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Pics or It Didn't Happen: Relationship Satisfaction and Its Effects on Instagram Use

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Abstract
Instagram is one of the most popular social media networks, especially among people 18-29 years old. This study examines the relationships between Instagram use and romantic relationship satisfaction. A survey of 235 people in romantic relationships and with active Instagram accounts determined each participant's relationship satisfaction score and Instagram habits. The data was analyzed in search of correlations between relationship satisfaction and Instagram use. In the end, no correlation was found between overall relationship satisfaction and Instagram addiction or use. There was, however, a moderate correlation between relationship satisfaction and the likelihood of a user posting a photo of his/her significant other on Instagram.

As of February 24, 2016, 49.5 million #mcm and 68.6 million #wcw photos have been posted on Instagram, according to a search of the aforementioned hashtags on the Instagram app. Hashtags such as "#ManCrushMonday" (#mcm) and "#WomanCrushWednesday" (#wcw) dominate the social media platform of Instagram. These hashtags, and others like them, are typically used to recognize and admire loved ones or crushes on social media (Vultaggio, 2015). According to Lavoie, "a hashtag is an important part of the Instagram experience" as it "allows users to find images related to a [keyword] of their interest and to tag and post their own user-generated content on Instagram" (2015). The reasoning for these digital public displays of personal relationships can vary from person to person. An Instagram user may post a photo involving his/her significant other (SO) because the user is happy with his/her relationship and wants to express this publicly (Sheldon & Bryant, 2015). On the other hand, a user may be unhappy with a relationship, yet continue to post about his/her SO in an attempt to convince the audience, and possibly even himself or herself, that the relationship is going well (Tong, 2013).

The uses and gratifications of various mass media outlets have been topics of study for decades, since Herzog first classified reasons for consumer soap opera listening in 1942. From radio and television to social media and advertising, every

media outlet is unique, and therefore, serves as a hub for new studies and analyses**.** Over the years, various studies have identified needs for social media use that range from surveillance and jealousy (Farrugia, 2013) to documentation and creativity (Sheldon & Bryant, 2015). Social media has become a large part of society, as it influences what people think, how they act, and what information they divulge (Whiting & Williams, 2013). Additionally, Whiting and Williams concluded that peoples' lives influence which social media outlets they use, and how they use them (2013).

Systrom and Krieger created Instagram in 2010, but it was not until 2012 that the app gained major popularity after reaching 100 thousand users (Lagorio-Chafkin, 2012). Social media is defined as an online platform where people share their opinions and experiences with others (Jambulingam, Selvarajah, & Thuraisingam, 2014). Instagram's short presence in the world of social media networks (SMN) results in few academic studies on the application. However, a variety of studies have been conducted assessing the influence of Facebook, Twitter, and other popular SMN on people, their self-esteem, and their relationships (Lin & Chung, 2015). Internet users spend more time on Instagram than on other social media sites (Sheldon & Bryant, 2016). Because of this popularity, it is important to understand why people use Instagram and what gratifications they receive from it.

Uses and Gratifications Theory

Uses and gratifications theory (UGT) has relevance to social media, but it has only recently become a commonly studied topic due to the relative newness of SMN (Whiting & Williams, 2013). UGT is a mass communication theory that examines how users choose specific forms of media to meet their needs. These needs can vary, and include attention seeking, self-disclosure, habit, affection, information sharing, and social influence (Malik, Dhir, & Nieminen, 2015). For example, one user may gratify his/her need for validation by receiving likes and comments on photos, while another may use SMN to gratify his/her need for meeting new people. UGT assumes that consumers do not passively engage in the media that presents itself to them (Whiting & Williams, 2013). Instead, it says that audience members have power over media, and choose what they see as well as what they share (Whiting & Williams, 2013).

The most influential reason for Instagram use was defined by Sheldon and Bryant as "Surveillance/Knowledge about others" (2015). Sheldon and Bryant's study measured participants' contextual ages and narcissism levels and then examined their Instagram uses and gratifications to find correlations between the

factors. Sheldon and Bryant's results found four motives for Instagram use: Surveillance/Knowledge about others; Documentation; Coolness; and Creativity, with Surveillance/Knowledge defined as the highest ranked motive. This result concludes that many people use Instagram as a means to keep up with, or gain knowledge about, what friends, family, and strangers are doing. Knowing this, Instagram users convey certain parts of their lives for their friends, family, and strangers to see (Sheldon & Bryant, 2015).

