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**What Are They Saying: Content Analysis of Domestic Violence
Messaging via Twitter**

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**What Are They Saying: Content Analysis of Domestic Violence
Messaging via Twitter**

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Thesis

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Arts

The University of Texas at Austin

May 2015

Dedication

I would like to dedicate my thesis to the family and friends who have encouraged me along the way with this endeavor. Without your faith and support, I would have been lost. I am forever grateful to have you in my life – thank you, and much love always.

Acknowledgements

I would like to acknowledge my supervisor, Dr. Patricia Stout. Dr. Stout's guidance and advice through this project have been invaluable, and I will always be thankful for experience. I would also like to thank Dr. Gary Wilcox for his suggestions and help with the data analysis, without which I could not have completed.

Last, but not least, I would like to thank my parents for their unconditional love and support. They pushed me when I thought I was finished, they encouraged me when I didn't think I could go any further, and they comforted me when I was uncertain. Words cannot describe my love and gratitude for you.

Abstract

What Are They Saying: Content Analysis of Domestic Violence Messaging via Twitter

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Domestic violence is a pervasive socio-economic issue. This exploratory research studied the relationship between Twitter and conversations about domestic violence, and what the relationship might indicate for future communication efforts. A random sample of tweets were collected and analyzed via SAS Text Miner. Results showed that Twitter is perceived as a news information source per uses and gratifications theory, which discouraged personal disclosure of experience with domestic violence. As such conversations about domestic violence on Twitter were more civic and legal in nature, indicating that Twitter is being utilized more as an agenda setting platform with messages being carefully framed depending on intended audience.

Keywords: domestic violence, intimate partner violence, Twitter, agenda setting, framing, uses and gratifications

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Introduction

While there is research out there investigating Twitter from a uses and gratifications perspective (Chen 2010; Coursaris et al, 2013; Liu et al, 2013), none of the research to date has investigated the motivation to use Twitter for communication about sensitive subjects, like domestic violence. In this exploratory research I endeavor to investigate how Twitter is being used to conduct conversations about domestic violence, and the framing of domestic violence conversations on Twitter. By investigating the how Twitter is being used to conduct conversations about domestic violence, as well as what the conversations are saying, I hope to be able to provide insight into how to conduct more meaningful conversations in regards to potential intervention strategies.

Domestic violence, or intimate partner violence (IPV), is a pervasive socio-economic issue that affects both men and women of all backgrounds. Despite the prevalence of IPV, current research about communication in regards to IPV is lacking and warrants further study. It has been shown that communication and disclosure about IPV can be encouraged via channels that exhibit characteristics of user anonymity (Palanisamy et al, 2014).

Over the past decade daily communication has increasingly moved from face-to-face interactions to digitally based communications, which are interactions enhanced or conducted entirely via digital media. Over 79 percent of Americans are online, and of those online, over 72 percent report using some form of social network sites (Hampton, et al, 2011; Pew Research, 2013). Furthermore, research has indicated that smartphone proliferation has supported the increase of social media's popularity by making it easier

for individuals to access, consume, and interact with social media sites (Pew Research, 2014; Russell et al, 2014).

Within the social media realm, Twitter is of particular interest to investigate given its rapid rise in popularity (Coursaris et al, 2010; Liu et al, 2010). Twitter is ranked as one of the fastest growing social networking sites, and over half of all online American youth are using social networking sites (Lenhart et al, 2010). Considering that over 37% of first time rape victims are between the ages of 18 and 24 (World Health Organization, 2010), understanding how Twitter is being used to conduct conversations about IPV could ideally help support conversations about IPV overall while connecting with the audience at greatest risk for experiencing IPV.

Conversations about sensitive subjects, like IPV, via digital media can have a profound impact on the victim, perpetrator, and bystander. The influence on victims is of particular concern with this research as conversations found on Twitter can indicate a victim's information seeking behaviors when in a situation of domestic violence, as well as how they seek social support. By gaining insight into how victims utilize social media like Twitter, healthcare and other social support communities to this underserved population can devise more meaningful and effective communication with victims.

It should be more fully explained why uses and gratifications, agenda setting, and framing theories are being looked at in regards to Twitter conversations about IPV in this paper. Research indicates that part of the reluctance people have about discussing sensitive subjects, like IPV, is because of the associated stigma and fear of negative reactions from others (Goodkind et al, 2003). Stigma is in part perpetuated by perceived public perception, which is partially created through agenda setting and framing effects

of mass media (Dearing and Rogers, 1996; Klin and Lemish, 2008). Agenda setting is about getting people to think about a particular subject, while framing is about how that particular subject is positioned so as to encourage a certain viewpoint, or mental frame, about the subject (Dearing and Rogers, 1996; Chong and Druckman, 2007).

Research Questions and Purpose

This paper aims to investigate what conversations, if any, are currently being conducted on Twitter about IPV, and to categorize any conversations found. How conversations are being conducted can indicate the perceived uses and gratifications of using Twitter to victims, and what is being said can indicate agenda setting and framing potential of Twitter in regards to IPV. The research questions for this exploratory research are as follows:

R1: How is Twitter being used to communicate about domestic violence (also known as IPV)?

R2: What is the content of these relevant tweets?

R3: How can the conversations found provide insights into potential intervention strategies?

This exploratory research aspires to examine how Twitter is being used to communicate about IPV, and may provide insights into how the healthcare community

can better engage, and conduct more meaningful conversations with parties involved in IPV (victims, social support network, bystanders, and perpetrators). Examining how uses and gratifications theory may enhance our understanding of the role Twitter plays in conveying or sharing messages of stigmatizing issues, like IPV, can indicate what kind of healthcare and social marketing communication is most effective via Twitter. By looking at the conversations conducted on Twitter, we can gain insight into possible hindrances to using Twitter for conducting meaningful conversations about sensitive subjects, like IPV. This exploratory research will help address a gap left by the current lack of domain research on healthcare related communication via Twitter and other social media platforms. Additionally, this study can help lay the groundwork for future research in this domain as it relates to uses and gratifications, agenda setting, framing, and diffusion of innovation theories.

This thesis has been organized into six chapters and a conclusion, along with appendix and reference sections. First, the background of IPV and Twitter, and the relevancy of the relationship between the two, are discussed at length in the Literature Review chapter. Then, the Theoretical Background chapter provides an in-depth review of each theory being applied in this study, in addition to motivating each theory's relevancy to the subject matter of the study. The Method chapter provides an overview of steps involved in gathering data, analyzing the data, and the overall design of the exploratory research study performed, while the Results chapter talks at length about the findings of the study in regards to the research questions. The Discussion chapter ties the results of the study to the theories applied, and provides insights into what the data mean. Implications & Future Research chapter provides additional analysis of the results in

regard to applicability in real life, as well as what the results indicate for future research endeavors. Finally, the thesis concludes with a Conclusion chapter, followed by Appendix and References sections.

Literature Review

The Literature Review presented here provides an in-depth background of IPV and Twitter, and the relevancy of the relationship between them. An overview of relevant previous research as a motivation to the investigation of IPV and Twitter is also provided in this chapter. Overall, the Literature Review chapter aims to provide insight and background of where research on each topic currently is, and highlight areas of deficit in existing research that this exploratory study hopes to address.

Intimate Partner Violence

A popular term in American media and culture used to identify intimate partner violence and sexual assault and violence is *domestic violence*. It should be noted, however, that domestic violence is an umbrella term that blankets across not only intimate partner violence and sexual violence, but also elderly abuse and child abuse. For the purposes of this paper, intimate partner violence and sexual violence will be focused on and are the intended definition when the term domestic violence is used. The Centers for Disease Control and Prevention (CDC) define *intimate partner violence* (IPV) as “physical violence, sexual violence, threats of physical or sexual violence, and psychological/emotional abuse that occur between current or former intimate partners” (Cox et al, 2010, p. 287). Furthermore, the CDC defines *sexual violence* (SV) as “a range of behaviors from forced intercourse, to attempted intercourse, to noncontact sexual abuse (e.g., sexual harassment)” (Cox et al, 2010, p. 288).

