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David Wendt
Iowa Wesleyan University
dave.wendt@keokukschools.org

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This experiment investigated relationship satisfaction and attachment orientations as moderators of emotional responses to and enjoyment of typical movie and television relationship portrayals. The effects of comedy versus drama exposure were also examined. Participants were 306 adults. Results showed that participants with higher relationship satisfaction experienced more amusement in response to the comedies and hope in response to the romantic movies than those with less satisfaction. Participants with higher attachment avoidance experienced less romantic feeling and hope in response to the romantic movies and less amusement in response to the comedies than those with less avoidance. Main effects of relationship satisfaction and attachment orientations were also found. Additionally, relationship satisfaction and attachment anxiety led to greater enjoyment whereas attachment avoidance led to lesser enjoyment. Higher relationship satisfaction led to more hopeful feelings, which led to greater enjoyment in the romantic movie conditions only. Results are discussed in light of social comparison theory and differential susceptibility to media effects.

The spread of so-called "fake news" reveals one dark side of the democratization of information brought about through social media. In this case study, we examine how the spread of misinformation in social networks can not only share false narratives but can also communicate stigma. Our analysis demonstrates that content from the Russian IRA's 2016 online ads targeting the U.S. Presidential Election contained all four elements of stigma communication identified by Rachel Smith (2007).

This paper examines how the scholarship of citizen journalism has evolved since the early 2000s. Despite the prolific literature, few studies have taken a systematic approach to examine theories, conceptual definitions, and outcomes. A systematic review of relevant citizen journalism literature was employed to discover how citizen journalism research has evolved over the years, what theories have been used in research, and what features of citizen journalism is discussed in scholarship. According to the results, most of studies are limited to asking for journalists' reactions, and value of citizen journalists focusing on specific cases, and the majority of research uses a Western-centric point of view leaving applicable findings hard for non-Western countries to decipher or employ. The present study calls for the necessity of a more theoretically solid and methodologically rigorous research beyond specific case studies.

Open mother-daughter communication may enhance cancer knowledge, awareness, and prevention behaviors among the family members of cancer survivors. In Taiwan, almost one quarter (24.7 %) of all cancer diagnoses among females are attributed to breast cancer. This study, whose maternal participants are Taiwanese breast cancer survivors, investigated the potential influence of mother-daughter cancer communication on their daughters' cancer prevention awareness, attitudes and behaviors. The research design employed a concurrent quantitative-dominant mixed method design in which both quantitative and qualitative data were collected and analyzed at the same time. The qualitative research consisted of seven in-depth interviews with daughters of breast cancer survivors and the quantitative research consisted of a survey of eighty daughters of breast cancer survivors. Results reveal that mother-daughter relationships and their communication were influenced by the mothers' dependency on and accessibility to their daughters. Additionally, subsequent cancer prevention behaviors by the daughters were significantly influenced by their mothers' advice. Open communication from Taiwanese mothers with breast cancer is an important means of cancer prevention among their daughters.

This mixed methods study assesses how iGen experience high school and college friendships. Researchers administered an online survey to 109 undergraduates to test relational maintenance strategies, friendship satisfaction, and friendship solidarity. Results revealed that in high school friendships, most maintenance strategies are positively correlated with satisfaction and solidarity. In college friendships, all maintenance strategies, satisfaction, and solidarity are positively correlated. Semi-structured interviews with 23 undergraduates yielded three themes: origin stories, characteristics of friends, and maintenance strategies. Similarities and differences between high school and college friendships are discussed.

Our body remembers what our mind may not. Pandemics have been sweeping the globe for hundreds of years, yet so little attention has been devoted to how they affect meaning-making during and after the pandemic. Even less attention has been paid to how pandemics impact mental health and the lasting effects on communication. This review explores the usefulness of this text in the communication classroom.

Welcome from the Editor

Kristen L. Majocha

Welcome to the second regular edition of the Iowa Journal of Communication for 2020. We are an award-winning state journal that publishes the highest quality scholarship on a variety of communication topics. Our journal is a product of the Iowa Communication Association, a professional organization whose purpose is to unite those persons with either an academic or professional interest in all disciplines of Communication and the Performing Arts.

This issue is exciting in both breadth and depth of research and weaves a multicultural narrative for the reader. Valerie Ellen Kretz's lead article investigates relationship satisfaction and attachment orientations as moderators of emotional responses to and enjoyment of typical movie and television relationship portrayals. Next, Jenn Anderson & Kyle Moody link the Russian misinformation campaign in the 2016 U.S. presidential campaign to stigma communication. Young Eun Moon, Meredith L. Morgoch & Seungahn Nah then examine how the scholarship of citizen journalism has evolved since the early 2000s. Wan-Lin Chang studies Taiwanese breast cancer survivors and mother-daughter cancer communication. Last, Riley Redd, Mackenzie Regen, Margaret McPherson, Sydney Shaw, Alyssa Cole, Kennedy Johnson, Brianna Lane, and Linda Manning assess how iGen[ers] experience high school and college friendships. A Book Review of "Psychiatry of Pandemics - A Mental Health Response to Infection Outbreak (Huremović, 2020) by Lyricc King explores the usability of this text as a supplement in the communication classroom.

As you read the articles, consider citing the works in your own research. Also, think through how you can contribute. Manuscripts are now being sought for the Volume 53 regular edition and special issue. The deadline for both issues is April 30th, 2021. Special issue manuscripts should either directly address or relate to intersections of crisis communication in any of its many forms.

I bid you happy reading. Best wishes as we head into 2021. Feel free to contact me at majocha@calu.edu.

Kristen L. Majocha, PhD
Editor

Who Feels All the Feels? Individual Differences in Emotional Responses to and Enjoyment of Depictions of Romantic Relationships

Valerie Ellen Kretz

This experiment investigated relationship satisfaction and attachment orientations as moderators of emotional responses to and enjoyment of typical movie and television relationship portrayals. The effects of comedy versus drama exposure were also examined. Participants were 306 adults. Results showed that participants with higher relationship satisfaction experienced more amusement in response to the comedies and hope in response to the romantic movies than those with less satisfaction. Participants with higher attachment avoidance experienced less romantic feeling and hope in response to the romantic movies and less amusement in response to the comedies than those with less avoidance. Main effects of relationship satisfaction and attachment orientations were also found. Additionally, relationship satisfaction and attachment anxiety led to greater enjoyment whereas attachment avoidance led to lesser enjoyment. Higher relationship satisfaction led to more hopeful feelings, which led to greater enjoyment in the romantic movie conditions only. Results are discussed in light of social comparison theory and differential susceptibility to media effects.

Introduction

Across the media landscape, there are plentiful examples of romantic relationships. Movies and television shows in particular often focus on couples. In film, there are entire genres like romantic comedy devoted to portrayals of romantic love, and on television, one need not look further than prime time to find instances of dating and married couples. Given their ubiquity, it is unsurprising that an increasing number of studies have worked towards documenting the effects of such portrayals on real-world relationship outcomes like beliefs, expectations, and satisfaction (e.g., Hefner & Wilson, 2013; Holmes & Johnson, 2009; Lippman, Ward, & Seabrook, 2014; Kretz, 2019; Reizer & Hetsroni, 2014). These studies are frequently built on social cognitive theory or cultivation theory. Another theory that could be applied to the study of relationship portrayals is social comparison (Festinger, 1954). Based on social comparison theory, portrayals of relationships could elicit a variety of reactions from viewers. For example, comparing one's own romantic life to a grand romantic gesture in a movie could result in feeling jealous. However, the degree to which one experiences jealousy could vary. Someone who is dissatisfied with their romantic life would likely experience more jealousy than someone who is satisfied with it. Other traits of the viewer, like their general orientations toward relationships (i.e., attachment, Bowlby, 1969) may also influence the experience of viewing romantic content. Yet there is a lack of empirical research on these topics.

In light of that gap, the primary aim of the present study was to investigate whether relationship satisfaction and attachment orientations serve as differential susceptibilities (Valkenburg & Peter, 2013) to the effects of viewing typical movie and television portrayals of romantic relationships. The effects examined include emotional responses and enjoyment. The present study also has important practical implications because it sheds light on how viewers respond to popular forms of media content. The key comparisons in this experimental study include exposure to romantic movie versus television depictions and comedic versus dramatic depictions of romantic relationships. To develop hypotheses, differential susceptibilities are considered based on social comparison and attachment theories and research.

Differential Susceptibilities to the Effects of Romantic Relationship Depictions

In their Differential Susceptibility to Media Effects Model (DSMM), Valkenburg and Peter (2013) suggest that three types of variables may make individuals more or less susceptible to media effects: dispositional, developmental, and social. Within the model, a key role of these differential susceptibility variables is moderating the impact of media exposure on cognitive, emotional, and excitative responses. Consistent with the notion of differential susceptibilities as moderating variables, there is evidence that depictions of romantic relationships elicit varying responses from different groups of individuals. For example, in one study, undergraduates who were currently in a romantic relationship and were assigned to watch a romantic comedy movie subsequently made more positive evaluations of their relationships than those in a control group who watched a film with no relationship themes. In contrast, those who were currently single and saw the romantic comedy made less positive evaluations of a previous relationship compared to those in the control group (Holmes & Johnson, 2009). These results, which reflect differential susceptibilities, could be explained by social comparison theory.

Social comparison theory. Proposed by Festinger (1954), social comparison theory asserts that individuals rely on comparisons with others to evaluate themselves on any number of dimensions (e.g., opinions and abilities). Individuals may make upward comparisons, to those better off, or downward comparisons, to those worse off in a particular domain. Both upward and downward comparisons can lead to assimilation effects, moving towards the target of comparison, or contrast effects, moving away from the target of comparison (see Buunk & Gibbons, 2007 for a review). Different types of comparisons lead to differing cognitive and emotional outcomes. Upward comparisons with assimilation (e.g., I could achieve what the target has) and downward comparisons with contrast (e.g., I'll never sink to the level of the target) have more positive consequences. Conversely, upward comparisons with contrast (i.e., I'll never achieve what the target has) and downward comparisons with assimilation (e.g., I'll probably sink to the level of the target) have more negative consequences (Suls, Martin, & Wheeler, 2002). Furthermore, specific emotional responses have been theorized regarding upward comparisons. Upward comparisons with contrast lead to feeling jealous, whereas upward comparisons with assimilation lead to feeling hopeful (Smith, 2000).

Social comparison theory then seems to suggest that any given media depiction of romantic relationships could evoke very different emotional responses, depending on whether viewing elicits a comparison and whether that comparison is upward or downward and leads to assimilation or contrast effects. Research regarding reality television provides general support for this notion. In an experiment, participants watched a reality TV clip featuring ill-behaved young people and responsible older adults after upward or downward, assimilation or contrast comparisons were prompted, and the findings indicated that viewing the same clip elicited different emotional responses depending on condition (Lewis & Weaver, 2016).

Comparisons made while viewing may also impact enjoyment. Nabi and Krcmar (2004) suggest that enjoyment is an attitude with affective, cognitive, and behavioral components. Positive and negative emotions can contribute to media enjoyment, cognitive judgments like social comparisons are intertwined with enjoyment, and behaviors during viewing like attention can indicate enjoyment. There is no direct evidence regarding the association between social comparison and enjoyment of relationship content. However, studies regarding media selection do provide relevant insights. They suggest that individuals in unhappy relationship circumstances are more likely to choose love lamenting music and to avoid happy romantic films (Kim & Oliver, 2011; Knobloch & Zillman, 2003). Individuals who are in unhappy circumstances may avoid romantic content because they anticipate making an upward social comparison that will make them feel bad; whereas individuals in positive circumstances may seek out happy romantic content because they anticipate making an upward social comparison that will make them feel good. Underlying these consumer choices is the notion that exposure to relationship messages can be enjoyable but may not be depending on the nature of the comparison the viewer makes.

Satisfaction as individual difference. There are many factors that predict which type of comparison an individual will make in the context of romantic relationships. One such factor is relationship satisfaction. There is some empirical indication that level of satisfaction with one's self or situation can lead to different emotional responses to a given media depiction. For example, a study of female undergraduates' retrospective reports of watching surgical makeover shows revealed that body satisfaction was associated with feeling more hope while watching (Nabi and Keblusek, 2014). Similarly, in a meta-analysis, initial body satisfaction moderated the association between exposure to body-focused images and subsequent body satisfaction (Groesz, Levine, & Murnen, 2002). Together these suggest that individuals with higher satisfaction may respond more positively to idealized portrayals compared to those with lower satisfaction.

Regarding romantic relationships in particular, there is further evidence that relationship satisfaction is relevant to the types of comparisons that individuals make. In a study wherein married adults were asked to report the frequency with which they made upward and downward, assimilation and contrast comparisons to others' relationships, individuals reported making downward comparisons with contrast most frequently followed by upward comparisons with assimilation (Buunk, Collins, Taylor, VanYperen, & Dakof, 1990). Put differently, participants most frequently made comparisons that made them feel better. However, the more dissatisfied an individual was with their own relationship, the more likely they were to report making downward comparisons with assimilation, reporting feeling negative emotions because they felt similar to someone worse off. Thus, although individuals may make both upward and downward comparisons in everyday life, relationship satisfaction is related to whether one feels better or worse after making the comparison. Those with higher satisfaction may feel even better after viewing others' relationship problems whereas those with lower satisfaction may make less enhancing comparisons and experience less positive outcomes.

Attachment as individual difference. Another differential susceptibility that may impact responses to romantic relationship portrayals is attachment orientation. Attachment theory, originally proposed by Bowlby (1969), has a long tradition in scholarship. Today, adult attachment theory suggests that there two attachment dimensions, anxiety and avoidance, which explain how individuals relate to others (Brennan, Clark, & Shaver, 1998). Attachment anxiety, a belief about oneself, is often described as a fear of rejection. Attachment avoidance, a belief about others, is characterized by a fear of intimacy. These are continuous dimensions. When individuals are low in both anxiety and avoidance they are regarded as having secure adult attachment, but if they are high in one or both they are thought of as insecure.

Attachment orientations may impact how viewers respond to media depictions of romantic relationships. In an experiment, participants who were higher in attachment avoidance reported less pleasant feelings after viewing images of positive social scenes and participants who had attachment anxiety reported greater arousal after viewing negative social scenes (Vrtička, Sander, & Vuileumier, 2012). This research suggests that viewers who have higher avoidance may respond less positively to idealized relationship portrayals and that those who have higher anxiety may respond more strongly to portrayals of relationship problems.

Summary

Emotional responses to depictions of romantic relationships in television and movies may be moderated by individual differences as predicted by social comparison. Despite the complexity of possible responses afforded by the combination of upward and downward comparisons that result in either assimilation or contrast, in general, it seems as though those who are more satisfied or in a better situation experience stronger positive affect (e.g., amusement) and greater enjoyment in response to idealized content. In contrast, those who are less satisfied or are in a worse situation experience more negative affect (e.g., sadness and anxiety) and less enjoyment. Furthermore, attachment may also impact how viewers respond to depictions of relationships. Particularly, viewers with more attachment avoidance respond less positively to positive relationship portrayals, whereas viewers with more attachment anxiety respond more strongly to negative relationship portrayals. This is the basis for the predictions of the present study, which were tested via an experiment with a 2 x 2 design including media type (romantic movie versus television) and genre (comedy versus drama). The romantic movie conditions focused on idealized relationship depictions, whereas the television conditions focused on relationship problems, which are typical of these types of media (DeSouza & Sherry, 2006; Hefner & Wilson, 2013; Kim et al., 2007). The comedy conditions were more lighthearted, and the drama conditions were more serious in tone.

Hypotheses

Based on the theories and research findings described, in the present study relationship satisfaction and attachment orientations were expected to moderate the effects of condition on certain emotional responses and enjoyment. The different emotional responses that each condition would elicit are self-evident. For example, comedy clips should elicit more amusement than drama clips. However, such differences are also supported by empirical studies documenting the emotions that viewers associate with different genres of movies (Bartsch, 2012) and emotions experienced while watching various genres of television reported retrospectively (Nabi, Stitt, Halford, & Finnerty, 2006). Specific predictions follow.

Amusement and sadness. In the present study, relationship satisfaction was predicted to moderate the effect of genre on amusement and sadness. Those with higher (relative to those with lower) relationship satisfaction would be more amused after exposure to comedies and, conversely, less sad after viewing dramas.

> H1: Relationship satisfaction will moderate the effect of stimulus genre on amusement such that participants with higher levels of satisfaction will experience greater amusement in response to the comedy conditions as compared to the drama conditions.
>
> H2: Relationship satisfaction will moderate the effect of stimulus genre on sadness such that participants with lower levels of satisfaction will experience greater sadness in response to the drama conditions as compared to the comedy conditions.

Romance. Relationship satisfaction was also predicted to moderate the effect of type of exposure on romance. Individuals with higher relationship satisfaction were expected to experience more romantic feelings after romantic movie exposure. Additionally, given that individuals who are high in attachment avoidance have a fear of intimacy (by definition), participants with higher attachment avoidance were expected to experience less strong romantic feelings as a result of romantic movie exposure.

> H3: Relationship satisfaction (H3a) and attachment avoidance (H3b) will moderate the effect of stimulus type on romance such that participants with higher levels of satisfaction and lower levels of avoidance will experience greater romantic feelings in response to the romantic movie conditions as compared to television conditions.

Anxiousness. Participants with lower relationship satisfaction were expected to experience more anxiousness than those with higher relationship satisfaction in response to the television conditions, especially the television drama clip due to its more serious tone. Furthermore, research shows that individuals who are high in attachment anxiety experience greater levels of arousal in response to negative social stimuli (Vrtička et al., 2012). Thus, in the present study, participants with relatively higher attachment anxiety were expected to experience higher levels of anxiousness as a result of exposure to the television drama clip.

> H4: Relationship satisfaction (H4a) and attachment anxiety (H4b) will moderate the effect of stimulus type on anxiousness such that participants with lower levels of satisfaction and higher levels of anxiety will experience greater anxiousness in response to the television drama condition as compared to the other three conditions.

Envy and hope. The idealized romantic relationships portrayed in the romantic movie conditions may be regarded as upward comparison targets. Related theorizing suggests that participants with lower levels of relationship satisfaction (relative to those with higher satisfaction) may be more likely to engage in upward comparisons with contrast and to experience more envy. Conversely, those with higher (rather than lower) relationship satisfaction may engage in more upward comparisons with assimilation and experience more hope (Smith, 2000). Thus, relationship satisfaction was expected to moderate the association between type of exposure and envy and hope respectively.

> H5: Relationship satisfaction will moderate the effect of stimulus type on envy such that participants with lower levels of satisfaction will experience greater envy in response to the romantic movie conditions as compared to the television conditions.
>
> H6: Relationship satisfaction will moderate the effect of stimulus type on hope such that participants with higher levels of satisfaction will experience greater hope in response to the romantic movie conditions as compared to the television conditions.

Enjoyment. Based on social comparison theory and studies regarding media selection (Kim & Oliver, 2011; Knobloch & Zillman, 2003) viewers with higher relationship satisfaction should respond more favorably to idealized relationship depictions. Thus, viewers with higher relationship satisfaction were expected to enjoy the romantic movie clips more than those with lower relationship satisfaction. Furthermore, the emotions associated with social comparison were expected to mediate this association. One might expect that experiencing envy would lead to decreased enjoyment. However, empirical research has found that envy increases enjoyment (Lewis & Weaver, 2016). Building on the hypotheses regarding envy and hope, relationship satisfaction was expected to decrease envy and thus decrease enjoyment and increase hope and thus increase enjoyment, especially when viewing the idealized romantic movie portrayals.

> H7: Relationship satisfaction will be associated with lesser enjoyment via lesser envy (H7a) and greater enjoyment via more hope (H7b), especially for those in the romantic movie conditions as compared to the television conditions.

In previous research, the higher someone’s attachment avoidance the less pleasant they felt in response to positive (but not negative) social scenes (Vrtička, et al., 2012). Accordingly, in the present study individuals with attachment avoidance were expected to enjoy the clips, especially the romantic movies, to a lesser degree.

H8: Attachment avoidance will moderate the effect of stimulus type on enjoyment such that participants with higher levels of avoidance will experience less enjoyment in response to the romantic movie conditions as compared to the television conditions.

Method

Participants

With IRB approval granted, a sample of 306 adults aged 18 – 64 who were currently in a romantic relationship of at least three months long and living in the U.S. was recruited through Qualtrics for a project on media and romantic relationships. A screening process was used with the aim of recruiting a representative sample in terms of gender and age. Thus, the sample included 152 men (50.3%) and 154 women (49.7%), and the ages of participants were widely distributed (M = 41.3, SD = 13.93). Regarding relationship status, most participants were engaged, married, or in a civil union / domestic partnership (65%) while the remainder were “in a relationship” (35%). The vast majority of participants identified as heterosexual (92%), but a few participants identified as gay or lesbian, bisexual, or “other” (7%). Finally, the majority of participants reported being white or European-American (71%).

Design

The experiment used a 2 x 2 design with media type and genre as the independent variables. Participants were randomly assigned to one of four conditions: romantic comedy movie, romantic drama movie, television comedy, and television drama.

Procedure

All participants completed an online questionnaire with an embedded video clip as the experimental manipulation. Participants went through the following process: 1) answering a series of survey questions some of which were unrelated to this experiment, 2) viewing the video, 3) answering questions regarding the experiment’s dependent variables and stimulus, and 4) answering demographic questions.

Materials

Participants saw one of four 3-minute clips that were typical of romantic movie or television portrayals. Video clips were pretested with undergrads. They rated the extent to which each clip was representative of the target condition, and the average was 5.7 on a 7-point scale, SD = 1.24. Thus, these clips were representative. Furthermore, a two-way ANOVA was conducted to test for differences in representativeness. There were no significant main effects, and the interaction was not significant. All conditions were equivalently representative.