Some other gratifications received from using social media are diversion, personal relationship, personal identity, and surveillance (McQuail, Blumler, & Brown, 1972). According to McQuail et al., diversion is the process of using media to escape problems and release emotions (1972). However, receding too deep into online media forms can have a negative impact on life satisfaction. In a study by Goodman-Deane, Mieczakowski, Johnson, Goldhaber, and Clarkson, high life satisfaction was associated with more time spent in face-to-face conversations as well as phone and video calls (2016). On the other hand, participants with low life satisfaction spent more time communicating through screen-based means such as text messaging and emailing (Goodman-Dean et al., 2016). Since social media is a "screen-based mean," there is a possibility that higher SMN use may also correlate with lower life or relationship satisfaction.

Life Through the Social Media Lens

Through the lens of uses and gratifications theory, it has been discussed that SMN users post content to gratify certain needs (Sheldon & Bryant, 2015). Social media allows users to choose how they want their lives to be portrayed. Due to this freedom, there are various instances of fabricated or exaggerated SMN profiles in past studies. The reasoning for these "exaggerations" vary from person to person as well as between SMN (Tong, 2013).

A study by Tong in 2013 examined the use of social media to convey certain messages about one's life in order to instill reactions from audience members. Tong studied the social media accounts of participants who had recently been involved in breakups to see how the participants' relationships with their ex-significant others changed (2013). Some people severed all social media ties with exes, some were able to maintain amicable Facebook relationships, and some participated in grave dressing (Tong, 2013). This concept of "grave dressing" is considered by Tong to be the possible fourth phase of relationship termination. Grave dressing is the act of creating a public version of the relationship's history that justifies its termination (Tong, 2013). Grave dressing is one example of active social media manipulation in order to convey a particular message.

Tong identified a second example of SMN users posting content with a specific, conscious goal in her 2013 study. It was found by Tong that after a break up, some participants "taunted" or "teased" their ex-partners by posting things on social media that they hoped their exes would see (2013). Once again, participants were using social media to subtly convey messages to specific audiences. Social networks are important to the entire life cycle of a relationship, from beginning to end (Tong, 2013). In Tong's study, however, only the aftermath of relationships was taken into account. It is possible, however, that people exhibit similar signs of social media embellishment while still in a relationship (Miller & Tedder, 2011).

While using social media, people often take on slightly or completely altered personas. Self-integration is when users construct idealized versions of themselves without fear of judgment from offline social circles (Lin & Chung, 2015). The other side of self-integration is social-integration, which is the transparency of members of SMN when they express their personal beliefs, faiths, activities, etc. (Lin & Chung, 2015). Lin and Chung's study surveyed SMN users to identify the importance of various criteria while using Facebook, Twitter, and Pinterest (2015). It was stated in the limitations and future research section of the study by Lin and Chung (2015) that although the findings were relevant at the time the study was conducted, their method could be reapplied to update SMN sites. If this study was applied to Instagram, results could show the presence of both social- and self-integration. An Instagram user could self-disclose (social-integration) as well as embellish and exaggerate his or her life (self-integration).

To delve deeper into the reasons behind using Instagram specifically, Sheldon and Bryant (2015) conducted a study that investigated the motives for Instagram use. The study looked at how participants' life satisfaction, interpersonal interaction, social activity, and the psychological trait of narcissism influenced their use of Instagram. Results showed a positive relationship between high interpersonal interaction scores and using Instagram for coolness, creative purposes, and surveillance (Sheldon & Bryant, 2015). Another finding showed a positive relationship between high levels of social activity such as traveling, visiting friends, going to events, etc., and using Instagram as a documentation tool (Sheldon & Bryant, 2015). Sheldon and Bryant (2015) found a positive relationship between using Instagram to be cool and for surveillance when examining narcissism levels in participants. A limitation expressed in the study by Sheldon and Bryant (2015) recommended that future research try to explore if there are other motivations for Instagram use, as their study uncovered only four. One potential factor for future study is romantic relationship satisfaction.