Intimate partner violence (IPV) and sexual violence (SV) are responsible for an estimated economic loss exceeding \$5.8 billion annually due to lost productivity (e.g.,

missed work days) and related medical and mental health services (CDC, 2003). Over 35% of women and 28% of men in the United States have experienced IPV, with 30% of women and 10% of men who have experienced IPV reporting at least one lasting consequence related to the experience, such as fear for one's safety or post-traumatic stress disorder (Black et al, 2011). More than half (51.1%) of all female rape victims report that they were raped by an intimate partner, while 40.8% report that the rape was performed by a male acquaintance (Black et al, 2011). Of male rape victims, 52.4% were raped by an acquaintance; 15.1% of male victims report being raped by a stranger (Black et al, 2011). Per the aforementioned facts and numerous existing studies examining the subject, domestic violence, which includes IPV and SV, is a pervasive socio-economic issue necessitating further investigation to find additional insight into the subject about how to ultimately help alleviate its many repercussions.

Of the many consequences associated with domestic violence, what ultimately makes the topic a socio-economic issue to address, is the fact that victims frequently end up on government supported welfare programs, such as emergency shelters, paid for by tax dollars while going through the process of exiting their abusive situations (CDC, 2003). Furthermore, as previously stated, victims typically suffer psychological consequences from their abusive situations, which manifests as mental illnesses like Post-Traumatic Stress Disorder, or PTSD (CDC, 2003; World Health Organization, 2010). Sometimes the mental illness is so debilitating, that victims are either unable to maintain employment or turn to drug abuse as a coping mechanism, which then results in victims further utilizing government welfare programs not only in the form of financial or housing support, but also in the form of government supported health insurance, such as

Medicaid, and rehabilitation programs (CDC, 2003). As most everyone pays taxes, some of which support government-subsidized welfare programs, domestic violence is demonstrated to be a vast issue affecting the entire populace economically, whether directly or indirectly. The economic impact of why continuing IPV research is crucial is addressed here; however, the aforementioned implies there is a social impact as well due to related health consequence of IPV that necessitates further investigation.

The social impact of domestic violence is exemplified in a number of ways, but here we can look at three – mental illness, physical illness, and drug abuse that result from domestic violence situation and impact the victim socially. Victims of domestic violence make more visits to health care providers over their lifetimes, more hospital stays with longer durations of stay, and are at a higher risk for a number of health issues (reproductive, physical, and mental) than non-victims (Black et al, 2011). Furthermore, victims are more likely to exhibit biological responses and high-risk coping behaviors, such as drug or alcohol abuse, in response to chronic stress associated with the experience of being a victim (Black et al, 2011). Research has indicated that these resulting health issues impact a victim's daily life and activities, self-esteem, and overall ability to participate in the surrounding world (Krug et al, 2002; Black et al, 2011).

Many studies have been conducted about domestic violence from a number of viewpoints; however, the subject continues to be studied given the vastness of the topic and the deficits in current research. Literature suggests that stigma can hinder individuals in their help seeking behaviors, which ultimately affects the person's recovery (Perese, 2007). Stigma is defined as signifier of shame associated with a person that can result in discrimination for the associated individual (Perese, 2007). Mass media works to

perpetuate stigma related to sensitive subjects like IPV, mental illness, and sexuality for example (Klin and Lemish, 2008).

The effects of mass media perpetuated stigma are both intentional and unintentional – mass media intentionally reflects public attitudes about stigma related to sensitive subjects through advertising and information campaigns, while unintentionally informing audiences about stigma through entertainment and news (Klin and Lemish, 2008). Essentially, the way mass media presents sensitive subjects, like IPV, sets a frame to the public about how the sensitive subject should be thought of, and ultimately serves as a social learning agent (Bandura, 2002; Chong and Druckman, 2008; Klin and Lemish, 2008). As mass media tends to portray exaggerations, misinformation, and inaccuracies about sensitive subjects, stigma persists, which ultimately leads to distorted public framing of the issue at hand (Klin and Lemish, 2008).

Research has indicated that victims tend to reach out to their social support networks (friends, family, and so on) first when seeking information about their situation and how to exit (Goodkind et al, 2003; Liang et al, 2005). Furthermore, the reaction of the victim's social support network will determine whether or not the victim is adequately able to identify their situation as abusive and whether or not it is a situation that necessitates exit (Goodkind et al, 2003). If the victim's social support network demonstrates a response to the victim's inquiries for information that is indicative of stigma, shame, and downplaying the victim's situation, the victim is 1) less likely to reach out for information and perform knowledge seeking behaviors, and 2) less likely to accurately identify his or her situation as abusive and are therefore more likely to endure the situation by staying in it (Goodkind et al, 2003; Moe, 2007). Gondolf and Fisher

(1988) reason that if victims are able to access a supportive social network and adequate resources (like criminal justice systems and health care), the victims will leave their abusive situations, avoid re-assault, and live productive lives. The reason the aforementioned about victim's information seeking behavior in regards to their social support network is significant is because the response the victim receives from their social support network is a reflection of social learning as a result of how IPV is framed by the media.

Why Twitter?

Micro-blogging services such as Twitter allow users to share content via short, frequent text updates. These text updates are limited to 140 characters in length, and function to disseminate information quickly to large crowds, essentially facilitating rapid spread of information (Archambault et al, 2011; Coursaris et al, 2010; Hansen et al, 2011; Liu et al, 2010; Schmierback and Oeldorf-Hirsch, 2012). Since the posts are shorter in length, Twitter facilitates quick updating, or "tweeting," because it does not require the same investment of thought or time to produce the update as most traditional blogs (Coursaris et al, 2010). Another advantage of Twitter is that it is accessible via mobile communication devices, like smartphones, which further enhances its ease of use and quick updating compared to traditional blogging (Coursaris et al, 2010).

As Twitter has only been around since 2006, it is a relatively new communication medium whose influence on sensitive subjects, like IPV, has not fully been investigated. Twitter is defined as a micro-blog that serves the dual role of being perceived, depending on uses and gratifications, as either a social medium or a news source (Kwak et al, 2010;

Hansen et al, 2011). As a news source, Twitter has the ability to inform agenda setting and framing about subjects like IPV (Chong and Druckman, 2007; Kwak et al, 2010; Russell et al, 2014).

Micro-blogging services are typically grouped under a class of communication called social media; however Twitter is unique in that it shows characteristics of traditional social networking sites and news information sites (Kwak et al, 2010; Hansen et al, 2011). Research has shown that virality, or the ability of a tweet to be retweeted (forwarded) onto other Twitter users, on Twitter is in part determined by the sentiment conveyed in the tweet, or text message, and how an individual is using Twitter, which relates to uses and gratifications theory (Coursaris et al, 2013; Hansen et al, 2011). If Twitter is being used as a news information source, messages negative in sentiment are more likely to be retweeted and express greater virality (Hansen et al, 2011). If Twitter is being used for social networking, messages positive in sentiment are more likely to be retweeted and express greater virality (Hansen et al, 2011).

Twitter has demonstrated explosive growth in the number of individuals using the site over the last several years (Duggan et al, 2015; Lenhart et al, 2010; Coursaris et al, 2010). Twitter has also shown growth among users 18 to 29 years old, which is relevant to this research as people in the aforementioned age group tend to be at higher risk of experiencing IPV than individuals in other age groups (Duggan et al, 2015; World Health Organization, 2010). The expansive growth of Twitter, and in particular among young adults, is one of the main reasons why Twitter was selected for this exploratory research – it's a popular communication channel in general that also happens to have a solid audience of those at greatest risk of experiencing IPV.

Twitter was selected for this exploratory research because of its inherent agenda setting and framing abilities. If, as previously discussed, media is responsible for setting frames and agenda setting in regards to sensitive topics, like IPV, either intentionally (as information campaigns) or unintentionally (as news, for example), and Twitter embodies characteristics of news media (Kwak et al, 2010), then it can be posited that Twitter facilitates framing and agenda setting as well. It can also be posited that if Twitter facilitates framing and agenda setting, then the diffusion of such ideas as presented via framing and agenda setting warrants investigation as well.

