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A CONTENT ANALYSIS SPANNING 30 YEARS OF MENTAL HEALTH COMMUNICATION SCHOLARSHIP

By

Camille R. Velarde

B.A., Communication, University of New Mexico, 2009

THESIS

Submitted in Partial Fulfillment of the
Requirements for the Degree of

Master of Arts
Communication

The University of New Mexico
Albuquerque, New Mexico

July, 2014

Dedication

“I used to think I was the strangest person in the world but then I thought there are so many people in the world, there must be someone just like me who feels bizarre and flawed in the same ways I do. I would imagine her, and imagine that she must be out there thinking of me too. Well, I hope that if you are out there and read this and know that, yes, it's true I'm here, and I'm just as strange as you.”

— Frida Kahlo

This thesis is dedicated to my sister, Merica.

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A CONTENT ANALYSIS SPANNING 30 YEARS OF MENTAL HEALTH COMMUNICATION SCHOLARSHIP

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ABSTRACT

Currently, the communication research concerning mental health is sporadic, unorganized, and disintegrated. Previous research has not looked at organizing the literature through content analysis. To address this gap in the literature, the purpose of this thesis is to provide a comprehensive synthesis of the current state of mental health communication research. This thesis has six key objectives: (1) systematically review the communication literature regarding mental health communication and identify current trends and future areas for research; (2) identify the aspects or topics regarding mental health communication in published research; (3) identify the theoretical underpinnings of mental health communication research; (4) identify the socio-ecological levels addressed in current research; (5) identify the methodological focus of current scholarship (6) review the key findings in narrative format. The findings are compared to past research, trends and gaps within the literature are discussed in terms of areas for future research, and a critique of the research population is presented.

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Introduction

Health communication is a relatively new subfield of the larger communication discipline. It was developed due to the need to make sense of the complex and at times constitutive role communication plays in health, health care, and health promotion. Much of Health communication research is concerned with improving health outcomes, including mental health outcomes. Mental health, however, has received far less attention in current research than has other issues such as smoking, alcohol, cancer, AIDS /HIV/safer sex, organ donation drugs/narcotics/, death/terminality and diabetes; obesity/die (Kim, Park, Yoo, & Shen, 2010). It is the goal of this thesis to systematically explore and organize the mental health communication scholarships using the socio ecological model. The topic of mental health is understood to exist on a continuum between mental wellbeing and mental illness (Keyes, 2002; Westerhof & Keyes, 2010) its meaning, usage and implications will be explored in chapter two of this thesis.

Statement of the Problem

Although the study of mental health communication is under-represented in the overall health communication vibrant sub-field, it is vitally necessary. Mental health communication research has the potential to benefit people with mental health concerns (Knobloch & Delaney, 2012), improve mental health practice (Gonzalez, Siegel, Alvaro, & O'Brien, 2013), and facilitate advancements in the field of mental health care (Kaur-Bola & Randhawa, 2012). Currently, the research concerning mental health is sporadic, unorganized, and disintegrated. Previous research has not looked at organizing the literature through content analysis.

To address this gap in the literature, the purpose of this research project is to provide a comprehensive synthesis of the current state of mental health communication research. In the following section, I review this project's objectives, significance, research questions, and key construct definitions.

Thesis Objectives

This thesis has six key objectives. First, I will systematically review the communication literature regarding mental health communication and identify current trends and future areas for research. Second, I will identify the aspects or topics regarding mental health communication in published research (e.g. settings, human populations, diagnosis). Third, I will identify the theoretical underpinnings of mental health communication research (e.g., constructs, theories, research paradigms). Fourth, I will identify the socio-ecological levels addressed in current research. Fifth, I will identify the methodological focus of current scholarship. Finally, I will review the key findings in terms of the variables. The proposed thesis is significant for a number of reasons.

Significance

A synthesis of current mental health communication scholarship will advance the study of this critical focus within health communication in a number of ways. The synthesis will pull together the disparate threads of mental health communication research, which can benefit people with mental health concerns (i.e., consumers) (Lebow, 1982), improve mental health practitioners' approaches (Kim, Park, et al., 2010; Nelson, 2010; Wright, Sparks, & O'Hair, 2008), and further future research in the field (Beck et al., 2004; Kim, Park, et al., 2010; Freimuth, Massett, & Meltzer, 2006; Thompson, 2006). I review benefits for each of these stakeholder groups in what follows.

Consumers. Mental health communication provides significant information to people who are affected by mental illness, the mental health consumer (Lebow, 1982). In fact, "the greatest value of health communication inquiry is that it has the potential to make a significant contribution to the public's welfare" (Kreps, 1989, p.14). The social, economic, and physical effects of mental illness compound the effects of the illness itself and are important issues mediated through communication. The issues the person faces are outside the range of typical medical treatment will be discussed in the sections that follow.

Social effects of mental illness. People diagnosed with mental illness suffer from social isolation (Elisha, Castle, & Hocking, 2006; Fiske-Lowenthal, 1964). Social isolation can come about from symptoms of the illness, like lethargy or delusions, but can also be a result of stigma and misunderstanding. The stigma of mental illness can have social implications that can lead to family distress, work discrimination, and social rejection. Communication plays a role in the disseminating, enacting and coping with mental disorders (Smith, 2012; Meisenbach, 2010). Smith 2007 argues that "stigma communication includes specific content: marks, labels, responsibility, and peril, in order to induce affective and cognitive responses to create stigma attitudes, to generate protective action tendencies, and to encourage the sharing of these messages with others. People with more visible symptoms of a mental illness are at higher risk for social rejection and discrimination from strangers and acquaintances (Perry, 2011). The level of social rejection people face hinders their possibility for positive health outcomes. Social support is imperative to the recovery from a mental illness (Hendryx, Green, & Perrin, 2009; Spjeldnes, Jung, Maguire, & Yamatani, 2012). Social support is a complex communicative phenomenon. Message, source, recipient, and contextual factors influence the outcomes and effects supportive interactions (Burleson,

2009). Barriers like social isolation and stigma have negative consequences for those recovering from mental health disorders.

Economic effects of mental illness. Mental illness and maintaining mental health have economic consequences. People with mental illness are at high risk for job discrimination, which can result in negative economic effects for the person (Corrigan, Powell, & Rüsch, 2012). People who experience acute mental illness may encounter problems when returning to work. They may find it difficult to return to work after dealing with acute mental illness but financial burdens take precedence over mental health, this pressure alone impedes healing (Karen, Ellie, Hatchard, Henderson, & Stanton, 2012). Not only is it difficult for people with serious and/or chronic mental illness to get and maintain a job but also the cost of medications and treatments can be expensive. Treatment for bipolar disorder can cost between $6,000-7,000 a year (Harley, Hong, Corey-Lisle, L'Italien, & Carson, 2007).

Physical effects of mental illness. People with mental illness have higher rates of physical illness when compared to others in the population. Mental health affects and is affected by other health issues. People with mental illness have a higher risk of health problems related to smoking and drug abuse (Fernandez-Pol, Bluestone, & Mizruchi, 1988; Lasser et al., 2000). People with mental illness have a high risk for homelessness. According to the Substance Abuse and Mental Health Services Administration (2009), 26% of the homeless population in the United States suffers from a severe mental illness, disproportionate to 5% of the general population.

Those diagnosed with a schizophrenia spectrum disorder experience an even greater degree of victimization compared to general community population (Brekke, Prindle, Bae, &

Long, 2001; Fitzgerald et al., 2005; Honkonen, Henriksson, Koivisto, Stengård, & Salokangas, 2004). For example, women diagnosed with schizophrenia or bipolar disorder have a higher incidence of being victimized by rape than the rest of the population (Darves-Bornoz, Lempérière, Degiovanni, & Gaillard, 1995). Suicide is the leading cause of premature death in people with schizophrenia (Kim, Jayathilake, Meltzer 2003; Lewis, 2004; Pompili et al., 2009). Sharaf, Ossman, & Lachine (2012) found that internalized stigma is a predictor for suicide risk in people with schizophrenia. Hence, communication can play an important role in mental health experiences and outcomes.

Practitioners. A review and better understanding of the mental health communication research can also have value for mental health providers (Kim, Park, et al., 2010; Nelson, 2010; Wright et al., 2008). Informing medical care providers and public health practitioners of the state of the research and about advances in health communication can improve practice and patient-provider communication. Systematic reviews of the literature can assist practitioners' focus on key research findings, innovations, and relevant studies (Nelson, 2010) so that their work reflects the most current ideas about effective treatment. However, in a critique of Kim and others' (2010) content analysis of articles in *Health Communication Journal* from 1989 to 2010, Nelson (2010) argued that the journal failed to publish many evaluation research studies that would be useful to practitioners.

Kreps (1989) discussed the importance of communication studies to the health care system, noting the important role communication plays in delivering health care, and accomplishing health goals. He suggested that one way in which health communication scholars can inform the health care system is by synthesizing "key theoretical and practical

principles form diverse disciplines and [applying] these principles to helping members of the health care system" (p.14).

Scholars. Theory development, methodological approaches, and key scholarship will constitute this synthesis. As such, the synthesis will serve as a go-to resource for health communication scholars interested in mental health and for new scholars (i.e., graduate students). An assessment of past research will facilitate and direct future research (Beck et al., 2004; Freimuth et al., 2006; Kim, Park, et al., 2010; Thompson, 2006). Systematic reviews help delineate the theories, trends, themes, and directions in health communication inquiry. To advance mental health communication, a similar analysis must be conducted. The review of literature will not only organize trends but also identify gaps and offer direction for future research. This review will serve as a reference tool for any researcher interested in mental health communication, helping them navigate the scattered threads of literature.

Research Questions

Given the practical potential of a mental health communication synthesis, the critical character of mental health issues, and the potential for research to solve problems around mental health, this thesis will explore the following questions (RQs) in terms of published mental health communication:

RQ1. What topics of mental health are studied published health communication research?

RQ 2. What aspects of communication are present in health communication journals?

RQ 3. What are the socio-ecological levels addressed in health communication journals??

RQ 4. What methodological approaches have researchers used in health communication journals??

RQ 5. What were the researchers' key findings in articles published in in health communication journals??

To answer these questions, the thesis will include a broad range of scholarship. In terms of the mental health communication research that will be reviewed, the synthesis will be bounded by a number of criteria. The synthesis will include only the following: (a) studies published in academic peer reviewed communication journals; (b) research published in English; (c) research with a specifically communicative and mental health (i.e., mental and communication as key terms) and (d) research conducted in the past 30 years (i.e. 1983 to 2013). In terms of the synthesis, this project is grounded in particular constructs and concepts. The concepts of communication, health, mental health, and mental illness will be the shared theme among all the articles in the population for analysis.

Constructs and Their Definitions

Communication, health, mental health, and mental illness are complex constructs with various meanings, are polysemic—they have many possible definitions. Consequently, these constructs are laden values, biases, and norms. Their meanings and usage have a range of implications. Because this thesis is a systematic review of the literature, it is not necessary to operationalize the terms, but to discuss the variable meanings, usage, and implications of the terms as they may be used in the literature.

Communication. Communication is a complex idea and, therefore, challenging to define. Scholars have defined communication in various ways. At its simplest, communication is a process that is continuous and complex. It "is a transactional process of

sharing meaning with others" (Rothwell, 1998, p.19), and "the management of messages for the purpose of creating meaning" (Frey, Botan, Friedman, & Kreps, 1992, p. 28).

Health. Within the field of health communication, there are multiple theoretical traditions at work, which utilize the concept of "health" distinctively. Four contrasting perspectives on health, the biomedical, humanist, economical, and critical, have specific conceptualization of the term *health.* The biomedical perspective looks at health from a scientific understanding of the body and its functioning. The humanist perspective health includes physical health but also encompasses human functioning in all aspects of life. An economic perspective of health emphasizes the biological functioning of the body and the body's ability to contribute to and put demand on an economy.

Mental health. The concept of mental health is complex. It is often misused, it is laden with values and its definition and usage carry heavy social and political implications. Mental health has often been defined as the absence of mental illness. Mental health and mental illness are not opposites but are actually related concepts that exist on a continuum (Keyes, 2002; Westerhof & Keyes, 2010). To be void of symptoms of mental illness does not equate mental health. Mental health consists of multiple aspects of well-being. Within the literature, psychological well-being is characterized by self-acceptance, purpose in life, autonomy, positive relations with others, environmental mastery, and personal growth (Ryff 1989; Ryff & Keyes, 1995). Mental health is therefore best viewed as a complete state, not merely the absence of mental illness but also the presence of mental health. (Westerhof & Keyes, 2010).

Mental illness. Mental illness is a term that is laden with stigma, causes discomfort, and is often misunderstood by the general population (Holman, 2011). The surgeon general

has defined mental illness as “the term that refers collectively to all diagnosable mental disorders. The mental disorders are health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress, and/or impaired functioning” (U.S. Department of Health and Human Services, 1999, pp. 4-5). The list of diagnosable mental illnesses can be found in the Diagnostic and Statistical Manual of Mental Disorders produced by the American Psychiatric Association.