The Effects of Relationships on Everyday Life

Relationship satisfaction is defined as interpersonal evaluation of the positivity of feelings for one's partner and attraction to the relationship (Miller & Tedder, 2011). Goodman-Dean et al. (2016) conducted a study in which they examined participants' use of various communications technologies and their level of relationship satisfaction. The study found that overall high satisfaction was positively correlated with face-to-face and voice-to-voice communication and negatively associated with text messaging and instant messaging (Goodman-Dean et al., 2016). This study by Goodman-Dean et al. (2016) was one of few to examine any sort of life satisfaction in comparison to media use. Other criteria for varying social media usage that have been studied are age and gender (Jambulingam et al., 2014).

Generation Y: The Digital Generation

Generation Y is the first generation born in the digital age and therefore a diverse and new demographic to study (Jambulingam et al., 2014). Generation Y refers to people born between the years 1980 and 2000 (Eisner, 2005). According to Statista (2015), as of April 2015, 55% of Internet users between ages 18 and 29, and 28% of Internet users between ages 30 and 49 used Instagram. Besides physical age, there is also the concept of contextual age, which, according to Sheldon and Bryant, is often ignored when studying motivations for media use (2015). Contextual age is measured by combining elements such as life satisfaction, interpersonal interaction, social activity, physical health, mobility, and economic security, and can help explain interpersonal needs and motives (Sheldon & Bryant, 2015). Social activity, one of the determining factors of contextual age, emerged as one of the most important predictors of why people use Instagram (Sheldon & Bryant, 2015).

Social media is a tool that members of Gen Y use to share their interests, emotions, and activities. It was found by Duggan and Smith that the Instagram audience largely consists of youthful demographics with a skew towards women (2013). Within Gen Y, there are differences in social media use and site popularity between males and females (Jambulingam et al., 2014). In addition, males and females exhibit different posting habits on Instagram (Jambulingam et al., 2014). In a study conducted by Jakpat (2015), 56% of male respondents selected a photo of an "activity that you are doing (with others or by yourself)" as the type of photo they posted most on Instagram. 51% of females who took the survey selected "private photo (selfie, candid, or things you own)" as what they posted most often.

The study conducted by Jambulingam et al. (2014) used a survey to determine the top social media sites used by Gen Ys and examine gender differences. Results found that men more commonly had one or two networks while more women had three networks (Jambulingam et al., 2014). Jambulingam et al. (2014) identified three needs for social media use: personal, public, and broadcast. Personal needs are to maintain close relationships with friends and family, while public needs are to keep track of the activities of famous people and to meet new people (Jambulingam et al., 2014). Finally, broadcast, also known as self-promotion, is the need to advertise activities as means to boost self-confidence (Jambulingam et al., 2014). Out of ten sub-categories for usage of social media according to preference, the three highest were: communicating with friends; conveying information; and expressing emotions (Jambulingam et al., 2014). It was concluded by Jambulingam et al. (2014) that Gen Ys adopt social media as a life companion in all aspects. This study by Jambulingam et al. (2014) gave insight on the most apparent uses of social media within Gen Y.

Most of the aforementioned studies took a uses and gratifications approach to identify the reasons why people use certain media outlets. While each study showed reasoning and research to support its claims, many studies neglected to examine life factors of participants as possible causes for various media use. Based on the findings by Goodman-Dean et al. (2016), relationship satisfaction has a strong effect on overall media use. Both Sheldon and Bryant (2015) and Lin and Chung (2015) recommended future research within their studies in order to update and solidify their findings. The research discussed above laid the foundation for the current study and lead to the study's research question.

RQ1: Is there a correlation between relationship satisfaction and Instagram use?

Method

Participants

An online survey was conducted through Survey Monkey for this study. Participants agreed to take the survey by accepting the terms of the informed consent. The informed consent page notified participants that the survey would be completely anonymous and that they could opt out at any time. After verifying that they were at least 18 years of age, participants were allowed to take the survey. The study required that participants be in a romantic relationship and have an active Instagram account in order to participate. All potential participants were notified of the requirements they had to meet before continuing with the survey.