The romantic comedy movie clip was from *50 First Dates* (2004), and it depicted the main characters’ wedding. The clip ended with a scene of the husband greeting the wife with their young daughter. The romantic drama movie clip was from *The Notebook* (2004), and it depicted an elderly married couple discussing the progression of her Alzheimer's disease. The clip ended with a scene of the couple having died sleeping in each other's arms. These romantic movie clips both contained idealized, positive portrayals of romantic relationships that are typical of romantic movies (Hefner & Wilson, 2013). The television comedy clip was from *The Big Bang Theory* (2007), and it depicted two couples discussing who is the better couple while on a double date. The clip ended with one of the couples disagreeing about taking a test of their compatibility. The television drama clip was from *Grey's Anatomy* (2005), and it showed a married couple arguing about his decision not to take a job located across the country. The clip ended with the husband making a phone call to accept the job and the wife angrily telling him to leave for his new job immediately. These television clips both emphasized relationship problems, which frequently appear on television (DeSouza & Sherry, 2006; Kim et al., 2007).

Measures

Internal consistencies for the following measures are reported in Table 2.

Relationship satisfaction. The scale measuring relationship satisfaction was embedded in the survey portion of the study, prior to the manipulation. Satisfaction was measured using the seven-item Relationship Assessment Scale created by Hendrick (1988), which asks participants to think about their relationship with their partner. Each item is a question with a corresponding 5-point scale. The seven items were summed to create an index of relationship satisfaction.

Attachment orientations. Attachment orientations were also measured prior to experimental exposure using the Experiences in Close Relationship Scale - Short Form (Wei, Russell, Mallinckrodt, & Vogel, 2007). This scale assesses two factors, avoidance and anxiety, by asking participants to indicate their level of agreement with six statements per dimension on a 7-point scale. The items were averaged to create two attachment variables.

Emotional responses. Emotional response states were measured using a 17-item mood adjective checklist, adapted from Nabi & Keblusek (2014). Immediately after viewing the clip, participants indicated how much they felt each emotion "right now" (1 not at all, 7 extremely). They rated the extent to which they felt amusement (amused, entertained, humored), sadness (sad, blue, gloomy), romance (romantic, loving, warm-hearted), anxiousness (anxious, tense, uneasy), envy (envious, jealous), and hope (hopeful, encouraged, inspired). The items within each scale were averaged to create measures of discrete emotional responses.

Enjoyment. Enjoyment of the clip was measured using three items including, "The clip was entertaining," "I enjoyed watching the clip," and "I would be interested in seeing the entire (movie / TV episode)." These items were intended to assess the emotional, cognitive, and behavioral dimensions of enjoyment. Participants responded to the items on a 7-point Likert scale. The three items were averaged to create one enjoyment variable.

Prior exposure. Prior exposure was assessed by asking participants, "How many times have you seen the movie or the exact TV episode the video clip is from before?" Response options were 0, 1, 2, 3, 4 and 5 or more. Participants' responses were used to create a dichotomous variable representing prior exposure (0 = no, 1 = yes).

Results

Preliminary Analyses

Descriptive statistics are displayed in Table 1, and Table 2 shows correlations between all study variables. There were significant correlations between all of the emotion items except amusement and sadness. These correlations point to mixed affective responses. That is, as expected, participants did not feel exclusively positively or negatively in response to the clips, they may have felt, for example, both hopeful and sad. Some of these correlations were relatively large. Anxiety and sadness were highly correlated, and romance and hope were highly correlated, suggesting that these emotions frequently co-occurred in response to the stimuli. Additionally, all of the emotional responses were associated with greater enjoyment, but to varying degrees. Whereas positive emotional responses were more strongly associated with enjoyment, negative emotional responses were less so.

The hypotheses proposed specific interactions between differential susceptibilities of participants and experimental condition. Preliminary regression analyses were conducted to check for non-hypothesized interactions that should also be taken into account. These analyses included all of the potential two- and three-way interactions between differential susceptibility variables (relationship satisfaction or attachment avoidance and anxiety), stimulus genre (comedy vs. drama), and stimulus type (romantic movie vs. television). The only unexpected results were significant two-way interactions between attachment and condition. These were incorporated into tests of the hypotheses and are described below. Regression analyses were also conducted to check for any unexpected effects of gender, but no main or conditional effects of gender on emotional responses or enjoyment were found.

Analytic Strategy for Hypothesis Testing

To test the hypotheses outlined, a series of hierarchical regression analyses and a moderated mediation analysis were conducted. All analyses included prior exposure to the stimulus as a control variable. To test for interactions predicting emotional responses (H1 – H6), separate hierarchical regression models for each emotion were conducted. In the first block, differential susceptibilities (relationship satisfaction or attachment avoidance and anxiety) and condition were included. In the second block, two-way interactions (those that were hypothesized or that emerged during preliminary analyses) were added. To investigate significant interactions, conditional effects analyses were conducted using PROCESS (Hayes, 2018) Model 1. Results are reported in Tables 3 and 4. To test the hypothesis regarding hope mediating the effect of relationship satisfaction on enjoyment, especially for those in the romantic movie conditions (H7), a moderated mediation analysis was conducted using PROCESS Model 7. Results appear in Table 5. Lastly, to test the hypothesis regarding attachment orientations and enjoyment (H8), a final hierarchical regression analysis was conducted. In the first block avoidance and anxiety, genre, and type were entered. In the second block, the interaction between avoidance and type was added. Results are displayed in Table 4.

Amusement

H1 suggested that participants with higher levels of relationship satisfaction would experience more amusement as result of comedy (vs. drama) exposure. Results of the hierarchical regression analysis predicting amusement indicated that the hypothesized interaction (relationship satisfaction x genre) was significant, $\beta = .24$, $p = .001$, and a conditional effects analysis indicated that the effect of genre was stronger at higher levels of relationship satisfaction. Thus, H1 was supported.

There were also unanticipated effects of attachment orientations on amusement. Attachment anxiety was associated with greater amusement across conditions, $\beta = .22$, $p < .001$. Additionally, attachment avoidance and genre interacted to predict amusement, $\beta = -.28$, $p < .001$. A conditional effects analysis revealed that at increasing levels of attachment avoidance the effect of genre on amusement decreased.

Sadness

H2 suggested that participants with lower levels of relationship satisfaction would experience more sadness as result of drama (vs. comedy) exposure. Results of the hierarchical regression predicting sadness indicated that those in the drama conditions did report more sadness than those in the comedy conditions, $\beta = -.37$, $p < .001$. However, the interaction of relationship satisfaction and genre was not significant, $\beta = .03$, $p = .67$. Therefore, H2 was not supported. An unexpected effect of attachment anxiety on sadness was also found. Attachment anxiety was associated with greater sadness across conditions, $\beta = .23$, $p < .001$.

Romance

There were two moderation hypotheses regarding romantic feelings. H3a predicted that participants with higher levels of relationship satisfaction would experience greater romantic feelings in response to the romantic movie conditions (vs. television conditions). Results of the hierarchical regression analysis predicting romance indicated that the hypothesized interaction (relationship satisfaction x type) was significant, $\beta = .16$, $p = .013$, and a conditional effects analysis indicated that at higher levels of relationship satisfaction the effect of stimulus type was stronger. Thus, H3a was supported.

H3b predicted that participants with lower levels of attachment avoidance would experience greater romantic feelings in response to the romantic movie conditions (vs. television conditions). Results of the hierarchical regression predicting romance indicated that this hypothesized interaction (attachment avoidance x type) was also significant, $\beta = -.20$, $p = .01$. A conditional effects analysis showed that at higher levels of attachment avoidance the effect of stimulus type was weaker. Therefore, H3b was supported. In addition, there was an unanticipated main effect of attachment anxiety. Higher attachment anxiety was associated with greater romantic feelings across conditions.

Anxiousness

There were also two moderation hypotheses regarding anxiousness. H4a predicted that participants with lower levels of satisfaction would experience greater anxiousness in response to the television drama condition (vs. the other three conditions). Results of the hierarchical regression analysis indicated that there was a main effect of television drama exposure on anxiousness, $\beta = .33$, $p < .001$. Participants in the television drama condition felt more anxious than those in the other three conditions. However, there was no significant interaction between relationship satisfaction and condition, $\beta = .05$, $p = .435$. Thus, H4a was not supported.

H4b predicted that participants with higher levels of anxiety would experience greater anxiousness in response to the television drama condition. Results of a hierarchical regression showed that there was a main effect of attachment anxiety on feeling anxious, $\beta = .27$, $p < .001$. However, there was no interaction between attachment anxiety and condition. Therefore, H4b was not supported.

Additionally, there was an unexpected effect of attachment avoidance. Results of the hierarchical regression predicting anxiousness revealed a significant interaction between avoidance and condition, $\beta = -.14$, $p = .026$. A conditional effects analysis showed that the effect of the television drama clip on anxiousness was weaker for participants with higher avoidance.

Envy

H5 predicted that participants with lower levels of satisfaction would experience greater envy in response to the romantic movie conditions (vs. television conditions). Results of the hierarchical regression predicting envy indicated a significant main effect of stimulus type on envy, $\beta = .14$, $p = .02$. However, the interaction between relationship satisfaction and stimulus type was not significant, $\beta = .08$, $p = .309$. Therefore, H5 was not supported. Additionally, there were unanticipated effects of attachment orientations. Both attachment avoidance and anxiety were associated with greater envy across conditions, $\beta = .16$, $p = .008$ and $\beta = .24$, $p < .001$.

Hope

H6 suggested that participants with higher levels of satisfaction would experience greater hope in response to the romantic movie conditions (vs. television conditions). Results of the hierarchical regression analysis predicting hope indicated that the hypothesized interaction (relationship satisfaction x type) was significant, $\beta = .25$, $p < .001$. A conditional effects analysis indicated that at higher levels of relationship satisfaction the effect of type was stronger. Thus, H6 was supported.

There were also unexpected effects of attachment orientations. There was a main effect of attachment anxiety. Participants with higher attachment anxiety experienced more hope across conditions, $\beta = .30$, $p < .001$. Additionally, there was a significant interaction between avoidance and stimulus type, $\beta = -.22$, $p = .001$, and a conditional effects analysis showed that those with lower attachment avoidance experienced more hope in response to the romantic movies than those with higher attachment avoidance.

Enjoyment

H7a predicted that relationship satisfaction would be associated with lesser enjoyment via lesser envy, especially for those in the romantic movie conditions (vs. television conditions). However, analyses related to H5 showed that relationship satisfaction was not related to the experience of envy, so this hypothesis was not tested. H7b predicted that relationship satisfaction would be associated with greater enjoyment via greater hope, especially for those in the romantic movie conditions (vs. television conditions). This hypothesis was tested through a moderated mediation analysis. The index of moderated mediation was significant, .04 (0.02), 95% CI [.02, .06]. An analysis of conditional indirect effects showed that the effect of relationship satisfaction on enjoyment via hope was significant, but only in the romantic movie conditions, effect = .03 (0.02), 95% CI [.02, .05]. Therefore, H7b was supported.

H8 suggested that participants with higher levels of avoidance would experience less enjoyment in response to the romantic movie conditions as compared to the television conditions. The hypothesized interaction between avoidance and type predicting enjoyment was not significant, $\beta = -.01$, $p = .878$. Therefore, H8 was not supported. However, there was a main effect of avoidance, $\beta = -.21$, $p = .001$. Those with higher attachment avoidance enjoyed the clips less across conditions. A main effect was also found for attachment anxiety, $\beta = .15$, $p = .013$. Those with higher anxiety enjoyed the clips more. Additionally, in this analysis, a main effect of genre was found, $\beta = .14$, $p = .011$. Participants in the comedy conditions enjoyed the clips to a greater extent than those in the drama conditions.

Discussion

The primary purpose of the present study was two-fold, to investigate individual differences that impact emotional responses to and enjoyment of media depictions of romantic relationships. I predicted that relationship satisfaction would create differential susceptibility to the emotional effects of romantic movie versus television and comedy versus drama exposure. Specifically, I predicted that those with lower satisfaction would respond more strongly when negative emotions were evoked, whereas those with higher relationship satisfaction would respond more strongly when positive emotions were evoked. This prediction was not supported in the case of negative emotions. Relationship satisfaction did not moderate the effects of condition on sadness, anxiety, or envy.

However, the prediction was supported in regard to two of three positive emotions, amusement and hope, but not romance. Romantic movies did evoke more romantic feelings, but relationship satisfaction did not moderate the effect. This finding speaks to the power of portrayals of romance to evoke romantic feelings. Romantic movie exposure evoked romantic feelings regardless of participants' level of relationship satisfaction. Furthermore, there was an unexpected main effect of relationship satisfaction on feeling romantic, which reinforces the close association between relationship satisfaction and romance. Even when romantic feelings were not strongly evoked by the clips, individuals with higher relationship satisfaction reported feeling more romantic than those with lower relationship satisfaction.

As expected, the effect of the romantic movie clips (as compared to the television clips) on feeling hopeful was stronger for those with higher relationship satisfaction than those with lower relationship satisfaction. This points to social comparison effects. Because the romantic movie clips contained idealized depictions, I predicted that they would serve as upward comparison targets. The present study did not directly measure or manipulate comparisons made by participants. However, participants reported more envy in the romantic movie conditions than in the television conditions. Envy is the outcome of comparing oneself to a superior other by definition (Parrott, 1991). Thus, envy reported in the romantic movie conditions signals that the romantic movie clips elicited upward comparisons.

Based on the theorizing of Smith (2000), these results could indicate that the upward comparisons led to contrast effects. However, participants also reported feeling more hope after watching the romantic movie clips than the television clips. According to Smith (2000), feeling hope suggests upward assimilation effects. Might some participants have experienced envy whereas others experienced hope? That is plausible. However, in the present study envy and hope were moderately correlated. It is possible that in the context of romantic movie viewing that envy and hope are both evoked for some viewers. For example, when participants watched the ending of *The Notebook* (romantic drama movie), perhaps they felt envious of the ideal love and commitment between the elderly couple but also inspired by their shared death. In fact, the average for hope was much higher than the average for envy in the romantic movie conditions, which points to stronger assimilation effects. Additionally, the results regarding hope suggest that viewers with higher relationship satisfaction engaged in even stronger comparisons than those with lower satisfaction or that having lower satisfaction inhibited feeling hopeful while watching the otherwise inspirational clips.

The final positive emotion measured was amusement. As expected, the comedy conditions (versus the drama conditions) had a stronger effect on those with higher relationship satisfaction than those with lower relationship satisfaction. Given that the humorous aspects of the comedy clips were about relationships, it seems that individuals with lower satisfaction are less amused by relationship-related comedy or that having higher satisfaction makes relationships a safe topic to joke about.

I also hypothesized that attachment orientations would serve as a differential susceptibilities based on prior research (Vrtička et al., 2012). As predicted, participants who were higher in attachment avoidance were less affected by the romantic movie conditions in terms of romantic feelings, and, unexpectedly, the same trend was found regarding feeling hopeful. Similarly, the comedy conditions had weaker effects on amusement amongst those who were higher in avoidance. Also noteworthy, whereas attachment anxiety did not moderate the effect of television drama viewing on anxiety, there was an unexpected effect of attachment anxiety on all measured emotions. Participants who had higher attachment anxiety reported stronger feelings, both positive and negative, across conditions. In this study, those with attachment anxiety had stronger emotional reactions not only in response to negative relationship portrayals but also in response to positive ones. Based on these results, it appears that both relationship orientations matter in terms of emotional responses to relationship-focused media.

Regarding enjoyment, based on social comparison theory and research regarding media selection (Kim & Oliver, 2011; Knobloch & Zillmann, 2003), I hypothesized that higher relationship satisfaction would lead to greater enjoyment, especially of the romantic movie clips because they would prompt upward comparison. However, that hypothesis was not entirely supported because relationship satisfaction was positively associated with enjoyment across all conditions. In this study, relationship-related content, whether idealized in nature or not, was enjoyed more by those with higher relationship satisfaction. To what extent then is the association between relationship satisfaction and enjoyment owing to social comparison? Again, whereas social comparison was not measured directly, feeling hopeful is indicative of upward assimilation effects. In this study, amongst those who saw romantic movie clips, but not television clips, relationship satisfaction led to stronger feelings of hope, which led to enjoyment. Thus, social comparison is likely part of the reason that relationship satisfaction influences enjoyment. On the whole, relationship satisfaction appears to be a powerful differential susceptibility when it comes to enjoying relationship-focused content.

The influence of attachment orientations on enjoyment was also investigated. Vrtička et al. (2012) found that the higher participants' attachment avoidance, the less pleasant they felt in response to positive but not negative social scenes. Accordingly, I expected to find that avoidance would negatively predict enjoyment, but only in the romantic movie conditions. However, that was not the case. Attachment avoidance was associated with less enjoyment across conditions. Why the discrepancy between this study and prior research? It could be because of differences in the outcomes measured. Vrtička et al. measured pleasantness, which is purely affective (i.e., "how do you feel …?"). In this study, enjoyment included three dimensions, affective, cognitive, and behavioral. Viewers may in fact enjoy media that they do not find pleasant. In such circumstances, enjoyment may be better characterized as appreciation (Nabi & Krcmar, 2004), but nonetheless it may be this difference that led to the contrasting findings. The results related to attachment anxiety were also surprising. Vrtička et al. found that anxiety was unrelated to participants' ratings of social images. However, in this study attachment anxiety impacted enjoyment. The higher a participants' attachment anxiety the more they enjoyed the clips across conditions. Generally, these findings demonstrate the importance of attachment orientations in the enjoyment of relationship-focused media regardless of whether that content is idealized in nature or focuses on relationship problems. Those with a fear of intimacy, avoidance, enjoyed relationship-focused media less, whereas those who with a fear of rejection, anxiety, enjoyed relationship-focused media more.

Overall, the present study points to the continued need to examine the effects of romantic relationship portrayals. A strength of this study is that it relied upon an experiment to capture the immediate effects of viewing. However, there are also downsides to that methodology. For example, this study employed short video clips as stimuli. Future research should consider showing participants longer form media in a more naturalistic setting. Additionally, the significance of individual differences in this study points to the ongoing need to examine differential susceptibilities to the effects of relationship content. Certainly relationship satisfaction and attachment orientations are not the only individual differences that matter. Viewing motivations, for example, might be relevant. Finally, this study illuminates the relevance of social comparison to romantic relationships in media. Future studies should explore social comparison to media depictions of relationships more explicitly.

Romantic content can play an important role in viewers' lives as a way to live vicariously through the romance of others (Caperello & Migliaccio, 2011) or as an activity that couples engage in together (Harris et al., 2004). This investigation of responses to depictions of romantic relationships is important because it sheds light on differential susceptibilities when viewing that type of content. Specifically, watching depictions of relationships in media may more positively influence those who are already experiencing relationship success while negatively influencing those who have insecure attachments. Additionally, relationship-related content is more enjoyable for individuals who have higher relationship satisfaction or who are anxiously attached whereas those with attachment avoidance enjoy this content less.

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Table 1

Descriptive Statistics for Dependent Variables by Condition

		Romantic Comedy Movie	Romantic Drama Movie	TV Comedy	TV Drama
Amusement	*M* (*SD*)	4.8 (1.65)	3.2 (1.59)	4.6 (1.86)	2.9 (1.66)
	Possible and Actual Range	1 - 7	1 - 7	1 - 7	1 - 7
	Skewness	-0.66	0.68	-.57	0.85
Sadness	*M* (*SD*)	2.9 (1.84)	4.2 (1.63)	2.5 (1.63)	3.9 (1.76)
	Possible and Actual Range	1 - 7	1 - 7	1 - 7	1 - 7
	Skewness	0.75	-0.33	0.79	-0.23
Anxiousness	*M* (*SD*)	2.5 (1.66)	3.1 (1.73)	2.5 (1.65)	3.9 (1.71)
	Possible and Actual Range	1 - 7	1 - 7	1 - 7	1 - 7
	Skewness	1.05	0.54	1.07	-0.08
Romance	*M* (*SD*)	5.4 (1.57)	5.2 (1.64)	3.4 (2.02)	3.0 (1.72)
	Possible and Actual Range	1 - 7	1 - 7	1 - 7	1 - 7
	Skewness	-1.28	-1.14	0.25	0.47
Envy	*M* (*SD*)	2.7 (1.86)	3.2 (1.79)	2.3 (1.67)	2.5 (1.71)
	Possible and Actual Range	1 - 7	1 - 7	1 - 7	1 - 7
	Skewness	0.85	0.41	1.14	1.15
Hope	*M* (*SD*)	4.9 (1.68)	4.8 (1.66)	3.4 (1.95)	3.2 (1.77)
	Possible and Actual Range	1 - 7	1 - 7	1 - 7	1 - 7
	Skewness	-0.81	-0.74	0.25	0.39
Enjoyment	*M* (*SD*)	5.5 (1.46)	5.1 (1.53)	5.5 (1.53)	4.6 (1.56)
	Possible and Actual Range	1 – 7	1 – 7	1 – 7	1 – 7
	Skewness	-1.26	-1.00	-1.13	-0.36

Table 2

Reliabilities for and Bivariate Correlations between Study Variables

		Cronbach's α or *r*	1	2	3	4	5	6	7	8	9	10
1	Attachment avoidance	.78										
2	Attachment anxiety	.75	.48***									
3	Relationship satisfaction	.89	-.53***	-.25***								
4	Prior exposure		.14*	.06	-.03							
5	Amusement	.86	.05	.17**	.10	.25***						
6	Sadness	.86	.19**	.30***	-.09	.02	.18**					
7	Romance	.87	-.03	.15**	.19**	.57***	.27***	.33***				
8	Anxiety	.87	.27***	.35***	-.08	.16**	.75***	.18**	.13*			
9	Envy	.71***	.29***	.33***	-.10	.38***	.52***	.47***	.59***	.20***		
10	Hope	.91	.01	.22***	.15*	.58***	.32***	.90***	.28***	.54***	.34***	
11	Enjoyment	.92	-.11*	.04	.19**	.57***	.11*	.53***	.12*	.20***	.53***	.36***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3