There is not much research out there about Twitter as a platform for agenda setting and framing since the it seems most researchers are still concerned with determining whether or not Twitter is a news source or a social networking site (Chang, 2010; Kwak et al, 2010). As more research is starting to consider Twitter a news information source, the theories of agenda setting and framing are becoming more relevant in their relationship to Twitter, which does warrant investigation. The most applicable research to date investigating the relationship between Twitter and agenda setting is a study conducted by Russell et al from 2015.

In the study, Russell et al (2015) consider Twitter a news source and explore the agenda setting power of Twitter as demonstrated by journalists' use of the platform when covering the 2013 U.S. government shutdown. Overall, Russell et al (2015) found that online journalists tend to tweet more frequently than traditional journalists, as well as that journalists tend to use Twitter to promote their own work or to share articles by their colleagues. The findings from the study imply that agenda setting is performed on Twitter by the news articles the journalists shared (Russell et al, 2015). However, agenda

setting on Twitter was only looked at it in regards to the 2013 U.S. government shutdown (Russell et al, 2015), and results could be different when looking at a different subject, like IPV.

Other studies have performed Twitter content analysis on the subject of healthcare communication (Denecke et al, 2013; Love et al, 2013; Rui et al, 2013); however none to date have specifically looked at content related to IPV. Rui et al (2013) specifically looked at how healthcare organizations can provide social support via Twitter, but they did not look at whether the support was topic specific, like in regards to cancer or mental illness for example. Kim et al (2013) performed broad Twitter analysis as it can relate to healthcare communication, and provided examples of topics that could be investigated, like psychological support for cancer sufferers and downstream smoking prevention campaign messages; however, they did not link Twitter to any sensitive topic like IPV or mental illness. Kim et al (2013) approached their Twitter research primarily with the intention of providing a “best practices” method for culling Twitter data and analyzing it, the method of which could then be applied to healthcare communication.

Some research has looked at Twitter activity from a uses and gratifications theory perspective (Coursaris et al 2010; Coursaris et al, 2013; Chen 2011; Liu et al, 2013). While studies have found that there are specific motivators for use of Twitter, and that continued use of Twitter is determined by whether or not the desired gratification is received, none of the research explicitly ties the uses and gratifications to specific subjects like IPV, cancer, or mental illness (Coursaris et al 2010; Coursaris et al, 2013; Chen 2011; Liu et al, 2013). Results from uses and gratifications research on Twitter have been mixed.

Two studies from 2010 – one from Liu et al, and the other from Chen – approached uses and gratifications research on Twitter from two slightly different perspectives. While both studies were interested in finding out motivation behind Twitter use, they approached the research from slightly different perspectives and ultimately found slightly conflicting results. Liu et al (2010) found that Twitter fulfills individuals' needs for information sharing, medium appeal, convenience, and self-documentation, and they noted the relationship between the needs. However, Liu et al (2010) also noted that social gratification was not indicated as being a motivator for Twitter due to the fact that Twitter was designed primarily as a news information seeking and sharing source, and therefore features supporting and enhancing social interaction are either not included in the platform or are not prominent features, and because of this Twitter does not meet the needs of an individual driven to a medium for purposes of social interaction. Chen (2011) approached uses and gratifications research on Twitter from a slightly different perspective from Liu et al, and actually found that since Twitter fosters computer-mediated relationships, and that the basic human need to connect with others (i.e. social interaction motivations) was strong enough to gratify the use of Twitter.

Coursaris et al (2010, 2013) took a completely different approach from Liu et al and Chen by performing research on Twitter combining uses and gratifications theory and diffusion of innovation theory. The reason Coursaris et al (2010, 2013) decided to look at Twitter usage in regards to uses and gratifications and diffusion of innovation theory is because they were primarily concerned with explaining why users stop, or discontinue, using Twitter. The studies posit that diffusion of innovation theory explains how Twitter use is adopted (how innovation is first perceived and then adopted), but the

theory fails to provide reasoning for why users of Twitter might eventually reject or discontinue using the micro-blogging site (Coursaris et al 2010, 2013). Therefore, the studies also investigate Twitter usage in regards to uses and gratifications theory to better explain why people use Twitter (what motivates the individual to use), but to also explain why people stop using Twitter (what perceived gratifications are not being met which leads to discontinuance) (Coursaris et al 2010, 2013).

Overall, Coursaris et al (2013) found two types of users utilizing Twitter – inactive (those who have either fully or mostly discontinued use of Twitter) and active (those who continue to use Twitter on a daily basis) – and that initial motivation to use Twitter among both types of users was motivated by the same uses and gratifications constructs of seeking relaxation or information. Where the two types of users differed was in their reasoning for either continuing or discontinuing use of Twitter, which was based on technology characteristics as a construct of diffusion of innovation theory. Active users continued using Twitter because of its relative advantage, visibility, and perceived popularity in the workplace environment – indicating that leisurely use of Twitter is not enough to sustain long-term use of the platform (Coursaris et al, 2013). Furthermore, findings from the study also indicate that, while social needs (a construct of uses and gratifications theory) might drive initial use of Twitter, social needs are ultimately better met through other social media and if it is the sole reason for Twitter usage it will result in discontinuance (Coursaris et al, 2013).

As demonstrated by current literature, there is a relationship between Twitter and the theories of uses and gratifications, agenda setting, and framing. Twitter will be employed by an individual depending either on 1) what the user's motivation to

communicate is, or 2) what the user intends to achieve by communicating, their end goal, both of which are exemplifications of uses and gratifications theory. Furthermore, the message issued through Twitter about IPV first acts as agenda setting by bringing the topic to the public's attention, and then, second, the content of the message acts as framing by informing people how to think about the subject (IPV in this instance) presented. The background and function to uses and gratifications, agenda setting, and framing theories are more discussed in greater detail in the theoretical background section.

Theoretical Background

The Theoretical Background chapter will present an in-depth review of each of the theories being applied in this exploratory research: uses and gratifications, agenda setting, and framing. This chapter will not only explain the premise of each theory, but also the value each theory will add to this exploratory research in helping to explicate the results. Lastly, this chapter will identify how the theories relate to the relationship between IPV and Twitter.

The goal of this research is to help explain the relationship between Twitter and conversations about sensitive subjects, like IPV. In order to define the relationship, I looked at how Twitter was being used to conduct conversations about IPV, and then I looked at what the conversations about IPV on Twitter were saying. Essentially, to identify how Twitter was being used was to identify an individual's motivation to use Twitter over other media and the end goal one intended to achieve by using Twitter, which is exemplified by uses and gratifications theory. To explain what the conversations about IPV on Twitter were saying, agenda setting and framing theories were used since they are responsible not only for informing the public of what to think about (agenda setting) but also how to think about it (framing). The aforementioned theories – uses and gratifications, agenda setting, and framing – are talked about in greater detail below.

Uses and Gratifications Theory

The concept of uses and gratifications theory is so broad and vast, that whole analysis papers have been written just about the theory itself with no experimental application being investigated (Ruggerio, 2000). For that matter, there is even debate about whether uses and gratifications is a theory, an approach, or a framework (Katz, Blumler, and Gurevitch, 1973; Ruggerio, 2000). For purposes within this paper, uses and gratifications theory will be defined according to the definition provided by Katz, Blumler, and Gurevitch (1973).

According to Katz, Blumler, and Gurevitch (1973) uses and gratifications theory is concerned with explaining why people opt to use certain media (i.e. the motivation behind using one media form over another), and the perceived benefits/rewards (or gratifications) that a person receives from using the selected media. In simpler terms, uses and gratifications theory works to explain the social and psychological needs that motivate an active individual to consume various media to satisfy these needs (Coursaris et al, 2013). While the general structure to uses and gratifications has been established, the interesting thing about this theory is that each body of research regarding the theory yields its own classification scheme of audience functions, which is due in part to different cultures where the research is conducted and the various levels of data being investigated (i.e. content or media channel) (Katz, Blumler, and Gurevitch, 1973; Ruggerio, 2000).