Preview of Coming Chapters

Given the importance for consumers, practitioners, and scholars a synthesis of mental health communication research will be conducted. This thesis aims to produce a systematic literature review, utilizing a social ecological frame. As such, the thesis project will explore the questions (RQs) in terms of published mental health communication. A literature review and methods will be provided in the coming chapters. The literature review will situate the research within the context of the literature and will focus on a discussion of the historical emergence of mental health communication research; a discussion of the complexities surrounding the constructs defined in the current chapter; a discussion of the social ecological paradigm; a literature review of previous systematic reviews of health communication research; and their application for the current thesis.

Chapter 2: Research Context

In what follows, I briefly outline the historical emergence of mental health communication research and situate it within the sub-discipline of health communication within the communication discipline. I also flesh out the issues surrounding the constructs defined in the previous section. A discussion of the social ecological paradigm follows along with a literature review of previous systematic reviews of health communication research, and their application for the current thesis. I close with the synthesis's research questions.

Historical Emergence of Mental Health Communication Research

Kreps' (1982) early work questioned the credibility of the field of communication among other disciplines. He argued that communication journal articles cited sources outside of the field more often than communication sources and that communication sources were rarely cited in non-communication, social science journals. He used this information to argue that the field of communication is less credible than other social sciences. Kreps' (1982) suggestion to remedy the problem was for communication scholars to focus on socially relevant problems in their research, which would increase the field's credibility.

In terms of socially relevant research, Kreps (1989) argued that health communication would be a flourishing area for growth as a subfield of communication. Health communication studies are able to expand the presence of communication theories within other disciplines, as they are published in a variety of publications including medical, nursing, education, training, public health journals (Kreps, 1989). He concluded that health communication has the potential to further legitimize the field of communication not only in that it has practical application but also as it will draw on theories from the communication subfields of interpersonal, small group, organizational, and media (Kreps, 1989). Nussbaum

(1989) offered heath communication scholars areas within health communication that need further exploration. Among those, the understudied area of mental health was given priority. Twenty-two years later, Kim, Park, et al. (2010) conducted a content analysis of *Health Communication* and found that mental health is still an understudied area accounting for only 1.1% of the articles published in 22 years. They suggested mental health as a topical priority for future research.

Issues Surrounding Key Constructs

Communication. Charles Cooley (1924) explains, "communication is here meant the mechanism through which human relations exist and develop—all the symbols of the mind together with the means of convening them through space and preserving them in time" (p. 60). "There is no sharp line between the means of communication and the rest of the external world. In a sense all objects and actions are symbols of the mind, and nearly anything may be used as a sign" (p.61). Cooley is conceptualizing communication not only as a social process but as symbolic process. Both of these aspects are important features of his description. Defining communication as a social process reduces the idea that communication may occur within oneself (i.e., cognition), although scholars of intra-personal communication might disagree.

Although Cooley recognizes that communication is something that occurs outside of oneself, with another, he is also acknowledging that it originates from the cognitive ability to use symbols, and signs. Therefore, communication does not occur solely in the mind, although it begins there, utilizing a learned set of signs and symbols. Similarly, George Lundberg (1939) also notifies that communication is the use of signs and symbols: "We shall use the word communication, then to designate interaction by means of signs and symbols.

The symbols may be gestural, procedural, plastic, verbal, or any other which operate as stimuli to behavior, which would not be evoked by the symbol itself in the absence of special conditioning of the person who responds. Communication is, therefore, the form of interaction which takes place through symbols" (p.253).

Cooley adds that communication is not only the use of signs or symbols but also a way to stimulate behavior. This is important as it recognizes that communication occurs with an intent or purpose. This distinction makes communication different from behavior, or the act of verbalizing. The intent may be latent or overt in the mind of the signifier and may or may not be fulfilled.

> Communication is transactional, as pointed out by Burgoon and Ruffner (1978): People are simultaneously acting as source and receiver in many communication situations. A person is giving feedback, talking, responding, acting, and reacting continually through a communication event. Each person is constantly participating in the communication activity. All of these things can alter the other elements and create a completely different communication event (p.9).

Burgoon and Ruffner (1978) point out the shifting roles of source and receiver as well as the importance the receiver has on the outcome of the communication event. It is important to note again, that communication is symbolic and both the source and receiver participate in the communication event with different symbolic referents and, possibly signs. When the participants have frameworks of knowledge that conflict the difference between the intent and the outcome increase. For the current purpose, communication can be broadly thought of as a symbolic, transactional process of meaning making with the intent of a psychological or behavioral effect.

Health. Four contrasting perspectives on health, the biomedical, humanist, economical, and critical, have specific conceptualizations of the term *health.* Each involves a number of issues.

Biomedical perspective. The biomedical perspective looks at health from a scientific understanding of the body; where the definitions of health and disease rely solely on information from the biological sciences. Boorse (1977) is a reference point for many when looking for a definition of health (Kendell, 1975; Scadding, 1990; Wachbroit, 1994). The definition of health according to this perspective is the absence of illness or disease (Boorse, 1977, 1981). In this perspective health is considered the normative and natural state of being (Boorse, 1977, 1981). Conversely, biomedical findings divergent from what is considered normal would be considered diseased and deviant (Boorse, 1977, 1981). This perspective focuses on objective specific findings that are interpreted as causal factors of a disease or disorder (Lundström, 2008). Such factors need to be eliminated by medical interventions to cure the patient, and bring them back to a normative natural state (Ereshefsky, 2009). While there are many critiques of this perspective (Goosens, 1980; Murphy, 2008; Reznek, 1987; Wakefield, 1992), it still provides the foundational definition of health in biological based sciences. While the study of communication is not a science of biology, the issues that communication health scholars look to address are intertwined with factors that have already been defined by the biological sciences.

Humanist perspective. Performance-based measures of health are markedly biomedical in perspective, where illness is the central focus of assessment, and treatment (Fayed, Schiariti, Bostan, Cieza, & Klassen, 2011). In the humanist perspective health is not the absence of illness as in the biomedical perspective it is how well a human is functioning

in all aspects of their life. In the humanist view biological, psychological, and social functioning are all components of health. Uniquely, this perspective; places the importance on how satisfied the individual is with each aspect of life as opposed to the performance in each aspect (Fayed et al., 2011). The individual and their experience is the central focus in the assessment and treatment of illness. A person could be deemed biomedically ill, but if satisfied with all the functioning of their life, be considered humanistically healthy. Edgar (1998) contrasts the biomedical view on health with the social humanist view, stating "Illness is not simply to be understood as the loss of good health, but rather as a condition that may co- exist with health. Health lies in the response that the individual makes to the challenge of illness, and thus health-related behavior is expressive of the individual's understanding, and development of herself" (p.196). Health is defined by the individual.

Economic perspective. When health is looked at using an economic perspective, the emphasis is placed not on the biological functioning of the body, but on the body's ability to contribute to and put demands on an economy. Health becomes an asset not only to a personal and regional economy but also to the national economy (Suhrcke et al., 2006). Better health has historically increased labor supply and productivity, making it a key contributor to economic growth. A healthy individual is able to participate more fully in society (i.e., education, work, socializing) gaining access to resources and commodities, and ideally accumulating a surplus that would further boost the regional and national economy. Likewise, an individual in a poor state of health is not able to participate fully in society, limiting their ability to accumulate resources, and contribute to the economy. Economical benefits are factors in health care and illness prevention. Countries who have comprehensive forms of social medicine may have realized the economical benefits of healthy citizens.

Market-driven societies have capitalized on need individuals have to maintain their health. In this perspective citizens become consumers of health, goods, and services are designed to meet their needs, and companies use various marketing strategies to reach their target population. The demand for good health has driven a market for health related goods and services, evident in the direct to consumer marketing of drug companies, and insurance agencies. The commercialization of health has global implications as well, indicative in medical tourism, and e-medicine (Murray, Bisht, Baru, & Pitchforth, 2012).

Critical perspective. A variety of critical perspectives look at health as an indicator of social, political, environmental, cultural, and economical inequalities. Williamson and Carr (2009) takes a critical look at the economic treatment of health, "It is also critical that the primary function of health as a type of capital not be reduced to its influence on individuals' exchanges with the labor market" (p.112). Williamson clarifies that health is not a commodity that can be bought or sold, but one that an individual inherently embodies, which can then be invested in, by them and other organizational institutions such as government agencies and health care providers. The greater the investment, the higher the return in health related benefits. When looking at health as a resource, one must consider to whom and in what amount does society invest in? Vast studies have shown that social inequities lead to health inequities, indicated by health disparities for US minority citizens (Bermúdez-Millán et al., 2011; David & Messer, 2011; Dulin et al., 2012; Mitchell, 2012; Shim et al., 2012; Song et al., 2011; Zimmerman, 2005). As critical race theorists suggest, social, economical, and environmental inequities are evidence of the structural racism that affects health outcomes (Ford, 2010). Poor health outcomes for minorities have a ripple effect in their social, economical, political, religious, and cultural lives. "Health is a resource that enhances

people's abilities to be engaged in social, economic, and political dimensions of society" (Williamson & Carr, 2009, p.112). In turn, a person in poor health is less likely to participate fully at all levels of society, causing them to be further marginalized, and vulnerable. Significant research suggests that such agency and control is powerfully correlated with health (Martikainen, Bartley, & Lahelma, 2002; Muntaner & Chung, 2005). Critical race perspectives on health look to centering in the margins as a way of gaining a deeper understanding of socially marginalized groups (Ford & Airhihenbuwa, 2010). Centering the margins calls for qualitative and ethnographic studies, as these studies offer an alternative perspective to those of the dominant race or culture.

Mental health. The concept of mental health is complex. It is often misused, it is laden with values, and its definition and usage carry heavy social and political implications. These implications solicit critiques of the definition and usage of the term. This section of the thesis will discuss the following aspects of mental health: misuse and conflating terms, mental health/mental illness on a spectrum, policy, social implications, and criticisms.

Euphemisms and conflating terms. Mental health is a term often used when referring to mental illness. Euphemisms are used when one wants to avoid evoking negative thoughts or emotions or is concerned with self presentation (McGlone, Beck, & Pfiester, 2006). Mental health and mental illness have remained a taboo topic because of the myths, stigmas, and misunderstandings surrounding the issues. For instance, mental health center is a hopeful term, as opposed to psychiatric ward. However, with extended use over a period of time, a euphemism can become recognized as the conventional label for the unpleasant topic it was created to veil (McGlone et al., 2006). When this happens, the euphemism loses its power, and a new one must replace it; which raises a separate issue of various conflating terms being

used to describe the same thing. Malek (2004) found that the concepts *mental health* and *mental illness* are often confused and that the general public have little knowledge of what these mean. Euphemisms and conflating terms serve as a way of accommodating the discomfort the topic presents (Wilson, 2009). However, multiple terms to describe the same phenomena can complicate the issue. Some of the terms often conflated are mental, psychological, emotional, nervous, behavioral, social, and also illness, disorder, dysfunction, impairment, disability, and hygiene. While all terms are scientifically operationalized differently, they are often used interchangeably.

Mental health /mental illness spectrum. Mental health has often been defined as the absence of mental illness. Mental health and mental illness are not opposites but are actually related concepts that exist on a continuum (Keyes, 2002; Westerhof & Keyes, 2010). To be void of symptoms of mental illness does not equal mental health. Mental health consists of multiple aspects of well being. Within the literature psychological well-being is characterized by: self-acceptance, purpose in life, autonomy, positive relations with others, environmental mastery and personal growth (Ryff, 1989; Ryff & Keyes, 1995). Mental health is therefore best viewed as a complete state, not merely the absence of mental illness but also the presence of mental health. (Westerhof & Keyes, 2010). The surgeon general has defined mental illness as "the term that refers collectively to all diagnosable mental disorders. The mental disorders are health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning" (U.S. Department of Health and Human Services, 1999, pp. 4-5).

Policy implications. The first State Care Acts, in New York in 1890, state that definitions of mental illness have affected mental health policies (Goldman & Grob, 2006).

Policies concerning inclusion and special considerations are also dependent on the definition of the term. This is especially important for individuals who deal with a severe and debilitating mental disorder, and are unable to work. Policies also establish an individual patient's rights, social rights, and, legal rights. The standard for defining mental and emotional disorders is the Diagnostic and Statistical Manual of Mental Disorders. The DSM is reviewed periodically and has been critiqued as a somewhat political statement (Pierre, 2012). An arbitrary process decides what is and is not included. Most insurance companies dictate duration of treatment, as well as reimbursement, based on DSM diagnoses. This means that individuals must officially be labeled with DSM disorders to receive treatment and coverage. While these labels are a tool for diagnosis and treatment, they carry many social implications.

Social implications. The way mental health and mental illnesses are defined has repercussions for individuals who have been diagnosed with mental health disorders. In order for an individual to receive treatment for distressing symptoms, they must be given a diagnosis. This diagnosis then becomes a stigmatizing label for the individual. People are reluctant to seek out mental health services because of the fear of being stigmatized (O'Reilly, 2005; O'Reilly, Taylor, & Vostanis, 2009). Even individuals who must utilize mental health services hold negative, stigmatizing, and misunderstood views of mental health, mental illness, and treatment (O'Reilly et al., 2009). As a result of stigma, individuals with psychological problems have low self–esteem and self–efficacy, encounter social isolation, and have lower social confidence (Holmes & River, 1998). Negative stigmas regarding mental illness and mental health treatment may cause individuals to loose support from friends and family. This is unfortunate, as social support is an indicator for recovery

from mental illness (Arboleda-Flórez, & Stuart, 2012; Hendryx et al., 2009). While medications may render individuals symptom free, lack of mental health problems, does not equal health, as discussed in previous sections. Health is in part, characterized by positive relations with others. The stigma that a mental illness diagnosis causes limits the ability of individuals to realize their maximum health potential.

