively, and individual responses could be coded in multiple themes. A plurality of participants (47.8%) reported work/career as the reason for their long-distance relationship; other responses were that the relationship was initiated while already living a long-distance from one another (15.7%), the COVID-19 pandemic (9.7%), financial constraints (9.0%), family constraints (6.7%), educational pursuits (6.7%), citizenship issues (1.5%), military (1.5%), and not feeling ready to move-in together (1.5%).

Table 1

Participant Demographics

Characteristic	*n*	%
Relationship status		
Cohabitating (non-married)	27	8.3
Dating	95	29.1
Engaged	12	3.7
Married	193	59.0
Relationship length <		
1 year	58	17.7
1–2 years	61	18.7
2–3 years	44	13.5
3–4 years	33	10.1
4+ years	131	40.1
Sexuality Bisexual		
	33	10.1
Gay	3	0.9
Lesbian	3	0.9
Other (please specify)	1	0.3
Pansexual	4	1.2
Straight	283	86.5
Race or ethnicity		
Asian or Pacific Islander	87	26.6
Black or African American	12	3.7
Hispanic or Latino	21	6.4
Native American or American India	11	3.4
Other (please specify)	3	0.9
White	190	58.1
Education		
Less than a high school diploma	3	0.9
Bachelor's degree	164	50.2
High school degree or equivalent	36	11.0
Master's degree	118	36.1
Doctorate	5	1.5
Number of children 0		
	124	37.9
1	109	33.3
2	64	19.6
3	19	5.8

4	3	0.9
5	1	0.3
7	1	0.3

Table 2

Frequency of Sexual Expression

	Short-Distance Relationship		Long-Distance Relationship	
	M	*SD*	*M*	*SD*
Non-technology-mediated				
Solo masturbation	27.74	28.21	40.34	32.26
Experience sexual ideas or fantasies	35.11	31.57	42.91	30.36
Wear lingerie/sexy undergarments	36.38	30.75	42.24	32.40
Read sexual books or magazines alone	33.68	30.44	45.17	32.41
Intimate touching/caressing of self	34.40	31.21	40.23	31.45
Kissing	54.54	32.19	49.62	32.67
Cuddling	46.79	33.56	44.70	34.63
In-person flirting	37.27	31.37	40.40	31.84
Intimate touching or caressing	40.23	31.32	43.51	33.48
Mutual masturbation	31.45	33.69	45.53	32.13
Oral sex	34.48	32.91	45.13	33.61
Vaginal sex	36.36	32.45	42.29	32.44
Anal sex	36.04	34.59	43.86	33.33
Use sex toys on a partner	32.03	32.67	44.86	33.71
Read sexual books or magazines with a partner	38.27	30.23	47.65	30.31
Technology-mediated				
Phone sex	37.47	30.39	44.01	31.39
View online pornography alone	30.20	29.57	40.36	30.32

View online pornography with partner	37.79	31.28	47.71	30.67
Send or exchange sexual photos or video with partner	35.87	32.59	42.56	30.22
Engaging sexual activity with partner over webcam	37.21	31.72	42.38	33.29
Exchange text messages of a flirtatious or sexual nature with partner	45.59	30.68	38.36	31.61
Use of partnered sex toys	38.83	32.65	47.15	31.82

Figure 1

Path Analysis from Technology-Mediated Sexual Expression to Relationship Uncertainty