It is discussed that whenever a new technology debuts in the mass communication arena, uses and gratifications theory can be applied to better explain the motivations to use the new technology (Elliott and Rosenberg, 1987; Liu et al, 2010). It has been further argued that uses and gratifications theory could also explain continued use of already

selected media (Stafford et al, 2004; Liu et al, 2010). However, there is debate among scholars about the ability of uses and gratifications to effectively explain continued use of already existing communication technology (Coursaris et al, 2010, 2013). Therefore, some academics have supplemented uses and gratifications theory along with diffusion of innovation, or other theories, to better explain why users continue to use a particular communication tool and why they choose to use the selected tool over other available media (Coursaris et al, 2013).

Uses and gratifications is applicable to this exploratory research because it helps explain why an individual would choose to communicate about a sensitive subject, like IPV, via one medium over another. So in this study, uses and gratifications is explaining why an individual is communicating about IPV via Twitter rather than other media channels, like Facebook. Uses and gratifications theory assumes that users of a particular channel are goal-directed in behavior and aware of their needs (Liu et al, 2010), so by using Twitter to communicate about IPV it is implicit that an individual believes their communication needs about IPV will be better met by using Twitter over other media. It can be posited that the social-psychological need to communicate about a particular subject, like IPV, generates expectations on a user's behalf that certain media, like Twitter, will fulfill their need better than others (Liu et al, 2010). The content of the messages on Twitter about IPV hint at the possible needs an individual expects to fulfill by using Twitter; however, the content of the messages also indicate the agenda setting function of a medium, as well as the framing ability.

Agenda Setting Theory

Agenda setting deals with the concept of telling people what to think. A journalism theory by origin, agenda setting essentially describes the ability of journalists to focus the public's attention on particular issues when they determine what stories to cover (McCombs and Shaw, 1993). Agenda setting influences the public by telling them what to think about, and, sometimes, how to think about it (however, the latter is an element of framing) (McCombs and Shaw, 1993; Russell et al, 2015). Specifically, agenda setting impacts the public's understanding of the relationships between different issues and characteristics of the issues (Russell et al, 2015). Furthermore, agenda setting not only informs an audience about the rise of a particular issue, but also how much importance to attach to the particular issue as a result of how much information is included in the related message and the prominence of the message in media (McCombs and Shaw, 1993).

Agenda setting can be influenced by organizations providing information, which is essentially known as agenda building (Russell et al, 2015). Likewise, previous research has shown that agenda setting is also influenced by news organizations themselves (McCombs, 2014). What happens in the situation of agenda building shaping agenda setting is that prestigious news journalists and organizations have been shown to affect the news judgment of other journalists and organizations (Roberts and McCombs, 1994).

In terms of sensitive subjects, agenda setting is beneficial because it brings often overlooked or ignored societal issues to the attention of the populace. However, people will only entertain the agenda presented as long as there is an available solution (Drumwright and Duchicela, 2010). In addition to supporting the presentation of a viable

solution when addressing social issues via agenda setting, John Kingdon (2001) further posits that a social issue or problem only ends up on the agenda during a period called “open policy window,” which means that there has to be an opportunity for the issue/problem to be brought up for discussion. The hypothetical window opens for one of two reasons: either the political stream changes, which allows advocates to start pushing their scheme, or the problem itself is a pressing issue and on the verge of crisis, which opens the opportunity for advocates to offer their solutions (Kingdon, 2001).

While agenda setting has not been specifically investigated in regards to IPV conversations on Twitter before now, the theory has been applied when investigating conversations about other sensitive subjects via mass media. For example, Sayre et al (2010) investigated the agenda setting properties of various media, including social media and online news, in regards to California’s Proposition 8, which was an initiative about adding an amendment to the California Constitution that would make same-sex marriage illegal in California. Ultimately, Sayre et al (2010) found social media, specifically YouTube, was being utilized as a platform for people to address opinions they felt were not being adequately represented by mainstream media.

The aforementioned finding by Sayre et al (2010) indicates that media with similar characteristics to YouTube (social, Internet based, a platform for expression and personal storytelling) can possibly exhibit the same kind of agenda setting properties in regards to other sensitive subjects, like IPV for example, by bringing underrepresented topics to the public’s attention. Twitter does share some of the same characteristics that YouTube does (Internet based, a platform for expression and personal storytelling, social), and therefore also demonstrates the same ability to set agenda either intentionally

or unintentionally. Furthermore, Twitter's agenda setting effects are implicit when Twitter is viewed or employed as a news source.

Framing Theory

According to Chong and Druckman (2007), framing indicates the process through which people develop a particular conceptualization of an issue or reorient their mindset about an issue. Framing can occur when there are alterations in the presentation of an issue or an event creates change of opinion (Chong and Druckman, 2007). A frame helps to provide meaning to everyday experiences and promotes particular definition and interpretation to events and issues (Chong and Druckman, 2007).

Interestingly, framing is related to agenda setting. While agenda setting tells us what issues to think about, framing is concerned with telling us how to think about the issues set by the agenda. Unlike agenda setting, framing deals with the particular way issues are presented (Scheufele and Tewksbury, 2007). At the same time it has been argued that framing is an extension of agenda setting in that framing functions to make parts of an issue more accessible through different modes of presentation, which can therefore aid in changing an individual's perception of an issue (McCombs, 2013; Schuefele and Tewksbury, 2007).

It should be noted that framing could act as both a macro-level and a micro-level communication construct (Scheufele and Tewksbury, 2007). From a macro-level perspective, journalists and other mass media communicators use framing as an integral tool for reducing the complexity of an issue being addressed (Scheufele and Tewksbury, 2007). Framing works to simplify complex issues and make them more accessible by

playing off an audience's existing cognitive schemas (Scheufele and Tewksbury, 2007). In regards to this study, a complex issue can be a sensitive subject, like IPV, and could be, theoretically, framed in such a way so as to make the topic more accessible. From a micro-level perspective, framing demonstrates how people form impressions about issues based on presented information and features regarding the issue (Sheufele and Tewksbury, 2007).

One of the negative aspects to framing is that it can be responsible for propagating inaccurate news by helping to shape opinions through heuristics rather than direct information (Chong and Druckman, 2007). Additionally, it has been found that frames can be constructed around exaggerations and falsehoods that work on the public's prejudices and uncertainties (Chong and Druckman, 2007). Research from Klin and Lemish (2008) further support how mass media framing of sensitive issues can perpetuate misinformation and stigma. In fact, media framing is considered to be primarily responsible for enduring stigma and negative attitudes toward individuals suffering mental disorders, which, while not IPV, is still a very sensitive subject to discuss (Klin and Lemish, 2008). Despite how mass media framing about sensitive issues can contribute to persistent negative attitudes and misinformation, mass media framing can also be responsible for promoting information accuracy and combating stigma through social campaigns that address misinformation and prejudices (Klim and Lemish, 2008).

Chong and Druckman (2007) found that framing is influential when an individual is either short on attention span to give to a matter or with little knowledge of a matter, in which case the frame acts as a heuristic for future reference. However, there are a few mitigating factors to framing effects. The aforementioned finding is supported by later

research from Druckman and McDermott (2008), who found that framing effects would be less likely to occur in the following instances: if the individual receiving the message was male, or if the individual has a high cognitive ability or is able to briefly think through their decision. Furthermore, the influence of framing tends to dissipate when an individual making a decision provides a compelling reason for their decision (Druckman and McDermott, 2008).

So, it can be posited that if Twitter is being viewed as a news source with agenda setting characteristics, then it can be speculated that Twitter then acts as a social learning agent via its ability to frame sensitive issues once they have been brought to attention. Twitter sets the agenda by being the platform through which the topic of IPV is initially brought up, and then the content of the message on Twitter is the framing of the topic (IPV), which then acts as social learning by helping to inform the public of how and what to think of the topic. The public learns what to think about IPV from how it is framed in media like Twitter. If framing works to simplify complex issues and make them more accessible, then the implicit relationship here is that Twitter can help make the issue of IPV more accessible by employing frames in messages that work to make the topic more approachable and diffuse stigma.