Critiques. There are critiques on the way that mental health and mental illness are defined. Because mental health and illness are heavily weighted terms, they have great social, political, economic, and cultural implications. Some critiques look at the biases in mental health, stating that the study of mental health is both gender and culturally biased (Brems & Schlottmann, 1988; Ritchie, 1994). The study of health, as discussed previously, is a classification system between what occurs "normally" and what deviates from the norm. That which deviates from the norm is illness. This means that certain assumptions about what is normal from foundation of health and, specifically mental health sciences. Hallmark theories of counseling evolved primarily from a Western perspective based off the experiences of White, upper-middle-class men dealing with White upper-middle class clients (Lee & Richardson, 1991; Sue, 1981). Definitions of mental and emotional health based on the dominant group, and arrived at by the dominant group will work in favor of the dominant group (Ritchie, 1994). Furthermore, this leads to a skewed model by which to assess members of other groups.

Social Ecology

This thesis will utilize the social ecological model as an organizing frame-work, and underlying theory. This section will discuss its background and relevance to this thesis. Medical science can pinpoint what causes most illnesses and what can be done to prevent and

eradicate them from the body, through controlled studies, and laboratory testing. These findings alone do not make people healthier. There are limitations when dealing with humans in experimental conditions or in isolated cells in laboratory conditions. An ideal experimental condition has controlled for all factors that may affect outcome. However humans do not live in controlled environments, but in complex environments and social contexts that have varying effects on health outcomes. The social ecological approach to health takes into consideration these factors. The following will discuss the background, assumptions, and implementation of the social ecological approach to health.

Background. Social ecology is a concept rooted in both biology and sociology. Ecology is the study of the interaction of organisms and their environments. It is a systems view that takes into account both physical and biological components of organisms existence (Gignoux, Davies, Flint, & Zucker, 2011). Ecological views are interested in both identifying and ordering different levels of environmental influence. Ecology is concerned with the interaction of the organism at each level and the influence of each level on the others.

Several disciplines (e.g., sociology, psychology, economics, and public health) have adapted the ecological paradigm as a general framework for understanding people's interactions with their physical and social surroundings (Stokols, 1992). Using an ecological approach to study humans is a superior method of inquiry, as it allows the researcher to incorporate both experimental and naturalistic approaches (Bronfenbrenner, 1977). Bronfenbrenner applied an ecological framework to study human behavior, adapting two main components of the paradigm: the human as an organism in its environment, and the environment as a system of structures embedded within each other (p. 514). The human as an organism component considers the constant and changing interaction between humans and

the environments they inhabit. It studies the relationship of the individual to their environments, as well as the relationship the various environments' have with each other. The second component of the ecology of human development considers the environment as a system of embedded structures. The environment is composed of the "immediate settings, as well as the larger social contexts, both formal and informal, in which the settings are embedded" (p.514). The settings are organized topologically, with the largest structure housing each successively smaller structure within it. Bronfenbrenner identified four environmental systems that affect human behavior: Microsystem (e.g., Home, office), Mesosystem (e.g., school, church), Exosystem (e.g., organizations, media), and Macrosystems (e.g., culture, economy, political systems, legal systems) (pp. 514-515).

In order to comprehensively study humans in the ecological perspective, the social aspect of the human experience must be considered in conjunction with the environmental aspect. The social ecology of humans takes into consideration the social, institutional, and cultural contexts of people-environment relations (Stokols, 1992). Humans must navigate not only multiple physical landscapes but also social landscapes, negotiating their existence in their environment through communication. Communication serves as the primary point of interaction as it mediates the relationships between humans and their environment.

Framework for health promotion. As a framework for health promotion, social ecology provides a comprehensive examination of social and environmental effects on an individual's health and behavior. A social ecological perspective is an appealing alternative to health interventions that target individual behavior. Theories directed at individual behavior change tend to utilize persuasion or classical conditioning (Stokols, 1992), inherently "blame the victim" (McLeroy, Bibeau, Stekler, & Glanz, 1988) and are a result of

an individualistic view of health (Stokols, 1992). These approaches neglect the multiple levels interacting in the environment and the social causations of health. McLeroy et al. (1988) adapted a social ecological model applicable to health promotion, identifying five levels of influence on health behavior:

(1) Intrapersonal factors— Characteristics of the individual such as knowledge, attitudes, behavior, self-concept, skills, etc. This includes the developmental history of the individual.

(2) Interpersonal processes and primary groups— formal and informal social network and social support systems, including the family, work group, and friendship networks.

(3) Institutional factors— social institutions with organizational characteristics, and formal and informal rules and regulations for operation.

(4) Community factors— relationships among organizations, instructions, and informal networks within defined boundaries.

(5) Public policy— local, state, and national laws and policies (McLeroy et al., 1988, p.355).

By dividing the environment into analytic levels, attention is called to various social and environmental influences at each level, providing a variety of possibilities for intervention (McLeroy et al., 1988). The greatest health benefits are reached through a comprehensive multi-leveled approach, addressing the various influences on a health outcome. While it may be beyond the scope of a single intervention to address all levels, it would be favorable to have multiple interventions at each level utilizing complementary approaches, keeping in mind the interplay between each level. It is not reasonable to isolate one level and expect

behavior or health changes, without taking into account the interplay of effects of the other levels. The socio-ecological model places each level within the other, indicating that no context is separate (see Figure 1).

Figure 1. Social ecological model for health promotion.

Each level is a component of or contributes to another level. The strength of this theoretical model lies in its ability to address the complexities of social and environmental causation of health and behavior. Because of the multi-leveled approach, social ecological theorizing effectively combines the epidemiologic orientation of public health with the individual-level therapeutic and curative strategies of medicine, resulting in a comprehensive approach to health promotion.

Four Core Assumptions. Stokols (1992) presents four core assumptions of the social ecological perspective concerning human health and the development of effective strategies to promote personal and collective well-being. Health is a multifaceted concept; human environments are complex and multidimensional; health promotions are most effective using a multileveled approach; people-environment relationships are characterized by cycles of mutual influence.

The assumption that health is a multifaceted concept is contrary to the biomedical model of health, where health equals the absence of disease. In the social ecological perspective, health is the outcome of a combination of environmental, social, and personal phenomena (Stokols, 1992). Physical location, shelter, and technology are all aspects of the physical environment affecting health. Culture, politics, economics are all social aspects that have implications for health. Genetics, and learned behavioral patterns are both examples of personal characteristics that effect health.

The assumption that human environments are complex and multidimensional is a direct influence of an ecological framework. Human environments have both physical and social components (Stokols, 1992). Physical components can be things like location, lighting, color, distance, accessibility, and temperature. Examples of social components are relationships, social norms, policy, language, and social climate.

Health promotions are most effective using a multileveled approach (Stokols, 1992). Specifically interventions should be aimed not only at the individual level but also at all levels in the ecological model including groups and organizations. Interventions should utilize a variety of data-gathering methods to extract data at all levels. Individuals and groups working at different levels to increase health practices improves the effectiveness of health promotion programs.

The fourth assumption, that people-environment relationships are characterized by cycles of mutual influence, is based in a systems perspective (Stokols, 1992). Individuals are affected by their environment while at the same time having the ability to affect it. The environment is comprised of both physical and social components, which have implications for health outcomes. The use of power among individuals to effect their environment is not

always exercised to generate the best health outcomes for more people. Some individuals have more power to affect an environment than others, whether it be through class, status, gender, occupation, etc. Some environments are more difficult change and require help or advocacy from other sources. Whether individuals have a direct or indirect influence on their environment, they are still subject to its effects.

Implementation. The literature shows the social ecological model is important to consider at all levels in the identification, planning, implementation, and assessment of health behaviors and interventions. The benefits of a social ecological perspective to health are reflected in research and suggest the potential value of social ecological interventions and health promotion programs (Best et al., 2003; Pronk, 2009; Rothwell et al., 2010; Schwartz, Tuchman, Hobbie, & Ginsberg, 2011; Wong, Stevens, O'Connor-Duffany, Siegel, & Gao, 2011). Best et al. recommend that the social ecological model be used as an over-arching organizational framework for all health related work in an effort to close the gap between research and practice. However, Golden and Earp (2012) found that in over 157 intervention articles published in Health Education & Behavior, the majority of them were focused on individual and interpersonal characteristics, as opposed to institutional, organizational, community or public policy factors. It was also found that interventions that occurred in particular settings, like schools, more successfully adopted a social ecological approach.

Identifying the social ecological factors, which influence health outcomes for different populations, is the primary step in addressing health disparities. For example, Ramirez and Villarejo (2012) discussed the multiple levels of influence on poor health for rural farm workers in California. Their analysis suggests a systematic neglect of this population in poor working conditions, minimal access to healthcare, lack of access to

healthy foods, childcare, and poor living conditions (Ramirez & Villarejo, 2012). This analysis indicates the need for interventions at every level but that most interventions need to occur at the policy, community, and organizational level. Interested in physical activity, Martinez et al. (2012), using an ecological perspective, identified interpersonal and community level barriers for leisure-time physical activity for Latinos. They found Latinos who feel more community cohesion, and safety, and can identify community resources for physical activity are more likely to participate in leisure-time physical activity (Martinez et al., 2012). Kumar et al. (2012) used the social ecological model as a framework to examine determinants to receive the H1N1 Influenza Vaccine. While all levels were found to be a factor the strongest factor was at the interpersonal and policy levels, specifically so in minorities. Black males without insurance were the least likely to receive the vaccine, although federal funding would have covered the cost. The results question, weather those individuals were made aware of this service and also indicate a lack of informative messages about this important health issue. Research that goes beyond mere superficial descriptions of social ecological factors is needed to understand the relationships among the levels and provide an explanation of the different amounts of influence certain levels have in health seeking behaviors.

Identifying factors that contribute to health behaviors is the first step in planning health promotion programs. Wong et al. (2011) developed a Community Health Environment Scan Survey (CHESS), tool that captures the impact of the built environment on lifestyle factors. This tool systematically documents on a map (via GPS), and assess the environments in which people, shop, live, work, and play as they relate to diet, physical activity, and tobacco use. The neighborhood environmental scan comprises walking a 400 m radius

around each school and identifying and/or surveying all stores, vending machines, restaurants, recreational facilities, vendors, etc. Secondly, a survey of the target population would be conducted. This tool, together with survey methods, is able to link the environment and population's health behaviors and link them to the resulting health outcomes. The information gathered by this tool can then be used to guide intervention planning.

Not only can the social ecological model be used to identify factors that contribute to poor health outcomes, act as barriers, and encourage health-seeking behaviors but it can also be used to as a framework in the implementation of health programs. Schwartz et al. (2011) created a social-ecological model of readiness to transition adolescents and young adults with chronic health conditions to adult-oriented care. A social ecological approach to assess transition readiness goes beyond patient disease knowledge and skills extends to identifying measureable social-ecological components of the transition process emphasizing the potential role of culture and socio-demographics in the transition process. By offering a measure to be completed by patients, parents, and providers it will be possible to identify target areas of intervention to facilitate optimal transition readiness. The theory-based assessment was supported in the pilot, and positive feedback issued by overseeing physicians. Health programs using the community based participatory research model have also found use for the social ecological model. Strack, Lovelace, Jordan, and Holmes (2010) describe a community based participatory research program using photovoice and a social ecological frame. Their outcome goals were sequentially addressed at the individual, interpersonal, community, and organizational levels. Not only was the program's plan organized with a social ecological model, but the photographs produced were also organized in this manner. CBPR programs looking to make system changes would be advised to use a social ecological

model as an organizing and planning scheme, making sure to address all levels of influence. Other CBPR programs have found value in utilizing a social ecological model. Woods (2009) describes a CBPR program looking at African American health issues. Data was collected from individuals, the environment, the health system, and the community, capturing influences on all social ecological levels. They used both qualitative and quantitative data gathering methods at each level accumulating a rich and expansive data set. Triangulating data among multiple levels ensures social ecological validity (Woods, 2009).

A social ecological frame can, not only be used in the identification of health problems and the implementation of health programs but also can be used to assess health programs on a large scale. Analyzing intervention applications at each social ecological level may discover strengths, weaknesses, and assess the effectiveness of funded programs. Rothwell et al. (2010) assessed the implementation of the Welsh Network of Healthy School Schemes at national, local, and school levels using the social ecological frame. Taking this perspective allowed them to look beyond basic guideline compliance and extend the review to all levels of program implementation, and understand the complex internal relationships the contexts. This method of evaluation is able to offer recommendations for improvement and growth. Assessment is one key factor for change in health behaviors. O'Connor-Duffany et al. (2011) through a 3 year pilot study focusing on testing chronic disease prevention activities in developing country settings, developed a model for sustainable change based off the social ecological framework (See Figure1).