-.096, *p* = .083

-.195, *p* < .001

.515, *p* < .001

Self Uncertainty

Technology-mediated Sexual Expression

Self confidence

-.198, *p* < .001

Relationship uncertainty

-.259, *p* < .001

.366, *p* < .001

Partner uncertainty
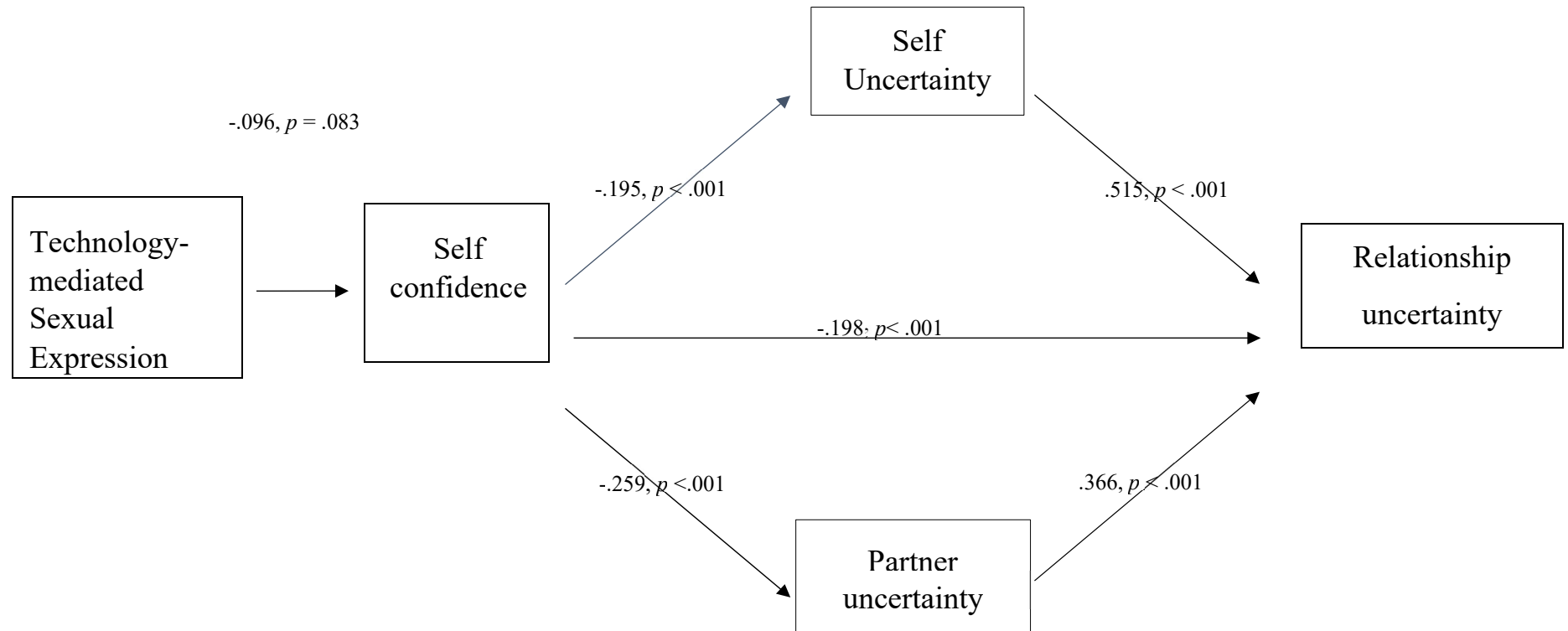
Note. Coefficients presented are standardized regression coefficients.

CHAPTER 5. DISCUSSION

The results confirmed that partners in long-distance relationships report statistically higher rates of technology-mediated sexual expression than those in short-distance relationships. All forms of technology-mediated sexual expression measured in this study were reportedly utilized more by those in long-distance relationships than by those in short-distance relationships. These results highlight the important role that technology-mediated sexual expression plays in long-distance relationships compared to short-distance relationships, which is congruent with previous research findings indicating that technology plays a crucial role in communication and sexual expression for those in long-distance relationships (Belus et al., 2019; Jiang & Hancock, 2013; Shaughnessy et al., 2011).

Contrary to Hypothesis 2 (and Naezer, 2018), technology-mediated sexual expression was negatively associated with self-confidence. Also, neither long- nor short-distance relationships had a meaningful statistical association between use of technology-mediated forms of sexual expression and relational uncertainty, which is inconsistent with previous findings that sexual communication is positively associated with more relationship certainty (Dargie et al., 2015). This contradiction may be related to concerns over privacy risks (i.e., nude photo leaks due to hacking, risk of future revenge porn, etc.) specifically related to technology-mediated forms of sexual expression in relationships. Further research is needed on how technology-mediated forms of sexual expression could be utilized in the development of new therapeutic interventions when relationship therapists or coaches work with couples in both short- and long-distance relationships to help foster greater intimacy and relationship certainty. More specifically, sex therapy interventions could be used with couples to increase sexual intimacy and sexual

24

communication by incorporating of new technology-based tools in conjunction with traditional non-technology-mediated interventions