Methods

The background to the overall design of the study and factors influencing the design of the study are discussed in the Methods chapter. The Methods chapter endeavors to provide detailed information about each step of the study's process, as well as insight into why the study was performed in the manner presented. Furthermore, the Methods chapter provide an overview of the analytics tool SAS Text Miner.

This exploratory research was designed with the intention to see what conversation levels, if any, existed on Twitter about IPV, and then to analyze and categorize the conversations found. The results of the research would help answer the research questions of how Twitter is being used to talk about IPV, the content of the tweets found, and how Twitter might inform possible future healthcare communication strategies. The research required several distinct steps to be generated to ensure completion: first to figure out what data to pull from the Twitter API, then how to pull the data, and ultimately how to analyze the data. Below is an in-depth explanation of the methods used in this research.

The first step in the process was to figure out exactly what kind of data needed to be pulled from Twitter, and then determine how this would be pulled. Working with SAS for guidance, it was determined that SAS could pull a data sample for the project against a provided list of subject relevant terms, or keywords. SAS had a direct Twitter API plug-in that they could use to access Twitter conversations, and pull the tweets into an exportable Excel file for analysis.

The second step in the process was to determine the relevant term or terms (keywords) to send over to SAS to search for in Twitter. After some internal discussion, it was determined that since this was an initial attempt to see what conversations were out there about domestic violence, it would be best to use just the single, blanket term “domestic violence” for searching Twitter so as to ensure a broad enough data set for analysis would be procured, if the term existed at all on Twitter. While there are other terms related to the subject of domestic violence, we did not want such a large data set that would convolute the method and initial findings, in addition to hindering processing time in SAS Text Miner. The keyword term was provided to SAS, who then plugged the term into an algorithm searching for the conversations containing the term in the Twitter API. The algorithm used is proprietary to SAS as part of their SAS Crawlers tool, which is a web crawler that searches websites and social media. (Further iterations of the experiment could take advantage of a more extensive keyword list to ultimately provide for a larger data set. A keyword list of IPV related terms that SAS can use in their search algorithm to pull a relevant data set for analysis can be created using a keyword generator. A keyword generator is a tool typically used in SEM and other real-time bidding advertising efforts that creates massive lists of related terms and words associated with a base phrase or word.)

Once the keyword was provided to SAS, SAS then performed data collection over a period of three days from March 10, 2014 through March 12, 2014. The raw data sample was aggregated into an Excel file. The Excel file was initially scrubbed, or cleaned up, to ensure data consistency with language. Since the term “domestic

violence” is in English, it was decided to focus on only English language tweets that were gathered. Furthermore, messages not receiving any social engagement in the form of followers or re-tweets were removed from analysis, as the focus of the study is to look at socially influential messages.

Once the Excel file had been scrubbed to only contain English language tweets, it was then reformatted into a CSV file type for evaluation in the text analysis tool SAS Text Miner. The cleaned Excel file contained 1,452 English language tweets containing the term “domestic violence” from the three days of data aggregation to be processed in SAS Text Miner.

SAS Text Miner is a sophisticated text analysis software tool that can automate content analysis processing across large text data sets based on sets of rules, or inputs, the researcher specifies. The software utilizes advanced algorithms to quickly read and analyze large quantities of text data. Rules entered into SAS Text Miner help the software recognize conversation themes and categorize them accordingly. Themes found among the Twitter data are recognized as nodes by the software in visual analysis. Since SAS is historically statistical modeling software, visual representations of the themes appear as nodes, which are taken from network analysis where the size and location of the node in relation to other nodes indicate frequency of the theme and the theme’s relevance to other themes.

Once the raw Twitter data was loaded into SAS Text Miner, initial analysis against sentiment and user topics was run. SAS Text Miner upon initial data analysis suggests what it finds to be conversation themes and aggregated topics among the data, and will display the results visually in a format analogous to network analysis

with a node map. Network analysis visually demonstrates the relationships between various data points in the raw data set, with each point represented as a node. The size of a node indicates frequency of the data point in reference to other data points, or nodes.

Data clusters were generated around the term “domestic violence,” selecting it as the base layer of analysis and layering additional words relating to the topic as identified by the CDC IPV Factsheet and WHO World Report on Violence and Health (Ch. 4). Clusters were then aggregated at higher level of organization into what can be called themes, or discourse that shared a common subject or central idea around the text of “domestic violence.” At this point in the process, the automated data processing via SAS Text Miner was completed, and further interpretation of the data results provided by SAS Text Miner was open to the researcher.

Figures 1 and 2 show visual representations of the data sample clusters. Figure 1 shows the frequency of each tweet by theme around the term “domestic violence” compared to one another. Frequency is important because it shows the traction of a particular topic via the number of tweets and re-tweets, indicating social engagement among individuals. Figure 2 displays a data cluster node map showing the relationship between different tweets by theme around term “domestic violence.”

Results

The Results chapter discusses at length the findings from the study. Additionally, the Results chapter provides insight into how the findings relate to the theories motivating the research. Lastly, this chapter applies the findings to the research questions driving the research.

To answer the first research question, the current sample indicates that Twitter is being used primarily as a news source in regards to conversations about domestic violence. This means that sampled tweets tended to display language indicative of downstream social marketing messages and more macro-level conversations (i.e. more generally directed rather than personally directed or of personal disclosure). This was not to say that the sample did not include tweets of personal disclosure; disclosure tweets just appeared significantly less frequently in the sample than macro-level tweets.

The content of the tweets analyzed suggests that conversation is in relation to current events on a global scale and tends to be more macro-level in perspective. To answer the second research question, three main themes presented in the conversation: the event incident, civic/legal implications, and mass media coverage. Further description of each theme is discussed below.

Conversations about the event incident were about people recounting of a specific experience or incident with domestic violence. These conversations tended to be personal in nature, usually oriented from an actual victim's perspective talking about an experience that had just occurred. Other conversations grouped into this

theme were survivors remembering an incident or experience with domestic violence. Remembrance tweets, or tweets acknowledging the past in terms of an anniversary, indicated that the author was a survivor of domestic violence. Remembrance tweets frequently used language like, “One year ago today I left...”

Civic/legal implications themed tweets tended to talk about current political events or news stories related to or about domestic violence. For example, at the time of the sample aggregation, there was a law being passed in the U.K. called “Eve’s Law,” which granted victim’s of domestic violence the right not to disclose their residence address when testifying in the U.K. court system (it is required by law that all witnesses disclose their residence address when testifying; however, in cases of domestic violence, that could create an unsafe situation for victims/survivors). There were also tweets issuing reminders about upcoming events related either to IPV or sexual assault awareness groups or organizations. The civic/legal implications theme was the most distinctive topic cluster by a frequency of 2-to-1 compared to the other two topic themes (event incident and mass media coverage).

Mass media coverage conversations were about domestic violence in the media, covering everything from celebrity incidences of domestic violence (like Chris Brown and Rhianna) to television shows and songs about the subject domestic violence to organizations trying to bring awareness to domestic violence (like Avon’s No More campaign). The mass media theme demonstrated a stereotypical view of domestic violence in that the act is always men against women. This perspective is contrary to conversations in the event incident and legal implication themes; these themes acknowledged that domestic violence was one person enacting an abusive act

against another person, regardless of whether the relationship was heterosexual or homosexual. Additionally, the event incident and civic/legal implication themes also contained conversations about ethnic minority groups, as well as child and elderly abuse; the mass media theme did not.