Effects of Relationship Satisfaction and Condition on Emotional Responses

	Amusement	Sadness	Romance	Anxiousness	Envy	Hope
	β	β	β	β	β	β
Prior exposure	$.20^{***}$	$.21^{***}$	$.23^{***}$	$.20^{**}$	$.18^{**}$	$.27^{***}$
Relationship satisfaction	.10	-.07	$.17^{**}$	-.03	-.09	$.13^{*}$
Genre (0 drama, 1 comedy)	$.39^{***}$	$-.40^{***}$	-.01		$-.13^{*}$	-.02
Type (0 TV, 1 romantic movie)	.04	.07	$.47^{***}$		$.14^{*}$	$.36^{***}$
Condition (0 TV drama, 1 other)				$.33^{***}$		
Adj. R^2	.22	.19	.35	.12	$.07^{***}$	.30
F	$20.82\ (4, 280)^{***}$	$17.87\ (4, 280)^{***}$	$38.63\ (4, 280)^{***}$	$13.51\ (3, 281)^{***}$	$6.28\ (4, 280)^{***}$	$25.85\ (4, 280)^{***}$
Genre * Satisfaction	$.24^{**}$	.03			.13	
Type * Satisfaction			$.16^{*}$		.05	$.25^{***}$
Condition * Satisfaction				.05		
ΔR^2	.03	.00	.01	.00	.01	.03
ΔF	11.41^{**}	0.19	6.20^{*}	0.61	0.01	12.84^{***}
Levels of Relationship Satisfaction	*b (SE)* 95% CI		*b (SE)* 95% CI			*b (SE)* 95% CI
-1 *SD*	0.80 (0.28) [0.26, 1.35]		1.41 (0.29) [0.85, 1.97]			0.69 (0.29) [0.12, 1.25]
Mean	1.46 (0.19) [1.08, 1.84]		1.90 (0.20) [1.51, 2.30]			1.40 (0.20) [1.00, 1.80]
+1 *SD*	2.11 (0.27) [1.58, 2.65]		2.39 (0.28) [1.85, 2.94]			2.11 (0.28) [1.57, 2.66]

Note. All coefficients are standardized and reported within the step they were entered; Empty cells indicate comparisons that were not a part of that particular analysis; * $p = .05$ ** $p < .01$ *** $p < .001$

Table 4

Effects of Attachment Orientations and Condition on Emotional Responses and Enjoyment

	Amusement	Sadness	Romance	Anxiousness	Envy	Hope	Enjoyment
	β	β	β	β	β	β	β
Prior exposure	$.19^{***}$	$.18^{**}$	$.23^{***}$	$.16^{**}$	$.14^{*}$	$.26^{***}$	$.36^{***}$
Attachment avoidance	-.05	.02	$-.14^{**}$	.08	$.16^{**}$	$-.13^{*}$	$-.21^{**}$
Attachment anxiety	$.22^{***}$	$.23^{***}$	$.24^{***}$	$.27^{***}$	$.24^{***}$	$.30^{***}$	$.15^{*}$
Genre (0 drama, 1 comedy)	$.42^{***}$	$-.36^{***}$	.02		-.08	.03	$.14^{*}$
Type (0 TV, 1 romantic movie)	.06	.07	$.48^{***}$		$.16^{**}$	$.37^{***}$	.02
Condition (0 TV drama, 1 other)				$.29^{***}$			
Adj. R^2	.25	.23	.36	.21	.18	.30	.06
F	$20.50\ (5, 285)^{***}$	$18.86\ (5, 285)^{***}$	$33.67\ (5, 285)^{***}$	$20.26\ (4, 286)^{***}$	$13.50\ (5, 285)^{***}$	$26.07\ (5, 285)^{***}$	$5.54\ (4, 296)^{***}$
Genre * Avoidance	$-.28^{***}$						
Type * Avoidance			$-.21^{**}$			$-.22^{**}$	-.01
Condition * Avoidance				$-.14^{*}$			
ΔR^2	.04		.02	.01		.02	.00
ΔF	16.48^{***}		11.36^{**}	4.98^{*}		10.45^{**}	.02
Levels of Avoidance	*b (SE)* 95% CI		*b (SE)* 95% CI	*b (SE)* 95% CI			
-1 *SD*	2.34 (0.26) [1.82, 2.86]		2.59 (0.27) [2.06, 3.12]	1.70 (0.31) [1.08, 2.32]		2.05 (0.27) [1.52, 2.58]	
Mean	1.59 (0.19) [1.22, 1.95]		1.95 (0.19) [1.56, 2.33]	1.24 (0.22) [0.81, 1.67]		1.44 (0.19) [1.06, 1.82]	
+1 *SD*	0.83 (0.26) [0.31, 1.35]		1.31 (0.27) [.77, 1.85]	0.78 (0.29) [0.21, 1.34]		0.83 (0.27) [0.29, 1.37]	

Note. All coefficients are standardized and reported within the step they were entered; Empty cells indicate comparisons that were not a part of that particular analysis; * $p = .05$ ** $p < .01$ *** $p < .001$

Table 5
Relationship Satisfaction Predicting Enjoyment via Feeling Hope Moderated by Condition

Predicting Hope	
Prior exposure	1.14***
Relationship satisfaction	-0.01
Genre (0 drama, 1 comedy)	-0.03
Type (0 TV, 1 romantic movie)	1.40***
Satisfaction * Type	0.12***
R^2	0.30***
Predicting Enjoyment	
Prior exposure	0.67***
Relationship satisfaction	0.03**
Genre (0 drama, 1 comedy)	0.39*
Hope	0.32***
R^2	0.33***
Index of Moderated Mediation	.04*
Conditional indirect effects of relationship satisfaction on enjoyment via hope	
Television condition	0.00
Romantic movie condition	0.03*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Stigmas and Filter Bubbles: How the Russian Misinformation Campaign in the 2016 U.S. Presidential Campaign Links to Stigma Communication

Jenn Anderson & Kyle Moody

The spread of so-called "fake news" reveals one dark side of the democratization of information brought about through social media. In this case study, we examine how the spread of misinformation in social networks can not only share false narratives but can also communicate stigma. Our analysis demonstrates that content from the Russian IRA's 2016 online ads targeting the U.S. Presidential Election contained all four elements of stigma communication identified by Rachel Smith (2007).

Introduction

Russian advertising on Facebook and Instagram prior to—and after—the 2016 U.S. Presidential election, created by malicious agents, created false information narratives that general users then spread throughout these social networks. This situation illustrates how the democratization of information brought about by social networks is a double-edged sword. It allows for widespread dissemination of important information that can provide meaningful guidance and social support (Oh & Syn, 2015). However, these same networks also provide an environment conducive to easily sharing *mis*information about politics, health, or other topics (Del Vicario et al., 2016). Different public spheres collide and remix into fragmented filter bubbles. Into this divide, we see a unique miasma of key information segmented by misinformation. Misinformation, like any other information online, has the greatest cultural capital (Bourdieu, 1986) when it is easy to spread. In the modern parlance, the most easily spread content is memetic content ("memes") and/or visual information that contains rich information in a simplified format that can be easily shared (Highfield & Leaver, 2016). Previous research demonstrates that online images simplify issues and dehumanize groups of people, and can thereby generate and perpetuate stigma (Heuer, McClure, & Puhl, 2011; Puhl, Peterson, DePierre, & Luedicke, 2013).

Stigma is communicated through messages that mark, label, link to social peril, and assign personal responsibility for a stigmatized attribute (Smith, 2007). Like rumors, stigma messages appeal to a wide range of audiences and are readily shared within social networks (Zhu & Smith, 2016). In response to these stigmatizing messages, audiences can manage that stigma through various communication strategies classified based on the extent to which the audience accepts or challenges the public stigma and its applicability to the stigmatized group (Meisenbach, 2010). Previous research has examined the spread of stigma interpersonally (Smith citations), the spread of misinformation on social networks (Del Vicario et al., 2016), and the strategies people use to manage moments of stigmatization (Hartelt & Anderson, 2019; Noltensmeyer & Meisenbach, 2016; Roscoe & Anderson, 2019). However, these three conceptual areas have not previously been examined in tandem. Here, we develop the argument that stigma can be generated, shared, and managed through the creation, sharing, and remixing of "fake news" through online social networking sites. After reviewing the relevant literature behind our argument, we use messages from the 2016 Russian misinformation campaign targeting the U.S. presidential election as a case study for examining how stigma is communicated and managed through misinformation dissemination in social networks.

Literature Review

To provide context for our case study, we first review the literature on false information narratives, often colloquially referred to as "fake news." Then, we outline the theoretical lenses for the case study: stigma communication (Smith, 2007) and stigma management communication (Meisenbach, 2010).

Fake News

The term "fake news" became a popular talking point during the 2016 Presidential election cycle, but it has existed in academic networks as a catch-all descriptor for a variety of content, from satire such as *The New Yorker's* "Borowitz Report" to Photoshopped imagery, maliciously constructed false information, propaganda, and outreach pieces (Marwick, 2018). Often this term is linked to the anxiety regarding the shift in distribution of news from newspaper and television stations to the online realm, where social media sites like Facebook and Twitter are used to circulate information.

Perhaps the best example to illustrate fake news comes from Dan Faltesek, who describes the phenomenon as "social media news stories that feature sensational headlines referring to untrue information. These stories are produced by actors who are not mandated to do journalism and are remunerated by online ad networks" (Faltesek, 2016, p. 1). Indeed, this illustrates how fake news agents are not only distributed largely through social networks, but also places a focus on the monetary value of false information. While the attention of individuals is not a "zero-sum" game, there is limited bandwidth for information, which necessitates the use of tools such as sensationalistic writing to capture the attention of users. Faltesek's work suggests that users are more likely to be captivated by news that replicates traditional news writing, which makes these malicious actors invisible to the untrained eye (Faltesek, 2016).

While researchers have discussed the fact-checking apparatuses that have emerged to combat false information narratives (a term we want to introduce here to differentiate these advertisements from the more traditional fake news actors and artifacts typically discussed as rhetorical devices), only now are we able to better define how fake news and narratives operate in the online realm. These narratives often function as means of reinforcing narratives about race, class, and gender that help build and maintain collective identity, particularly for those users on the right of the political spectrum (Polletta & Callahan, 2019).

Sociotechnical approach. Alice Marwick's recent taxonomy of social roles of problematic information emphasized how fake news, partisan news coverage, and disinformation were linked to self-presentation and reinforcing group identity. By using a sociotechnical approach to determine how and why people share fake news, Marwick (2018) illustrated that users shared complex social motivations that would not necessarily be changed. If this is the case, information may be used by malicious actors to cause users to harm persons, organizations, or nations (Wardle & Derakhshan, 2017). This type of information is called "malinformation," although the usage of this term is questionable, because information may also be subversive without being untrue. Moreover, the remixing of internet content to fit within emergent communication patterns and new users suggests a fluidity that divests information from original meaning (Jenkins, Ford, & Green, 2013) as well as disconnecting it from its original creator. Whitney Phillips and Ryan Milner (2017) theorize that the interlinked nature of massively online communication, coupled with the ability to replicate and remix images, text, and video, makes it impossible to determine where a particular idea, image, or meme originated, let alone pinpoint the intent of the author. This leads to online contexts operating to transform content in ways that make it extremely difficult to locate sources or credibility of information, especially in visual contexts, i.e., memes.

The creation of memetic content is linked to sociotechnical practices that transform information (Milner, 2016). These Russian ads are themselves transforming information and recirculating them to users, often identifying more vulnerable users who may be more likely to share remixed content such as this. This lack of origin bolsters the "common sense" appeal of even stigmatizing messages, because the lack of information clarity makes it more likely to be interpreted as "general knowledge" rather than the perspective of a certain person or group. The lack of attribution also means that the person or page sharing the content is therefore absolved of the need to clarify information for factual accuracy since the text itself is difficult to parse due to the multiple layers of authorship.

The spread of misinformation in online social networks relies on sociotechnical practices unique to those contexts. The sociotechnical practices of false information distribution by individuals is linked to their social status and identity, along with their technical ability with regards to digital discourse. Those with higher social status can be said to possess privilege, or a privileged position (Foss & Elliott, 2015). Privilege is present in online content when the messages “employ various communicative mechanisms to adopt a role of superiority or a dominant style of interaction” (Foss & Elliot, 2015, p. 16). Such messages reinforce oppressive structures that create marginalization and injustice (Razzante & Orbe, 2018).

We argue those creating content for the Russian misinformation campaign developed messaging that assumed a privileged position that sought to reinforce oppressive structures that create marginalization and injustice. This is also linked to a media-industrial position where social meanings of information are tied to the necessity for increased media consumption or expanding the reach of a political stance. Finally, the very nature of the connected online realm affects the meaning of the content and information present on the medium of the internet, different from televisual or newsprint content. These work practices are sociotechnical in that they are organized and developed differently from other media because they are located in different social systems and technical organizations (Trist, Murray, & Trist, 1993). Human agency and technical affordances are linked in shaping artifacts of practice through sociotechnical means, for any conceptual framework of this practice must integrate actor and structure together (Bijker, Carlson, & Pinch, 1997).

Audience interaction. The emphasis on Russian ads thus places the audience for these ads as actors who have agency within their structured environment. Research into social media and online use shows that people gravitate towards content that reflects their own user interests (boyd, 2014). The production of culture perspective provides a strong lens to help navigate these systems. These systems are defined as “how the symbolic elements of culture are shaped by the systems within which they are created, distributed, evaluated, taught, and preserved” (Peterson & Anand, 2004), which means that the memetic cultural content created by users - including Russian propagandists - are symbolically shaped by the online realm of information distribution and remixed according to the user base.

The realm of false information narratives thus arrives in a complicated arena of online idiosyncrasies, where cultural content may be communally true while also maintaining a hint of falsehoods that deter the average user from engaging with the content. The systems of production have allowed for the dissemination of information similar to a propaganda campaign, but the very systems also allow for individual user agency to take over the integration and assimilation of content within said cultural systems. Thus, false information narratives rely on the user or group of users to disseminate content across a system to be fully effective, and this is the same for stigma communication messages (Smith, 2007). The Russian advertising on Facebook and Instagram prior to - and after - the 2016 US Presidential election was based on allowing users to integrate their agencies into the false information narrative that was intentionally spread by malicious agents.

Stigma

Based on Goffman's (1963) seminal work, stigma refers to considering a person or group spoiled/ruined or less than human due to possessing "attribute that is deeply discrediting" (p. 3). Evolutionary psychologists (e.g., Link & Phelan, 2001) contend that such stigmas served an important survival and protective function in earlier societies, because they branded "dangerous" others in order to preserve the functionality of a community or society. For example, people suffering from leprosy—an easily transmittable disease—were stigmatized, and subsequently segregating/separating them from the main community in order to prevent the disease's spread. Smith (2007) argues that, in a similar way, stigma continues to create societal order by establishing certain groups as threats and discursively separating them from the "normal" groups, i.e., creating ingroups (normal) and outgroups (stigmatized). Stigmas only become 'effective' (i.e., able to 'protect' the 'normals') when they are known by large groups of people; that knowledge only occurs due to the spread of those messages through communication (Zhu & Smith, 2016). In the same way, false information narratives rely on the user or group of users disseminating content across a system to be fully effective.

Brewer (1999) demonstrated that, as much as ingroup identification formed through positive affect for ingroup members, it also formed through hatred of outgroup members. Stigma messages feed such hatred, because they demonize and blame outgroup members for the negative experiences of ingroup members. As the internet public sphere splits into potential filter bubbles where ingroups only see messages that resonate with their previously held beliefs (Marwick, 2018), such stigmatizing messages are less likely to be critically examined and more likely to be widely-shared, much like rumors (Smith, 2007). The sharing of such information imbues the audience member with greater social capital, because community members perceive stigma messages—like rumors—as "salient, important, emotion evoking, and socially bonding information" (Smith, 2007, p. 474).

Stigma communication. According to Smith's (2007) model of stigma communication (MSC), stigmatizing messages contain four key features: marking, labeling, linking to social peril, and assigning personal responsibility. When a message 'marks' the stigmatized group, it communicates that the group is separate, other, different, and lower status that the 'normal' group to which it is being compared (Smith, 2007). Next, stigma communication messages apply labels to groups of people to portray them in simplified, homogeneous, and dehumanized ways (Smith, 2007). Labels remove the individuality and dignity of people within a group (Anderson & Bresnahan, 2013) and replace them with a quick, easily "meme-able" reference (Highfield & Leaver, 2016). Stigma communication messages link the stigmatized group to social peril by implicitly or explicitly demonstrating that the stigmatized group represents a threat to 'normal' society (Smith, 2007). The final function of stigma communication messages, according to Smith (2007), is that they assign personal responsibility to the stigmatized person/group for having attained the stigmatized attribute and/or for removing it from themselves.

Previous research on stigma communication has focused on static message content (Anderson & Bresnahan, 2013; Anderson et al., 2017), but the context of social media allows for greater audience interaction with messages and their content (boyd, 2014; Peterson & Anand, 2004). Audiences exposed to potentially stigmatizing misinformation online have the agency to remix the information (Peterson & Anand, 2004) according to their own needs and motives (boyd, 2014). Not only do people generate content that reflects their own interests, research into social media and online use shows that people gravitate towards content that reflects their own user interests (boyd, 2014). Furthermore, Smith (2007) argues that due to facilitating social bonding, stigma messages specifically "increase one's involvement in remembering, disseminating, and complying with the stigma message" (p. 474). Thus, incorporating stigmatizing content into false narratives enhances their potential to garner attention and be widely shared.

The MSC predicts that exposure to stigmatizing messages will result in the audience developing stigma attitudes, wanting to isolate and remove the target, and sharing the stigma message with their network (Smith, 2007). Socially mediated communication platforms are linked to these stigma effects. Filter bubbles and created content typically are able to locate audiences that are willing to bolster the effects of the stigmatized attitudes—creating stigma echo chambers. If the user base already holds negative or stigmatizing attitudes toward certain groups, then they will gravitate toward messages that reinforce those stigma attitudes and thus develop a filter bubble replete with stigma. More problematic than stigma attitudes are the behavioral responses that audiences are willing to enact to 'protect' themselves from the stigmatized group. Previous research on stigma communication consistently shows that, compared to people not exposed to stigma communication, people who are exposed to stigmatizing messages are more likely to support policies that remove and/or isolate stigmatized people (Smith, 2012, 2014).

We have argued that stigma can be generated, shared, and managed through the creation, sharing, and remixing of "fake news" through online social networking sites. We now turn to a case study of messages from the 2016 Russian misinformation campaign targeting the U.S. presidential election. We use the MSC (Smith, 2007) to identify instances where these messages communicated stigma toward various groups. We end with a discussion of the implications of this case study for future studies on the spread of stigma and misinformation, as well as efforts to challenges those activities.

Case Study

(Con)texts

This case study draws from ads created by the Russian Internet Research Agency (IRA), distributed across Facebook and Instagram before and after the 2016 US Presidential election. These ads were part of the 3,511 ads released by the United States Congress as part of the investigation into Russian interference in the 2016 US Presidential election. All ads quoted are part of the publically available ads package released by Congress (found at https://democrats-intelligence.house.gov/facebook-ads/social-media-advertisements.htm).

This case study is a theoretical approach to exploring these ads using elements of stigma communication. Aside from the introduction of this concept, the analysis does not build new theory, but rather draws on established communication and media theory (see literature review) in order to analyze the data contained in specific Russian ads released by Congress. In order to better understand these ads, we draw on work related to stigma, fake news, and sociotechnical practices.

Findings

Our findings represent examples of how messages from the 2016 Russian social media misinformation campaign conveyed stigma through the use of marks, labels, links to social peril, and assigning responsibility.

Marks. Marking commonly occurred in the ads. The repeated use of the term "illegal" in Russian ads ("Social Media Advertisements | Permanent Select Committee on Intelligence," 2018) targeting issues of immigration serves to mark non-U.S. citizens as 'other' and 'lower status' compared to the 'normal' group (i.e., U.S. citizens). Although outside the scope of this study, it should be noted that messages can also mark a group of people through visual cues that emphasize the group's differences from so-called 'normals.' Such visual marking is common in mass media representations of obesity (Heuer et al. 2011; McClure et al., 2011).

Future research could investigate how visual cues are used, along with text, in social media to share stigmatizing messages.

Labels. Labels were also frequently used throughout the ads. The Russian ads repeatedly use labels like “illegal aliens,” “illegal immigrants,” “drug cartels,” “foreigners,” and “gangs” to refer to immigrants arriving via the U.S.-Mexico border. When discussing issues surrounding race and policing, one ad used the labels “race-baiters” and “cop-haters” to refer to people affiliated with Black Lives Matter (and similar) movements and, at the same time, used the label “white supremacist” when referring to both police and U.S. citizens.

Links to social peril. The most common and most intense stigma function contained in the Russian ads was linking the stigmatized group(s) to social peril. The Russian ads routinely and explicitly portray outgroup members as a “threat” to the ingroup (presumably U.S. citizens). For example, one ad claims, “immigrants threaten the U.S. economy” and that “immigration creates enormous problems for the nation.” Another ad proclaimed:

> But one problem is destroying our country more than anything else. Illegal aliens affect our economy drastically. Not only they sink the job market and steal hundreds of millions of welfare dollars, they also flood America with drugs, which is the worst.

Notice how the threatening language, such as “*sinking* the job market” and “*flooding* America with drugs” uses water metaphors to stigmatize this group. Not surprisingly, reports about illegal entry into the southern border of the U.S. mention dangerous water crossings in the Rio Grande or Gulf of Mexico (Kerkman, 2019). Metaphors can powerfully convey stigma (Anderson et al., 2017; Roscoe & Anderson, 2019) because they link an unknown concept (i.e., immigrants) with a well-known concept (i.e., water) to create a more concrete, simplified way of understanding the stigmatized group. In this case, the metaphor doubles to suggest not only the threat of the immigrants themselves, but also the threat of these open waterways where physical border barriers do not exist.

Similarly, another ad describes immigration as a “poison” that “comes through our southern border” which is “unprotected.” The same ad refers to immigration as an “invasion” with the “weapon” of “drug cartels.” This ad stigmatizes immigrants crossing the southern border by grouping them all under the label of “drug cartels” and dehumanizing them by metaphorically referring to them as either “poison” or “weapons” which pose a threat to the safety of U.S. citizens. In other word, the immigrants—the people themselves—are a dangerous threat. The ad ends with a call to action in direct response to this threat “Only a huge wall with gun towers will stop this invasion. Trump is our only hope for a better future!”