The mixed findings with regard to Hypotheses 3 and 4—that self-confidence is predictive of self-uncertainty and partner uncertainty, and that self-uncertainty and partner uncertainty is predictive of relational uncertainty, but that the use of technology-mediated forms of sexual expression is not predictive of self-confidence—are congruent with the relationship turbulence model (Solomon, 2015) in which self and partner uncertainty result in greater relationship uncertainty in long-distance. However, the lack of a statistically significant relationship between technology-mediated sexual expression and self-confidence is not explained by this model. It might be that the prevalence of appearance-enhancing photo filters commonly used with technology-mediated sexual expression are detrimental to self-confidence. Indeed, using of this technology is associated with lower levels of self-confidence as well as an elevated desire to undergo cosmetic surgery (Shome et. al., 2020). Additionally, users of technology-mediated sexual expression often can see themselves during sexual expression (e.g., self-views on video chats), which might lead to users being more self-conscious and critical of their appearance, thereby inhibiting self-confidence. Given that low self-confidence is associated with more negative views of relationship future (Shrauger & Schohn, 1995), the positive relationship between technology mediated sexual expression and relationship uncertainty.

From the perspective of the relationship turbulence model (Solomon, 2015), the relationship between technology-mediated sexual expression and self-confidence might be mediated by partner pressure to engage in technology-mediated sexual expression. In other words, individuals who feel pressured by

their partner to engage in technology-mediated sexual expression might view that form of sexual expression as counterproductive for reaching relationship goals, thereby creating relationship turbulence. This interpretation, in conjunction with the higher rate of technology-mediate sexual expression in long-distance relationships, is consistent with previous research finding that long-distance relationships tend to have more relational turbulence than short-distance relationships (Ellis & Ledbetter, 2015). Additional investigation is needed to more fully understand how technology-mediated sexual expression is associated with self-confidence and relationship uncertainty.

5.1 Limitations and Future Directions

This sample primarily comprised White, heterosexual, well-educated individuals in their 30s. Generalizability is also limited due to the use of an Amazon MTurk sample, which might differ from the population of those in long-distance relationships in important ways. In addition to obtaining more diverse general population samples, future studies would benefit from having larger samples that allow nuances to be examined across relevant demographic and relationship characteristics. Additionally, frequency and length of face-to-face reunions was not measured in this study for those in long-distance relationships, and these factors might play an important role in dictating the frequency, ability, and type of sexual expression engaged in by those in long-distance relationships. The extent of the participants relationship history is also unknown in this study which may impact study results, like if some long-distance relationships were short-distance at one point or vice versa. Future studies would benefit from collecting background additional background information to analyze how it may

impact relational outcomes and results. These data were collected in the spring of 2021, during the Covid-19 pandemic. Although many participants reported that pandemic restrictions were a contributing factor among their reasons for being in a long-distance relationship, it is unclear whether or how that context might have played a role in producing the results of this study. Nonetheless,

it is plausible that government regulations, social distancing, and fears of infection may have played a role in determining the forms of sexual expression in which that these coupes chose to engage. The pandemic and its associated impacts on human life have also been deleterious to mental health (Rajkumar, 2020), and poor mental health can be detrimental to relational and sexual satisfaction (Vanwesenbeeck, 2014). Thus, the pandemic could have had broader direct and indirect influences on these data.

Using an author developed measure of both technology-mediated and nontechnology-mediated sexual expression was necessary due to the lack of an established instrument with psychometric properties to measure these behaviors. Although the measure employed lacks evidence of its reliability and validity, existing measures do not include recent technological advances, such as partnered sex toys and sending or exchanging sexual photos or videos with one's partner. Furthermore, the impact that technology-mediated sexual expression may have on self-confidence and on relationships needs additional investigation, especially as technology advances and creates changes in abilities of sexual expression.

Finally, future studies could make a substantial contribution by employing dyadic and longitudinal data of individuals and couples in long-distance relationships. Doing so would allow causal attributions to be drawn, which could inform the

development of therapy modalities that better fit the needs of long-distance couples, especially with regard to improving self, partner, and relational certainty.

CHAPTER 6. CONCLUSION

The findings of this study indicate that sexual expression and self-confidence are associated with differences in relationship distance apart, especially through utilization of technology-mediated sexual expression. Those in long-distance relationships utilize technology-mediated forms of sexual expression more than those in short-distance relationships, which in turn is associated with lower self-confidence and greater self, partner, and relational uncertainty. Nonetheless, couples in long-distance relationships are still able to persist in long-term relationships despite these challenges.