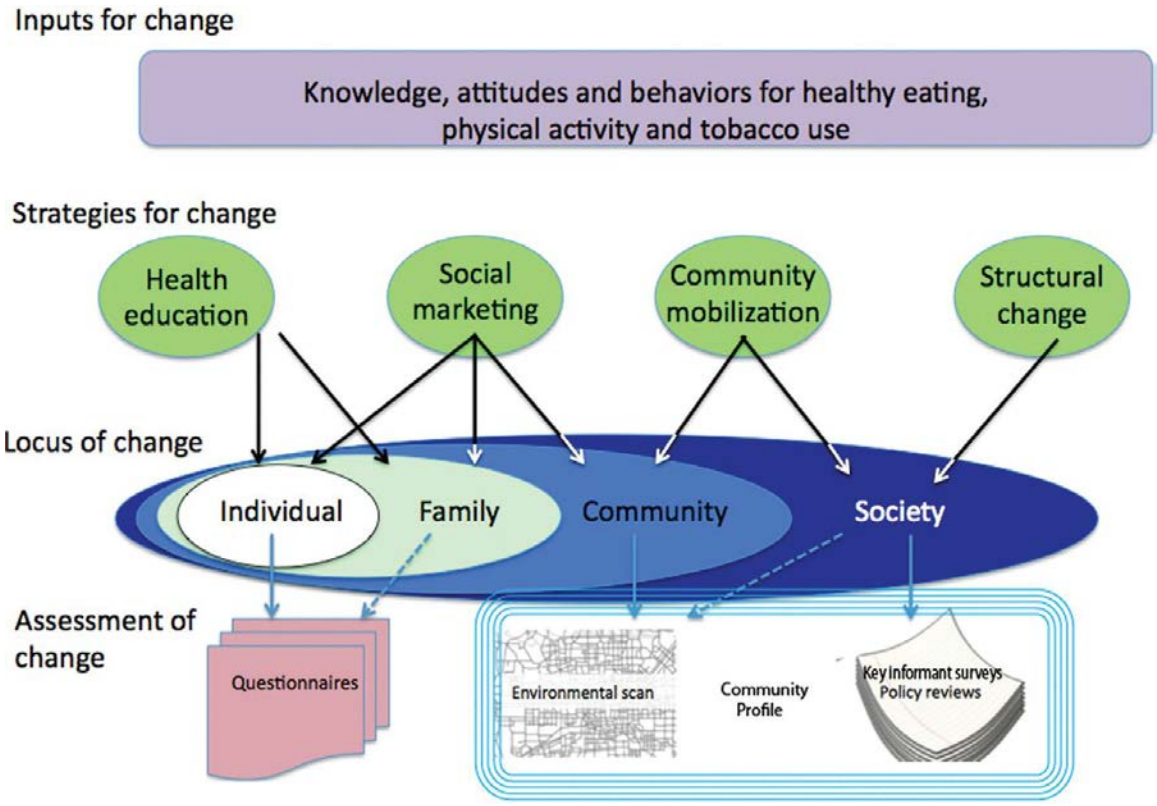

Figure 2. Model for sustainable change.

The model for sustainable change begins with acknowledging the individual's knowledge, attitudes, and health behaviors. The concentric circles illustrate the social ecological model and the various layers that influence behavior. The upper arrows illustrate the intervention strategies influencing the factors related to behavior. The framework includes individual assessments and the community profile that informs the impact of the interventions. The environmental scan captures the community environment as well as structural changes and some aspects of health education and social marketing. Key informant interviews and policy review add another layer of analysis and provide a deeper understanding of the community context. This model demonstrates that the social ecological model is important to consider at all levels in the identification, planning, implementation, and assessment of health behaviors and interventions.

Systematic Reviews

A systematic review of the literature is a methodical, organized, and structured evaluation of a topic using information from a number of independent studies of the problem. These reviews are the product of a specific research methodology, employing scientific design and execution principles (Finfgeld-Connett & Johnson, 2013). The articles to be reviewed are selected according to criteria set in advance, and extracted through a systematic and all-inclusive search of the literature. Variables of interest that have been predetermined, are extracted from the articles, compiled and interpreted.

Systematic reviews of entire disciplines, or fields of study can construct a historical account of the field, and provide a point of analysis and critique. Systematic reviews of this magnitude have the potential to motivate and dictate the future of the field or discipline. For example, Kreps (1982) conducted an analysis of the interdisciplinary credibility of communication as a social science. A systematic literature review was conducted of the communication literature and also literature bases most often cited by communication scholars. It was uncovered that not only did communication literature cite other disciplines more often than citing communication research, but also other disciplines were not using works published in communication journals. This review highlighted the importance for the field of communication to utilize communication based theories and works, and the need to produce communication specific theories that are applicable in other fields. Beck et al. (2004) reviewed the subfield of health communication's presence in communication and health communication literature. They reported that only four percent of health communication articles published were in communication specific journals, excluding health communication journals. The non health communication specific journal having the highest

output, 25%, coming from the Journal of Applied Communication. The lack of health communication research in mainstream communication journals may be due to the specialized nature of the subfield; however Beck et al. (2004) encourage health communication researchers to bridge the gap between health communication and other areas of communication. Systematic literature reviews describing, or analyzing a discipline, or field of study help in situating the knowledge base and initiating future growth.

Social ecology as an organizational framework. Systematic Reviews may utilize a theoretical framework to organize the data and guide the analysis. This thesis will follow past systematic reviews (Cassel, 2010; Golden & Earp, 2012; Nelson, Abbott, & Macdonald, 2010; Pronk, 2009) focused on health issues and utilize the social ecological model as an organizing and evaluative tool. Pronk, (2009) through a systematic review of literature, organized using the social ecological model, provided recommendations for implementation of a multi-leveled intervention of physical activity promotion in businesses. Golden and Earp (2012) analyzed articles describing interventions using a social ecological model to locate targets and activities of those interventions. Most interventions focused on individual and interpersonal levels, rather than institutional, community, or policy levels, and interventions that focused on certain topics (nutrition and physical activity) or occurred in particular settings (schools) were more effective in adopting a social ecological approach. These findings indicate the need for theory, research, and training aimed at targeting social and political environments to improve health.

Other Systematic reviews focusing on specific populations have utilized the social ecological model to organize the literature. Nelson, Abbott, and Macdonald (2010), using a social-ecological model to review the literature regarding Indigenous Australians and

physical activity, concluded that while social ecological models can be valuable tools for health promotion, they may require complementary critical insights particularly when concerning Indigenous populations. Nelson, Abbott, and Macdonald (2010) adapted the social ecological model making it relevant to indigenous contexts. Their model takes a cultural approach incorporating history and discrimination into the macro levels, with residual effects in the micro levels (Nelson, Abbott, & Macdonald, 2010). Cassel (2010) interested in obesity in Samoan populations, conducted a systematic literature review organized through the social ecological frame. Once organized, the findings of each article were synthesized into a narrative account of the literature. Reviews like this are beneficial for identifying gaps in the literature, and offering possible directions for future research, and synthesizing the literature to aid in interventions.

Importance of Methodological Diversity within the Literature

Mental health communication is a complex area of study. Mental health promotion and quality of care are areas of concern that are confounded by individual, organizational, and societal factors that influence health-related decisions and behaviors. Research must take into account numerous situational, psychological, and societal factors to fully examine the often hidden dynamics of health care and health promotion (Kreps, 2011), including those with a mental health focus. All of these factors require continual inquiry within multiple and various contextual constraints using various research strategies. Neumann, Kreps, and Visser (2011) contend, “the best health communication research demonstrates a productive balance of diverse methodological paradigms” (p.281). Health communication, by its very nature requires a diverse methodological approach. Each methodology presents different challenges and opportunities for understanding the complex influences of communication on health care

and health promotion. Villagran (2011) argues for methodological diversity incorporating digital and visual data gathering as a way to obtain information from marginalized and difficult to reach populations. The field of health communication has Kreps (2011) identified six major methodologies used to address health communication issues: experimental, survey, textual, ethnographic, mix methodological, meta-analysis. The advantages and drawbacks for these will be discussed in the next sections.

Experimental Design. The experimental design, especially the use of randomized clinical trials, is highly valued in the health sciences as a powerful research method for establishing causality (Oakley, 1998). Experimental researchers can determine the influences of key processes on important health outcomes by manipulation of independent variables and precise measurement of dependent variables. This methodology is helpful in identifying causal factors. Experimental studies are often used in health care and health promotion research (Krieger & Sarge, 2013; Prati, Pietrantoni, & Zani, 2012; Rains & Turner, 2007; Williams-Piehota, Schneider, Pizarro, Mowad, & Salovey 2004). However there are critical limitations that influence both internal, external, and ecological validity brought on by artificial and tightly controlled experimental conditions (Chaulk & Kazandjian, 2004; Victora, Habicht, & Bryce, 2004). The manipulation of independent variables in experiments does not coincide with the reality of the specific health contexts. The complex multifactorial nature of health communication makes it difficult to represent all the relevant factors within experimental research. These limitations are important to consider especially in health services and health promotion research.

Survey Research. Survey research is an important and well-utilized research method by health communication scholars to examine attitudes, beliefs, and activities of groups of

selected respondents (Thompson, 2003). In health communication research, surveys are completed in a variety of ways including: paper, electronic, face-to-face, telephone, and focus groups. Each of these administering possibilities offers both advantages and disadvantages. The low cost and ease of administration make web surveys a popular surveying method. The reach of web surveys is limited to people whom have internet access and are literate (Couper, 2000).

Textual Analysis. Textual analysis is a valuable research method used though observational research strategies such as content analysis, interaction analysis, discourse analysis, and rhetorical criticism (Frey, Botan, & Kreps, 2000). It can be used to describe and interpret the characteristics of recorded or visual messages by analyzing language, symbols, numbers, and nonverbal cues found in existing records or texts, such as books, newspapers, videos, films, audiotapes, archival records, and websites. Data collection and analysis is conducted through either quantitative or qualitative means. This method has value in that it allows researchers to analyze patient provider interactions through discourse analysis (Beach 2002; Maynard, 2003). However, there are several issues researchers must take into consideration when using this method. Gathering representative texts, using the most appropriate coding schemes, and establishing valid and reliable coding strategies are essential to collecting valid data (Frey et al., 2000).

Ethnography. Ethnography provides in-depth description and analysis of social events. It is a qualitative method using direct observations, participant-observations, and/or in-depth unstructured personal interviews with key respondents (Kreps, 2011). This methodology has the potential to deepen understanding of the many underlying processes and motivations that influence health and health care (Kreps, 2008; Lambert & McKevitt, 2002).

The greatest strength of ethnographic research is its ability to provide rich descriptive analysis depth. However the generalizability of ethnographic research results are often the point of criticism for this methodology since ethnographies are often conducted within a single health setting and usually employ purposive rather than random sampling strategies (Devers & Frankel, 2000; Kreps, 2008)

Mixed methods. Mixed methods research enable researchers to overcome the limitations of singular research methods and capture many of the complexities of health communication processes through triangulation of data (Creswell, Fetters, & Ivankova, 2004; Johnstone, 2004). Mixed methods approaches usually incorporate both qualitative and quantitative techniques. Mixed method research often start with qualitative data collection strategies (such as interviews, focus groups, or participant observations) in early exploratory (hypothesis formation) research phases and more quantitative methods (such as surveys, content analyses, and experiments) used later to isolate and measure observed changes, and correlations in key variables (Borkan, 2004). While mixed method research offers a way to evaluate and understand the multiple variables in health communication, it also takes additional time, resources, and coordination to accomplish.

Meta analysis. Meta-analysis is an effective empirical method for analyzing secondary research data by pooling together data from a number of similar studies that used similar research measures and statistically analyzing them collectively, to compound findings, and formulate larger conclusions (Lipsey & Wilson, 2001). Meta-analysis aid in synthesizing results from multiple studies informing health promotion practitioners in condensed form. Meta-analysis can also be valuable for informing important health communication policy issues. However, researchers must validate that the studies

operationalized and measured variables similarly otherwise it would certainly invalidate any results obtained (Lipsey & Wilson, 2001). Also, researchers must test for homogeneity of effect sizes among the various studies (Kulinskaya, Dollinger, Knight, & Gao, 2004). Even with these cautions, meta-analytic studies are useful for developing health communication interventions and policies.

Significance of Theory within the Literature

Theory is an important not only for its applications but also for the discipline as a whole. “Part of maturing and developing as a discipline may entail a greater focus on theory development and on using theory to guide our research endeavors”. (Kalbfleisch, 2002). Kerlinger (1986) defines a theory as “ a set of interrelated constructs (concepts), definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena’’ (p. 9). Theory identifies relevant variables and relationships vital in understanding actions and events. Theories explain research findings; while at the same time be validated through testing. Theories allow us to make predictions as to how a set of variables will influence outcomes; and offer boundaries, or the scope in which the particular theory is useful (Littlejohn 1992). It is important to distinguish the different ways that theories can be used in research. Hall and Schmid (2009) details multiple ways that research can utilize theory including: grounding, referencing. Research grounded in theory uses an existing theory as a starting point from which to conduct research. The research is conducted to enrich the understanding of that theory. The theory informs the hypothesis and analysis. Research that mentions theories but does not use it is said to be referencing. Hall and Schmid (2009) offer two functions of referencing: The first is to provide the reader with substantive edification about the subject

matter of the research, the second function of theory referencing is to serve the author's need for accreditation (pp. 283). "At its best, theory referencing stimulates thinking and expands the knowledge base of the reader, but at its worst it is little more than window dressing" (Hall & Schmid, 2009, pp. 283).