The survey received a total of 313 responses during the data-collecting period. Of the 313 taken, 235 surveys were complete and therefore valid for this research study. The main demographics in this study were both males and females who were in romantic relationships and had active Instagram accounts. 89% of the participants who fully completed the survey were female, 11% were male. The target age range for the survey was 18-29 year olds. The highest percentage of participants fell into the age range of 18-20 years old with 46% of total participants. 31% of participants were between the ages 21 and 23, 14% were 24-26, 4% were 27-29, and the remaining 3% were 30+. Due to the requirements of the study, a purposive sampling technique was used. Only people in romantic relationships with active, personal, Instagram accounts could participate in the survey. As a result, sampling could not be completely random and potential participants had to be informed of these prerequisites. The participants used in this study were pulled using various online methods.

Participants were recruited by posting a link to the Survey Monkey online survey on social media. This method called on people to take a 10-15-minute survey if they met the requirements stated above. Facebook and Instagram were used in order to reach a variety of potential participants. On Instagram, a photo was posted explaining the survey requirements and guiding interested participants to the link for the survey. On Facebook, a link was posted from the personal account of the researcher along with an explanation of the study, asking those eligible to participate. Finally, the survey was posted to a Facebook "group" called "CSULA Book Exchange". This page is a forum on Facebook where California State University, Los Angeles students go to buy and sell books, ask for advice, and discuss other topics related to the university. This method yielded the most survey responses, most likely due to the 10,700 members of the group at the time.

Procedure

Survey. The survey had a total of 40 elements. The first part of the survey used a modified version of The Couples Satisfaction Index (CSI) (Funk & Rogge, 2007). This survey was originally intended for married couples, and therefore had to be slightly shortened and modified to better fit the demographic for the current study. The scale asked the participant to reveal his/her relationship satisfaction with a variety of Likert scale responses. The responses measured from 1 (Always Disagree) to 5 (Always Agree), 1 (Not at all) to 5 (Completely), and 1 (Never) to 5 (All the Time). Then, participants were given five different pairs of words and

were asked to estimate their relationship on things such as Interesting to Boring, Casual to Serious, and Sturdy to Fragile. The scale ranged from 1 to 5.

The second part of the survey asked questions regarding the participant's Instagram use and provided Likert scale responses. This part of the survey pulled questions from two different scales. The first scale used was the Facebook Addiction Scale (Andreessen, Torsheim, Brunborg, & Pallesen, 2012). This scale was modified to fit the study of Instagram, and the timeframe was changed from "how often during the last year…" to how often in general. Next, questions were pulled from a study conducted by Jakpat (2015). The responses measured from 1 (Very Rarely) to 5 (Very Often). Questions such as how often participants check their Instagram account and how often they posted came with multiple time range answer options, for example, Less than 2 weeks ago - Three years ago. Finally, participants were asked to rank seven types of posts from 1 (what they post the most often) to 7 (what they post the least often). The purpose of these questions was to gain an overall understanding of participants' Instagram habits, reasons for posting, etc.

Relationship Satisfaction. The first variable of this experiment was the relationship itself. The participant's relationship satisfaction, how long the relationship had been going on, and how the participant felt were all factors that were measured by the first part of the survey. This was to determine how each participant felt about his/her relationship. The Facebook Satisfaction Scale had 20 measured items ($\alpha = .944$).

Instagram Use. The second variable was the participant's Instagram posting habits and overall Instagram use. The second part of the survey determined what and how often the participant posted. The goal was to find out if there was a relationship between a participant's relationship satisfaction and whether or not they post photos with and of their significant other (SO) on their Instagram. Also, it measured how often participants checked Instagram and why. This was to determine if there was a relationship between relationship satisfaction and the level of Instagram use. The Instagram Use Scale had 6 measured items ($\alpha = .728$).

Analysis

A Pearson product-moment correlation coefficient was computed to assess the relationship between the two measured variables. There was no correlation found between the two variables ($r = -.049$, $p = .473$, $n = 217$).