1.   How old are you? (Numerical Input only) 2.
 What is your gender?
   a. Male
   b. Female
   c. Trans female
   d. Trans male
   e. Non-binary
   f. Other (please specify)

3.   What is your Ethnicity
   a. White
   b. Hispanic or Latino
   c. Black or African American
   d. Native American or American Indian
   e. Asian/ Pacific Islander
   f. Other

4.   What is your sexuality?
   a. Straight
   b. Gay
   c. Lesbian
   d. Bisexual
   e. Pansexual
   f. Asexual
   g. Other (please specify)

5.   What is the highest degree or level of school you have completed?
   a. Less than a high school diploma
   b. High school degree or equivalent
   c. Bachelor's degree (e.g. BA, BS)
   d. Master's degree (e.g. MA, MS, MEd)
   e. Doctorate (Ph.D., EdD)
   f. Other (please specify)

6.   What is your current relationship status?
   a. Single
   b. Dating

c.   Cohabitating (non-married)

d.   Engaged

e.   Married

f.   Divorced

g.   Other (please specify)

7.   Do you have children?

a.   No

b.   Yes (if yes please specify how many)

8.   **Attention Check:** Please select "$51,000-$60,000". This item is for verification purposes. a. Less than $20,000

b. $21,000 – $30,000

c. $31,000 to $40,000

d. $41,000 to $50,000

e. $51,000 to $60,000

f.   Above $60,000

9.   Are you currently in a long-distance relationship?

a.   Yes (if yes, add in question 10 and 11)

b.   No

10. How many miles are you apart from your current partner? (Numerical Input only)

11. In your own words, what factors lead to your relationship being long-distance as opposed to short distance?

12. How long have you been in your current relationship?

a.   0-3 months

b.   3 months-1 year

c.   1-2 years

d.   2-3 years

e.   3-4 years

f.   4+ years

Sexual Expression

*Please indicate the approximate frequency of the occurrence of the following activities in your current relationship **over the past month** (provide a numerical response).*

In the past month, I/we have engaged in (listed activity) __#__ number of times.

Non-technology-assisted Activities
1. Solo Masturbation (without utilizing sexually explicit imagery via technology)
2. Experience sexual ideas or fantasies
3. Wear lingerie/ sexy undergarments
4. Read sexual books or magazines alone
5. Intimate touching/caressing of self
6. Kissing
7. Cuddling
8. In-person Flirting (i.e. saying sexually suggestive things to a partner to arouse your partner)
9. Intimate touching or caressing
10. Mutual Masturbation
11. Oral Sex
12. Vaginal Sex
13. Anal Sex
14. Use sex toys on a partner
15. Read Sexual books or magazines with a partner

Technology-Assisted Activities
1. Phone sex (i.e. engaging in phone calls of a sexual nature with a partner)
2. View online pornography alone
3. View online pornography with partner
4. Send or exchange sexual photos or video with partner (i.e. sexting)
5. Engaging sexual activity with partner over webcam
6. Exchange text messages of a flirtatious or sexual nature with partner
7. Use of partnered sex toys (e.g. partnered toys paired via Bluetooth or internet that react to each other)

www.manaraa.com

Appendix C

Personal Evaluation Inventory
(Shrauger & Schohn, 1995)

Below are listed several statements that reflect common feelings, attitudes, and behaviors. Please read each statement carefully and think about whether you agree or disagree that it applies to you. Try to respond honestly and accurately, but it is not necessary to spend much time deliberating about each item. Think about how the item applies to you *at this current point in time*. Select one of the four options.