Identifying theories used within the literature helps to describe the state of the field. In a content analysis of articles in health communication journals and in regional, national, and international communication journals published in the 1990s and the year 2000, Beck et al. (2004) obtained results, which indicated that 77% of the studied articles were atheoretical. Kim, Park, et al. (2010) in a similar study looking at works published in Health Communication, finding that 52.5% of the articles had no theoretical frames. Freimuth et al. (2006), in a content analysis of 10 Years of Research Published in the Journal of Health Communication found that 62% of all articles did not report the use theory as the basis for their research. Hall and Schmid (2009) contends, "much research that one might call 'atheoretical' is actually grounded in theory but the author has failed to develop the arguments (hypotheses, predictions, rationales, etc.) that would make the theoretical grounding clear" (p.283). The lack of theory building in the health communication literature can be mitigated by the practical application of the field. Thompson (2006) explains theories used in health communication research are theories that explain general communicative phenomena, and are typically developed in the communication literature and extracted for use in this more application based subfield. The lack of theory use within the literature is difficult to grasp because of the highly inter disciplinary nature of the field. Researchers have identified theories both within outside the field of communication applicable to health contexts (Cameron, de Haes, & Visser, 2009).

Theories have an important place in the construction and dissemination of knowledge. Kuhn (1962) explains that scientific revolutions occur through conflicting theories leading to a paradigm shift. In order to create new knowledge and a new way of thinking theories must be continually tested and questioned through research, making way for new theories. If science fails to do this, then the current or "normal" science would become stagnate and obsolete. Therefore research that evaluates the use and shifts of theory is valuable in the necessary momentum need for scientific revolutions.

Identifying Trends in the Literature

Health communication scholars periodically take stock of the state of health communication research, discussing the history and future of health communication through systematic literature reviews (Beck et al., 2004; Freimuth et al., 2006; Kim, Park, et al., 2010; Thompson, 2006). Publication trends expose prioritized topics, privileged theoretical and philosophical positions, and methodological approaches. Recent evaluations of the field have provided insight for this thesis (Beck et al., 2004; Freimuth et al., 2006; Kim, Park, et al., 2010) as they looked at types of articles, theory use, health topics, communicative aspects, and methodology.

Types of articles. The most frequent type of article published is original research 86% (Kim, Park, et al., 2010), and 78% (Freimuth et al., 2006). Reviews were the second most common type of article 9% % (Kim, Park, et al., 2010) 13% (Freimuth et al., 2006). Other types of articles were program descriptions and evaluations, and commentaries. Freimuth et al. (2006) further coded research studies, 83% being empirical studies, and 4% as rhetorical studies.

Theoretical frames. The majority of health communication articles do not utilize theoretical frames (Beck et al., 2004; Freimuth et al., 2006; Kim, Park, et al., 2010). Only 52% (Kim, Park, et al., 2010), to 62% (Beck et al., 2004) of articles utilized a theoretical frame. A wide variety of theories were used, and identified by each study. Kim, Park, et al. (2010) identified 104 theories that were used more than once with the theory of planned behavior and narrative theory were used most often (1.9%), followed by Social Norm Theory (1.7%), Framing Theory (1.6%), Extended Parallel Processing model (1.6%), and social cognitive theory (1.6%). Beck et al., (2004) found that Grounded Theory was the most used theory (11%), then Reinforcement Expectancy Theory *(*5%), Burke's rhetoric (4%), Health Belief Model (4%), Fear Appeal (4%), and Diffusion of Innovation (4%), Narrative Theory *(*3%), Relational Communication (3%), Problematic Integration Theory (3%), and Self Efficacy (2%). The difference in these findings is probably due to the different samples of journals used in each study. For example the high frequency of Grounded Theory in the second study can be attributed to the inclusion of the journal of *Qualitative Health Research*, where as in Kim, Park, et al. (2010) were only looking at the journal of *Health Communication*.

Health topics. An examination of published articles can provide insight into the prioritizing and legitimizing of certain health topics within the field of health communication. Table 1 outlines the ranks of topics in Kim, Park, et al. (2010) and Freimuth et al. (2006).

Table 1

Topics in Journals

Health Communication	The Journal of Health Communication
15.6% medical communication	15% tobacco
8.6% cancer	14% HIV/AIDS
6.2% HIV/AIDS/safer sex	13% cancer
5.3% smoking	12% no central health topic focus
4.8% health in general	8% alcohol/drugs
3.6% alcohol	5% family planning/ pregnancy
2.5% drug/narcotic/marijuana	5% crime/violence/injury
2.3% medication	4% pharmaceutical issues
2.2% heart disease	
According to Kim, Park, Yoo, and Shen, (2010)	According to Freimuth, Massett, and Meltzer, (2006)

This identifies the similarities in topical priorities in both journals. As Kreps (2001) contends, "health communication inquiry is an extremely broad research area, examining the important roles performed by human and mediated communication in health care and health promotion in a wide range of social contexts"(pp.233). Despite the reach of health communication research there is little diversity in the topics covered. Kim, Park, et al. (2010) revealed the important yet understudied topics end of life/senior care/aging, death/terminality, and mental health in Health Communication.

Kim, Park, et al. identified trends in research paradigms. Their analysis indicated a dominance in positivist research (88%), with little representation from interpretive (3%) and critical (1%) paradigms.

Use of communication. Identifying the aspects of communication studied in the literature provides researchers with possibilities for future research and may identify gaps and trends within the current literature. Freimuth et al. (2006) identified weather the empirical articles in their population were audience or message focused. It was found that

37% were coded as communication for audience analysis, and 29% were coded as communication for message development, and 33% were not able to be coded. They also coded for communication channel. 21% of the articles were concerning multimedia campaigns, 18% advertisements, 13% news media, 12% peer network communication, 11%, doctor–patient communication and interactive communication technology, 7% for technology-assisted communication, and 6% for entertainment education, and 8% of the articles had no definable channel (Freimuth et al., 2006).

Beck et al. (2004) identified the communication contexts as topic within the research, health information (13%) was the most prevalent topic, public health campaigns constituted the second most prevalent topic (12%), the third ranked topic physician-health care seeker interaction (11%), and the fourth ranked was social support (8%). Kim. Park, et al. (2010) identified the communication purpose of the individual research articles. The highest occurring communication topics were receiver/ audience research (41.4%) and message design (13.1%).

Research method. Quantitative methods had a higher showing than qualitative methods 74% (Beck et al., 2004), 86% (Freimuth et al., 2006), 61% (Kim, Park, et al., 2010). Survey Methods were the most commonly used at 39% (Kim, Park, et al., 2010), and 48% (Freimuth et al., 2006). Experimental design was next at 12% (Kim, Park, et al., 2010), and 21% (Freimuth et al., 2006). Content analysis was next with 9.3% (Kim, Park, et al., 2010) and tied for second with 21% in Freimuth et al. (2006). Of the qualitative methods used 51% used in-depth interviews, 37% focus groups, 20% case studies, and 9% observation (Freimuth et al., 2006).

In order for the scholarship to move forward a survey of the literature should be conducted, and is yet to be done. Research Concerning mental health is sporadic, unorganized, and lacks cohesion. This thesis will pull together the disparate threads of health communication research focused on mental health, specifically in terms of socio-ecological levels, the aspects or topics, key findings, communication foci, and method type. Specifically, this project will answer the following research questions in terms of current mental health communication research:

RQ1. What topics of mental health are studied published health communication research?

RQ 2. What aspects of communication are present in health communication journals?

RQ 3. What are the socio-ecological levels addressed in health communication journals??

RQ 4. What methodological approaches have researchers used in health communication journals??

RQ 5. What were the researchers' key findings in articles published in in health communication journals??

Chapter 3: Methods

Content Analysis

The objectives of this thesis are best accomplished though a systematic review of the literature. Through this thesis I will analyze the existent literature using content analysis methods. The purpose of this project is to provide a comprehensive synthesis of the current state of mental health communication research, within the sub-field of health communication. The strategy to conduct this research includes the following phases that will be presented in the following sections: selecting the article population; operationalization and coding schemes; instrumentation; training; coding; and reporting.

Selecting the Article Population

A search for the words “mental” and “health”, was executed through EBSCOhost’s Communication and Mass Media Database. Past similar research (Cassel, 2010; Nelson et al., 2010) has utilized various databases (i.e. PubMed, CINAHL, ERIC, PsycINFO) to obtain the article population while others (Golden & Earp, 2012; Kim, Park, et al., 2010) This thesis is different in that it utilizes the single database, to attempt to keep the article population closely connected to communication theory, and research.

The word “mental” was used as a subject search term because it would include relevant subjects including, but not limited to, mental health, mental illness, mental disorder, mental wellness, mental well-being, mental condition, etc. “Health” was also used as a subject search to maintain that the articles were health focused. Other research of this type has utilized various dadabases (The limiters are the articles should come from scholarly, peer reviewed communication journals; be published between 1983 - 2013; and be published in

English. The initial search retrieved 52 articles (see appendix A), published in 17 academic journals (see Table 2.)

Table 2

Population of Journal Articles.

Journals	Count
Journal Of Health Communication	9
Health Communication	6
Communication & Medicine	4
Patient Education & Counseling	4
Western Journal Of Communication	4
Communication & Medicine	4
Communication Monographs	3
Communication Research Reports	3
Human Communication	3
Communication Education	2
Journal Of Intercultural Communication Research	2
Communication Quarterly	1
Education & Counseling	1
Journal Of Applied Communication Research	1
Journalism Quarterly	1
Management Communication Quarterly	1

Operationalization and Coding Schemes

To develop the coding schemes, existing content analytic review articles in health communication were first analyzed (Beck et al., 2004; Freimuth et al., 2006; Kim, Park, et al., 2010). Using existing content analyses in health communication (e.g., Beck et al., 2004; Freimuth et al., 2006; Kim, Park, et al., 2010), an initial set of coding variables and subcategories such as topics, theoretical orientations, and research topics was identified. In addition, the key indicators that matched the goals of this thesis were included. After it was determined based on past content analysis research (e.g., (e.g., Beck et al., 2004; Freimuth et al., 2006; Kim, Park, et al., 2010). The coding system was updated as new cases that are not

included in the initial coding scheme were added until all possible cases were exhausted. This analysis utilized a mutually exclusive and exhaustive coding approach. In cases where judgments are difficult to make will be categorized as “hard to classify” and called for discussions with the coding team. The units of analysis were driven from each research question, as detailed in the following sections.

Human Populations. The human subjects used in the studies were identified. Identifying the subjects used for investigation are a good indicator of research trends within the literature (Kim, Park, et al., 2010). The initial categories are based on Kim Park, et al. (2010) and are found in Table 3.

Table 3

Human Population Studied.

Coding categories	
Adolescents (13–19 Years)	College/University Students
Adults	Seniors
Patients	Health Service Providers
Health Service Providers + Patients	Family Of Patients
Patients + Non-Patients	Patients + Family Of Patients
Adolescents + Students	Students + Adults
Adolescents + Students + Adults	Special Groups

Diagnosis. Research topics were classified by types of illness, disease, or risk. To identify health topics, existing reviews on health communication such as Beck et al. (2004), Freimuth et al. (2006), and Kim, Park, et al. (2010) were utilized. From the current literature the analysis will begin with 51 health topic codes. They are:

Table 4

Aspect of Health Studied.

Diagnosis/ Illness/ Disease/ Risk			
Aging	AIDS	Alcohol	Breast cancer
Cancer (with out breast cancer)	Death	Dental care	Diet
Drug	Eating	End of life	Health information
Health in general	Heart disease	HIV	Marijuana
Medical communication	Medication Nutrition	Obesity	Organ donation
Pediatrics	Safer sex	Smoking	Social support
Structure	Terminality		

The coding values will be continually updated until all possible cases are exhausted.

Aspects of communication studied. Each article was coded for the aspect of communication of interest. The initial categories are based on categories used by Kim, Park, et al. (2010) and are found in Table 5.

Table 5

Aspects of Communication Studied.

Coding Categories		
Senders	Channel	Audience
Messages	Meaning-Making	Narratives/Stories
Criticism Of Social Structures	Interactions	Program Evaluations/Measurement Evaluations

Research on senders focuses on the effects of a sender's characteristics on the audience's receptions about the health-related messages. Channel research focuses on the differing levels of health communication effectiveness as a result of the channel by which health messages are delivered. Audience research includes studies investigating audience preferences, needs, cultural background, attitudes, and value systems. Message research

looks at the effects of message-design strategies on one's knowledge of, attitude toward, and behavior toward health risks and problems. Meaning-making research explores the dynamic and continually negotiated communicative processes through which meanings of health are co-created. Narratives/stories explore the storied nature of health communication. Criticisms of social structures look at the interplay of power and control in the institutional structures of policymaking organizations, structures of campaign design and implementations, and structures of health care delivery. Interaction research studies senders, channel, audience, and messages simultaneously. Evaluation research assesses and describes the effectiveness of a campaign, an education program, or measurement tools.

Types of research. The type of research was identified in this analysis. The research type was determined by the goal of the given article. This was assessed using coding categories based on Kim, Park, et al. (2010) who identified five types of health research: original research; review; program description and/or evaluation; and commentary. Original research articles are empirical studies that use various data collection strategies to investigate research problems. Review articles are non-data based articles of which the main purpose is to systematically summarize research trends and often provide future research suggestions. Program descriptions/evaluation articles are evaluative analyses that described and assessed the effectiveness of health educational programs or health campaigns. Commentary articles are short articles with responses to, suggestions for, or critical feedback on particular published works or notable new problems or issues in the field.