Although the choice to include “gun towers” in the imagery of the “huge wall” may seem overly violent or weaponized, it likely appeared rational to the audience. The message described immigrants themselves as a “weapon” in an “invasion,” which prompts ‘our’ need for ‘weapons’ to fight this weaponized ‘invasion.’

In another ad, the ingroup/outgroup language in this passage is particularly strong, with repeated references to what “we” (the ingroup) should do to protect “our” culture from “them” (outgroup) and “foreigners.”

> You see, increasing amount (*sic*) of immigrants in the United States creates social and economic problems. However, we have a risk not only to worsen the U.S. economy, but also to lose our culture. America can't be the Tower of Babel, we cannot allow everybody to live here if immigration threatens us. We don't hate foreigners, we are glad to see tourists from every corner of the world, but we cannot allow them to stay here.

This ad also stoked the fears of not only economic or physical threats, but also cultural threats. Smith (2007) posits that stigma messages most commonly evoke emotional reactions such as fear, anger, and disgust. The Russian ads contained content that would generate each of those reactions. Referring to immigration as a “poison” evokes disgust, blaming undocumented workers for job loss produces anger, and repeatedly linking immigration to physical, economic, and cultural threats produces fear among the audience of ‘unmarked’ people. With instantaneous and constant feedback loops in social media contexts, content creators must be aware of and navigate the ways that stigma creates these reactions among audience members. The discursive nature of the internet means that reactions to said stigmas may often be noted in reaction buttons or interactive features of social networks, although they may be different due to the varying natures of said social networks and interfaces.

Assign responsibility. Finally, some Russian ads worked to the stigmatized group personal responsibility for attaining their stigmatized attribute—and sometimes also the responsibility for removing it. For example, one Russian ad blames the U.S. government the problem of racism, and also calls upon the government (through the National Guard) to solve the problem of racism in the U.S.:

> The modern government has brought racist America to the forefront, good or bad. This is something that America has a serious issue with - RACISM! Is it time to call out the National Guard?

A fascinating feature of some of the Russian ads is that they create an extremely broad outgroup in contrast to the narrow ingroup. That is, in addition to immigrants being cast as outsiders/outgroup, the U.S.

government is also stigmatized by being held responsible for the current state of affairs and is referred to with stigmatizing labels such as “traitor:”

> Our traitor government does nothing to prevent drug influx, but only trying to create the presence of an effort… At the expense of our tax dollars and lives of our youth, our government officials continue to make some kinds of vile deals with drug cartels to get filthy rich and gain more control over weaken nation.

This ad closes by isolating Trump as the “only hope for a better future!” Thereby, again, narrowing the ingroup dramatically. The stigmatization of the entire U.S. government (and thereby dehumanization, degradation, and devaluation the institutions and people within them) thus grants those unaffiliated with the U.S. government a position of privilege as untainted, unstigmatized people. In this way, the Russian ads discursively represented Trump (the only candidate with no political experience) as the *only* candidate that the audience could reasonably consider to be separate from this stigmatized group, and therefore not only *not* a threat to the U.S., but also not responsible for current U.S. problems or for ultimately fixing those problems.

Conclusions

Previous research on stigma communication has focused on static message content (Anderson & Bresnahan, 2013; Anderson et al., 2017), but the context of social media allows for greater audience interaction with messages and their content. Using Russian ads as a case study, we see that the audience for these ads are positioned as actors who have agency within their structured environment. The examples we drew from the Russian ad messages demonstrate that this particular misinformation campaign contained multiple occurrences of all four elements of stigma communication. This study highlights how actors on social media spread stigma by effectively transmitting (mis)information across platforms. We suggest that linking false information narratives with stigma communication enhances the study of both by highlighting how those stigmas are subverted and repurposed by actors to better serve a narrative. Fake news and transmission of misinformation are serviced by appealing to users with stronger senses of stigmatized “othering.” The integration of stigma effects, social capital, and privilege all further enhance the understanding of the effectiveness of fake news, particularly in how fake news content and false information narratives can cross boundaries.

Directions for Future Research

Further research on how stigma is integrated into social communication across socially mediated platforms and via false information narratives will effectively highlight the ways that these concepts intersect and overlap. In addition to understanding how individuals spread stigmatizing messages through fake news and misinformation, future research should consider ways that individuals can manage stigma through messages spread through social networks. One framework that would provide valuable insights about the aspects of messages that challenge stigma is Meisenbach's (2010) stigma management communication (SMC) framework. This framework proposes that people manage stigma using one or more strategies that reflect the extent to which the person accepts or challenges the public understanding of stigma *and* the extent to which the person accepts or challenges the applicability of the stigma to themselves. These strategies include accepting the stigma (accept-public, accept-self), avoiding the stigma (accept-public, challenge-self), evading personal responsibility (challenge-public, accept-self), reducing offensiveness of stigma (challenge-public, accept-self), deny (challenge-public, challenge-self), and ignore (challenge-public, challenge-self). Similar to previous studies using this framework (Hartelt & Anderson, 2019; Roscoe & Anderson, 2019), future studies could use this theoretical framework to guide qualitative analysis of misinformation messages to look for stigma management communication strategies. Additionally, future studies could examine the ways that messages created to counter misinformation may also function to manage stigma.

Future work that investigates the presence of stigma in misinformation messages should also consider the role of privilege (Foss & Elliott, 2015) as it relates to the creation and dissemination of messages. We argue that the power to generate stigmatizing messages essentially rests with those who are in positions of power and/or authority, i.e., those with sufficient social capital. In cases where one's social status or identity are intentionally obfuscated, we argue that the messages themselves must convey such positions of power or privilege. We argue that stigma communication is a form of 'enacted privilege' (Foss & Elliot, 2015), whereby a person discursively indicates their sense of privilege by stigmatizing (thereby devaluing) another group. That is, only those with privilege are *able* to stigmatize groups as 'other', and they may do so (consciously or unconsciously) in an effort to secure/maintain their own power through a structure that devalues and dehumanizes certain non-privileged groups. The very root of stigma is the sense of "othering" which of course necessitates a "normal" (i.e., non-other) as a point of comparison. This illustrates how all forms of stigmatization are always already enactments of privilege and power. Future research should critically examine the ways that privilege and power are discursively enacted through strategic misinformation campaigns in online social networks.

Furthermore, we suggest that future research follow Anderson's (2019) contention that a person may challenge stigma—or any injustice—*on behalf of* a group to which they do not belong. Anderson (2019) argues that such challenges are always already done from a position of privilege. That is, if a stigmatized identity marginalizes a group, the absence of that stigmatized attribute confers a certain level of privilege. Anderson (2019) uses the term "ally communication" to refer to messages in which a "person discursively leverages their privilege to stand in solidarity with people facing injustice" (p. 1). Users who seek to remix and/or disseminate misinformation in social networks may do so in an attempt to challenge certain stigmas either on their own behalf or on behalf of others. Future research should examine the extent to which such messages contain SMC strategies and/or ally communication. Learning how users remix information to challenge stigma could provide avenues for future scholars and activists to create impactful messaging campaigns to challenge stigma.

Because sharing information, particularly stigmatizing information, confers a level of social capital, but being intentionally misleading presumably removes that level of social capital (Bourdieu, 1986), future research should investigate how users' credibility is affected when members of their social network discover that the information they shared was fake. In other words, can a person become stigmatized for sharing 'fake news?' Future research could examine the extent to which particular audiences stigmatize a person they believe to be sharing 'fake news.' Additionally, future research could consider how those who have been marked as 'fake news sharers' use their social media platforms to challenge that stigma, manage their identity, and regain their credibility.

We posit that further research should focus on the role of the individual in spreading fake news and misinformation, particularly as it relates to stigma. The realm of false information narratives arrives in a complicated arena of online idiosyncrasies, where cultural content may be communally true while also maintaining a hint of falsehoods that deter the average user from engaging with the content. The systems of production have allowed for the dissemination of information similar to a propaganda campaign, but the very systems also allow for individual user agency to take over the integration and assimilation of content within said cultural systems. Understanding how those cultural systems operate through greater use of isolating stigmas, may expand our understanding of how filter bubbles are created based on ingroup and outgroup messaging.

In conclusion, this study highlighted the complexity of the spread of misinformation through online social networks. Stigma appears to be a common feature of misinformation messages that are then remixed and shared by users through sociotechnical approaches that rely on certain levels of privilege and sociocultural capital to dehumanize stigmatized groups. Such messages generate attention and motivate sharing, so stigmatizing attitudes are strengthened and reinforced. We suggest that future research not only continue to identify instances of stigmatization within online misinformation campaigns, but also begin to understand how users generate or remix content to respond to these moments of stigmatized identity—both for themselves and on behalf of others.

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A Systematic Review of Citizen Journalism Scholarship from 2000 to 2017

Young Eun Moon, Meredith L. Morgoch & Seungahn Nah

This paper examines how the scholarship of citizen journalism has evolved since the early 2000s. Despite the prolific literature, few studies have taken a systematic approach to examine theories, conceptual definitions, and outcomes. A systematic review of relevant citizen journalism literature was employed to discover how citizen journalism research has evolved over the years, what theories have been used in research, and what features of citizen journalism is discussed in scholarship. According to the results, most of studies are limited to asking for journalists' reactions, and value of citizen journalists focusing on specific cases, and the majority of research uses a Western-centric point of view leaving applicable findings hard for non-Western countries to decipher or employ. The present study calls for the necessity of a more theoretically solid and methodologically rigorous research beyond specific case studies.

Introduction

Through advances in media technology, such as the blogsphere, smart phones, social network sites (SNSs), and other web platforms, citizens have increasingly played a participatory role in the public sphere, and the media as a professional institution has integrated citizen journalists into its reporting process. This change to the journalism landscape has encouraged communication scholars to examine the concept and practice of citizen journalism since the turn of the century and when Gilmor introduced the idea of citizen journalism in 2004. Indeed, citizen journalism scholarship dates back to the 2000s when the Internet and blogging websites emerged, allowing citizens to participate in the gathering and disseminating of news. Most recently, internet-based platforms and social network sites (SNSs) have developed, and scholarships have become more abundant as the phenomenon matures.

Despite the prolific and growing body of literature, few studies have taken a systematic approach to examining theories, conceptual definitions, measurements, and outcomes of citizen journalism scholarship. Terms such as citizen journalism and participatory journalism have been used interchangeably. This has caused the lines of citizen and participatory journalism to blur, thus, making it hard for scholars to grasp fully the magnitude of this phenomenon. To that end, this article aims to provide a broad understanding of citizen journalism through a meta-analysis of previous peer-reviewed studies spanning since the 2000s, to help stimulate intellectual dialogue and provide constructive suggestions for the continued growth and development of citizen journalism scholarship.

Literature Review

What Is Citizen Journalism: Citizen Journalism as Interchangeable Terminology

Over the years, scholars have used many terms to describe the phenomenon of audience participation in journalism activities. After analyzing multiple cases of citizen reporters and bloggers, Gilmor (2008) posits that a new form of journalist exists. Here, he introduces the idea of "citizen journalists" (p. xvi), which became the bases of the concept and practice of citizen journalism. Many media scholars have taken various approaches to conceptualizing and analyzing this phenomenon. Fico et al. (2013) argued that citizen journalism, by definition, refers to as a survival strategy for the press as it has the potential to produce distinguished and competent news; citizens can now be not just consumers of the news but contributors and producers. Until recently, citizen journalism was viewed as grassroots journalism or participatory journalism. However, as the concept was explicated and examined further, scholars identified differences in citizen and participatory journalism. Some of these terms include user-generated content (Schweiger & Quiring, 2006), citizen journalism (Tilley & Cokley, 2008), participatory journalism (Rosen, 2006), grassroots journalism (Gillmor, 2004), networked journalism (Jarvis, 2006; Russell, 2011), collaborative journalism (Bruns, 2003; Rusbridger, 2009), crowdsourced journalism (Muthukumaraswamy, 2010), and open-source journalism (Gillmor, 2004; Lewis & Usher, 2013). The most commonly used terms are participatory journalism and citizen journalism, terms that have become increasingly popular in the public sphere and among scholars. Participatory journalism encompasses not only citizen journalism but also civic journalism, whereas citizen journalism is used to underscore the citizen-based journalism practiced by citizens, and civic journalism is predominantly the form practiced by professional journalists (Van der Haak et al., 2012).

Tilley and Cokley (2008) mention that the terms "citizen journalist" and "citizen journalism" arose when individuals or groups who were not aligned with publishers as "professional journalists" began to collect, edit, and provide publishers with (or publish directly) news material that was out of the publishers' reach (p.94). Typically, this involved reporting on suddenly occurring events such as fires, car crashes, floods, and other disasters that desk-bound reporters could not attend due to time constraints, or odd on-the-spot items (Wall, 2015).

Therefore, although professionals and scholars have used these terms interchangeably, each term pertains to a different type of journalism. Nip's (2006) seminal article on the models of connection between mainstream journalism and the public proposed similarities and differences in traditional and non-traditional journalism and in the terms mentioned above. This article details the various terminology on citizen journalism and lays a foundation of audience participation. In explaining the second phase of public journalism, she proposed the five-step model of audience participation: (1) traditional journalism; (2) public journalism; (3) interactive journalism; (4) participatory journalism; and (5) citizen journalism. In her research, she explained that citizen journalism refers to the practice where people are responsible for collecting and reporting content and producing and publishing the news. It is distinguished from participatory journalism, in which the audience participates in the news-making process before it is framed by professional journalists. Similarly, public journalism is also more of a collaboration between professional and non-professional journalists. In public journalism, citizens act as informants and partners for journalists to help with the writing and the news-gathering process. Both public journalism and interactive journalism encourage citizens and the audience to interact with news content after it is published. Overall, participatory and citizen journalism call on citizens to help gather information and to create and produce stories.

Citizen journalism has a plethora of definitions used to describe its conceptuality and practice. Nip's (2006) definition of citizen journalism is "Where the people are responsible for gathering content, visioning, producing and publishing the news product, professionals are not involved at all (unless in the capacity of citizens but not as paid employees)" (p. 14). Similarly, Nah and Chung (2016)'s definition states "citizen journalism, as linguistically and communicatively bounded practices, can contribute to the public sphere where the general public may engage in public discussions, thereby working toward common goals and interests." (p.2302). It is notable that Friedland and Kim (2009) attempted to define citizen journalism from 'conversation of democracy' view, with the exchange of deliberations and ideas. They expanded this definition by giving credit to the very act of participation. In this regard, "citizen journalists can be individuals making a single contribution (a fact, correction, photo, etc.), bloggers, or professionals editing citizen content for 'professional-amateur' (pro-am) sites which integrates the works of professional staff and citizen contributors" (Friedland & Kim, 2009, p. 297).

Both Nah and Chung (2016), and Friedland and Kim (2009) use citizen journalism and situate it in the public sphere (as the current paper mentioned it several times) and the theory of communicative action which distinguishes the lifeworld from system. Both put an emphasis on the active and engaged role of citizens who contribute greatly to the public sphere alongside their counterparts or professional journalists. This means citizens not just "participate" in the news making processes with professional journalists but also actively "practice" as independent journalists in the journalistic field. This makes the key distinction between participatory journalism and citizen journalism. The origin of citizen journalism is deeply embedded and rooted in the public sphere as is civic and public journalism. This is why we need to situate the notion of public sphere in the context of communicative action when it comes to defining citizen journalism. Meanwhile, in this present study, Nip's (2006) definition on citizen journalism was adopted due to its simplicity of and origin to citizen journalism conceptually and professionally. This attempt that conceptualizes the citizen journalism leads to the following research question:

RQ1: How has citizen journalism scholarship evolved since the 2000s?

Who Are Citizen Journalists: Theoretical Assumptions of Citizen Journalistic Activity

The potential of the active audience to challenge traditional communication systems and journalism as a profession has become an important research subject in the journalism field. Thus, the question of what kind of research has been conducted to date on citizen journalism is timely and deserves close examination. Ahead of Gilmor's (2008) seminal work, the active audience paradigm emphasizes the role of audiences themselves as producers of meaning as they read, process, and discuss media texts in diverse ways, often reframing them in the process (Moores, 1993). In addition, Bruns (2008) emphasized that there is nothing distinguishable between production and usage, and explained the concept of produsage where content becomes increasingly flexible, and even the user can come to lead content creation. The embracing of produsage tendencies by the journalism industry is complicated by its existing organizational and operational models. As the concept of gatekeeping has changed to gatewatching in this produsage environment in journalism (Bruns, 2009), many such gatewatcher sites and news blogs can already be described as a form of citizen journalism; these sites build on their communities' everyday issues and interpretations of current events, which are necessarily wider and more diverse than that of professional journalism. Nah et al. (2015) explained that citizen journalists contribute to both mainstream and commercial news sites and citizen news sites and blogs, while Jenkins (2006) claimed that "monitorial" citizens who debate and deliberate on the news serve to complement the traditional journalism industry.

Thus, a growing body of scholarship on the blurring boundaries between producer and consumer has paid close attention to citizen journalism. Different types and practices of users' production have emerged in different media forms and outlets, and citizen journalism is said to encompass two categories of contribution to the conversation on democracy: user-generated content (UGC), including comments on news stories, photos, and videos made by citizen journalists, and user-submitted stories (USS) by citizen journalists (Nah et al., 2015). Researchers have continually argued that a variety of online environments and social network platforms greatly enable user-led content creation. (Bruns, 2008; Jenkins, 2006) Citizen journalism, including forms of meta-journalism produced by social news, can be seen as an extension of this active audience engagement, as opposed to a sudden rupture of a previously settled producer–consumer dichotomy. From this background, this study begs a following research question:

> RQ2: What theories are used in the citizen journalism scholarship?

Why Citizen Journalism Matters: Citizen Journalism as Communication Scholarship

This collapsed border suggests that the producer and the consumer need to be in constant participatory dialogue during the news-making process. Departing from the traditional methods of journalism, which depend solely on professional journalists collecting and analyzing the data and information needed to report news, this traditional journalism model relies on the voluntary contributions of citizens. In particular, with the regularization of online storytelling, online tools provided by websites have facilitated easy and convenient reader participation. This distinguishes citizen journalism from reporting via e-mail or phone. Various news-sharing tools that are provided free of charge online further accentuate the advantages of participatory journalism. Muthukumaraswamy (2010) studied the main practices that used the crowdsourcing method and categorized them into five types according to the characteristics of the news (general news/specialized news) and the consumers (general public, expert/general public, expert). However, the concepts of citizen journalism provided by various scholars differ by nation, context, and political situation. Citizen journalism is not without historical precedent, and now the plural meanings and objectives of “citizenship” and “journalism” are considered in the literature. As Allan and Thorson (2009) pointed out, from a global perspective, there is necessity to provide a universal definition of citizen journalism.

There is an attempt that used a functional approach to define citizen journalism, and regarding it as a mode of public communication. (Kus, Eberwein, Porlezza, & Splendore, 2017) From this perspective, citizen journalism plays the same role in society as professional journalism with regard to agenda setting and the dissemination of social topics, allowing for citizen self-government in society. Based on previous research (Canter, 2013; Nip, 2006; Wall, 2015), they proposed an integrated model of citizen journalism and categorized it on three levels: (1) individual or small-team citizen journalists outside the institutionalized media field, hyperlocal or community-oriented news sites, and news blogs written by individuals or small teams of non-professionals; (2) platform-based citizen journalism outside the institutionalized media field, where citizen journalism platforms or news sites might involve some current or former professional journalists; and (3) participatory journalism within institutionalized media. After conducting systematic desk studies to evaluate the environment and development of citizen journalism in six eastern and western European countries (Austria, Germany, Italy, Poland, Switzerland, and the United Kingdom), the authors found that participatory journalism was prominent in Germany, Austria, Switzerland, and the United Kingdom, where non-journalists collaborate with the mainstream media under the participatory journalism model. Platform-based citizen journalism was more common in Italy and Poland. In these countries, they use the terms "participatory" and "citizen" journalism interchangeably. Their method, thus, suits our aim of analyzing citizen journalism's emergence as a scholarly object in the field of journalism studies. The current task is to analyze how media scholars have conceptualized and used citizen journalism as a scholarly object, not only by describing the relationship with or distinguishing it from similar concepts such as participatory journalism or crowd-sourced journalism, but also by determining how communication scholars from various countries define citizen journalism, and what their own ideals are. The initial review begun by analyzing research article's definition of "citizen journalism"; we place citizen journalism in the context of other forms of what we call "civic engagement" or "discursive participation." By examining the cases that researchers used and the epistemological perspective of how they see citizen journalism, this study should be able to identify clearly the direction of its development in scholarship. This problematization leads to the following research question:

RQ3: What are the features of citizen journalism scholarship?

Method

This study employed a quantitative content analysis of academic articles regarding citizen journalism to answer the research questions. Content analysis has the merit of allowing easy measurement of variables and logical inference of the characteristics of messages by converting verbal and non-verbal data to quantitative values (Berelson, 1952; Kerlinger, 1973). For this study, the unit of analysis is research publications (i.e., academic journal articles). A total of 106 articles were analyzed to determine the evolution, theoretical application and features of citizen journalism scholarship.

Sampling Procedure

In order to locate the research as meta-analysis, researchers examined previous reviews of citizen journalism. Research abstracts data were used to search studies whose abstracts including the terms "citizen journalism," "participatory journalism," "crowd sourcing," or "user-generated content" to gain an initial reading of recent research. To make sure relevant articles were not overlooked, this study used these words as search terms for article titles, abstracts and keywords, as well.