The biggest distinction of the mass media theme from the other two themes is that it was very stereotypical – it only talked about heterosexual relationships with violence being enacted by the man against the women, and there was no mention of under represented groups (minority ethnic or racial groups, homosexuals, children or elderly). Furthermore, the mass media theme contained some things that the other two themes did not – shaming language, victim blaming, and bad jokes. Examples of shaming language that presented in the theme were “slut shaming,” or trying to make the woman feel guilty or inferior about behaviors or circumstances. Victim blaming language went a step further from slut shaming in that it indicated the victim was responsible for what happened to them or that they deserved the abuse. Bad jokes were distasteful opinions, jokes, or language expressed about domestic violence that were intended to be disrespectful under the guise of humor.

What is particularly interesting about the content of the tweets is that they are immediate in nature and reflect current events. So at the time when the sample was pulled there was litigation going on in the U.K. surrounding “Eve’s Law.” Also, while March does not have a direct awareness cause related to IPV, the following month April is Sexual Assault Awareness Month. Since the sample for this research was pulled mid-month in March, some of the tweets were messages released by organizations in preparation for the media onslaught coming in April.

The data sample for the study in regards to the third research question did not provide clear insights into potential intervention strategies given the variety of conversation themes found within the current sample. As many intervention campaigns tend to be macro-level in nature, Twitter could be perceived as an effective medium to communicate such strategies since the sample indicates that communication on Twitter tends to be more macro-level. Furthermore, Twitter could be seen as a legitimate source of information for individuals seeking guidance about intervention (victims, bystanders, social support network of victim, and so on) given the macro-level civic/legal implications tweets and how Twitter is perceived to be a news source.

What the content of this sample does indicate for insights into potential intervention strategies is that healthcare communication needs to work to combat the negative framing of IPV associated with the mass media theme. As the mass media theme on Twitter primarily framed IPV as a stigmatizing issue with shaming language, victim blaming, and an overall distasteful tone toward the topic of IPV, it shows that Twitter has some culpability in the continuance of negative public perspective and stereotypical ideas of IPV, which ultimately contributes to making IPV an unapproachable topic to discuss. As previous research has shown that one of the primary reasons why victims are hindered in their information seeking behaviors and do not reach out for help is the fear of negative reactions from others (Goodkind et al, 2003; Liang et al, 2005), the mass media themed tweets on Twitter only serve to reinforce the likelihood people will have negative reactions to the subject of IPV because of how IPV is negatively framed on Twitter. This indicates that for potential

intervention strategies to be effective, there first has to be movement to address the negative framing of IPV overall to diffuse stigma and make IPV a more approachable subject so that likelihood of a victim receiving negative reactions from others will decrease. Just as Twitter demonstrated its ability for negative framing of IPV through the mass media theme, it also showed its ability for positive framing of IPV through the civic/legal implications theme, which indicates that Twitter can be used as an agent to make IPV more approachable through concerted efforts to ensure tweets about IPV are positively framed.

Discussion

The Discussion chapter provides extensive analysis of what the results represent. The results of the study are also more firmly tied to the theories presented, and further explication is provided in the Discussion chapter about the importance of the relationship between the results, the theories, Twitter, and IPV. Lastly, the Discussion chapter addresses limitations of the study.

The purpose of this exploratory research was to see how Twitter was being used to communicate about IPV, as well as what the content of relevant tweets was and what the content indicated in terms of insights into potential intervention strategies. The nature of how Twitter is being used to communicate certain types of messages, like sensitive subject messages in this study, can indicate the motivation to use Twitter over other media based on uses and gratifications theory. Furthermore, the content of sensitive subject messages on Twitter can also hint at the agenda setting and framing abilities of the channel.

The mere fact that there is conversation about IPV on Twitter shows that Twitter does act as an agenda setting platform by bringing IPV to the public spotlight. Regardless of the content of the tweet about IPV (meaning, regardless of the theme category the tweet fell under), the tweet still acted as an agent for getting people to think about IPV purely just because IPV was the subject presented in the tweet. While agenda setting via Twitter shows it can inform the public to think about IPV, framing is ultimately responsible for informing the public how to think about IPV.

What is particularly interesting about agenda setting in regards to IPV conversations on Twitter is that the agenda was set by the conversations either intentionally or unintentionally. Tweets that worked to set agendas intentionally tended to fall under the civic/legal implications theme in the form of tweets supporting information campaigns, like how organizations were sending out tweets in preparation for April's Sexual Assault Awareness Month. Unintentional agenda setting tweets tended to be more entertainment or news oriented, and therefore fell under two different themes – either the mass media communication theme or the civic/legal implications theme. As previously mentioned, a lot of tweets falling within the mass media communication theme portrayed negative messages about IPV that could be stigmatizing. Regardless of whether it was the intention or not of the tweeter, the negative tweets within the mass media communication theme unintentionally set the agenda in regards to IPV.

Framing of IPV varied greatly between the three different themes identified in this sample. The civic/legal implications theme framed IPV in a more objective, factual light and helped set the agenda for discussion about legal solutions to the issue. The incident theme framed IPV as a more universal issue that was non-discriminatory in that the conversations/tweets included references of IPV in relation to homosexual relationships and minority populations (like where the woman might attack the man or her partner). The mass media theme framed IPV in a stereotypical manner as something that only happens in heterosexual relationships where the man is attacking the woman. Additionally, the mass media theme framed IPV in a way that neither of

the other two themes did in that framed IPV in a shameful and stigmatizing manner by including distasteful jokes, shaming language, and victim blaming.

As previously stated, the framing effects of media like Twitter are responsible for perpetuating stigma and prejudice among the public about sensitive subjects, like IPV. It should be noted that framing within the study sample conveyed one of two things. The civic/legal implications and event incident themes framed messages about IPV in such a way as to provide accurate information about the subject and combat negative attitudes associated with IPV. However, the mass media coverage theme framed messages about IPV in stereotypical constraints that not only ignored underrepresented populations (for example minorities and homosexual couples), but also promulgated negative attitudes and stigma associated with IPV through distasteful language and gross jokes about the subject.

The reason it is important to acknowledge the differences in how IPV is framed between the different themes is that framing informs the public how to think about particular subject. As research has shown, media is in part responsible for enduring negative attitudes among the public toward sensitive subjects, which can eventually hinder people involved in IPV from seeking help for or information about IPV (Klin and Lemish, 2008; Perese, 2007). This means that the messages from the mass media theme are of particular concern for future research as the mass media theme exhibited negative framing of IPV. Since one of the goals of this study was to see what insights the content of the sampled tweets could provide to future intervention strategies, the content of the mass media theme in particular indicates that messages/tweets within this theme not only sustain current negative public attitudes about IPV, but that the

trickle down effect of these messages is that people involved in IPV will not seek out help.

It was originally thought that the current sample would indicate that Twitter is being used primarily for personal disclosure about experience with IPV; however, that was not the case. What the content of the current sample indicates is that Twitter is being used to communicate primarily macro-level messages that are civic and/or legal in nature since messages from the civic/legal implications theme appeared twice as frequently as messages from either of the other two themes. Furthermore, the content of the tweets set forth a unique frame about IPV depending on the theme category of the tweet.

The reason it was originally thought that sample might have been used primarily for personal disclosure was because it was posited that, aside from satisfying social needs, Twitter would satisfy a need for anonymity among persons involved in IPV. Research has shown that anonymity increases the likelihood persons involved in IPV will disclose personal experiences with IPV (Moe, 2007). From a uses and gratifications perspective, it could be theorized that Twitter doesn't provide a satisfactory sense of anonymity for person to encourage more disclosure of IPV experiences,

As the majority of tweets in the sample fell under the civic/legal implications theme, it appears as though communication about IPV via Twitter is being motivated by the perception that Twitter is a news source rather than a medium to satisfy personal social needs. The social motivation to use Twitter for IPV discussion would have been substantiated if the sample had included a significant quantity of tweets

about personal disclosure from persons involved in IPV; however, tweets of this nature were uncommon in the sample and not the majority. Based on the aforementioned it can be posited from a uses and gratifications perspective that Twitter use is not motivated by social needs, and therefore does not suffice as a medium for personal disclosure about experiences with IPV. Given the content of the majority of the tweets in the sample, it can be speculated that Twitter usage to conduct conversations about IPV satisfies an information need, but it should be noted that continued use (gratifications) could be based more on physical attributes to Twitter rather than intangible information needs. For example, continued use of Twitter could be encouraged not only by the fact that the initial information need is met, but also by the fact that Twitter might be perceivably easier to use than other media given its short character limit and mobile platform access.