Theories. Use of theories use has been identified in several systematic literature reviews of health communication (Beck et al., 2004; Freimuth et al., 2006; Kim, Park, et al., 2010). In this analysis theory is considered "an abstract scheme of thought" about the

phenomenon of inquiry (Chaffee, 1996, p. 16). A basic understanding of theory can de described as a conceptual device that aids in the understanding of as an aspect of reality or phenomenon. This view of theory is purposefully broad as it will allow the inclusion of various theorizing configurations ranging from social scientific theories to grounded theory.

In order to identify theory use, as opposed to brief mentions of theory, a specific protocol was used. In order to qualify as a theory-using article the hypothesis or research question must be derived from a given theory. As did the analysis of Kim, Park, et al. (2010) merely mentioning certain theories in the article did not suffice as qualifying as a theory driven article. Building on Beck et al. (2004) and Kim, Park, et al. (2010) a classificatory scheme of 30 theories, including grounded theory, was used as initial coding constructs as identified in Table 6.

Table 6

Theory Use.

Coding Categories			
Agenda setting	Health belief	Protection motivation	Structuration theory
Compliance gaining	Health persuasion	Priming	Social cognitive
Cultivation	Information seeking	Problematic integration	Social capital
Elaboration likelihood model l	Knowledge gap	Reasoned action	Social identity
Extended parallel process	Message design	Relational	Social norm
Fear appeal	Narrative	Risk perception attitude framework	Uncertainty management theory
Framing	Planned behavior	Self efficacy	
Grounded theory	Psychological reactance theory	Social learning	

Research paradigms. Articles in the population were categorized by the paradigm from which the research originates. The three coding constructs for research paradigm based

on Miller (2013), are social scientific/post- positivistic; interpretive; and critical. Articles that use empirical findings and testable quantitative research hypotheses or quantifiable patterns were coded as social scientific/post-positivistic paradigm. Articles that utilize qualitative information-gathering methods, seeking understanding from the perspectives of research participants, were categorized as originating form an interpretive paradigm. Articles that address power, structure, and/or social class issues surrounding the knowledge, attitude, and behavior of underprivileged groups with regards to health problems or risk were categorized as originating from a critical paradigm. For this coding construct, articles that do not fit in to one of these three categories were classified as “other”.

Socio-ecological levels addressed. To determine the number and types of social ecological levels addressed in the literature, articles were coded for this construct. The coding constructs for this factor are based on a five-level model described by McLeroy et al. (1988) and elaborated on by McLeroy, Norton, Kegler, Burdine, and Sumaya, (2003); Stokols, Pelletier, and Fielding, (1996) to include: individual/intrapersonal, interpersonal, organizational/institutional, community, and policy. The social ecological model analysis was conducted based on the Golden and Earp (2012) social ecological analysis model for coding interventions and research. This coding scheme offers a method of analysis for all research articles and intervention articles distinctly. This part of the analysis identifies the goals of the research and what social ecological level being addressed. Specifically this coding factor identifies what group or individuals received the education, training, or skills enhancement or the level of environmental modification made.

Intervention articles were coded based on the type of health behavior identified and/or measured in the article as a mechanism for change. Golden and Earp, (2012) coding system

was designed to assign behavioral determinants of social ecological levels and will be the tool for analysis for this factor. Each article was coded once; the articles that do not readily fit into a category will be coded as "difficult to identify" and was analyzed by the primary researcher. Table 7 shows the sociological coding scheme.

Table 7

Coding Scheme for Social Ecological Level.

Social Ecological Model Level	Coding Intervention articles	Coding all articles
Intrapersonal/ Individual	• Education/training/ skills enhancement of target population	• Knowledge of intervention participants • Perception/attitudes of affected populations • Stages of change/ behavioral intentions • Self-efficacy
Interpersonal	• Education/training/ skills enhancement of people who interact with target population (e.g., family members, friends, teachers, coworkers) • Modifications to home/family environments	• Perception/attitudes of social networks • Behavior of social networks, including provision of social support • Makeup of social networks
Institutional/ Organizational	• Education/training/ skills enhancement of institution members beyond target population and immediate contacts, including institutional leaders • Modifications to institutional environments, policies or services	• Perception/attitudes of institution leaders • Institutional culture • Institutional policies • Institutional physical environment • Institutional capacity
Community	• Education/training/ skills enhancement of general community beyond target population and immediate contacts, including community leaders	• Delivery of community services • Community physical environment

Social Ecological Model Level	Coding Intervention articles	Coding all articles
	• Modifications to community environments or services	• Community capacity
Policy	• Education/training/ skills enhancement of general community beyond target population and immediate contacts specific to policy change • Creation or modification of public policies	• Capacity for policy advocacy • Social norms • Perception/attitudes of policy makers • Public policy (creation or enforcement)

Methodological approaches. The articles in the population were coded for the methodological approach used. This thesis distinguishes the articles as using either qualitative or quantitative research methods. According to Denzin and Lincoln (2000), qualitative research involves "the studied use and collection of a variety of empirical materials—case study; personal experience; introspection; life story; interview; artifacts; cultural texts and productions; observation, historical interactional, and visual texts—that describe routine and problematic moments and meaning in individuals' lives" (p. 3). Its major purpose is to "get a better understanding of the subject matter" and it emphasizes "the qualities of entities" (p. 4). Qualitative research methods do not use experimentation, or measurement in numerical terms (i.e. quantity, frequency, amount, intensity) (Denzin & Lincoln). Quantitative research entails conceptual operationalization going from "propositions" to observable and testable hypotheses (Chaffee, 1996). It uses numerical data resulting from and measurement of operationalized variables to investigate relationships among variables. Both qualitative and quantitative while fundamentally different, are investigative instruments used to further understand a phenomena.

With these concepts of research methodologies in mind, the articles were classified as utilizing either a quantitative or qualitative approach. Utilizing Kim, Park, et al. (2010) coding constructs, articles will be coded as quantitative if they are utilizing one of the following data gathering approaches: surveys; experiments/quasi-experiments; quantitative content analyses; quantitative conversational analyses; and quantitative "other". Articles were coded as qualitative research methods articles if they utilize focus groups; in-depth interviews; case studies; qualitative content analyses; qualitative conversational analyses; ethnography; participant observation; and qualitative "other". Research articles that use both quantitative and qualitative methods were coded as mixed methods.

Key findings. Articles were analyzed for key findings. Key findings were extracted from the article's abstracts and listed. This list was analyzed, and salient themes were constructed. From these themes conclusions are made about trends in the literature, the history and the future of mental health communication research.

Instrumentation

Code book. A copy of the code book with all operationalization units of analysis and coding schemes is contained in the appendix. An electronic version of the code book was provided to the coders along with a coding sheet.

Code sheet. The code sheet was contained in a Microsoft Excel spreadsheet document. The Document will contain article titles, journals, authors, abstracts, and links to full text articles. Like past research (Beck et al., 2004; Freimuth et al., 2006; Kim, Park, et al., 2010), most coding categories were fulfilled through an analysis of the abstract. If the particular code is not evident in the abstract coders will have access to the full text version of the article.

Coders. For this thesis, coders were recruited through a undergraduate level health communication class, potentially this group would have insight into the topic. Five students responded to the call for coders and in doing such, received credit in their class for an alternative assignment. Training and initial coding took place over a two-week period in lieu of class time. All five coders completed the training and coding.

Training. Training consisted of an overview of the project, an explanation of the method and general procedures, and an introduction to the specific coding instructions and rules for analysis. The initial training lasted two hours. After the coders were trained on the codes and coding schemes, revisions that needed to be made to the codebook were done.

Sample coding. After the initial training, a sample coding was conducted lasting two hours. The coders together conducted a sample coding of three articles in an open forum. Consensus was achieved on all codes for these articles. After each set of examples was analyzed, the team convened and discussed the correct coding. This was an ongoing process, which allowed coders to raise questions, clear ambiguities and clarify coding rules when needed. When coders demonstrated a satisfactory level of understanding of the coding rules and procedures and a high degree of accuracy in coding the sample, coding took place. A random sample of two articles was assigned to the coders. After those articles were coded a check for inter-coder reliability was made using percentage agreement. When 100% agreement is not met, coders discussed all incompatible coding and will re code until 100% agreement is met.

Final coding. After a final reliability was met and coders had a chance to have all coding questions answered, the final coding was conducted. Coders were given ten articles to code. Coders had two weeks to complete coding and then submitted their data in electronic

format, utilizing the coding sheet provided. Coders were to code each article once on their own, article that had a code that is difficult to classify should be coded a “difficult to classify” and were analyzed by the primary investigator. After all articles are completely coded, the coding sheets were submitted to the primary investigator for secondary coding.

Analysis and interpretation. The primary investigator conducted the final coding of all articles in the population. The coded data will be summarized and frequencies, patterns and relationships, which will be revealed in the upcoming chapters. The articles will be organized using the social-ecological model. The final write up of the results and a narrative synthesis of key findings amongst all articles will be conducted and presented along within the discussion chapter of this thesis.

Chapter 4: Results

Coders submitted their coding sheets to the primary investigator, who then entered them into the excel spreadsheet. The primary investigator conducted a second coding of all articles and codes to ensure accuracy. The primary investigator corrected any miscoded articles and, weighed in on the codes left blank or coded as difficult to code. The primary investigator also unified similar codes under the same coding category. The overall intercoder agreement was 78.2%. Table 8 describes the inter coder agreement percentages among the coders and the initial investigator for each coding category. The following sections will provide the results organized according to each research question.

Table 8

Inter-coder Agreement.

Coding Categories							
Population	Aspects of Communication Studied	Type of Research	Theories	Research Paradigms	Socio-ecological levels addressed	Methodological approaches	Aspects of mental health
91.31%	63.05%	91.31%	54.35%	76.09%	60.9%	82.61%	84.79%
Coders							
Coder 1	**Coder 2**	**Coder 3**	**Coder 4**	**Coder 5**			
77.06%	80.68%	78.27%	81.89%	75.85%			

Topics of Mental Health Studied

The first research question was interested in looking at the various aspects and topics of mental health that were being addressed by the research. In order to uncover this each

article was coded for the human population studied and the aspect of metal health covered in each article. Upon coding, the categories were expanded to include the following new categories: Asian Americans /Asian Immigrants /Pacific Islanders, Articles/ Television Show/, Employees, Hispanics/ Latinos, Adult Couples, Adults/ Adolescences, International Students, Low-Income Women With Breast Cancer, Muslim Families, Parents And Stepchildren, People Diagnosed With Schizophrenia, Blogs, Scholars, Military. The categories of Blogs and Articles/ Television shows were added to accommodate research looking at these specific artifacts, and not a specific human population. The ethnic groups were not grouped together as research regarding the various groups may present different problems and solutions specific to each group. Therefore it is not helpful to put all ethnic groups in the same coding category. The following categories were eliminated, Adult Seniors, Family Of Patients, Patients + Non-Patients, Patients + Family Of Patients, Adolescents + Students, Students + Adults, Adolescents + Students + Adults, and Special Groups. The category of special groups was specifically eliminated because it was too general and did not allow the individual groups to be given specific attention in this research. Table 9 displays the human populations studied in the research and is ordered from the most commonly studied populations in the research to the least.

Table 9

Human Population.

Category	Count
College Students	12
Patient Provider	5
Adults	4
Asian Americans /Asian Immigrants /Pacific Islanders	4
Adolescents	2
Patients (general)	2
Articles/ Television Show	2
Employees	2
Hispanics/ Latinos	2
Adult Couples	1
Adults/ Adolescences	1
International Students	1
Low-Income Women With Breast Cancer	1
Muslim Families	1
Parents And Stepchildren	1
People Diagnosed With Schizophrenia	1
Blogs	1
Scholars	1
Military	1
Total	45

Population Studied

College students were most frequently used as the subjects of research (n=12) and further, research that used college students as subjects were most likely to employ quantitative research methods and further be utilizing survey as the data gathering tool. This is not unexpected considering the access scholars have to this segment of the population. The second most common studied group was that of patients and providers (n= 5). The research methods among this group was split between qualitative (n=2), quantitative (n=2) and mixed (n=1) method approaches. The third most common populations studied were both

adults (n=4), and Asian American/Asian Immigrants/ Pacific Islanders (n=4). Within the group Asian Americans /Asian Immigrants /Pacific Islanders, the only social-ecological level addressed was the interpersonal level (n=4). There were not common themes evident among the research studying an adult population. There was a variety of methodological approached, theories used, social-ecological levels addressed, communication aspects were varied and aspects of mental health studied. The following populations were looked at by two studies respectively: adolescents (n=2), patients (n=2), articles/television show (n=2), employees (n=2), and Hispanic/Latinos (n=2). Ten of the 45 articles looked at unique populations and therefore the following human populations were only studied by a single study Adult Couples (n=1), Adults/ Adolescences (n=1), International Students (n=1), Low-Income Women With Breast Cancer (n=1), Muslim Families (n=1), Parents And Stepchildren (n=1), People Diagnosed With Schizophrenia (n=1), Blogs (n=1), Scholars (n=1), and Military (n=1).