Reference materials for this research were sourced from various digital databases and academic journal websites, searching for relevant literature, and then "snowballing" to existing literature. The process was as follows: first, articles were gathered using the "Web of Science" database (comprising key journals in the communications field based on impact factor), Google Scholar, ProQuest, and EBSCO Host, in that order. In this step, a total of 275 peer-reviewed journal articles were gathered. After that, each article was checked for relevance to citizen journalism by reviewing the abstract content and keywords. Papers were excluded if the abstract dealt only with crowd sourcing or user-generated content because this study focuses explicitly on citizen journalism scholarship. During this process, researchers noted scholarship began to enter and develop the citizen journalism conversation in the early 2000s. According, because of citizen journalism academic time entry, researchers only focused on articles that were published since the 2000s. After this sorting process, the project ended up with 106 articles from 29 journals.

Coding Categories

This study borrowed from Kim and Weaver's (2002) coding scheme, which includes year of publication, name of journal, research agendas, and theories used in study. Some of the coding schemes such as sub-dimensions, subject of study, and communication medium were transformed to be more appropriate for the current research. Coding categories were mutually exclusive, meaning only one code was applied in each coding category for each article. The category systems for this study were generated inductively as the analysis proceeded (Cooper et al.,1994; Wimmer & Dominick, 2000) and the variables are operationally defined below.

Research method. Each research article was categorized according to their method. Firstly, the articles were divided by their research method: quantitative, qualitative, mixed or non-applicable. Following Cooper et al. (1994), and Kim and Weaver (2002), this study categorized the following methods that used empirical procedures in analyzing data: survey, content analysis, experiment, and empirical secondary data analysis. Other methods such as in-depth interview, focus group interview, observation, textual analysis, historical or philosophical analysis were categorized as qualitative research.

Themes/Levels. Nah et al., (2015) attempted to identify the level of uses for user-generated content at the individual, organizational, and community levels when they implemented a web-based survey of the top U.S. news stories. This research borrowed the previously mentioned schemes of the individual (micro), organizational (meso), and community (macro) levels. Much research in the field combine the two levels (organization and community). Instead of combining themes, this study included a "mixed" category to capture an article with multiple themes represents. For most articles, researchers considered and selected a portion of the contents and identified that their focus is aligned with a particular theme/level.

Subject of study. This category includes the main subject of study. The subject of study is the main focus of the particular article. Articles were analyzed for the following subjects: news stories, comments, journalists, audience, and not applicable. For example, a certain article conducted a content analysis of produced citizen journalists' news stories. This article's subject of study would be coded as "news stories." Similarly, if an article surveyed professional journalists, the subject of study is regarded as "journalists."

Communication medium. Here, the question of "What is the medium involved?" was coded. Various media such as print, broadcast (television and/or radio), online website including social network sites (SNSs), were included. Some studies did not mention any particular media and purely examined the phenomenon of citizen journalism. These articles were coded as media in general because they did not highlight a particular medium but spoke about media broadly as it related to citizen journalists.

Area of study (Sub-division). The area of study refers to the analyzed article's main area or topic of citizen journalism that it attempted to describe or explain. This is different from subject of study where researchers coded for the main focus of the article. Here, categories look at laden themes within the article. Each article was classified and grouped into one of eight broad categories, which include, political economy, legal/ policy/ethics**,** educational/pedagogical, digital platform/new media, politics/democracy/development issues**,** organizational matters, and news sociological issues. For example, if a study was coded as politics, democracy, development issues, then this study may have interviewed journalists (subject of study) about a particular case in relations to policy or democracy (sub-division).

Academic theorizing. Each article was coded for the presence or absence of theory, models, or concept. The purpose of this category was to gain a sense of how scholars are theoretically supporting their citizen journalism research. If an article included a concept or model for a theoretical backbone, then it was coded as including no theory. Even though, a model is the building block to theory, it was classified as non-theoretical because a model is more descriptive while a theory is explanatory and descriptive. To that end, in order to gain a higher-level understanding of citizen journalism, academic theorizing used a strict coded procedure to capture the explanatory aspects of scholarship.

Research focus. Wimmer and Dominick (2000) mentioned that there are four phases of evolutionary models when they conducted a meta-analysis of the internet, as issues for the internet itself (Phase 1), uses and users of the internet (Phase 2), effects of the internet (Phase 3), and how can the internet be improved (Phase 4). This research borrowed their themes, but modifying them with more detailed and specific themes of the phase for citizen journalism scholarship. Accordingly, categories were created at the producing level (phase 1), outcomes level (phase 2), and the effect level (phase 3). For the producing level (phase 1), researchers coded for the production process of producers, citizen journalist roles, and citizen journalism values. Similarly, for the outcome levels, researchers coded for the characteristics of news content created by professional or citizen journalists. Lastly, the effect level (phase 3) was coded for the effect of citizen journalists' content or the audience reaction or perception of citizen journalism content or roles.

Intercoder Reliability

For intercoder training, a total of 14 articles were reviewed by two coders and agreements were made to start reliability tests. During the training session, some categories were added to develop more detailed understanding of citizen journalism scholarship. This way, researchers were able to narrow down the foci of studies with the categories subject of study, followed by the area of study and research focus of investigation. This process helped us acquire the expansiveness and features of citizen journalism research.

In order to test intercoder reliability, an additional 20 articles were randomly selected, and acceptable levels were found for each category by using Krippendorff's alpha. The overall reliability was .87 with the percentage of agreement at 88.9%. Krippendorff's alpha was .88 for method, .80 for theme,.81 for subject of study, .72 for sub-category, .84 for communication medium and .73 for theoretical application. Percent of agreement was 93.3% for method, 86.7%, for theme, 86.7% for subject of study, 93.3% for sub-category, 86.7% for communication medium, and 86.7% for theoretical application. All 34 articles used for intercoder reliability were excluded in the actual analysis.

Results

To answer research questions, this study employed SPSS version 22. The majority of descriptive statistical analysis is used for this research because this meta-analysis is interested in learning about the breadth of citizen journalism research.

RQ1: How has citizen journalism scholarship evolved since the 2000s?

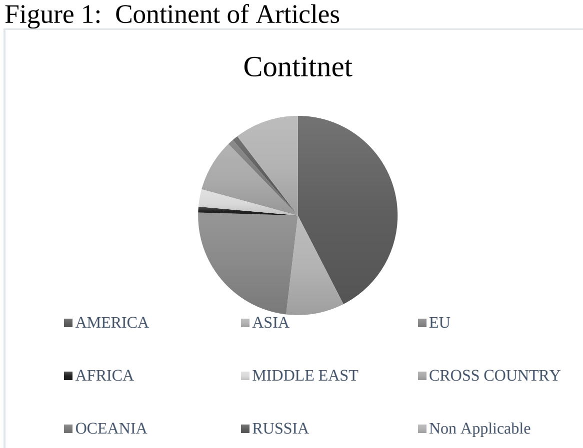
In response to RQ1, this study found a comprehensive expansion of scholarship that spanned across 24 countries. Scholarship primarily focused on case studies, citizen journalist websites, interviews with professional and citizen journalist, as well as protests and crises (see Table 1).

Table 1: Occurrences of Meta-Analysis Items

Item value	Total (N=106)
Continent of Article (M/SD)	2.8/2.2
Africa	1%
Asia	9%
Europe	23.5%
America	42.6%
	2.5/1.2
Level (M/SD)	
Macro	27.4%
Meso	28.3%
Micro	15.1%
Mixed	27.4%
Research Method (M/SD)	1.8/.64
Quantitative	32.8%
Case	2.9
Content Analysis	17.3%
Experiment/Empirical	3%
Survey	9.6%
Qualitative	63.4%
Case Study	15.4%
Critical/Cultural	9.6%
Historic/Textual Analysis	6.7%
Interview	28.8%
Survey	2.9%
Subject of Study (M/SD)	3.3/1.6
News Stories	23.6%
Comments	1.9%
Journalist	33%
Audience	11.3%
Case	23.6%
Not Applicable	6.6%
Communication Medium (M/SD)	3.4/1.2
Print	7.5%
Broadcast	4.7%
Online	56.6%
Media in General	13.2%
Mixed	11.3%
Other	6.6%

In regard to the nation in which citizen journalism was occurring, the results show that studies from North and South America (42.6%) dominated scholarship, with Europe (23.5%) in second place. More specifically by country, the research from the United States (36.7%) is distinguishable. The second most represented country was the United Kingdom (8.4%; see Figure 1). This Western centric scholarship guides research questions and results, which makes citizen journalism scholarship not as applicable or adaptable to countries in developing nations. Driving forward more inclusive views and a concrete definition of citizen journalism will help more countries adopt the concept and techniques of citizen journalists.

Figure 1: Continent of Articles



Differences in scholarship subject matter was apparent in Western and non-Western, and developed and undeveloped nations. A Pearson chi-square test was calculated comparing the frequency of continents and scholarship subject matter was conducted. A significant interaction was found (x^2 (40) = 76.972, p <.001). This means, there is a difference in scholarship from developed and developing nations. For the current study, articles birthed from developed nations (i.e., Americas, Asia and Europe regions) primarily focused on the role of the journalists (either citizen or professional) and the news stories produced by such journalists whereas developing nations (i.e., Africa and Middle East regions) tend to produce articles that sought to understand particular case studies on citizens performing journalistic acts.

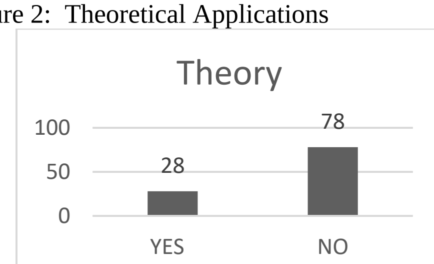
The number of articles produced over the years captured a steady increase of citizen journalism scholarship. From 2004 to 2009, for instances, only 7 articles were written in relation to citizen journalism. Fast forward to 2010 to 2014, the number of articles increase to 32. Lastly, from 2015 to 2017, we see a proliferation of citizen journalism scholarship with a total of 67 article published in the area of citizen journalism.

Throughout the years, citizen journalism scholars predominantly concentrated on one communication medium – the Internet. Over 50% of articles used the Internet to better understand the citizen journalism phenomenon. As for scholarship subject matter, throughout the years, citizen journalism scholars focused on different subjects and characteristics of citizen journalists. At the beginning of our time frame (i.e., 2004-2009) scholarship subject matter was sporadic. Earlier articles did not form a pattern while recent articles (i.e., 2015-2017) stung together a pattern of subject matter with the foci of articles on the roles, effects and values of journalists, as well as the audience of such stories produced by both citizen and professional journalists.

RQ2: What theories are used in the citizen journalism scholarship?

In terms of RQ2, multiple theories and concepts were used in citizen journalism scholarship. Articles that applied theory include 26.4% (n=28), whereas articles that applied concepts or models as backbone or no theory accounted for 72.6% (n=78) of the time. Agenda-setting (n=7; 25%) and communication infrastructure (n=5; 17.8%) theories were most frequently used followed by political economy (n=3; 10.7%). Gatekeeping was by far the most recurring concept used to understanding citizen journalism motivation and effects (16.7%; n=13). Gatekeeping was considered a concept because article used gatekeeping as a way to understand the producer's role in citizen journalism. Thus, gatekeeping was not used as a theoretical backbone, just as a way to understand the construct of the media. The high frequencies of agenda-setting theory and the concept gatekeeping explain the high frequency in meso level (organizational) articles. The low frequency in theory application tells us more theoretically-based research is needed in the area of citizen journalism. This will help future scholars build in the areas of scholarship, thus, expanding the application of citizen journalism (see Figure 2).

Figure 2: Theoretical Applications



RQ3: What are the features of citizen journalism scholarship?

In terms of RQ3, this study analyzed various features of citizen journalism research to understand the holistic approach to scholarship. These features are the article's overall theme, subject of article, subdivision of study, category of research, communication medium analyzed, methodology, and the theoretical backbone (see Table 1).

To assess the level and themes of discourse broadly represented in citizen journalism research, researchers grouped specific subject categories into three different research phases: macro, meso, micro or mixed (see Table 1). Results show citizen journalism research that dealt with the community level (42.4%) and organizational phases of research (38.6%) are exhibited to have dominated the agenda. The predominance of community level research is no surprise considering citizen journalism is rooted in community journalism. Similarly, citizen journalism research discussed citizen journalists as beneficial to a community because they provide breaking news often overlooked by mainstream media. Similar themes were reproduced at the organizational level.

In terms of subject of study, this study analyzed the most obvious subject of citizen journalism research. Results found journalists (n=35), news stories (n=25), and a particular case (n=25) were most often the main subject of articles (see Figure 3). Considering citizen journalist have disrupted the journalism market (Chung & Nah, 2013), it makes sense that journalists in general is the most recurring subject. Another theme in the articles was an inquiry into news content produced by professional and citizen journalists. One study found citizen journalists do a better job covering diverse story content for diverse communities better than professional journalists (Carpenter, 2010). The last prominent subject was the actual case from case studies. As previously mentioned, case studies often reviewed a protest, political charged event or crisis while analyzing the roles or effects of citizen journalists.

Figure 3: Subject of Study

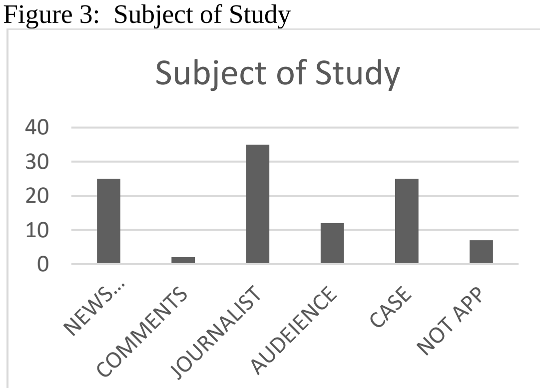
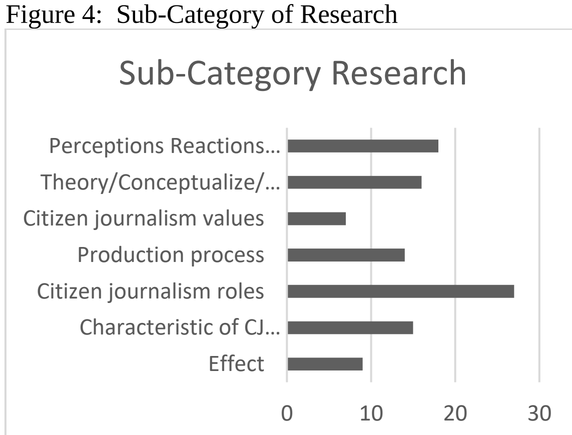


Figure 4 provides the frequencies of each sub-category of citizen journalism research. As shown, research that discussed citizen journalists' roles was the most common type (27 studies; 25.4%). The next most frequent sub-category of studies related to citizen journalism research was the reaction/perceptions of the citizen journalism (18 studies; 16.9%). A total of 17 studies (16.0%) tried to model build, theorize or conceptualize, the number of studies which dealt with the characteristics of news contents of citizen journalism outcomes totaled 15(14%).

Figure 4: Sub-Category of Research



To gain a deeper comprehension of research, this study examined the sub-divisions of citizen journalism scholarship. In layman's terms, the purpose of the sub-division category was to define the latent themes in scholarship. For example, an article's main focus may be the effects of citizen journalism while the latent theme is the effects of citizen journalist while covering news on a political protest. In terms of laden themes, citizen journalism research included organizational issues in professional journalism (28.3%), platforms through the perspective of new media/digital (22.6%), citizen journalism from a sociological standpoint (19.8%), political developmental issues (10.3%), citizen journalism as a form of education, and pedagogical resources (7.5%). Refer to Table 2 for more specific topics and study examples.

Table 2: Subdivision Topic and Study Example

Year	Topic	Study Example
2011	Protest	#wiunion
2016	Sociological	News social meaning
2017	Organizational	Editorial Content

Communication medium was also a dimension of citizen journalism analyzed in this study. We found the most often analyzed media is online media (56.6%; n=60). Since the advent of the Internet increased the popularity of citizen journalist, this finding was no surprise. Following online media are articles that talked about media in general. These articles did not specify the impact of citizen journalism on any particular media or mentioned any particular media as a basis for understanding citizen journalism. More than 10 percent of the articles analyzed a mixture of media, as when an article compared online media to print media. This technique was used most often when the study focused on analyzing the content of news stories and how professional and citizen journalist covered different news information.

Methodology was the last dimension analyzed in this study. Communication research traditionally uses qualitative and quantitative methods. This traditional was present in our findings. Qualitative methods were most frequently used to analyze citizen journalism (63.2%; n=67; see Table 1). More specially, interviews and case studies were employed more often than other qualitative practices (28.8%). Professional journalists were often interviewed to explore the reaction of citizen journalists on an organizational level. Case studies often reviewed citizen journalism as a means to exploit corruption, create a form of democracy, and as a way to communicate the destruction of a crisis or disaster.

Quantitative methods were used nearly one-third of the time (30.2%; see Table 1). Content analysis (17.3%) and survey (9.3%) were the most frequently used quantitative methods. Content analyses examined citizen journalism websites to determine the characteristics of news content produced on the sites or the type of comments journalist received on the sites. Similar to qualitative interviews, surveys questioned professionals at news organization for a reaction to citizen journalism.

Discussion

Citizen journalism, which emerged during a time of transformation for journalistic norms and practices due to technological advancements, has been reflected and accepted in different ways depending on its development and national context. Conducting content analysis for publications from 2000 to 2017, several patterns in citizen journalism scholarship can be distinguished. First, we discovered citizen journalism scholarship is growing rapidly, and has reached 24 countries in our sample. Different countries are applying citizen journalism techniques to capture events happening in real time in different ways. Because of this expansion of scholarship, we found multiple ways used to describe the citizen journalists' roles, characteristics, and values. This makes network collaboration with other citizen journalists in different countries difficult because of different concepts and uses of terminology (i.e., citizen journalist/civic/participatory). With the world becoming more globalized and citizen journalism becoming more and more popular in our globalized world, we suggest the development of a concrete definition of citizen journalism beyond the Western centric definitions and practices to take into account the cultural differences.

Next, scholarship placed an emphasis on the dichotomy between professional and citizen journalists in terms of the professionalism with knowledge, skills, and ethics, and news reach of the two types of journalists. Scholarship pointed to one major difference between professional and citizen journalists, which is education and training. Often times citizen journalists are not trained like professional journalists. This has caused scholars to investigate the differences in roles, values, story content, and characteristics of professionals and citizens. Professional journalists were interviewed on either their reactions to, or perceptions of, citizen journalists' news content, roles, and values. These types of interviews appeared in 28.8% of the articles reviewed in this study. Even though scholars were curious about the difference between professional and citizen journalists, only 9.4% of the articles mentioned education or training as a means to develop more professional-like citizen journalists. If scholars are concerned with the unprofessionalism of citizen journalists, scholarship should spend more time encouraging and investigating the effectiveness of training citizen journalists to help collaborate with professional journalists. We see this type of scholarship in Canada with a sprout of spontaneous volunteers in crisis situations (Waldman et al., 2017). Spontaneous volunteers are formed groups online and coordinated to respond to the various disasters. These ordinary citizens are trained to assists journalistically and physically in crisis situations.

Qualitative methods were often used to investigate citizen journalism. This helps scholars understand the roles, values and effects of citizen journalists as it relates to professional journalism. Because only 30% of articles used quantitative methods, we suggest the need for more empirical numerical findings with data. Completing a comparative study tracing stories from both professional and citizen journalism content will help us better understand the dynamic pictures between professional and citizen journalism in multiple aspects. Quantitative empirical findings through cross-country comparison will also help us understand the effects of citizen journalism in developed and developing countries. Because most scholarship focuses on developed countries, it creates challenges for developing countries to fully understand and use the techniques of citizen journalism. Having a more balanced integral, or mixed approaches given the complexity and multiplicity of citizen journalism practice, methodological approach to citizen journalism allows scholars to fully understand the phenomenon of citizen journalists.

Most of the previous case studies focused on a crisis, such as a disaster situation or a protest event. Is citizen journalism only required in these kinds of situations? How can we see the development of citizen journalism as deliberative democratic activity in our everyday lives? Such an attribute may affect the level of engagement and the strength of ties between journalists and their communities, and thus differentially affect journalistic content. With regard to the dimensions of citizen journalism, we can identify the lack of issues, such as external or organizational pressures. Thus, we should take into account how news production and reception mutually condition each other, and examine institutional changes in the media itself, how citizen journalism is reconfigured, and how the field affects other major societal/organizational sectors.

We posit that the lack of uniformity among developing and developed countries points to a vexing, but basic, question: How is citizen journalism explicated from a deliberative and participatory perspective? A recent study on citizen journalism practice attempted to explore the component of citizen journalism participation in terms of involvement, ranging from interpersonal communication to local media use (Nah & Yamamoto, 2018). How then do adjacent scholars approach the phenomenon in reality with regard to the type of civic engagement? Does it invoke a more democratic society? Morozov (2011, p. 5) optimistically predicts, in his analysis of Iran's Green Revolution, "the intense Western longing for a world where information technology is the liberator rather than the oppressor, a world where technology could be harvested to spread democracy around the globe rather than entrench existing autocracies"; however, if western society's concept of citizen journalism is transplanted to a society emphasizing individualism without any understanding of developing society, or to authoritarian regimes that regard "community" as an entity based on the communist tradition, it may lead to citizen journalists facing dangerous situations (Benkler, 2006). Sharing Benkler's (2006) concern, we argue that a nation's unique cultural and historical contexts should be considered together.

Findings suggest that researchers spoke to journalists, or analyzed case studies or news stories, when studying citizen journalism. However, compared to those studies, the audience's perspective is relatively limited. It is important to examine the audience's response, not only for the sustainability of citizen journalism but also because it includes potential citizen journalists. Most studies focus on citizen journalism's role by considering "what citizen journalists do," but not "how they continuously develop their journalistic activity" or "how effective it is compared to traditional journalism.” This lack of sustainability captures the phenomenon or case itself in a descriptive way but misses the theorizing opportunity. Considering that theory is the networks of concepts involved, citizen journalism needs to be considered from a theoretical perspective. In other words, this should involve connecting theories and the development of citizen journalism, such as from comment to production, to other theories. The greater the number of networks with other theories or concepts, the better the admixture of measures used to describe citizen journalism, rather than defining it as routine journalism. As Brun’s (2003) argument is based on the concept of changing the role of gatekeeping to gatewatching, there needs to be a step-by-step attempt at inductive theorizing. Citizen journalism scholarship should be able to answer clearly the questions of what its differences are and where its boundaries lie between citizens and professional journalists. Despite some attempts to establish the definition of adjacent terms, such as participatory journalism, the continuing problem of conceptual confusion still exists.