As a result of how Twitter is being primarily used in regards to IPV conversations as a news source, the content of tweets display elements of agenda setting and framing. Many individuals and organizations tweeting about IPV and related awareness events or activities were effectively setting the agenda via Twitter by bringing the issue of IPV to top of mind consideration (although as to how long awareness of IPV was considered is something else entirely). Additionally, the tweets informed the public of how to think about IPV based on the framing of the message.

Limitations

There are some limitations to this exploratory research. First, the sample for the research was collected over a relatively short time frame of a few days. With data

gathered over such a short timeframe, the data itself that comprised the sample was a small snippet of total Twitter activity once it had been cleaned up to display only English language tweets that had received a re-tweet or a follower. If the data had been gathered over a longer period of time, the sample could have been much larger which would give additional validity to the study. Furthermore, a larger data set could have made additional theories applicable outside of what was investigated in this study.

Diffusion of innovation theory was considered for a moment as a way to possibly to explain 1) how conversations about IPV could be seen as an innovation, and 2) the movement of the innovation (the IPV conversations) throughout a social platform. However, limitations of the sample size and length of collection period first meant that there was not enough data to show movement of the innovation across a network or over a period of time. As a result, diffusion of innovation is tangential to this exploratory research and is not warranted in direct application given the limitations of the data. If future research endeavors work with a larger data set collected over a longer time frame, diffusion of innovation could be a worthy theory to investigate in regards to Twitter and sensitive subject conversations.

Another limitation of this research is the fact that it was very exploratory. This was the first step within the scientific method, and therefore future research should look to develop unique theories in regards to the identified relationship between Twitter and sensitive subject communication. Additionally, should the constraints of the data set change (i.e. longer time frame, more data, different method), this content analysis could be repeated and show different results.

Furthermore, as Twitter is a reactionary medium reflecting current events, the results for any future research could differ not because of the method as much as that the data will simply contain different events in regards to IPV. So, for example, this research happened to grab a sample containing conversation about “Eve’s Law,” but since then there have been current events with domestic violence being perpetrated by NFL players. If a sample were to be grabbed today, there would most likely not be any mention of “Eve’s Law,” and instead there might be conversations about how the NFL is stepping up its social marketing initiatives about IPV in response to the Ray Rice domestic violence incident that made news headlines worldwide.

It should also be noted that the findings of this exploratory research are culturally dependent. Per Scheufele and Tewksbury (2007), framing is a process that is constructed of and restricted by culture. This means that the ultimate interpretation of a message, while influenced by framing, is really dependent on the culture of an individual. If this exact same research were conducted in a different culture, different conversation themes about IPV might have presented.

Implications & Future Research

Additionally analysis of the results and their applicability to real life is provided in the Implications & Future Research chapter. The Implications & Future Research chapter also addresses what the results indicate for future research endeavors related to IPV and Twitter. Furthermore, this chapter discusses managerial implications based on the findings from this study.

There are a few key takeaways from this exploratory research. First, this study demonstrates that Twitter is being used to conduct more macro-level conversations about IPV than micro-level conversations. Also, this study indicates that people are using Twitter primarily as a news source in regards to IPV. Furthermore, all three conversation themes showed effects of agenda setting and employed unique framing to influence others as to how they should think about IPV. Also, while this study was in regards to IPV, a similar approach could be used in regards to other sensitive subjects, like mental disorders.

Future research should look to expand on this study first by collecting a larger data set either over a longer period time or by adding in additional keywords for the API to pull against (multiple key terms rather than a single term). Collecting data over a longer period of time will allow for more tweets to be aggregated over time. Adding in multiple keywords to pull data against increases the number of tweets that can be pulled from Twitter.

An analogy to help: consider the timeframe of data being pulled as a pond, and the keyword is a fishing lure in the pond. By increasing the timeframe of data being

gathered, you are going from a pond to a lake with the area you have to pull relevant data from. By increasing the number of keywords used, you are increasing the number of lures in the pond, thereby increasing the chances a relevant tweet will be grabbed. It is recommended that future research do both – increase the timeframe for data collection and the number of keywords used.

By collecting a larger sample, future research endeavors in this realm could then investigate additional theories that were not applicable given the current sample size. Also, a larger sample collected over a longer period of time could allow for analysis between different time periods within the sample. For example, if the data is collected over a year, analysis could compare conversation themes from March with conversation themes in December to see if the conversations stay the same or change, and if there is a discernable reason why the conversation changed.

With a larger sample, future research should look at laying in sentiment analysis in addition to the content analysis performed by SAS Text Miner. Having the combined content and sentiment analysis of a sample could provide greater insight into how Twitter is being used to communicate about sensitive subjects, as well as the relationship between sentiment and content on Twitter.

Media perpetuating negative attitudes toward domestic violence shows that the framing of IPV is integral to social learning. If an organization hopes to diffuse stigma around sensitive subjects like IPV, they should focus on making their messages frame IPV in such a way so as to combat the negative attitudes that persist toward IPV and promote positive social learning. It is speculated that through positive social

learning, stigma associated with IPV can slowly be diffused over time; however, this would require a significantly longer study than what was performed for this thesis.

I had a couple of thoughts about future research related to this study as I was going through the data analysis. First, since disclosure was not the primary type of conversation found on Twitter in regards to IPV, could it be that one of the reasons persons involved in IPV do not disclose via Twitter is because Twitter does have some characteristics of social media? Like, if the victim has followers on Twitter and is not anonymous, and one of their followers is the perpetrator, could that familiar relationship hinder disclosure via Twitter? This would be interesting for future research as it could provide more insight into the uses and gratifications behind the use for Twitter over other media when conducting conversations about IPV or other sensitive subjects.

The other thought I had about future research stemming from this study was that it would be informative to perform further analysis on this current sample or a new sample in the future to see if the mass media communication theme received more re-tweets and followings than the other themes. The reason this is significant is because if organizations are trying to combat negatively framed messages about IPV by issuing more factual tweets, how many tweets would they have to issue to meet or exceed the reach of the negative mass media communication tweets? The mass media communication themed tweets could be from sites and individuals that have a large following on Twitter, and the sheer volume of followers those Twitter feeds receive could be hard to match with positive attitude messages. Ultimately, this idea is about

investigating the virality of tweets related to sensitive subjects, and could be useful for healthcare communicators to know.

One key implication from this research is that it reaffirms the idea that organizations and non-profits involved in IPV outreach need to focus on controlling the narrative with their outward facing communication efforts about IPV. This means that by knowing and understanding the agenda setting and framing capabilities of Twitter when communicating about IPV, organizations and non-profits can make their communication efforts that much more effective. By controlling the narrative via agenda setting and framing, organizations and non-profits can help make discussion about IPV more approachable.

Conclusion

This exploratory research endeavored to investigate how Twitter is being used to conduct conversations about IPV, to classify what the content of the conversations is, and to identify any potential intervention insights that could be derived from the conversations. The relationship between Twitter and IPV was of interest to investigate given how communication is becoming increasingly digitally based and because of what a pervasive socio-economic issue IPV continues to be. Additionally, it was thought that insight into the relationship between Twitter and IPV could be of value since the Twitter usage is heavy among the age group that is at risk of experiencing IPV.

Three conversation themes were identified around the term “domestic violence”: civic/legal implications, event incident, and mass media conversations. Ultimately, it was determined that Twitter is primarily being used as a news source in regards to conversations about IPV as there were significantly fewer victim disclosure tweets from the event incident theme than expected. Furthermore, the content of the conversations indicates agenda setting and framing constructs are at play across all three conversation themes identified.

The major limitation to this study is the fact that the data sample is small, collected only over a few days and around a single keyword. Despite this limitation, the data aggregated did provide insight into answering the research questions. The initial insights provided in this study can be used as a foundation for future research investigating the relationship between Twitter and other sensitive subjects.