Aspects of Mental Health

The first research question is also focused on revealing the various aspects of mental health that are being studied in communication journals. The coding categories were derived from past systematic reviews of health literature such as Beck et al. (2004), Kim, Park, et al. (2010), and Freimuth et al. (2006) however these reviews were looking at health in general and general health topics. Through coding the articles it became evident that these coding categories were not relevant to the mental health focus of this research and a new coding scheme emerged and the categories can be found in Table 10.

Table 10

Aspects of Mental Health.

Category	Count
Depression	19
General Mental health	6
Anxiety/ Depression	4
None specific	3
Mental Wellbeing	3
Stress, Depression	2
Autism, Schizophrenia	1
Neuroticism and Psychoticism	1
Mental disability	1
Mental health care	1
Mental Illness (primarily depression)	1
PTSD	1
Schizophrenia	1
Stress	1
Total	45

The most commonly researched aspect of mental health was depression (n=19). Out of these articles focused around depression (n=14) were from a social scientific perspective and utilized quantitative methods. It is important to note that some articles that were coded for depression were not addressing clinical depression but were using scales and questions to measure depressive symptoms (i.e. Floyd et al., 2009; Jung, & Hecht, 2008; Narissra & Wrench, 2009; Sentell, Baker, Onaka, & Braun, 2011; Wright, & Rains, 2013; Wright, Rosenberg, et al., 2013). Expressing depressive symptoms does not equate a diagnosis of clinical depression. Multiple factors are taken into consideration for a diagnosis of depression; most scales do not consider all of them. Additionally, each article utilizes a different scale for which to measure the depressive symptoms, with the exception of two. Table 11 shows each article and the measurement scale used. Wright & Rains (2013) and Wright, Rosenberg, et al. (2013) evaluated depression using a 21-item inventory (Beck,

Steer, & Brown, 1996). Jung and Hecht (2008) measured depression using the widely used Center for Epidemiological Study Depression Scale (CES-D) developed by Radloff (1977). Floyd et al. (2009) assessed depressing using the Iowa Short Form (Kohout, Berkman, Evans, & Cornoni-Huntley, 1993) of the Center for Epidemiological Studies Depression (CES-D) scale (Radloff, 1977). Sentell, Baker, Onaka, and Braun (2011) a positive code for depression was given if the respondent answered ‘‘all the time’’ or ‘‘most of the time’’ to the question: ‘‘In the past four weeks, have you felt down-hearted and depressed all the time, most of the time, some of the time, a little of the time, or none of the time?’’ Narissra and Wrench (2009) measured the respondents level of depression using the Goldberg's (1972) General Health Questionnaire was utilized, which consists of 5 statements measured using a Likert-type scale.

Table 11

Measurements of Depression by Study.

Article	Depression Measurement Scale Used
Wright, K. B., Rosenberg, J., Egbert, N., Ploeger, N. A., Bernard, D. R., & King, S. (2013). Communication Competence, Social Support, and Depression Among College Students: A Model of Facebook and Face-to-Face Support Network Influence. Journal Of Health Communication, 18(1), 41-57. doi:10.1080/10810730.2012.688250	Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Manual for Beck depression inventory-II. San Antonio, TX: Psychological Corporation.
Jung, E., & Hecht, M. L. (2008). Identity Gaps and Level of Depression Among Korean Immigrants. Health Communication, 23(4), 313-325. doi:10.1080/10410230802229688	Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in general population. *Applied Psychological Measurement, 1*, 385–401.

Article	Depression Measurement Scale Used
Floyd, K., Boren, J. P., Hannawa, A. F., Hesse, C., McEwan, B., & Veksler, A. E. (2009). Kissing in Marital and Cohabiting Relationships: Effects on Blood Lipids, Stress, and Relationship Satisfaction. Western Journal Of Communication, 73(2), 113-133. doi:10.1080/10570310902856071	Kohout, F. J., Berkman, L. F., Evans, D. A., & Cornoni-Huntley, J. (1993). Two shorter forms of the CES-D depression symptoms index. Journal of Aging and Health, 5, 179–193. Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in general population. *Applied Psychological Measurement, 1,* 385–401.
Sentell, T., Baker, K., Onaka, A., & Braun, K. (2011). Low Health Literacy and Poor Health Status in Asian Americans and Pacific Islanders in Hawai'i. Journal Of Health Communication, 16279-294. doi:10.1080/10810730.2011.604390	None
Narissra M., P., & Wrench, J. S. (2009). Development and Validity Testing of a Measure of Touch Deprivation. Human Communication, 12(1), 67-76.	Goldberg, D. P. (1972). *The detection of psychiatric illness by questionnaire*. Oxford: Oxford University Press.
Wright, K. B., & Rains, S. A. (2013). Weak-Tie Support Network Preference, Health-Related Stigma, and Health Outcomes in Computer-Mediated Support Groups. Journal Of Applied Communication Research, 41(3), 309-324. doi:10.1080/00909882.2013.792435	Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Manual for Beck depression inventory-II. San Antonio, TX: Psychological Corporation

General mental health was the second most common mental health aspect of interest in the literature (i.e., Fisher et al., 2012; Ginossar & Nelson, 2010; Kirby, 2006; Schrodt, 2006; Yamaguchi & Wiseman, 2003; Yang-Soo, 2007). Within this topic, each article is looking at a unique population, and a variety of methods are used (quantitative n=2 (Schrodt, 2006; Yamaguchi & Wiseman, 2003), qualitative n=2 (Ginossar & Nelson, 2010; Yang-Soo, 2007)) including the only article coded as being a program description/ evaluation and also

the only research using community based participatory research (i.e., Ginossar & Nelson, 2010). Additionally this group contained one commentary (Fisher et al., 2012) and one review article (Kirby, 2006).

The third most studied aspect of mental health was anxiety and depression (n=4) (i.e., Cunningham et al., 2014; Oommen, 2013; Smolders et al., 2008; Witt, Roberts, & Behnke, 2008). All research looking at anxiety and depression utilized quantitative methods. However they varied in the way that they assessed anxiety and depression. Smolders et al. (2008) was the only article to look at clinical depression and anxiety, the other articles were looking at anxiety and depressive symptoms. Each article measured anxiety and depression differently. Smolders et al. (2008), whose subjects were general health practitioners gave self reported data concerning patients who met all the criteria in the DSM-IV for anxiety or major depression. Oommen (2013) measured anxiety using Spielberger, Gorsuch, & Lushene's (1970) state-trait anxiety inventory. They used the Center for Epidemiologic Studies Depression (CES-D) Scale (Radloff, 1977) to measure depression. Cunningham et al. (2014) asked participants to report the extent to which family members, friends, or coworkers have experienced problems with anxiety or depression (i.e., none, some, or many). Witt et al. (2008) measured public speaking anxiety using the A-trait scale of the State/Trait Anxiety Inventory (STAI) developed by Spielberger et al. (1970) and utilized an abbreviated version of the Goldberg Depression Screening Scale (DSS; Goldberg, Bridges, Duncan-Jones, & Grayson, 1988). The original version was developed for use in primary care settings to aid rapid diagnosis of depression, consisted of 9 items, the 6 items selected for the abbreviated survey were those relevant to the public speaking context, (i.e., loss of confidence,

hopelessness, difficulty concentrating, loss of energy, loss of interest, and feeling slowed down).

Table 12

Measuring Anxiety and Depression within the Research.

Article	**Depression Measurement Used**	**Anxiety Measurement Used**
Cunningham, C. E., Walker, J. R., Eastwood, J. D., Westra, H., Rimas, H., Chen, Y., & ... The Mobilizing Minds Research, G. (2014). Modeling Mental Health Information Preferences During the Early Adult Years: A Discrete Choice Conjoint Experiment. *Journal Of Health Communication*, *19*(4), 413-440. doi:10.1080/10810730.2013.811324	participants reported the extent to which family members, friends, or coworkers have experienced problems with depression (none, some, or many).	participants reported the extent to which family members, friends, or coworkers have experienced problems with anxiety (none, some, or many).
Oommen, D. (2013). The Relationship between Mental Distress, Assessed in Terms of Anxiety and Depression, and Conflict Management in the Context of Cultural Adaptation. Journal Of Intercultural Communication Research, 42(2), 91-111. doi:10.1080/17475759.	Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in general population. *Applied Psychological Measurement, 1,* 385–401.	Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1970). STAI manual for the state-trait anxiety inventory (‘‘self-evaluation questionnaire’’). Palo Alto, CA: Consulting
Smolders, M., Laurant, M., Roberge, P., Akkermans, R., Wensing, M., & Grol, R. (2008). How well do GPs fulfill their educator role in consultations for depression and anxiety?. Patient Education & Counseling, 73(2), 389-395. doi:10.1016/j.pec.2008.07.026	Participating practitioners submitted self reported data concerning patients who met the DSM-IV criteria for major depression.	Participating practitioners submitted self reported data concerning patients who met the DSM-IV criteria for anxiety
Witt, P. L., Roberts, M. L., & Behnke, R. R. (2008). Comparative Patterns of Anxiety and Depression in a Public Speaking Context. Human Communication, 11(2), 219-230.	Goldberg, D. P., Bridges, K., Duncan-Jones, P., & Grayson, D. A. (1988). Detecting anxiety and depression in general medical settings. *British*	Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1970). *Manual for the State-Trait Anxiety Inventory.* Palo Alto, CA:

Article	Depression Measurement Used	Anxiety Measurement Used
	Medical Journal, 297, 897-899.	Consulting Psychologists Press. Adapted by Behnke, R. R., & Sawyer, C. R. (1998). Conceptualizing speech anxiety as a dynamic trait. *Southern Communication Journal, 63,* 160-168.

Three of the articles did not have any specific mental health topic. (i.e. Nakash, Dargouth, Oddo, Gao, & Alegría, 2009; Tankard, & Adelson, 1982; Themistocleous et al., 2009). Nakash et al. (2009) recorded initial mental health intakes at an outpatient mental health clinic. They qualitatively and quantitatively analyzed weather patient or provider initiated information exchange. Their findings highlight the importance of patient initiation of information in provider decision-making and stress the importance of modifying the communication style to patients' preferences. Tankard and Adelson (1982) conducted a content analysis of three advice columns finding that most often they refute myths about mental health. The third article that did not have a specific mental health focus, Nakash et al. (2009), was the only article in the total population to be coded as interested in the communicative aspect of -making. In this study Nakash et al. look at how mutual understanding is established in interaction using the concept of repair, and how this communication processes is connected to treatment outcomes.

Mental Wellbeing (Farrell & Geist-Martin, 2005; Ibrahim, Jiali, & Hoffner, 2008; Namkoong et al., 2010) and Stress, Depression categories had three and two articles each.

The mental health topics of: Autism, Schizophrenia, Neuroticism and Psychoticism, Mental disability, Mental health care (Johnson, 1992), Mental Illness (Rasmussen & Ewoldsen, 2013), PTSD (Clark-Hitt, Smith, & Broderick, 2012), Schizophrenia (Kim & Stout, 2010), Stress (Mansson, 2013) had one article coded for each category.

Aspects of Communication Studied

In order to address research question two, the articles in the population were coded according to the aspect of communication studied along with research paradigms and theories used. Table 13 displays the occurrence of each aspect of communication among the population. Research concerning messages was the most commonly occurring aspect of communication studied (n=12) (Bell et al., 2010; Chang, 2008; Clark-Hitt et al., 2012; Egbert, Miraldi, & Murniadi, 2014; Johnson, 1992; Kelly & Duran, 1984; Lienemann, Siegel, & Crano, 2013; MacGeorge, Samter, & Gillihan, 2005; Rasmussen & Ewoldsen, 2013; Romer & Bock, 2008; Scott, Caughlin, Donovan-Kicken, & Mikucki-Enyart. 2013; Tankard & Adelson, 1982).

Studies categorized as focusing on the audience aspect of communication were the second most occurring (n=10) (An, 2008; Gonzalez et al., 2013; Ibrahim et al., 2008; Jung & Hecht, 2008; Namkoong et al., 2010; Oommen, 2013; Sentell et al., 2011; Shimotsu & Mottet, 2009; Wright & Rains, 2013; Yamaguchi & Wiseman, 2003). The third most researched aspect of communication studied in the mental health communication literature is the interaction aspect (n=3) (Ginossar & Nelson, 2010; Nakash et al., 2009; Schrodt, 2006). Articles looking at the narrative aspect of communication (n=5) (Duggan, 2007; Farrell & Geist-Martin, 2005; Kaur-Bola & Randhawa, 2012; Knobloch & Delaney, 2012; Yang-Soo, 2007). Research concerning the sender aspect of communication (n=4) (Egbert et al., 2014;

Mansson, 2013; Smolders et al., 2008; Witt et al., 2008). Channel research consisted of (n=4) of the articles (Floyd et al., 2009; Kim & Stout; 2010; Whittaker et al., 2012; Wright et al., 2013). Two articles were coded as being criticisms of social structures (n=2) (Kirby, 2006; McCabe, 2013). Three articles were coded as being a program evaluation/ measurement evaluation (n=3) (Ginossar & Nelson, 2010; Narissra & Wrench, 2009; Whittaker et al., 2012). Meaning making (n=2) (Miller, 2013; Themistocleous et al., 2009) and none specific had one article coded for each.