A second Pearson product-moment correlation coefficient was run. The post hoc analysis compared relationship satisfaction to the scale measuring how often participants posted photos involving their significant others. There was a

moderate correlation between the two variables ($r = .349$, $p < .001$, $n = 221$). This test was run as an extension of the original research question. Instead of looking at overall Instagram use, a specific question regarding participants' posting habits regarding their SO was examined. The purpose of this test was to search for self-disclosure involving relationship satisfaction.

Discussion

Relationship Satisfaction and Overall Instagram Use

The research question asked if there was a correlation between relationship satisfaction and Instagram use. It was anticipated that in relation to high relationship satisfaction, the three most apparent uses of Instagram would be attention seeking, self-disclosure, and affection. On the other hand, a low relationship satisfaction score would result in diversion, or a higher level of Instagram use in order to escape personal problems. In other words, as relationship satisfaction went up, Instagram use would go down because there would be less diversion amongst participants who were happy with their relationships. After running a two-tailed correlation coefficient between the variables of relationship satisfaction and Instagram use, it was determined that there is no statistical relationship between the two variables in this sample. Upon close inspection of individual participants, there were instances in which an individual's Instagram use went down as their relationship satisfaction score went up. There was no significance in these individual findings. However, they helped support the claim that people with higher life satisfaction scores tended to participate in more face-to-face communication, and in less digital communication (Goodman-Deane et al., 2016). With the overall 217 participants, however, there was no statistical significance between the two factors.

Relationship satisfaction was ranked on a scale from 1 to 5, 1 being the least satisfied and 5 being the most. The lowest relationship satisfaction score was 1.80, and the highest was 5.00. The mean score was 4.26, meaning the average participant was very satisfied with his/her relationship. Instagram use was also ranked from 1 to 5, 1 being the least "addicted" to Instagram, and 5 being the most. The highest Instagram use score was 4.17, the lowest was 1.00, and the mean score was 2.16. The mean of 2.16 meant that the average participant did not give Instagram much thought or rank it high in importance.

A possible flaw in the research design was the ratio of relationship satisfaction questions to Instagram use questions. After survey results were received and reliability levels tested, 20 items were selected to represent relationship satisfaction, while only 6 were kept to represent Instagram use. All

of the relationship satisfaction questions came from a single, verified source. The scale had a reliability of .944 and was therefore a credible measure of relationship satisfaction. Since Instagram is a relatively new form of media, not many scales exist to study Instagram specifically. In addition, the topic of this research was very focused and made it difficult to find applicable scales to include in the survey. The scales that were found had to be heavily modified to fit the subject.

Application of Past Research to the Current Study

In the current research study, the main gratifications that users sought were anticipated to be attention seeking, self-disclosure, and diversion. Questions in the survey addressed all three of these factors to conclude how relationship satisfaction determined which gratifications were most commonly used. The current study looked for signs of unhappiness in participants' personal relationships to identify the presence of diversion with Instagram use or, furthermore, Instagram addiction. Diversion is the idea that people use social media as an escape from reality (McQuail et al., 1972). More specifically, it is when people turn to their SMN to forget about problems in their personal lives. Some of the questions within the Instagram use scale addressed this idea by altering questions from a Facebook addiction scale. This was meant to determine if diversion was more present in people with low relationship satisfaction scores and less present in people with high relationship satisfaction scores. Due to the rejection of a correlation between relationship satisfaction and Instagram use in the first test, diversion could not be proven in this study. However, upon close inspection of individual results, a few instances did occur in which people with low relationship satisfaction scores (< 2.5) showed signs of higher and more frequent Instagram use.

Post Hoc Analysis

The second correlation was run as a post hoc analysis. It compared relationship satisfaction scores with a scale that asked how often participants posted photos with or of their significant others. The responses to this question measured from 1 (Very Rarely) to 5 (Very Often). The research question asked if there was any correlation between relationship satisfaction and Instagram use. This specific test was run to compare relationship satisfaction with a specific Instagram use act of posting a photo with a significant other. The assumption with this test was that as relationship satisfaction went up, the likelihood of posts about the participant's SO would go up as well. This assumption was correct as there was a correlation of $r = .349$ ($p < .001$). This result suggests that there was a moderate,

positive correlation between the relationship satisfaction scale and how often participants post things about their SO on Instagram. Just like various aspects of real life influence Facebook, Twitter, and Pinterest use (Lin & Chung, 2015), romantic relationship satisfaction can influence Instagram use.