Appendix

Figure 1 – Data cluster pie chart showing frequency of tweets by theme around term “domestic violence” compared to each other

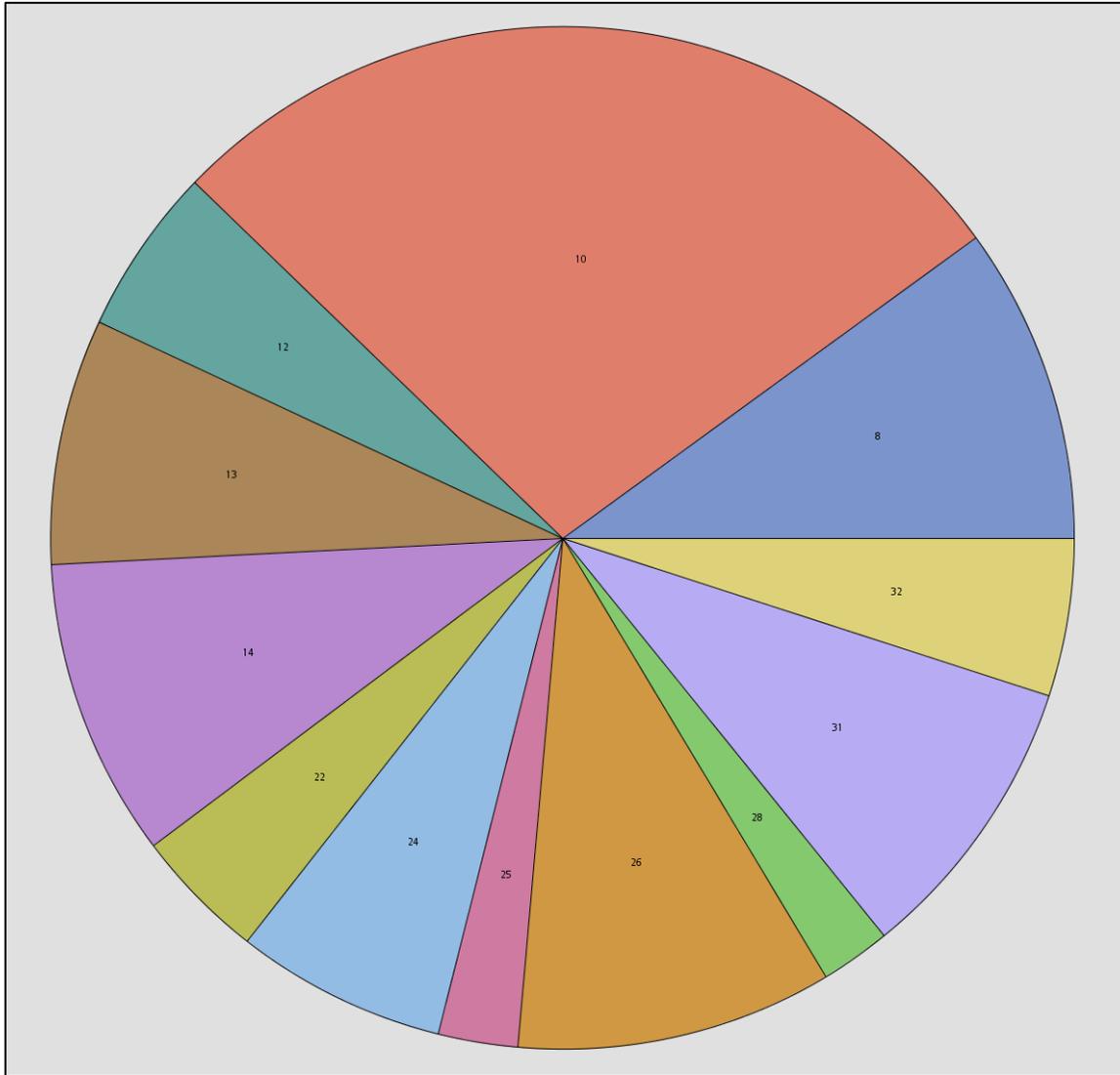
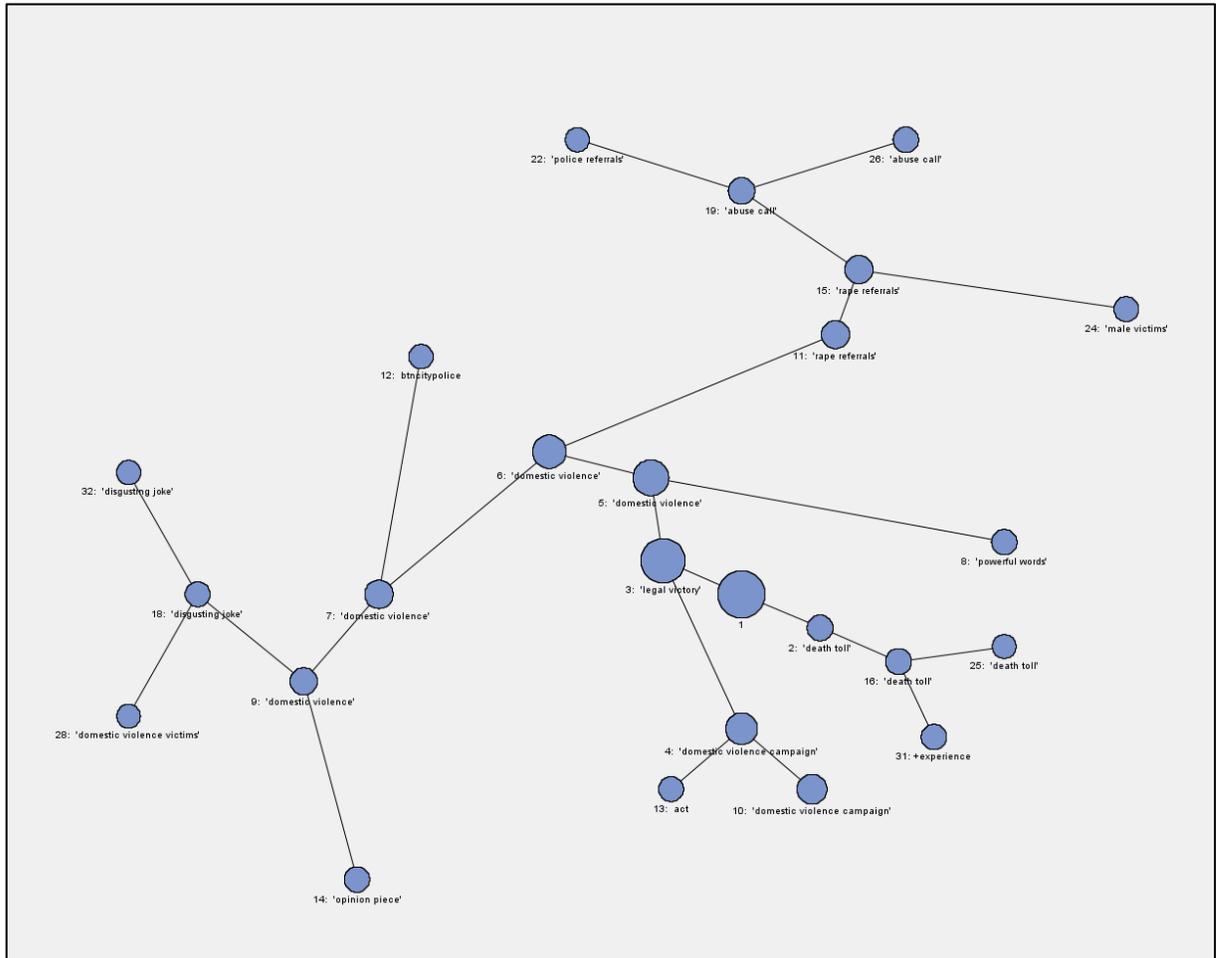


Figure 2 – Data cluster node map showing relationship between different tweets by theme around term “domestic violence”



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