1-Strongly Disagree   2-Mainly Disagree   3-Mainly Agree   4-Strongly Agree

1. I am a good mixer. (So)
2. Several times in the last few days I have gotten down on myself.* (M)
3. It bothers me that I am not better looking. * (Ap)
4. I have no difficulty maintaining a satisfying romantic relationship. (R)
5. **Attention Check:** If you are reading this question, select Mainly Agree
6. I am happier right now that I have been in weeks. (M)
7. I am pleased with my physical appearance. (Ap)
8. I sometimes avoid taking part in ball games and informal sports activities, because I don't think I am good enough at them. * (At)
9. Talking in front of a group makes me uncomfortable. * (Sp)
10. I would like to know more people, but I am reluctant to go out and meet them. * (So)
11. Athletics is an area in which I excel. (At)
12. Academic performance is an area in which I can show my competence and be recognized for my achievement. (Ac)
13. I am better looking than the average person. (Ap)
14. I dread the thought of getting up and talking in public. * (Sp)
15. When I think about playing most sports, I am enthusiastic and eager, rather than apprehensive and anxious. (At)
16. I often feel unsure of myself even in situations I have successfully dealt with in the past. * (G)
17. I frequently wonder whether I have an intellectual ability to successfully achieve my vocational and academic goals. * (Ac)
18. I am a better athlete than most people of my age and sex. (At)
19. I lack some important capabilities that may keep me from being successful. * (G)
20. When I have to talk before a group of people, I usually feel assured that I can express myself effectively and clearly. (Sp)
21. I am fortunate to be as good looking as I am. (Ap)
22. I have recognized that I am not as good a student as most of the people with whom I am competing. * (Ac)
23. I have been more critical of myself in the last few days than I usually am.* (M)

24. Being poor at sports is an important weakness of mine. * (At)
25. For me, meeting new people is an enjoyable experience that I look forward to. (So)
26. Much of the time I don't feel as competent as many of the people around me. * (G)
27. I almost always feel comfortable at parties or other social gatherings. (So)
28. I have fewer doubts about my abilities than most people. (G)
29. I have more trouble establishing a romantic relationship than most people do. * (R)
30. I am more uncertain about my abilities than I usually am.* (M)
31. It bothers me that I don't measure up to others intellectually. * (Ac)
32. When things are going poorly, I am usually confident that I can successfully deal with them. (G)
33. I am more concerned than most people about my ability to speak in public. * (Sp)
34. I have more confidence in myself than most people I know. (G)
35. I feel apprehensive or unsure when I think about going on dates. * (R)
36. Most people would probably consider me physically unattractive. * (Ap)
37. When I take a new course, I am usually sure that I will end up in the top 25% of the class. (Ac)
38. I am capable as most people at speaking before a group. (Sp)
39. When I go to social gatherings, I frequently feel awkward and ill at ease. * (So)
40. Usually I have a better love life than most people seem to. (R)
41. I have sometimes avoided taking classes or doing other things because they would require my making presentations before a group. * (Sp)
42. When I have to come through on important test or other academic assignments, I know that I can do it. (Ac)
43. I am better at meeting new people than most people seem to be. (So)
44. I feel more confident about myself today than I usually do. (M)
45. At times I have avoided someone with whom I might have a romantic relationship because I felt too apprehensive around them. * (R)
46. I wish I could change my physical appearance. * (Ap)
47. I am less concerned than most people about speaking in public. (Sp)
48. Right now, I am feeling more optimistic and positive than usual. (M)
49. Attracting a desirable partner has never been a problem for me. (R)
50. If I were more confident about myself, my life would be better. * (G)
51. I seek out activities that are intellectually challenging because I know I can do them better than most people. (Ac)
52. I can get plenty of dates without and difficulty (R)
53. I don't feel as comfortable in groups as most people seem to. * (So)
54. I am less sure of myself today than I usually am.* (M)
55. I would be a lot more successful in dating if I were better looking. * (Ap)

Note: Ac = Academic; Ap = Appearance; At = Athletics; G= General; R = Romantic; So = Social; Sp = Speaking; M = Mood

* reverse score

Appendix D

Sexual Satisfaction Scale
(Ashdown, et. al., 2011)

*Please indicate the degree to which you agree with each of the following statements
regarding your current relationship (circle an answer for each item).*

Disagree Completely   Agree Completely

               1   2   3   4   5   6   7   8

1. I feel satisfied with my sex life

2. My sexual relationship is much better than others' sexual relationships.

3. I wish my sexual relationship was better.

4. My sexual relationship is close to ideal.

5. Our sexual relationship makes me very happy.

6. My current sexual relationship does not fully satisfy my sexual needs.

7. Our sexual relationship does a good job of fulfilling my needs for intimacy, companionship, etc.

Relationship Uncertainty Scale
(Knobloch & Solomon, 2009)

How certain are you about…

Completely Uncertain   Completely Certain

| 1 | 2 | 3 | 4 | 5 |

Behavioral Norms Subscale

        8. what you can or cannot say to each other in this relationship?