Application of Past Research to the Current Study

The significance of this post hoc finding is that the concept of self-disclosure does have a positive correlation with relationship satisfaction. As relationship satisfaction goes up, so does the likelihood that a participant often posts photos involving his/her SO on Instagram. Self-disclosure is the aim of sharing more information about oneself to various audiences (Malik et al., 2015). Photos are deemed to be an imperative form of content used for self-disclosure (Malik et al., 2015). Posting photos of one's significant other is a noteworthy example of self-disclosure. Some people choose to be very private by not self-disclosing, and will rarely reveal information about personal relationships on social media. In the current study, 33% of participants chose either "Rarely" or "Never" when asked how often they posted photos of their significant others on Instagram. These respondents do not use social media as a means of satisfying the need of self-disclosure. Others, however, feel the need to share and want their audiences to know about their relationships. A ranking question in the survey asked participants to rank seven types of photos from what they post the most often (1) to what they post the least often (7). 14% of people selected "Activity that you are doing with your significant other" as their number one posted item. The highest score was for the option "Private photo (selfie, candid, or things you own)" which received 19% of total number one votes.

Other Findings

Another use and gratification that was tested in this study was attention seeking. Attention seeking is defined as the feeling of getting attention and importance from others (Malik et al., 2015). A multiple-choice question in the Instagram use portion of the survey asked participants to share why they used Instagram. Participants were told to select all of the options that applied. The highest scoring option was "To share photos and videos" with 92% of participants selecting this as one of their uses and gratifications for Instagram use. The second highest option was "To keep in touch with friends and family" with 80%, and the third was "To show people what my life is like" with 48% participant selection. In addition to being the three most popular reasons for using Instagram, these options are also the most closely related to attention seeking behavior.

Limitations and Future Research

A limitation discovered in this study was an uneven ratio of female to male participants. 89% of the participants were female and only 11% were male. This could have contributed to skewed results, as it has been discussed in previous studies that men and women have different SMN posting and usage habits (Jambulingam et al., 2014). This is not to say that the ratio of gender representation was the cause of the results of this study, however it should be addressed in future research of this topic. In addition, there was a high percentage of 18-20 year olds who took the survey, and each demographic thereafter was not equally represented. According to Statista, 55% of Internet users between ages 18 and 29 use Instagram (2015). A large part of the Instagram user demographic was therefore, unevenly represented in this sample. Future research should also pay close attention to this demographic issue.

In order to more accurately assess Instagram use, a specific scale should be designed and tested. The existing scales that deal with social media are limited and specific to certain SMN and therefore, difficult to amend. If a scale can be created specifically for what this study aims to find, the results may improve. The final issue with this study was a lack of participants who yielded moderate to low relationship satisfaction rankings. This may simply be because people that unhappy with their relationships are rare, and harder to come by.

A possible future direction to take with this study is to look at the differences in Instagram use between people in and not in relationships. Since not much data could be collected involving people in unhappy relationships, it was difficult to accurately assess relationship satisfaction in relation to Instagram use. Instead of a purposive data collecting technique, a survey can be distributed to anyone willing to participate, as long as they are at least 18 years of age. Participants will divulge whether or not they are in a relationship and then answer questions about their overall Instagram use. A correlation can then be run to assess differences in Instagram use between participants within relationships and participants not in relationships. The same theories used in this study can be applied to future studies to look for diversion, self-disclosure, surveillance, etc. while examining people in and not in relationships.

Conclusion

This study searched for a correlation between relationship satisfaction and Instagram use. The first test, which compared relationship satisfaction scores with overall Instagram use scores, was not significant. The second test compared

relationship satisfaction scores with frequency of participants posting about their SO on Instagram. Results found that there is a moderate correlation between relationship satisfaction and how often users post photos with or of their SO on Instagram. The top three uses for Instagram identified in this study were to share photos and videos, to keep in touch with friends and family, and to show people what one's life is like. Social media networks are always evolving and new ones become popular frequently. Because of this, it is important for research to stay updated so that companies and people can understand how and why social media is used and how it relates to everyday life.

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