The challenges facing citizen journalism do not only involve news organizations but also academia and addressing these might be a task beyond what citizen journalism is meant to achieve and sustain in the future. However, it is certain that new technological tools, while providing greater opportunities for citizen journalism, also increase the complexity of the tasks involved in achieving its goals. Borger et al. (2012), who did a genealogical analysis on participatory journalism as a scholarly object, pointed out the four normative dimensions which are “enthusiasm about new democratic opportunities”, “disappointment with professional journalism’s obduracy”, “disappointment with economic motives to facilitate participatory journalism”, and “disappointment with news users' passivity” (p. 117). These four dimensions argued that the audience should hold a more central position, stating that "moving beyond the dominant focus on the production culture of professional journalism—which results in journalists setting the terms for participatory journalism—towards the motives, expectations and conditions on the part of the audience"(p. 130). Sharing the same concern with them, this imbalance that scholars have not taken matter of audience should be overcome.

Communication scholars have operationalized the term 'citizen journalism' by using a variety of measures, something which has made its definition more obscure. For clarification of this definition, a precise description of the measurement or an indexing method is necessary to produce an appropriate universal definition. This paper has reconstructed evaluation standards to derive essential criteria, including the mutual interaction between professional journalists and citizens, the pursuit of ethical values, of reporting accuracy and credibility, as well as of originality and depth. In fact, Nah and Yamamoto (2018) offer an interesting analysis, writing that local news media use and interpersonal discussion drove citizens to participate in actual citizen journalism. Moreover, a sense of neighborhood belonging and collective efficacy mediated the pathways from local news to actual participation. In a likewise fashion, we urge communication scholars to extend the examination of civic engagement by focusing on the developing variables in terms of the role of mass and interpersonal communication in the development of citizen journalism more generally.

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Communication Matters: Mother-daughter Communication in Breast Cancer Prevention in Taiwan

Wan-Lin Chang

Open mother-daughter communication may enhance cancer knowledge, awareness, and prevention behaviors among the family members of cancer survivors. In Taiwan, almost one quarter (24.7 %) of all cancer diagnoses among females are attributed to breast cancer. This study, whose maternal participants are Taiwanese breast cancer survivors, investigated the potential influence of mother-daughter cancer communication on their daughters' cancer prevention awareness, attitudes and behaviors. The research design employed a concurrent quantitative-dominant mixed method design in which both quantitative and qualitative data were collected and analyzed at the same time. The qualitative research consisted of seven in-depth interviews with daughters of breast cancer survivors and the quantitative research consisted of a survey of eighty daughters of breast cancer survivors. Results reveal that mother-daughter relationships and their communication were influenced by the mothers' dependency on and accessibility to their daughters. Additionally, subsequent cancer prevention behaviors by the daughters were significantly influenced by their mothers' advice. Open communication from Taiwanese mothers with breast cancer is an important means of cancer prevention among their daughters. The Taiwanese government and health professionals should find ways to encourage such communication and make it an integral part of broader cancer control efforts.

Introduction

Family communication is an important source of social and physical support for those who face traumatic, life-changing events, such as receiving a cancer diagnosis. Since 1982, cancer has been the leading cause of death in Taiwan, claiming over 30,000 lives annually. For families facing cancer diagnoses, communication within the family helps them cope together and support each other, emotionally and physically, from diagnosis through treatment. In addition, when cancer survivors share their own cancer experiences, it can have significant influences on their family members (Harris et al., 2009), especially in cases of genetically-linked cancers where the outcome could be altered by preventative behaviors. This is particularly true with breast, ovarian, colorectal, and prostate cancers (Eberl, Sunga, Farrell, & Mahoney, 2005).

The topic of breast cancer may alter the usual boundaries of communication between family members due to various factors. For example, breast cancer patients may experience feelings of inadequacy in their role as wife and, in particular, their role as mother. Traditionally, Taiwanese society expects a mother to nurture her children and to push them toward success (Peng, 2008). It is this type of social norm that causes many breast cancer patients to be reluctant in disclosing their personal cancer experiences with their family members, given that these disclosures may negatively influence their children's current and future positions in school, the workplace, or the community at large.

The aim of this study was to determine how Taiwanese mother-daughter cancer communication impacts the daughters' prevention awareness, attitudes (such as feelings of worry and fear, and willingness to engage in a regular breast cancer check-ups), and behaviors (such as nutrition and exercise) using mixed research methods. The qualitative research consisted of seven in-depth interviews with daughters of breast cancer survivors and the quantitative research consisted of a survey of eighty daughters of breast cancer survivors.

Current Breast Cancer Situation in Taiwan

In Taiwan, around one-fifth (18.4 %) of cancer diagnoses among females are attributed to breast cancer, and its corresponding mortality rate has, for years, hovered at around 10-11% (Ministry of Health and Welfare, 2017). However, early detection tests, also called "cancer screening", have been shown to greatly improve the opportunities for breast cancer to be diagnosed at an early stage and treated successfully (American Cancer Society, 2013). In Taiwan, the most common breast cancer screenings are self-examination, clinical examination, mammogram, and ultrasound (Fang, Lee, Chang, Wang, & Chang, 2010).

It is important for women, especially those who are at high risk of breast cancer such as first-degree female relatives (FDFRs) of breast cancer patients, to obtain cancer screenings and education regarding related prevention behaviors. FDFRs are genetically vulnerable female relatives (sister, mother, and daughter) of people who, both male and female, have been diagnosed with breast cancer. Compared with the general population, FDFRs of breast cancer patients have two to three times higher risk to get breast cancer due to shared genetic composition (Tulinius, Sigvaldason, Olafsdottir, & Tryggvadottir, 1992).

Mother-daughter Communication and Breast Cancer Research

Horney (1967) describes the mother-daughter relationship as one of the most salient relationships in the lives of women. This salience does not simply exist during a daughter's childhood, but continues throughout her adulthood (Wisdom, 1990). Previous research has demonstrated that when mothers who are diagnosed with breast cancer maintain close mother-daughter relationships, engaging in open communication, the daughters are more willing to accept the changes and adjust themselves to the situation when they are under cancer-related stress (Stiffler, Haase, Hosei, & Barada, 2008).

Mothers can also be a potential source in educating and bringing awareness of the importance of cancer prevention to their daughters, thus directly influencing her daughter's perceptions and attitudes toward prevention. According to a study from Sinicrope et al. (2008), when comparing women who had and those who had not received advice from their mothers, "women who received advice from their mothers would be more likely to engage in health-promoting behaviors, such as screening mammography and breast self-examination" (p.1018). When a daughter learns of her mother's diagnosis, she also learns of her increased susceptibility to breast cancer. It is important that mothers provide cancer-related information in age-appropriate ways tailored to children of different ages. For example, using complex, difficult-to-understand medical terminology to a ten-year-old girl may result in the girl's confusion and/or fear while using the same language for adult children may be completely appropriate. It is this communication with adult children, specifically daughters, that has demonstrated that when breast cancer patients provide detailed cancer knowledge to their adult daughters, the effects reflect a positive influence that is clearly beneficial in the enhancement of daughters' self-efficacy and prevention awareness (Lyle, 1996).

Research Question

Studies have shown that family communication has an impact on children's cancer knowledge and behavior, yet there is little research on whether breast cancer patients' family cancer communication has an influence on their adult daughters' cancer prevention or screening behaviors. Therefore, this research sought to answer the following question:

> RQ: Does mother-daughter breast cancer communication influence the daughters' prevention awareness, attitudes and behaviors in Taiwan?

Given the lack of research on family cancer communication in Taiwan, concurrent quantitative-dominant mixed method in which both quantitative and qualitative data are collected and analyzed at the same time (Powell, Mihalas, Onwuegbuzie, Suldo, & Daley, 2008) was determined to be the best fit for this study. By utilizing this type of mixed methods research design, both types of data can be analyzed simultaneously to generate integrated insights that are more complete and nuanced. In order to clearly present the multiple methods design, the qualitative and quantitative data will be discussed separately.

In-Depth Interviews

Method

Following IRB approval, seven daughters of breast cancer patients/survivors were recruited through snowball sampling and in-depth interviews were conducted between May and July 2014. The length of the interviews averaged 70 minutes and ranged between 50 and 100 minutes. Participants' basic demographic information is shown in Table 1.

Table 1. *Demographic Characteristics of Participants*

		N	%
Current Age	20-29	2	28.6%
	30-39	2	28.6%
	40 and above	3	42.8%
Age when mom	Under 20	2	28.6%
Diagnosed w/	20-29	1	14.3%
Breast Cancer	30-39	3	42.8%
	40 and above	1	14.3%
Education Level	High School Graduate	1	14.3%
	Associate Degree	2	28.6%
	College and above	4	57.1%

N=7

The interview process. The interviews began with the interviewees answering a series of standard demographic questions. Once an understanding of the interviewee's background was established, the researcher then asked about their interpersonal relationship and level of disclosure with their cancer-diagnosed mothers. Next, the researcher shifted the focus to investigate how this kind of disclosure influenced the participants' desire to obtain breast cancer screening or other prevention behaviors.

Data analysis. Data analysis took a grounded theory approach and was carried out through three phrases of coding -open coding, axial coding, and selective coding (Strauss & Corbin, 1990). After establishing key themes, the researcher returned to the transcripts to review participants' statements that best represented the themes. A close examination of these quotes provided a more in-depth understanding of participants' experiences.

Findings for Qualitative Data

Among the seven participants, only one was single and living with her mother; two were single living on their own; and the other four were married and living in their own households. All participants considered themselves to have either a close or average mother-daughter relationship compared to other families. To confirm this was not an instance of social desirability bias, the researcher asked the participants about the frequency and duration of communication with their mothers, as well as discussion topics. Answers received varied from person to person; however, there is one noted commonality - they rarely initiated conversation about the topic of breast cancer with their mothers. When such conversations did occur, they were often initiated by their mothers or necessitated by their mothers' routine breast exams. The most commonplace theme across the mother-daughter conversations surrounded ways to maintain good health including nutrition and a daily activity regimen.

Mother-daughter communication patterns are influenced by several factors from the daughter's perspective including the mothers' dependency on the daughter and their accessibility to each other. Additionally, the participants also mentioned how their mother-daughter communication impacted their own prevention awareness, attitudes, and behavior. Detailed accounts and explanations along with quotations to demonstrate these factors are provided below.

Mothers' dependency on daughters. Mothers' dependency on her daughter has a major impact on their relationship and communication. In both the US (Navaie-Waliser, Feldman, Gould, Levine, Kuerbis, & Donelan, 2002) and Taiwan (Chen & Wu, 2006), the majority of caregivers for an ill or disabled relative are female. In Taiwan, many elderly mothers tend to depend on their children because of the mothers' low literacy and limited physical capabilities. For example, most of these dependent mothers need to rely specifically on their daughters to take them to the hospital and to handle most major decisions. A 61-year-old daughter of an 84-year-old woman stated:

> I took my mom to her every hospital visit, from the first day of her treatment to her follow-up after the treatment. I know all her breast cancer treatment procedures and conditions, and I am the one who discusses all the details with her doctor. I let my mom know what to eat and what not to eat. I am literately the main caregiver for my mom…this definitely influences the communication between my mother and I. She is very open to express her emotions to me.

On the other hand, a 34-year-old, married woman whose mother, age 63, is a breast cancer survivor provided a different perspective:

> It was four years ago when my mom was first diagnosed with breast cancer. She made all the decisions on her own…and she asked all of us (three daughters) to come home. Later she informed us of what happened to her, what treatment she wanted to take, and what was going to be her next step. I was kind of mad because she did not want to discuss it with us…but what else can we do? That's her life and we need to respect her decision.

The above examples reflect that mothers with a higher level of dependence on their daughters, which may be due to more advanced age, have more frequent, longer, and deeper communication with their daughters regarding their cancer status, treatment, and outcomes. Mothers with a lower level of dependency usually make their own medical and treatment decisions without seeking their daughters' help.

Accessibility. Accessibility between mothers and daughters, i.e., the opportunity to reach out and communicate with each other, also strongly influences the mother-daughter relationship. As previously mentioned, all participants were adults with the majority not cohabitating with their mothers. Daughters communicated primarily with their mothers through phone or face-to-face visits. The frequency in which they talked or visited with their mothers had a direct impact on their mother-daughter closeness as well as their communication pattern. Furthermore, four out of seven interviewees were married and had their own families, which further reduced their time and energy to communicate with their mothers.

The physical distance between the mother and daughter also had a direct impact on their communication pattern. Daughters who lived in the same city had more opportunities to visit their mothers compared to daughters who lived further distance away. Moreover, once the daughters got married, part of their focus was diverted to establishing their new households. The diversion especially intensified once the daughters had children shifting their focus to caring for their new family. A married daughter, 33-year-old, with two little girls told the researcher:

> I think I have a good relationship with my mom, even though we do not see each other often. I am busy all the time with my two little girls, and I sometimes call my mom to check if everything is ok… We usually talk about things that happened in our daily lives and about the two girls. Hmm…my mom does not disclose her feelings related to breast cancer with me…but she shares information she reads online about what to eat and what exercise to do to maintain good health.

This example demonstrates that daughters' accessibility to their mothers is challenged by not only daughters' physical location but also their marital and parental statuses. This lack of accessibility between mother and daughter directly influences their relationship as well as their communication, including the topic of breast cancer.

Prevention behaviors. Participants were all over eighteen years old and thus assumed to be old enough to understand what had happened to their mothers. All the daughters mentioned that their mothers' illness had changed their lives on some level. All also expressed higher cancer awareness and increased empathy for cancer patients or disabled people in general. An unmarried, 24-year-old daughter of a breast cancer survivor explains that:

> Compared to my college classmates and coworkers, I am more knowledgeable on the breast cancer topics given my exposure since sixth grade. Furthermore, I feel I am more sensitive and have higher awareness of health issues. My friends usually

> consult me if they feel ill, or if something is happening to their families.

While these daughters may have a higher awareness, it does not necessarily mean they take more preventative actions. One 30-year-old, unmarried daughter told the researcher:

> I have not had any breast cancer examinations. Maybe because I feel that I am too young to worry about it, or the examinations are expensive. My mom and I usually talk about how to keep ourselves healthy, such as eating three meals regularly and not staying up too late. But we actually barely talk about breast cancer exams except when she goes back to the hospital for her routine check-up.

Another 28-year-old daughter who had a breast ultrasound exam three years ago mentioned:

> My first breast ultrasound experience was three years ago when I felt something in my breast. Luckily it was nothing serious. Since then, I have ultrasound examination done once a year but not a mammogram. I know a mammogram examination is very painful, plus I do not feel the urgency. The government provides women with a family history of breast cancer a free mammogram every two years after they reached the age of 40…I will do it when I reach 40, but right now, ultrasound is enough.

Based on the qualitative interview data, no definitive correlation was found between mother-daughter communication and daughters' prevention behaviors; however, the data did demonstrate a detectable effect on awareness. Individuals' breast cancer prevention attitudes and behaviors seemed to be driven by factors beyond maternal influence.

Discussion for Qualitative Data

This study investigated how mother-daughter communication influences the daughter's breast cancer prevention awareness, attitudes, and behaviors. Interviewees mentioned that their general health awareness as well as breast cancer-specific awareness were both increased because of their mothers' illness. According to interview data, daughters' prevention behavior was influenced by their mother-daughter communication in some ways; however, other factors (e.g. media) also impacted their behaviors. Additionally, daughters' attitudes and willingness to do breast check-up exams was strongly influenced by the fact that the government provides a free mammogram every two years for any woman 40 and over with a family history of breast cancer (Health Promotion Admiration, 2015) as well as their perceptions about the risks of getting breast cancer. Younger interviewees had shown lower level of worry about getting breast cancer and would rather postpone check-up exams until they get older.

Survey

Method

Sampling and recruitment procedure. Following IRB approval, a convenience sample of eighty daughters of breast cancer patients were recruited, mostly through in-person contact and snowballing. The survey was conducted between June and October 2014.

Instrument. The questionnaire consisted of 22 questions about demographics, mother-daughter communication, and mother-daughter relationship as well as breast cancer risk perceptions and prevention behaviors.

Demographic characteristics. Three questions were asked to gather demographic information from daughters, including their current age, their education level, and their age when their mothers were diagnosed with breast cancer.

Breast cancer risk perception and prevention. Risk perception and prevention related questions were all adopted from previous literature (Easterling & Leventhal, 1989; Kreuter & Strecher, 1995). Participants were asked questions such as "Compared to others your age and sex, how would you rate your risk of getting breast cancer within the next ten years?" Response options employed a 5- point Likert scale ranging from 1= "a lot lower than average" to 5= "a lot higher than average." Additionally, two "yes" or "no" questions were included in the daughter survey to assess their prevention behaviors: 1) "Have you taken any preventive behaviors to lower your breast cancer risk?" and 2) "Have you done any breast cancer examinations?"

Mother-daughter prevention communication. One "yes" or "no" question, also adopted from a previous study (Kreuter & Strecher, 1995), measured mother-daughter breast cancer prevention communication: "Has your mom provided advice to you about things you should do to lower breast cancer risk?"

Mother-daughter relationship. Three questions were designed to evaluate mother-daughter closeness and satisfaction. Questions included "I consider my mom and me to be…?" with answers from 1= "not at all close" to 5= "very close," "Compared to other ordinary families of my culture that I have known, my relationship with my mother is?" with answers from 1= "less closer than others" to 3= "more closer than others," and "Overall, my relationship with my mother is?" with answers from 1= "very dissatisfying" to 5= "very satisfying."

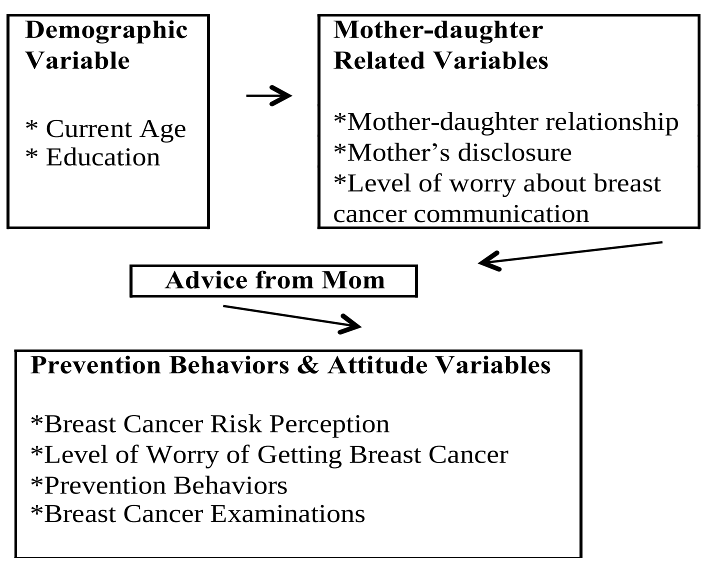
Mothers' level of self-disclosure. Three 5-point Likert scale questions, ranging from 1= "talked about none of what she felt" to 5= "talked about all of what she felt," were asked. Respondents rated their mothers' level of disclosure to them on three issues: cancer treatment, negative emotion, and fears of cancer progression/death.

Respondents answered the questions comparing the period during their mothers' treatment to the later time when they filled out the survey. The scale showed excellent reliability for the both time points. (Cronbach's alpha= .925, N = 74 for the scale of the present, and Cronbach's alpha= .941, N = 76 for the time when their mothers were during the treatment.)

Level of discomfort when discussing breast cancer issues with mother. Daughter respondents were asked questions regarding their level of discomfort when their mothers discussed with them cancer treatment, physical symptoms, and emotions. Respondents answered these three questions on a 5- point Likert scale ranging from 1= " totally disagree" to 5= "totally agree" for both the time when their mothers were in treatment and the current time when they completed the survey. The scale illustrates good reliability of the two time points (α = .858, N = 75 during the treatment period; α = .920, N = 75 at the time of survey completion).

Data analysis. The daughter data include two demographic, including age and level of education; three mother-daughter communication/ relationships, one mothers' advice, and four prevention behavior and attitudes related variables. The figure presents the relationship among all the variables. Multiple regression and logistic regression were performed with the daughter data to answer the research questions of the study.

Figure The Relationship among All Variables



Findings for Quantitative Data

Descriptive statistics. Sample characteristics and descriptive statistics for key variables are presented in Table 2. On average, participants were 33 years old with 55% possessing bachelor's degrees, often considered a prerequisite to be identified as "well-educated" in Taiwan. The sample reported moderate levels of perceived personal risk for cancer (M = 3.45, SD = .99) and worry about cancer (M = 2.94, SD = 1.07).

The mean scores of mother-daughter closeness (M = 4.14, SD = .75) and level of satisfaction (M = 4.22, SD = .67) were both high, indicating close mother-daughter relationships. "Mother-daughter relationship compared with other families" (M = 2.57, SD = .55) was measured on a 3-point scale, where higher scores meant higher level of closeness and satisfaction. From participants' perspective,; therefore, they had fairly good relationship with their mothers.

The mean scores of mothers' level of disclosure, both at present (M = 4.19, SD = 1.16) and during the treatment period (M = 3.79, SD = 1.41) showed that participants generally considered their mothers' self-disclosure level to be relatively high. Additionally, the mean score of discomfort with mother-daughter breast cancer conversations, both at present (M = 2.22, SD = 1.23) and during the treatment period (M = 2.53, SD = 1.23), were below the scale midpoint. This suggests that participants overall were relatively uncomfortable having breast cancer communication with their mothers.