        10. the boundaries for appropriate and/or inappropriate behavior in this relationship?

        18. the norms for this relationship?

        20. how you can or cannot behave around your partner?

Mutuality Subscale

        3. whether or not you and your partner feel the same way about each other?

        12. how you and your partner view this relationship?

        15. whether or not your partner likes you as much as you like him or her?

        16. the current status of this relationship?

Definition Subscale

        1. the definition of this relationship?

        6. how you and your partner would describe this relationship?

        13. the state of the relationship at this time?

        17. whether or not this is a romantic or platonic relationship?

Future Subscale

        4. whether or not you and your partner will stay together?

        7. the future of the relationship?

        11. whether or not this relationship will end soon?

        19. Where this relationship is going?

Note: The items are numbered in the order they appeared on the relationship uncertainty scale.

Self and Partner Uncertainty Scale
(Knobloch & Solomon, 2009)
How certain are you about…

Completely Uncertain   Completely Certain

| 1 | 2 | 3 | 4 | 5 |

Desire Subscale

1. how committed you are to the relationship?
2. Your feelings for your partner?[a] 3. how much you like your partner?
4. how much you want this relationship right now?[b]
5. how you feel about the relationship?
6. how much you want to pursue this relationship?
7. whether or not you are ready to commit to your partner?[a]
8. whether you want a romantic relationship with your partner or to be just friends?

Evaluation Subscale

1. how important this relationship is to you?[a]
2. how much you are romantically interested in your partner?
3. how ready you are to get involved with your partner?
4. whether or not you want to maintain your relationship?
5. your view of this relationship?

Goals Subscale

1. whether or not you want this relationship to work out in the long run?[b]
2. whether or not you want this relationship to last?
3. whether or not you will want to be with your partner in the long run?
4. your goals for the future of this relationship?
5. whether or not you want to stay in a relationship with your partner?[a]
6. where you want this relationship to go?

Note: For simplicity of presentation, all reported items are worded only in terms of the selfuncertainty subscale. In the measure of partner uncertainty, the word "you" was replaced by
"your partner." The items are numbered in the order they appeared on the self-uncertainty scale.
The items were randomly assigned to a different order for the partner uncertainty scale. [a]This item was retained only in the self-uncertainty solution. [b]This item was retained only in the partner uncertainty solution.

References

Ashdown, B. K., Hackathorn, J., & Clark, E. M. (2011). In and out of the bedroom: Sexual satisfaction in the marital relationship. *Journal of Integrated Social Sciences*, *2*(1), 40-57.

Anand, L., Du Bois, S. N., Sher, T. G., & Grotkowski, K. (2018). Defying tradition: Gender roles in long-distance relationships. *Family Journal*, *26*(1), 22–30. https://doi.org/10.1177/1066480717731342

Aylor, B. A. (2014). Maintaining long-distance realtionships. In D. J. Canary & M, Dainton (Eds.), *Maintaining relationships through communication: Relational, contextual, and cultural variations* (pp. 127–140). Psychology Press.

Belus, J. M., Pentel, K. Z., Cohen, M. J., Fischer, M. S., & Baucom, D. H. (2019). Staying connected: An examination of relationship maintenance behaviors in long-distance relationships. *Marriage & Family Review*, *55*(1), 78–98. https://doi.org/10.1080/01494929.2018.1458004

Bergen, K. M., Kirby, E., & McBride, M. C. (2007). "How do you get two houses cleaned?": Accomplishing family caregiving in commuter marriages. *Journal of Family Communications*, *7*(4), 287–307. https://doi.org/10.1080/15267430701392131

Borelli, J. L., Rasmussen, H. F., Burkhart, M. L., & Sbarra, D. A. (2015). Relational savoring in long-distance romantic relationships. *Journal of Social and Personal Relationships*, *32*(8), 1083–1108. https://doi.org/10.1177/0265407514558960

Cameron, J. J., & Ross, M. (2007). In times of uncertainty: Predicting the survival of long distance relationships. *The Journal of Social Psychology*, *147*(6), 581–606. https://doi.org/10.3200/SOCP.147.6.581-606

Cionea, I. A., Wilson Mumpower, S. V., & Bassick, M. A. (2019). Serial argument goals, tactics, and outcomes in long-distance and geographically close romantic relationships. *Southern Communication Journal*, *84*(1), 1–16. https://doi.org/10.1080/1041794X.2018.1531915

Dargie, E., Blair, K. L., Goldfinger, C., & Pukall, C. F. (2015). Go long! Predictors of positive relationship outcomes in long-distance dating relationships. *Journal of Sex & Marital Therapy*, *41*(2), 181–202. ttps://doi.org/10.1080/0092623X.2013.864367

Dellmann-Jenkins, M., Bernard-Paolucci, T. S., & Rushing, B. (1994). Does distance make the heart grow fonder? A comparison of college students in long-distance and geographically close dating relationships. *College Student Journal*, *28*, 212–212.

Du Bois, S. N., Sher, T. G., Grotkowski, K., Aizenman, T., Slesinger, N., & Cohen, M. (2016). Going the distance: Health in long-distance versus proximal relationships. *The Family Journal*, *24*(1). https://doi.org/10.1177/1066480715616580

Eğeci, I. S., & Gençöz, T. (2006). Factors associated with relationship satisfaction: Importance of communication skills. *Contemporary Family Therapy*, *28*(3), 383–391. https://doi.org/10.1007/s10591-006-9010-2

Ellis, N. K., & Ledbetter, A. M. (2015). Why might distance make the heart grow fonder?: A relational turbulence model investigation of the maintenance of long distance and geographically close romantic relationships. *Communication Quarterly*, *63*(5), 568–585. https://doi.org/10.1080/01463373.2015.1078390

Fanny, M. A., Jimenez, V., Markschies, C., & Frensch, P. (2010). *The regulation of psychological distance in long-distance relationships* [Humboldt University]. http://dx.doi.org/10.18452%2F16371

Firmin, M. W., Firmin, R. L., & Lorenzen, K. (2014). A qualitative analysis of loneliness

    dynamics involved with college long-distance relationships. *College Student*

    Journal, *48*(1), 57–71. https://doi.org/10.19030/cier.v6i1.7608

Gabriel, S., Renaud, J. M., & Tippin, B. (2007). When I think of you, I feel more confident

    about me: The relational self and self-confidence. *Journal of Experimental Social*

    Psychology, *43*(5), 772–779. https://doi.org/10.1016/j.jesp.2006.07.004

Goldsmith, K. M., & Byers, E. S. (2018). Perceived and reported romantic and sexual

    outcomes in long-distance and geographically close relationships. *The Canadian*

    Journal of Human Sexuality, *27*(2), 144–156. https://doi.org/10.3138/cjhs.2018-

    0016

Guldener, G. T., & Swensen, C. H. (1995). Time spent together and relationship quality:

    Long distance relationships as a test case. *Journal of Social and Personal*

    Relationships, *12*(2), 313–320. https://doi.org/10.1177/0265407595122010

Hertlein, K. M., & Ancheta, K. (2014). Advantages and disadvantages of technology in

    relationships: findings from an open-ended survey. *The Qualitative Report*, *19*, 1–

    11. http://www.nova.edu/ssss/QR/QR19/hertlein22.pdf

Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis.

    Qualitative Health Research, *15*(9), 1277–1288.

    https://doi.org/10.1177/1049732305276687

Jiang, L. C., & Hancock, J. T. (2013). Absence makes the communication grow fonder:

    Geographic separation, interpersonal media, and intimacy in dating relationships.

    Journal of Communication, *63*, 556–577. https://doi.org/10.1111/jcom.12029

Jurkane-Hobein, I. (2015). When less is more: On time work in long-distance relationships. *Qual Social*, *38*, 185–203. https://doi.org/10.1007/s11133-015-9304-5

Kelmer, G., Rhoades, G. K., Stanley, S., & Markman, H. J. (2013). Relationship quality, commitment, and stability in long-distance relationships. *Family Process*, *52*(2), 257–270. https://doi.org/10.1111/j.1545-5300.2012.01418.x

Knobloch, L. K., & Solomon, D. H. (2009). Measuring the sources and content of relational uncertainty. *Communication Studies*, *50*(4), 261–278. https://doi.org/10.1080/10510979909388499