Table 2. *Descriptive Statistics on All Variables*

	Mean	SD	N	Range
Current Age	33	14.07	80	9-68
Age when Mom was Diagnosed w/ Breast Cancer	26.1	13.53	80	5-56
Education	3.125	1.11	80	1-4
Cancer Related Questions				
Risk Perception	3.45	.994	77	1-5
Worry	2.94	1.07	80	1-5
Mother-daughter Relationship				
M-D Closeness	4.14	.75	74	1-5
MDR Compared with Other Families	2.57	.55	74	1-3
Level of Satisfaction	4.22	.67	74	1-5
Mother-daughter Communication- Mother's Disclosure				
Disclosure During the Treatment	3.79	1.41	77	1-5
Current Disclosure	4.19	1.16	76	1-5
Mother-daughter Communication- Discomfort with Breast Cancer Communication				
During the Treatment	2.53	1.23	76	1-5
Current Level of Discomfort	2.22	1.23	76	1-5
Prevention Advice from Mom	.68	.47	75	0-1

N=80

Paired-sample t-tests. Table 3 reports paired-sample *t*-tests of the breast cancer mothers' self-disclosure level on different topics during treatment versus the present from the daughters' perspectives. The mean scores for all variables were higher than 3.5 with a range from 1 to 5, which indicated that, from daughters' perspective, their mothers, in general, disclosed various topics, from cancer treatment to fear of death. Yet interestingly, their mothers appeared more willing to disclose after cancer treatment than during the treatment.

Table 3. *Paired-sample t-test of Breast Cancer Mothers' Self-disclosure level on Different Topics from Daughters' Perspective*

	Mean	SE	t	df	Sig.
Level of Self-Disclosure on Topic of…					
Cancer Treatment		.			
In Treatment	3.92	178	-3.45	74	.001
Current	4.31	.136			
Negative Emotion					
In Treatment	3.76	.168	-3.79	73	.000
Current	4.15	.144			
Fear of Cancer Progression					
In Treatment	3.65	.178	-3.79	73	.000
Current	4.07	.158			

Regression testing mother-daughter communication. This study sought to investigate the extent to which daughter's breast cancer prevention awareness, attitudes, and behaviors were influenced by their mother-daughter communication as well as their mother-daughter relationship. Table 4 presents correlations between the independent and dependent variables. Individual's risk perception was not correlated with any of the independent variables. Individual's level of worry, prevention behavior, and breast cancer examination were correlated with personal education level, mothers' advice, mothers' disclosure, and level of discomfort in breast cancer communication to varying degrees. The survey had a relatively small sample size, which makes model parsimony an important consideration. Based on the bivariate correlations, the researchers decided to use only mothers' advice, mothers' disclosure, and level of discomfort, in addition to age and education level, as predictors in regression analyses.

Table 4. *Correlations of Mother-daughter Communication with Other Indicators*

	Risk Perception	Level of Worry	Prevention Behavior	Breast Cancer Examination
Current Age	.056	.068	-.058	.187
Education Level	.192#	.216#	.183	.204#
M-D Closeness	.080	.109	.150	-.027
MDR Compared w/ Other Families	-.088	-.028	-.019	-.121
Level of Satisfaction	.041	.098	-.007	-.091
Mom's Advice	.178	.225#	.423***	.213#
Mom's Disclosure	.077	.286*	-.030	.065
Discomfort	-.011	.011	-.207#	-.189

Note. # $p< .10$, * $p< .05$, ** $p< .01$, *** $p< .001$

Table 5 demonstrates multiple regression models predicting daughter risk perception and level of worry. As shown, daughters' breast cancer risk perception was not associated with any of these indicators. On the other hand, daughters' worry about getting breast cancer was significantly associated with mothers' advice (ß = .64, $p < .05$, 95% CI [.07, 1.21]), mothers' self-disclosure level (ß = .25, $p < .05$, 95% CI [.05, .44]), and marginally significantly associated with daughters' discomfort with breast cancer communication with their mothers (ß = .23, $p <. 10$, 95% CI [-.01, .46]), and daughters' current age (ß = .19, $p < .10$, 95% CI [-.01, .39]). Individuals who were older, whose mothers provided prevention advice and disclosed more to them, and who felt a higher level of discomfort when having breast cancer communication with their mothers, expressed greater worry about getting breast cancer.

Table 5. *Multivariable Regression on Risk Perception and Level of Worry*

	Risk Perception	**Level of Worry**
	ß 95%CI	**ß 95%CI**
Mother's Advice + Mother-daughter communication + Demographic (IV)		
Mother's Advice	.263 (-.311, .837)	.636* (.065, 1.207)
Mom's Disclosure	.028 (-.173, .229)	.246* (.047, .444)
Discomfort	.168 (-.066, .401)	.225# (-.005, .456)
Current Age	.134 (-.070, .338)	.186# (-.013, .385)
Education	.146 (-.088, .379)	.150 (-.075, .375)

Note. # $p< .10$, * $p< .05$, ** $p< .01$, *** $p< .001$

Table 6 presents logistic regression models predicting daughters' prevention behaviors and breast cancer examination behaviors, which were measured as dichotomies. In addition to predictors in the previous model (Table 5), worry about cancer was also included as a predictor in the current analysis. Risk was not included because of its high correlation with worry to avoid multicollinearity.

Daughters' prevention behavior was associated with mothers' advice (ß = 2.72, Exp (ß) = .07, $p < .01$, 95% CI [3.06, 75.60]), discomfort when having breast cancer conversations with their mothers (ß = -1.13, Exp (ß)= .32, $p < .01$, 95% CI [.16, .66]), and level of worry about getting breast cancer (ß =.78, Exp (ß)= 2.12, $p < .05$, 95% CI [1.05, 4.53]). In short, there is a positive relationship between daughters' prevention behavior engagement and whether or not they had received advice from their mothers and if they had higher levels of worry of getting breast cancer. In addition, daughters' prevention behavior was negatively related to the level of discomfort they experienced when having conversations about breast cancer issues with their mothers.

Daughters' breast cancer examination behaviors, such as mammogram, ultrasound, and genetic testing, were only associated with mothers' advice (ß =1.53, Exp (ß) = .46, $p < .05$, 95% CI = [1.19, 18.11]). Thus, daughters were more likely to get breast cancer examinations if they had received advice from their mothers.

Table 6. *Logistic Regression on Cancer Prevention Behaviors*

		95% CI for Odds Ratio		
	B (SE)	Lower	Odds Ratio	Upper
Prevention Behavior vs. No Prevention Behavior				
Mother's Advice	2.721**(.818)	3.057	15.203	75.604
Mom's Disclosure	-.554#(.305)	.316	.575	1.046
Discomfort	-1.129**(.365)	.158	.323	.662
Level of Worry	.781*(.373)	1.052	2.1184	4.532
Current Age	-.311(.292)	.414	.733	1.299
Education	.235(.291)	.714	1.264	2.238
Breast Cancer Examination vs. No Breast Cancer Examination				
Mother's Advice	1.534*(.678)	1.187	4.636	18.110
Mom's Disclosure	.010(.227)	.635	1.010	1.606
Discomfort	-.405(.251)	.398	.667	1.119
Level of Worry	.273(.276)	.765	1.314	2.260
Current Age	.225(.236)	.779	1.253	2.016
Education	.254(.248)	.787	1.290	2.114

Note. # $p< .10$, * $p< .05$, ** $p< .01$, *** $p< .001$

Discussion for Quantitative Data

The research question asked whether mother-daughter breast cancer communication influences their daughters' prevention awareness, attitudes, and behaviors, and the answer is affirmative based on the data. As shown in the analysis, mothers' communication in the form of advice is associated with both daughters' prevention behavior and their breast cancer examination behavior. Thus, it seems that mothers' direct advice has an impact on daughters' prevention behaviors.

A daughter's level of worry about getting breast cancer is also shown to influence her prevention behaviors, but not her breast cancer examination behaviors. This attitude may be due to the fact that many types of prevention behavior options exist, ranging from diet, to exercise, and other lifestyle changes. Moreover, these behaviors can be accomplished through individual and relatively easy efforts. In comparison, breast cancer examinations, such as mammograms, may involve cost, access, and assistance from health professionals, issues that may present challenges and constrain women.

While worry may have greater motivating effect on self-administered prevention behaviors than on breast cancer examination decisions, this study also investigated factors that impact daughters' level of worry. Results showed that mothers' advice and daughters' own age influenced daughters' level of worry about getting breast cancer. In all, it appears that mothers can have an important influence on their daughters' cancer prevention behavior both directly (e.g., by offering advice) and indirectly (e.g., by increasing concern though sharing information about their treatment and recovering experiences).

Conclusion

The aim of this study was to determine the effects of mother-daughter communication on the daughters' prevention awareness, attitudes, and behaviors. Based on the results of the quantitative analysis, mothers' advice significantly influenced the daughters' level of worry about getting breast cancer, her prevention behavior, and the likelihood of getting a breast cancer examination. In addition, daughters' level of worry about getting breast cancer was shown to impact their intention to practice prevention behaviors. Yet, mothers' sharing information about their treatment and recovering experiences including their emotions and worries, did not appear to influence daughters' breast cancer examination behavior.

A similar outcome was found in the interview data that mother-daughter communication mainly served to raise awareness. However, daughters' intentions to practice prevention behavior were only partially due to the mother-daughter cancer communication. Due to their mothers' illness, daughters had more opportunities to talk about related topics, greater access to breast cancer related information, and higher sensitivities than their peers about health issues. These outcomes resulted in daughters being more willing to practice prevention behaviors, including exercising regularly and/or eating more healthy food.

On the other hand, daughters stated that the mother-daughter communication had limited influence on their intention toward practicing regular breast cancer examinations. From the daughters' point of view, even though their mother-daughter breast cancer communication enhanced their awareness of the importance of cancer examination, most of them, especially those who were younger, still hesitated to schedule examinations, such as ultrasounds and mammograms. According to interview comments, daughters felt that if they take care of themselves, they should be fine. However, daughters over the age of 40 were more likely to get an exam once every two years. They attributed this behavior to the Taiwanese government's policy of providing free mammograms to those women 45 and over, and women 40-44 with a history of family breast cancer.

Future Implications

The findings of this study illustrate the power of mothers' advice on their daughters' prevention behavior, an area the government could tap into by developing better programming, publicity, and outreach communicating the importance of mother-daughter cancer communication. This approach would be a more effective technique than employing fear to provide general information on the importance of diligent breast care to promote women's health. The Taiwanese government should also commit more funding to research on the outcomes of family and health communication. This study provides evidence of the importance and influence of mother-daughter communication and offers justification that these areas of research deserve more attention and resources, including funding.

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"We Post Pictures to Prove We Are Best Friends": iGen Friendship Characteristics and Maintenance Strategies

Riley Redd, Mackenzie Regen, Margaret McPherson, Sydney Shaw, Alyssa Cole, Kennedy Johnson, Brianna Lane, and Linda Manning

This mixed methods study assesses how iGen experience high school and college friendships. Researchers administered an online survey to 109 undergraduates to test relational maintenance strategies, friendship satisfaction, and friendship solidarity. Results revealed that in high school friendships, most maintenance strategies are positively correlated with satisfaction and solidarity. In college friendships, all maintenance strategies, satisfaction, and solidarity are positively correlated. Semi-structured interviews with 23 undergraduates yielded three themes: origin stories, characteristics of friends, and maintenance strategies. Similarities and differences between high school and college friendships are discussed.

Introduction

"Born in 1995 and later, they grew up with cell phones, had an Instagram page before they started high school, and do not remember a time before the Internet" (Twenge, 2017, p. 2). Twenge (2017) describes salient characteristics of iGen--emerging adults who comprise today's college student population. College students are a unique population as emerging adults, who must negotiate maintaining old friendships and forming new friendships as they transition away from home. Rawlins (1992) defines a close friend as "somebody to talk to, to depend on and rely on for help, support, and caring, and to have fun and enjoy doing things with" (p. 271). Friendships predict well-being and life enjoyment (Demir, Orthel-Clark, Özdemir, & Özdemir, 2015). The quality and quantity of early life social interactions can predict happiness, loneliness, and depression up to 30 years later (Carmichael, Reis, & Duberstein, 2015). People acquire friends throughout many developmental stages of life. Throughout a lifespan, friendships are lost, gained, and most importantly maintained. One specific time in an individual's life when friendships are maintained is the transition from high school to college.

The context of friendships changes from high school to college. The first year of college is a prominent turning point for many as it involves moving away from home, making independent decisions, and developing a new social group. The transition to college can be a very stressful time for adolescents. While some may rely on family, many will rely on their friends for support during this adjustment period. The purpose of this study is to examine how iGen emerging adults who have transitioned to college experience friendship with their geographically distant high school friends and with new geographically close college friends. This paper attempts to add to the previous research surrounding high school and college friendships by gaining a better understanding of how friendships from high school differ from friendships in college. For ease of understanding, when "high school friendships" are mentioned, we are referring to friends from high school versus friends in college.

In this paper, we address prior literature regarding traits of high school and college friendships, solidarity, satisfaction, and technological influences on friendship maintenance strategies. After a review of prior research, we discuss quantitative and qualitative methods used to see how high school friendships differ from college friendships. We end with a discussion of the quantitative and qualitative findings, limitations, and directions for future research.

Traits of Friendship

High school friendships occur during adolescence, in which there is a reflexive relationship between self-awareness and formation of interpersonal friendships (Kandel, 1978; Rawlins, 1992). Background and identity are central to high school friendship formation. Miller and Hoicowitz (2004) determined that children's' relationships with their mothers greatly affected their adolescent friendship quality and length. Additionally, adolescent friends are "typically the same age, gender, race, grade in school, and social status [and] tend to share fundamental values and similar attitudes toward academic pursuits, peer culture, and illicit activities" (Rawlins, 1992, p. 65). Cross-sex friendships emerge with the onset of puberty, but adolescent relationships are still primarily same-sex because of complications from romantic and sexual involvement (Rawlins, 1992).

Rawlins (1992) examined the tension between popularity and friendship. He noted that peer culture is central to both male and female adolescent relationships. In adolescence, female friendships are more intimate and involved, featuring loyalty and commitment, which often cause jealousy and exclusivity (Rawlins, 1992). Male friendships are activity-based, allowing for less disclosure but more inclusivity and enjoyment of a mutually loved activity within adolescent peer groups (Rawlins, 1992). Behavior is another component in peer culture. In particular, researchers found that adolescent friends have a strong influence over marijuana and alcohol use (Kam, Figueroa-Caballero, & Basinger, 2016; Kandel, 1978).

New friendships are often formed in the transition from high school to college. McEwan and Guerrero (2010) explain that the move from high school to college is one of the biggest life transitions. This transition brings a lot of adjustments to a person's social life. Friendships are built during this transition to create a platform for success in this new environment (McEwan & Guerrero, 2010). Yang and Ayers (2014) explain that age plays a part in the formation of new friendships. The personal experiences, background that each has experienced, and current life circumstances all influence the formation of friendship (Yang & Ayers, 2014). After these friendships have been established, maintaining and growing the friendship becomes the new priority. McEwan and Guerrero (2010) highlight the importance of the level of investment that is placed on these relationships so that the friendship is successful and maintained. McEwan, Sumner, Eden and Fletcher (2018) further explain that social contact and relational assurances have a positive association for the overall satisfaction of the friendship while response seeking has a negative association with the satisfaction of the friendship. McEwan and colleagues (2018) demonstrate that friendships are not limited to distance, which impacts the friendships formed in college. This understanding of characteristics of friendship and friendship development in adolescence and emerging adulthood led us to the following research questions:

RQ1: How do iGen emerging adults initiate friendships?
RQ2: What qualities do iGen emerging adults value in their close friendships?

Friendship Solidarity

Friendship solidarity refers to feelings of closeness or being a part of an ingroup (Wheeless, 1976). It involves similarities of characteristics (age, attitudes, occupation), close physical space or status, pleasant sentiments (liking, loving, attraction, sympathy, trust), behaviors (cooperation, confiding in each other, beneficent actions), and symbolic expressions. Wheeless (1976) found that solidarity is positively associated with self-disclosure. He concluded that solidarity unites perceptions of trust, liking, loving, interaction, disclosure, influence, and empathy. Bell and Healey (1992) also found an association between communication and solidarity. They found that personal idioms, or personalized communication, are positively associated with solidarity. In addition, how people interact with others influences solidarity. Cupach and Messman (1999) claimed that interactions are negotiated using face. Positive face giving is when the interaction supports and affirms others' perception of self and negative face giving is when the interaction respects the others' need for autonomy (Brown & Levinson, 1987). Cupach and Messman (1999) found that solidarity was higher when partners reported giving positive face. They also found that there was no correlation in negative face giving and solidarity in same sex male friendships, meaning that males do not account for autonomy in determining solidarity.

The type of friendship also influences perceived solidarity. Kram and Isabella (1985) created the following classification system for peer relationships in organizations: (a) information peers whose primary goal is to share relevant contextual knowledge, (b) collegial peers whose primary goals is to provide context related feedback and share mutual concerns, and c) special peers whose primary goal is to engage in confirmation and emotional support. Myers and Johnson (2014) examined these three types of friendships in organizations. They found that solidarity is lowest in information peers, and highest in special peers. They concluded that as people engage in more activities, they make more positive judgements and report greater closeness, which results in greater solidarity (Myers & Johnson, 2014).

Friendship Satisfaction

Friendship satisfaction is an important factor in determining life satisfaction and adjustment (Buote, Pancer, Pratt, Adams, Birnie-Lefcovitch, Polivy, & Wintre, 2007; Demir & Weitekamp, 2007; Heller, Watson, & Ilies, 2004). Therefore, in order to live a full and contented life, it is important to maintain satisfying relationships (Wilson, Harris, & Vazire, 2015). Oswald, Clark, and Kelly (2004) demonstrated the association between maintenance behaviors and friendship satisfaction. Oswald and Clark (2003) believe communication plays a central role in friendship satisfaction due to individuals reporting no decrease in satisfaction when they communicate more frequently with their best friend. Specifically, self-disclosing communication is an important factor in friendship satisfaction, maintenance, and commitment (Oswald & Clark, 2003). For example, the more communication between friends, the more likely they are to remain best friends; the less communication between friends, the more likely they are to experience a decrease in satisfaction, rewards, and commitment.

Prior research has also shown personality characteristics to be predictors of friendship satisfaction, specifically extraversion and agreeableness (Belsky, Jaffee, Caspi, Moffitt, & Silva, 2003; Demir & Weitekamp, 2007; Jensen-Campbell, Rosselli, Workman, Santisi, Rios, & Bojan, 2002; Newcomb, Bukowski, & Pattee, 1993; Stopfer, Egloff, Nestler, & Back, 2013). Understanding how personality traits influence friendship satisfaction is one step toward knowing who has satisfying friendships and why. The quantity of social interaction with friends is a potential explanation for why certain personality traits are related to friendship satisfaction (Wilson et al., 2015). Not only is the quantity of social interaction a predictor but the quality of social interactions might also explain how personality traits are associated with friendship satisfaction due to better interactions with their friends (Wilson et al., 2015).

Based on our understanding of these important dimensions of friendship, we pose the following research questions:

> RQ3a: How do maintenance strategies utilized by college friendships affect feelings of solidarity and satisfaction?

RQ3b: How do maintenance strategies utilized by high school friendships affect feelings of solidarity and satisfaction?

Technological Influences on Friendship Maintenance Strategies

All relationships require some sort of maintenance (Canary, Stafford, Hause, & Wallace, 1993) but because friendships are voluntary and flexible (McEwan & Guerrero, 2012) they require different maintenance strategies than other types of relationships. Therefore, friendships require more maintenance to avoid loss of communication channels (McEwan et al., 2018). In order to maintain a relationship both partners have to be able to communicate with each other (Canary & Dainton, 2014). The rise of social media has made it easier to communicate with geographically distant friends. Johnson (2001) found that geographically close friends report more maintenance strategies then geographically distant friends. While there is a difference in the amount of maintenance behaviors, there is no difference in the amount of satisfaction or closeness (Johnson, 2001). Research shows that as geographical distance increases the levels of communication decrease; social media gives a sense of permanence to friendships (Koban & Krüger, 2018; Standlee, 2019). For example, the most common use of Facebook is to communicate with friends. Behaviors used on Facebook relate to five categories of relational maintenance: positivity/openness; assurances; posts, messages, or chats; joint activities; and surveillance (McEwan et al., 2018).

However, the types of channels and behaviors enacted are determined by the emotional closeness of the friends. Self-identified close friends tend to participate in direct forms of communication, like assurances or messages. While those who are not so close use surveillance behaviors. Surveillance, much like lurking, is when individuals gather information by looking at what people post without interacting with them (Koban & Krüger, 2018; McEwan et al., 2018). These behaviors for relational maintenance fall under the three categories of the Facebook Relational Maintenance Measure (FRMM) as developed by McEwan and colleagues (2018). The first category is social contact, which is relational maintenance that focuses on communication with a specific friend. The second category is relational assurances, which are messages that emphasize the user's commitment to sustain the relationship. The third category is response-seeking behaviors, which involve sending mass messages to a large list of friends. This way of seeking responses is a way of attempting to maintain a friendship. McEwan and colleagues (2018) found that social contact has the highest positive impact on satisfaction, commitment, closeness, and liking. Additionally, they found relational assurances have positive effects on satisfaction and commitment. While both personalized methods of maintenance are beneficial, response-seeking has been shown to negatively affect satisfaction, liking, and closeness due to the lack of personalization (McEwan et al., 2018). Furthermore, each type of friendship needs a different set of maintenance strategies to meet the level of commitment and satisfaction to keep the level of friendship.

Social media is also useful for the formation of friendships. In a world where technology controls much of what we do in our lives, it is no wonder that many friendships lean on social networking sites. Arguably, technology is crucial for the formation and maintenance of relationships, especially for college students. For college students, social media and friendships have shown to be the basis of life-long social networks that contribute to learning social norms, exposure to ideas, and access to social capital (Standlee, 2019). While individuals with similar interests or attitudes are drawn closer in face-to-face interactions, technology-mediated friendships can be created more quickly and more efficiently. Due to this, there is a rise in online social interactions affecting those offline (Standlee, 2019). Online behaviors influence whether people engage offline. For example, if someone posts opinions with which you disagree online, then you will probably not talk in person. People are motivated to talk offline if they believe the other person is safe and has the same social and political beliefs (Standlee, 2019). Social media allows for the gathering of information with minimal contact in order to determine if you want to continue a friendship and to maintain contacts with others (Standlee, 2019). Technology works in many ways to form friendships throughout a person's life. Technology is also one of the tools used to actively maintain friendships. This understanding of friendship maintenance behaviors and technology led us to the following research questions:

> RQ4: What strategies do emerging adults use to maintain close friendships?
>
> RQ5: In what ways do college friendships differ from high school friendships in relational closeness, satisfaction, and maintenance strategies?