Maguire, K. C. (2007). "Will it ever end?": A (re)examination of uncertainty in college student long-distance dating relationships. *Communication Quarterly*, *55*(4), 415–432. https://doi.org/10.1080/01463370701658002

Mietzner, S., & Li-Wen, L. (2005). Would you do it again? Relationship skills gained in a long distance relationship. *College Student Journal*, *39*(1), 192–201. https://go.galegroup.com/ps/anonymous?id=GALE%7CA131318259

Naezer, M. (2018). From risky behaviour to sexy adventures: reconceptualizing young people's online sexual activities. *Culture, Health, & Sexuality*, *20*(6), 715–729. https://doi.org/10.1080/13691058.2017.1372632

Overall, N. C., Fletcher, G. J. O., & Simpson, J. A. (2010). Helping each other grow: Romantic partner support, self-improvement, and relationship quality. *Article Personality and Social Psychology Bulletin*, *36*(11), 1496–1513. https://doi.org/10.1177/0146167210383045

Pistole, M. C., & Roberts, A. (2011). Measuring long-distance romantic relationships: A validity study. *Measurement and Evaluation in Counseling and Development*, *44*(2), 63–76. https://doi.org/10.1177/0748175611400288

Rajkumar, R. P. (2020). COVID-19 and mental health: A review of the existing literature. *Asian Journal of Psychiatry*, *52*. https://doi.org/10.1016/j.ajp.2020.102066

Santtila, P., Wager, I., Witting, K., Harlaar, N., Jern, P., Johansson, A., Varjonen, M., & Sandnabba, N. K. (2007). Discrepancies between sexual desire and sexual activity: Gender differences and associations with relationship satisfaction. *Journal of Sex & Marital Therapy*, *34*(1), 31–44. https://doi.org/10.1080/00926230701620548

Shome, D., Vadera, S., Male, S. R., & Kapoor, R. (2020). Does taking selfies lead to increased desire to undergo cosmetic surgery. *Journal of Cosmetic Dermatology, 19*(8), 2025–2032. https://doi.org/10.1111/jocd.13267

Shaughnessy, K., Byers, S., & Thornton, S. J. (2011). What is cybersex? Heterosexual students' definitions. *International Journal of Sexual Health*, *23*(2), 79–89. https://doi.org/10.1080/19317611.2010.546945

Shrauger, J. S., & Schohn, M. (1995). Self-Confidence in college students: Conceptualization, measurement, and behavioral implications. *Assessment*, *2*(3), 255–278. https://doi.org/10.1177/1073191195002003006

Stafford, L. (2010). Measuring relationship maintenance behaviors: Critique and development of the revised relationship maintenance behavior scale. *Journal of Social and Personal Relationships*, *28*(2), 278–303. https://doi.org/10.1177/0265407510378125

Stafford, L., & Merolla, A. J. (2007). Idealization, reunions, and stability in long-distance

    dating relationships. *Jounral of Social and Personal Relationships, 24*(1), 37–54.

    https://doi.org/10.1177/0265407507072578

Vanwesenbeeck, I., Ten Have, M., & de Graaf, R. (2014). Associations between common

    mental disorders and sexual dissatisfaction in the general population. *The British*

    Journal of Psychiatry, *205*(2), 151–157. https://doi.org/10.1192/bjp.bp.113.135335

VITA

Morgann Meredith Kidwell (Hegge)

EDUCATIONAL INSTITUTIONS
        B.S., Psychology, 2019
        Minor: Family Sciences
        Certificate: Social Science Research
        Summa Cum Laude
        University of Kentucky
        Lexington, KY

PROFESSIONAL POSITIONS HELD
        Intern Therapist, UK Family Center, 2019-2021
        Graduate Assistant, Dr. Nichole Huff, University of Kentucky, 2020-2021
        Teaching Assistant, Dr. Donald Bruce Ross III, University of Kentucky, 2019-2020
        Research Assistant, Valvoline, 2018- 2020

SCHOLASTIC AND PROFESSIONAL HONORS
         2021 National Council of Family Relations Graduate Honor Award
         2020 CAFE Richards Graduate Student Research Award
         2020 John I & Patricia J Buster Fellowship
         2019 National Council of Family Relations Graduate Honor Award
         2019 Forté Foundation Rising Star