Method

Methodological Design

To fully investigate how emerging adults experience friendship, we conducted an IRB-approved, mixed-method project. To gain an emic perspective on how iGen emerging adults develop and maintain friendships through high school and college, we developed a semi-structured interview protocol. To understand differences in friendships at these two life stages, we developed an online survey, which was a synthesis of three well-established measures.

Participants

Participants in the quantitative portion of the study were 109 undergraduate students at a medium liberal arts university. They ranged in age from 18 to 23 years old (M = 19.77, SD = 1.11). Sixteen participants were freshmen, 35 were sophomores, 34 were juniors, and 24 were seniors. Of the 109 participants, 77 participants were female, 31 were male, and 1 was nonbinary. Ninety-one participants were Caucasian/White, three were Asian, three were African American, three were Hispanic, and nine identified as mixed race.

Participants in the qualitative portion of the study were 23 undergraduate students at a medium liberal arts university. They ranged in age from 18 to 22 years old. Three participants were freshmen, 12 were sophomores, five were juniors, and three were seniors. Fifteen participants were female and eight were male.
It is possible that participants in the quantitative portion of the study also participated in the qualitative portion of this study. However, that cannot be determined as anonymity of the participants in the quantitative portion was maintained.

Procedures

Quantitative Procedure

Participants in the quantitative portion of the study were recruited using various university affiliated Facebook pages where a link to the survey was posted (e.g., Class of 2020, Greek organizations, athletic teams) and the department research participant pool. If recruited through the research pool, participants were able to receive course credit.

Once participants clicked on the link, the first page of the study contained the consent form. If they agreed to participate, they were directed to enter the name of a friend from high school (first name only; this information was deleted upon analyzing the data) whom they would consider when answering survey items. They then completed items assessing maintenance strategies, satisfaction, and solidarity concerning their high school friend. Next, participants completed those same items after being asked to enter the name of a friend from college (first name only; deleted from the dataset). Finally, participants completed demographic items.

Qualitative Procedure

Participants in the qualitative portion of the study were recruited through a convenience and snowball sampling plan using researchers' own social networks and through the department research participant pool. In the first part of the interview, participants were given an informed consent form. The purpose and length of the study was explained to each participant and they were informed that their participation was voluntary. Those who participated in the interview were informed that they would be audio recorded. Researchers followed an interview protocol (see Appendix). Participants were also told that they were free to decide not to participate and could withdraw from the study without adversely affecting their relationship with researchers. The information was kept strictly confidential and no identifying factors were released in the published research. Then, they were asked a series of questions pertaining to a high school friend of their choosing. Once the participants finished answering questions regarding their high school friend, they were asked to respond to the same series of questions but this time pertaining to a college friend of their choosing. The interviews lasted from 6:11 to 16:04 minutes and yielded 134 pages of double-spaced transcripts. Thematic analysis of the qualitative data yielded three major themes: (a) origin stories, (b) characteristics of friends, and (c) maintenance strategies.

Measures

Friendship maintenance was measured using Oswald's friendship maintenance scale (Oswald et al., 2004). This measure contained four subscales: interaction, openness, positivity, and support. Thirty-seven items were measured using a seven-point Likert scale ranging from never (1) to always (7). Due to poor reliability of the positivity measure in high school friendships, three items were dropped.

Friendship satisfaction was measured using Hendrick's General Measure of Relationship Satisfaction (Hendrick, 1988). Seven items were measured using a seven-point Likert scale ranging from completely disagree (1) to completely agree (7).

Friendship solidarity was measured using Wheeless' revised solidarity scale (Wheeless, 1976). Twenty items were measured using a seven-point Likert scale ranging from strongly disagree (1) to strongly agree (7). Cronbach's alphas are included in Table 1.

Table 1

Reliabilities for Relational Maintenance, Satisfaction, and Solidarity

		High School		College	
Variable	N	No. of items	Cronbach α	No. of items	Cronbach α
Interaction	109	10	0.87	10	0.88
Openness	109	5	0.73	5	0.77
Positivity	109	7	0.70	10	0.81
Support	109	12	0.88	12	0.89
Satisfaction	109	7	0.88	7	0.90
Solidarity	109	20	0.93	20	0.94

To answer RQ3, which asked how maintenance strategies (interaction, openness, positivity, and support) affect solidarity and satisfaction with college friends (RQ3a) and high school friends (RQ3b), multiple correlations were conducted. Results are summarized in Tables 2 and 3.

Table 2
Correlations for College Friendships

Variable	1	2	3	4	5	6
1. Interaction	-					
2. Openness	.79**	-				
3. Positivity	.59**	.59**	-			
4. Support	.78**	.88**	.61**	-		
5. Satisfaction	.64**	.67**	.75**	.67**	-	
6. Solidarity	.84**	.84**	.61**	.80**	.78**	-

**. Correlation is significant at the .01 level

Table 3
Correlations for High School Friendships

Variable	1	2	3	4	5	6
1. Interaction	-					
2. Openness	.69**	-				
3. Positivity	-.04	.01	-			
4. Support	.78**	.80**	-.02	-		
5. Satisfaction	.52**	.56**	.31**	.56**	-	
6. Solidarity	.70**	.71**	.20	.73**	.80**	-

**. Correlation is significant at the .01 level

To answer RQ5, which asked in what ways maintenance strategies, satisfaction, and solidarity differ between high school friends and college friends, multiple paired samples t-tests were conducted. Participants were more likely to use positivity maintenance strategy in college friendships (M = 6.16, SD = 0.72) than in high school friendships (M = 5.99, SD = 0.69), $t(108) = 2.14$, $p < .05$. A difference in support strategies was approaching significance, $t(108) = 1.95$, $p = .054$, such that participants used support strategies more in college friendships (M = 5.45, SD = 1.00) than in high school friendships (M = 5.25, SD = 0.95). No other differences were found between college friendships and high school friendships in interaction, openness, satisfaction, and solidarity.

Quantitative Discussion

In college friendships, interaction, openness, positivity, support, satisfaction, and solidarity are all positively correlated with each other. In addition, solidarity and satisfaction are positively related. Interaction with a close friend is likely to have increased maintenance strategies, therefore they are more likely to feel satisfied with the relationship. Results indicate that specifically in college friendships, participants' use of maintenance strategies increases feelings of closeness and satisfaction with the friendship.

Results were a bit more mixed regarding high school friendships. Interaction, openness, support, satisfaction, and solidarity are all positively correlated with each other. However, positivity is only correlated with satisfaction. Positivity as a maintenance strategy is not a factor in determining relational closeness, or interaction, openness, and support strategies. Johnson (2001) found that geographically close friends tend to use more maintenance strategies such as positivity than geographically distant friends. High school friendships are typically geographically distant as individuals move away from home to attend college. Specifically, the university where data were collected is considered a residential campus where students are required to live on campus their first three years; therefore, students cannot live at home. Many of the items assessing positivity are specifically related to behaviors when individuals are together. We can conclude that our participants did not rely on a positivity maintenance strategy for their high school friends because they are geographically distant from one another, but when positivity is used, the friendship is more satisfying.

There was a significant difference in support and positivity maintenance strategies between high school and college friends. Participants used more support and positivity with their college friends than with their friends from high school. No other differences were found between college friendships and high school friendships in interaction, openness, satisfaction, and solidarity. Positivity is not correlated with solidarity in high school friendships, but it is positively correlated with solidarity in college friendships. Again, this could be due to geographic distance. Friends from high school typically have less face-to-face communication. Communication over a social media platform is less personal, therefore positivity cannot be conveyed. High school friendships do not depend on positivity as a maintenance strategy to feel close. However, in college friendships, solidarity and positivity are correlated. Therefore, increased positivity leads to greater feelings of closeness. In college friendships, positivity is a necessary part of closeness, whereas in high school friendships it is not. Yet, there is no difference in feelings of solidarity between high school and college friends.

In addition, college friends are more likely to be more knowledgeable of the person's daily life than are high school friends because they share joint experiences on campus. Thus, college friends are able to offer more support, especially positive support, than high school friends that are not involved in everyday hassles of the participant's life. College friends also share more activities than do high school friends, which increases the association between positivity maintenance strategies and solidarity.

Qualitative Findings

Origin Stories

To answer RQ1, which asked how iGen emerging adults initiate friendships, we turn to the theme of origin stories. Origin stories refer to the narratives recounted by participants about how the friendship began. Stories in which participants met and increased the amount of time spent together were coded for this theme. The narratives did not differ significantly between the two life stages. In both high school and college, proximity and shared activities were the main ways in which friendship were initiated.

Proximity was the most common factor for beginning friendships. In high school, some participants stated that they were "locker buddies" (MM1) or neighbors with their friends; college friendships often began as roommates, suitemates, or hallmates. In both high school and college, the participants had a class with someone they gradually became closer to and eventually considered a friend. One participant said, "We were in forensics...and then we also had math together. So, we ended up hanging out there. And I don't know, we just became friends from class" (AC4). Another participant spoke about a friend she met in her college honors seminar in a similar manner (MM3). One major reason college students may look for friends in classes is due to McEwan and Guerrero's (2010) idea that friendships built during the college transition period are meant to create a platform for success as individuals adapt to their environments. One participant explained, "I met her at orientation … And then we lived in the same dorm freshman year. So I pretty much started hanging out with her and her like roommates and friends and stuff. And then she joined the same sorority as me" (RR3). This example demonstrates the fluidity of friendship initiation and the progression of the initiation of friendship through proximity to the development of friendships through shared activities.

Another narrative told in both the high school and college stages was that friendships began through common activities. Rawlins (1992) notes that males more often than females form relationships in this manner. This trend was not evident in our data. Sports and clubs were cited often in both high school and college origin stories. Participants detailed meeting their high school friends through marching band, soccer, track and field, and dance. Many found friends the same way in college, saying, "We're both in marching band in the same section" (KJ5) and "We both play football for [the university] so we met during camp" (RR1). However, college relationships more commonly noted proximity through living accommodations as primary to origin stories rather than activities.

Two notable differences between the data collected for initiation of friendships in high school versus college were familial influences and technology. High school friendships occasionally involved parents and family members whereas none of the data for college friendship initiation mentioned family. Regarding his high school friend, one participant stated, "We kind of knew each other because my brother and his brother were friends" (MM2). Another said, "Our moms were good friends, so we were pretty much best friends since we were born" (KJ4). Some also spoke about how after they met, they became better friends because their parents met and became friends.

While participants did not indicate family members as reasons for college friendship initiation, technology was a trend present for this stage. All high school friendships mentioned by participants were initiated face-to-face. However, several participants noted that they began a college friendship through a Facebook group or a group chat. They explained that they were searching for a potential roommate or just wanted to make a friend before arriving on campus. Some participants also mentioned meeting someone in person but considered them a friend after exchanging Snapchat information or phone numbers and connecting through those platforms. In sum, our research shows that iGen students initiate most friendships through face-to-face interactions due to proximity or shared activities. However, they are also comfortable reaching out through social media and other forms of technology to initiate relationships, especially in periods of transition such as beginning college.

Characteristics of Friends

To answer RQ2, we examined the characteristics of friendship participants named and valued. Our interview data indicate the following qualities were valued in emerging adult friendships: being "chill," dependable, and similar or complementary. Being "chill" emerged as an in vivo code. We developed chill into a theme when participants recalled their friends being "carefree" (MR3) and "relaxed" (MR2). The theme of being chill, has a positive connotation in that it is "not a high-pressure friendship" (MR2). Another participant explained, "We're both like pretty level headed like we don't get worked up about things and like, just like to hang out and chill" (KJ3).

Another characteristic that emerged as an important and valued characteristic is being dependable. This theme is defined as when a friend can count on the other person to be there for them in a time of need. This theme was present and positively recalled in both college and high school friendships. When asked to elaborate on what being dependable looked like in a friendship, one participant said, “Definitely support, you know I feel like I can talk to him about things, which I can't to a lot of people” (MM2). Another explained, “I feel like I’m never alone, because if anything happens in my life, I know I can just go to her, and she’ll listen and give me advice” (MM3).

Lastly, participants spoke of similarity and complementarity. This theme might be identified as a dialectic tension in friendships. On one hand, friends appreciated sharing personality styles. For example, one participant said, “Elizabeth and I are very similar people. So, I think that’s what makes it easy because ... we’re always on the same level” (MR1). Another participant recalled being similar in a positive light by saying “It was really easy to relate to them because we were so much alike” (RR4). However, friends also appreciated their differences. For example, one participant recalled, “We’re kind of polar opposites but we’re kind of like opposites attract” (MR1). Another participant explained, “Her (sic) and I have different like personality styles, but I feel like we complement each other like although we have differences, I feel like we help each other like learn different things about the other one” (AC2). In sum, the interview data suggest the qualities that emerging adults value are being chill, being dependable, and having variety on the continuum of similarity and complementarity.

Maintenance Strategies

To answer RQ4, participants noted face-to-face interactions and technology as broad friendship maintenance strategies. Face-to-face maintenance strategies were shared and mutual activities with friends. Eating meals, playing sports, attending parties, and spending time together in common housing spaces were ways participants engaged in face-to-face relationship maintenance. For example, one participant described, “Being able to share moments with another person like going to sporting events and doing different activities together like sporting wise can be really helpful” (SS2). The following example shows how iGen uses technology to facilitate face-to-face interactions. “So, we will always text each other and be like, ‘Hey, I want to get lunch’ and ‘Want to get dinner?’ like if we’re out of the room” (AC4). The reference to being out of the room, suggests that this friendship is connected on some level to proximity and maintained through shared activities, which are initiated through technology.

Much of the literature suggests that friendships are maintained through the use of Facebook. Our study supports this trend. Many of the participants mentioned using Facebook as a way of keeping in contact with friends from high school. Overall, participants used Facebook for surveillance purposes with their high school friends. We also found that other social media platforms provided a variety of ways for participants to keep in touch with their college and high school friends. Participants reported using Snapchat on a daily basis to keep up with friends. Many participants reported having a "snap streak" with their friends. Individuals also reported communicating through direct messaging to keep their friend group updated on life events. Twitter and Instagram were two commonly referenced platforms. Twitter was used to communicate directly with a specific friend or friend group. Interactions on Instagram involved tagging or sending someone a funny meme. The goal of sending the meme was to engage in relational assurances. Participants also said that they would post pictures of their friend as another form of relational assurance. One participant went so far to say, "We're able to post pictures and prove we're best friends" (MR3). Finally, participants reported using their smartphones to text and FaceTime. For those who used texting as a maintenance strategy, they reported using it on a daily basis. Participants reported using FaceTime to keep up with their friends if they were apart for long periods of time (such as over school breaks) or if a post on a social media site inspired a strong public reaction. One participant said over summer break, "We also FaceTime a lot just to like update each other and just check in. So it really helps us stay in contact" (AC4). In sum, iGen emerging adults maintain friendships through recurring face-to-face activities. They also use technology and social media platforms. Facebook is a way to gather information without direct contact while Snapchat, Instagram, Twitter, texting, and FaceTime are for direct contact with others.

Conclusion

This mixed-method study investigated how iGen emerging adults who have transitioned to college maintain their friendships. We were particularly interested in exploring how maintenance and quality differed between geographically distant friends from high school and new, geographically close friends in college. While our results gave us some insight, there are still areas to be explored. Future research on friendship could benefit by prompting participants to think of a representative friend rather than their best friend, roommate, or significant other. For example, study participants could pick a letter of the alphabet and envision a friend whose first name starts with that letter. This prompting strategy would allow for a more representative sample of levels of friendships.

Also, our study is not without its limitations, which suggests directions for future research. Our participant pool consisted largely of sophomores and females who identified as white. In essence, this was a typical sample at a PWI. Future studies should strive for a more representative sample. Additionally, having an equal representation from freshmen, sophomores, juniors, and seniors would allow us to assess the dissolution and development of both high school and college friendships as students progress through four years of college.

Another potential issue is the interviewer's recruited participants from their own social networks. Interviewing individuals you know or are in close proximity with may sway responses in face-to-face interviews. Future studies may investigate these questions by looking at matched pairs to examine if maintenance strategies create mutual feelings of solidarity and satisfaction. Finally, future research could look at specific social media feeds and examine motivations for using those specific platforms for friendship maintenance.

Overall, we found maintenance strategies are positively correlated with solidarity and satisfaction. The types of maintenance strategies used differ between high school and college friendships. Our mixed-method results point to proximity and technology use being inversely related; when friends are geographically close, they use less technology as a maintenance strategy than when they are geographically distant. Origin stories are consistent across lifespan stages for iGen emerging adults and primarily relate to proximity and shared activities. The two differences between the life stages are the inclusion of family in high school origin stories and use of technology in initiation of college friendships. Future research should continue exploring the area of friendship maintenance during transitional periods across the lifespan.[1]

[1] Data were collected during Fall 2019, before Covid-19 was a concern. During the spring semester in 2020, many college students were sent home to finish their coursework. Fall 2020 semesters are being conducted online. In short, a key assumption of our study has been reversed. College friends are now geographically distant and high school friends are geographically close. It is likely friendship maintenance has changed due to the exigencies of the pandemic (i.e., social distancing). Our findings might look different in this new climate; technology helps maintain all friendships but the global pandemic has altered geographically close and distant friendships.

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Appendix

iGen Friendship Structured Interview Protocol

To begin the interview, we would like for you to think about a specific friend from high school and a specific friend from college. With your friend from high school in mind, please share your thoughts on the following questions:

1. How did your friendship start? Can you talk us through the timeline of your friendship? What were some major turning points (highs and lows) in your friendship?
2. What makes it easy to be friends with this person?
3. What makes it difficult to be friends with this person? [Alternate phrasing: Are there barriers to your friendship (e.g., distance, time constraints, etc.)?]
4. What positives do you associate with your friendship with this person? [Alternate phrasings: How do you benefit from being friends with this person? How do you see your friend providing resources to you (e.g., companionship, advice giving, adventure, etc.)?]
5. What negatives do you associate with your friendship with this person? [Alternate phrasings: What disadvantages do you see/experience from being friends with this person? How do you see your friend taking resources from you (e.g., time, emotional energy, etc.)?]
6. How has social media helped sustain your friendship with this person?

a. How do you and your friend interact on social media to maintain your friendship?

b. How do you interact on social media in order to keep in touch?

7. Who wants you to be friends with this person and how much do you care about their opinion?
8. Who doesn’t want you to be friends with this person and how much do you care about their opinion?
9. What else would you like for us to know about this friendship that we haven’t touched on?

Now, with your friend from college in mind, please share your thoughts on the following questions:

10. How did your friendship start? Can you talk us through the timeline of your friendship? What were some major turning points (highs and lows) in your friendship?
11. What makes it easy to be friends with this person?
12. What makes it difficult to be friends with this person? [Alternate phrasing: Are there barriers to your friendship (e.g., distance, time constraints, etc.)?]

13. What positives do you associate with your friendship with this person? [Alternate phrasings: How do you benefit from being friends with this person? How do you see your friend providing resources to you (e.g., companionship, advice giving, adventure, etc.)?]
14. What negatives do you associate with your friendship with this person? [Alternate phrasings: What disadvantages do you see/experience from being friends with this person? How do you see your friend taking resources from you (e.g., time, emotional energy, etc.)?]
15. How has social media helped sustain your friendship?

a. How do you and your friend interact on social media to maintain your friendship?

b. How do you interact on social media in order to keep in touch?

16. Who wants you to be friends with this person and how much do you care about their opinion?
17. Who doesn't want you to be friends with this person and how much do you care about their opinion?
18. What else would you like for us to know about this friendship that we haven't touched on?

Book Review: Psychiatry of Pandemics - A Mental Health Response to Infection Outbreak, by Huremović, Damir (Ed.)

Lyricc King

Our body remembers what our mind may not. "Etching the memory of a disease into our antibodies yet erasing it from our thoughts appears to be natural and fosters self-preservation." (Huremovic′, 2019) Pandemics have been sweeping the globe for hundreds of years, yet little attention has been devoted to how the response to pandemics affects meaning-making. Even less attention has been given to how pandemics impact health communication. *Psychiatry of Pandemics: A Mental Health Response to Infection Outbreak* examines the healthcare response to pandemics through a communicative lens and offers implications for health communication and crisis communication.

In nine chapters, Huremovic and other experts in the field cover topics such as the effects of social distancing, isolation, and the importance of culture in managing the mental health response. We are social creatures by design. Pandemics threaten this nature when quarantining is imposed as a safety measure. Depression, anxiety, substance abuse, and cognitive disorders are a few of the consequences. Learning to cope and apply new knowledge is the key to emotionally surviving the pandemic. Particularly insightful in this book is the assertion that failure to incorporate cultural factors may limit the degree of success in controlling the disease (pg. 57).

The authors provide an historical look at pandemics from the Athenian Plague in 430 B.C. to "Disease X". Chapter two examines each era and compares Disease X, the Coronavirus in our historical moment, to other pandemics in history. The authors stress how the knowledge of the past can influence the future and offer hope for dealing with future pandemics. Other books, such as *The Psychology of Pandemics* (Cambridge Scholars Publishing, 2019), approach pandemics similarly.

The unique contribution of this text to the field of communication, however, is the way the authors address societal influences and culture. Surely, the effects of the pandemic on meaning-making will be phenomena that communication scholars study for years to come. This book would be a useful supplemental text for courses covering health communication, crisis communication, and intercultural communication.

Huremović, Damir, Ed. (2020). Psychiatry of Pandemics - A Mental Health Response to Infection Outbreak. New York: Springer.

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