Table 13

Aspects of Communication Studied.

Coding Category	Count
Message	13
Audience	10
Interaction	4
Narrative	5
Sender	4
Channel	4
Criticism of social structure	2
Program evaluation/Measurement evaluation	3
meaning making	2
none specific	1

In addition to being coded for aspect of communication studied, the articles in the population were also coded for their theory use. By the end of the analysis there were sixty-two (n=62) distinct coding categories for theory. The majority of articles were coded as not utilizing any specified theory (n=10). Fisher et al., 2012; Kelly & Duran, 1984; Kirby, 2006; Rasmussen & Ewoldsen, 2013; Schrodt, 2006; Sentell et al., 2011; Smolders et al., 2008; Tankard & Adelson, 1982; Themistocleous et al., 2009; Vogel, Leonhart, & Helmes, 2009). The second most frequent theories used were grounded theory (n=4) (Farrell & Geist-Martin,

2005; Kaur-Bola & Randhawa, 2012; Nakash et al., 2009) and Social Support (n=4) (MacGeorge et al., 2005; Wright & Rains, 2013; Wright, Rosenberg, et al., 2013). Affection Exchange theory (Floyd et al., 2009; Mansson, 2013), Diffusion of innovations (Ginossar & Nelson, 2010; Ibrahim et al., 2008), and social cognitive theory (Ginossar & Nelson, 2010; Whittaker et al., 2012) have (n=2) two articles coded for each. All other theories were only found once within the population, with one article unable to code for this factor, and some articles were coded for two theories.

Table 14

Theory Use.

Coding Category	Count
None Specified	10
Grounded	4
Social Support	4
Affection Exchange Theory	2
Diffusion / Diffusion Of Innovations Theory	2
Social Cognitive Theory	2
Adaptive Conjoint Analysis	1
Availability Heuristic	1
Behavior Change Theory	1
Boomerang Effects	1
Cognitive Theory Of Depression,	1
Communication Theory Of Identity	1
Compliance Gaining	1
Counter Stereotyping	1
Cross-Cultural Adaptation	1
Self Efficacy	1
Extended Parallel Process Model,	1
Conflict Styles	1
Face	1
Health Efficacy	1
Inconsistent Nurturing As Control Theory	1
Interactivity Effects	1
Learned Helplessness Theory	1
Self-Construal	1
Intercultural Communication Competence	1
Locus Of Control,	1

Coding Category	Count
Message Design Logics	1
Argument	1
Narrative	1
Lasswell's Model Of Communication	1
Personality Traits	1
Communication Apprehension,	1
Perfectionism,	1
Relational Uncertainty	1
Relational Health Communication Competence Model	1
Relational Turbulence Model,	1
High Reliability Organizations	1
Sense Making Theory;	1
Social Judgment Theory	1
Optimal Matching Model	1
Theory Of Planned Behavior	1
Touch Deprivation Scale	1
Unable To Code	1
Virtue Ethics Of Care	1
Total	62

Each article was coded for the scientific paradigm it followed. Thirty-two (n=32) articles were coded as using the Social Scientific paradigm. Six (n=6) were coded as using the Interpretative paradigm (Farrell & Geist-Martin, 2005; Ginossar & Nelson, 2010; Kaur-Bola & Randhawa, 2012; Knobloch & Delaney, 2012; Miller, 2013; Yang-Soo, 2007). Four (n=4) were coded as using both the social scientific paradigm and interpretative paradigm (Bell et al., 2010; Clark-Hitt et al., 2012; Nakash et al., 2009; Whittaker et al., 2012). Two (n=2) were coded as critical (Kirby, 2006; McCabe, 2013) and one (n=1) was coded as not coming from a specific paradigm (Fisher et al., 2012).

Table 15

Research Paradigms.

Coding Category	Count
Social Scientific	32
Interpretive	6
Social Scientific/ Interpretive	4
Critical	2
None Specific	1
Total	45

Socio-ecological Levels Addressed

Each article was coded for the socio-ecological level addressed. Figure 1 displays the occurrences within each level. Twenty (n=20) articles were coded as addressing the interpersonal level (Gonzalez et al., 2013; Kaur-Bola & Randhawa, 2012; Kim & Stout, 2010; Knobloch & Delaney, 2012; MacGeorge et al., 2005; Mansson, 2013; Narissra & Wrench; 2009; Romer & Bock, 2008; Schrodt, 2006; Scott et al., 2013; Tankard & Adelson, 1982; Yamaguchi & Wiseman, 2003; Yang-Soo, 2007). Twelve (n=12) articles were coded as addressing the intrapersonal level (Bell et al., 2010; Clark-Hitt et al., 2012; Jung & Hecht, 2008; Lienemann et al., 2013; Oommen, 2013; Sentell et al., 2011; Shimotsu & Mottet, 2009; Whittaker et al., 2012; Wright & Rains, 2013; Wright, Rosenberg, et al., 2013). Nine (n=9) articles were coded as addressing the intuitional/ organizational level (Farrell & Geist-Martin, 2005; Fisher et al., 2012; Johnson, 1992; Kelly & Duran, 1984; Kirby, 2006; Miller, 2013; Nakash et al., 2009; Smolders et al., 2008; Themistocleous et al., 2009; Vogel et al., 2009). Two (n=2) were addressing the community level (Ginossar & Nelson, 2010; Rasmussen & Ewoldsen, 2013). One (n=1) was coded as addressing the policy level (McCabe, 2013).

Table 16

Socio-ecological Levels Addressed.

Coding Category	Count
Interpersonal	20
Intrapersonal	12
Institutional/ Organizational	10
Community	2
Policy	2
Total	45

Methodological Approaches Used

Articles in the population were coded for the type of research and methodological approach. Table 17 displays the types of research and the number of articles that were coded for each category. Original research accounted for the majority of articles published (n=39). Three of the articles were coded as reviews (n=3) (Kelly, & Duran, 1984; Kirby, 2006; McCabe, 2013). There was one article coded as a commentary (n=1) (Fisher et al., 2012) which was also coded as not coming from a specific paradigm. Two article in the population was coded as a program description/evaluation (n=2) (Ginossar & Nelson, 2010; Whittaker et al., 2012).

Table 17

Type of Research.

Coding Category	Count
Original Research	39
Review	3
Commentary	1
Program description/evaluation	2

Table 18 displays the coding categories for methodological approaches and the number of articles coded for each category. The majority of articles in the population (n=30)

were coded as using quantitative methods. Research using qualitative methods accounted for ten (n=9) of the articles (Clark-Hitt et al., 2012; Farrell & Geist-Martin, 2005; Ginossar & Nelson, 2010; Kaur-Bola & Randhawa, 2012; Knobloch & Delaney, 2012; McCabe, 2013; Miller, 2013; Rasmussen & Ewoldsen, 2013; Yang-Soo, 2007). Two articles in the population (n=3) utilized a mixed method approach (Bell et al., 2010; Nakash et al., 2009; Tankard & Adelson, 1982; Whittaker et al., 2012). Three (n=3) were coded as not having a methodological approach (Fisher et al., 2012; Kelly & Duran, 1984; Kirby, 2006).

Table 18

Methodological Approaches.

Coding Category	Count
Quantitative	30
Qualitative	9
None	3
Mixed	3

RQ 5. What were the researchers' key findings?

Thus far this survey of the literature has provided a descriptive account of the mental health communication research. The final research question required the coders to extract the key findings from the articles. Rather than list this information, this question will be answered in in a narrative format, organized using the social ecological frame and further by the aspect of communication studied.

Intrapersonal. Research coded at the intrapersonal level was interested in the knowledge of intervention participants, the perceptions and attitude of the affected populations. Twelve articles in the population were coded as addressing the intrapersonal level (Bell et al., 2010; Clark-Hitt et al., 2012; Jung & Hecht, 2008; Lienemann et al., 2013;

Namkoong et al., 2010; Oommen, 2013; Sentell et al., 2011; Shimotsu & Mottet, 2009; Whittaker et al., 2012; Wright & Rains, 2013; Wright, Rosenberg, et al., 2013)

Audience. It is not surprising that much of the research aimed at the intrapersonal level was also interested in the audience aspect of communication, since audience research includes studies investigating audience preferences, needs, cultural background, attitudes, and value systems. Five of the twelve articles coded as addressing the intrapersonal socio ecological level were interested in the audience aspect of communication (Shimotsu & Mottet, 2009; Jung & Hecht, 2008; Sentell et al., 2011; Wright & Rains, 2013; Namkoong et al., 2010).

Shimotsu and Mottet's (2009) research of college students was the only article that was looking at general neuroticism and psychoticism as the mental health area of interest and was focused on audience needs. In this quantitative study neuroticism and psychoticism were described as an aspect of personal temperament and were measured using the ENP (extraversion, neuroticism, and psychoticism) Scale (H. J. Eysenck & Eysenck, 1985; S. B. G. Eysenck, Eysenck, & Barrett, 1985). Shimotsu and Mottet were looking at the relationship of perfectionism and communication apprehension. They found that as participants' self-reported levels of adaptive perfectionism increased, their self-reports of extraversion (sociability, assertiveness) increased, although their self-reports of neuroticism (emotionality, stability) and psychoticism (impulsiveness, creativity, detachment) decreased. As maladaptive perfectionism among participants increased, their self-reports of extraversion decreased, whereas their self-reports of neuroticism also increased. Therefor perfectionism as adaptive is linked to extroversion and perfectionism as a maladaptive trait is linked to neuroticism and psychoticism.

Jung and Hecht (2008) addressed the intrapersonal level as they were looking at the differing levels of depression expressed by Korean immigrants in relationship to identity gaps. Identity gaps are understood to be the difference between inconsistencies between the differing frames of identity. This article was focused on audience needs as it related to their cultural background. Like Shimotsu and Mottet's (2009) research this work was not looking at mental illnesses from a clinical/diagnosed perspective but looking at expression of characteristics of mental illnesses. In this quantitative study levels of depression were measured as the degree to which an individual feels depressive moods or symptoms and were measured with the Center for Epidemiological Study Depression Scale (Radloff, 1977). They found that identity gaps had strong effects on Korean immigrants' depression

Sentell et al. (2011) were also interested in audience aspects of communication and depression among Americans who identified as having Asian heritage along with Pacific Islanders. Specifically, they were looking at the incidences of low health literacy and how they related to poor health outcomes, including depression. This research did not use a proven scale to measure depression but for each respondent "depression was coded ''yes'' if the person answered ''all the time'' or ''most of the time'' to the question: ''In the past four weeks, have you felt down-hearted and depressed all the time, most of the time, some of the time, a little of the time, or none of the time?''(p. 283). Native Hawaiians with low health literacy were likely to have answered yes to the question that qualified them for having depression.

Wright and Rains (2013) research was interested in preferences and needs of audiences at the intrapersonal level. Specifically they wanted to look at the effects that both strong-tie and weak-tie support network preference have on stigma, and depression among

members of computer-mediated support groups. Depression was evaluated with the 21-item Beck depression inventory (BDI; Beck et al., 1996). Their findings implicate that weak tie online support groups may help individuals who perceive health related stigma seek support, and those who do seek support with these weak tie groups have less stress and depression.

Namkoong et al. (2010) were looking at the effects of computer mediated breast cancer support groups. Although this research was interested in support groups it was specifically looking at how emotional wellbeing was effected by self efficacy of the respondents participating in the support groups. The study found that patients who had a higher self-efficacy reported the support groups to have a positive effect on their wellbeing whereas patients who had a lower self-efficacy reported the group to have a negative effect on their well being.

Message, channel, sender. Among the articles coded as addressing the intrapersonal level three were coded as being interested in the message/ channel/ sender aspect of communication (Clark-Hitt et al., 2012; Cunningham et al., 2014). Message research looks at the effects of message-design strategies on one's knowledge of, attitude toward, and behavior toward health risks and problems. Research on Senders focuses on the effects of a sender's characteristics on the audience's receptions about the health-related messages. Channel research focuses on the differing levels of health communication effectiveness as a result of the channel by which health messages are delivered.

Clark-Hitt et al. (2012) interested in improving health outcomes for military service members living with PTSD. Similarly to other research aimed at the intrapersonal level, this research was interested in the knowledge of intervention participants, the perceptions and attitude of the affected populations. To get at this a qualitative analysis of focus groups

discussing various message design strategies was conducted. They found that messages that were designed without PTSD terminology, not focusing on the disorder, discussed treatment success, highlighted hi ranking individuals who sought treatment would be the most effective in encouraging help seeking behavior.

Cunningham et al. (2014) looked at the effects of a sender's characteristics on adolescences' receptions about mental health-related messages. They also looked at differing levels of effectiveness as a result of the channel by which health messages are delivered. Last they looked at how different messages should be constructed based off the interest levels of the individuals. They found that some preferred searching independently on the Internet to find information recommended by peers who have experienced anxiety or depression. Those same participants also preferred self diagnosing tools with access to service providers. One third of the participants preferred books or pamphlets recommended by a doctor. Individuals who had low beginning interest in mental health preferred brief information. All groups preferred information about alternative ways to reduce anxiety or depression rather than psychological approaches or medication. This research shows that in order to reach the largest segment of the population multiple channels and design strategies should be employed.

Message. Message research looks at the effects of message-design strategies on one's knowledge of, attitude toward, and behavior toward health risks and problems. Two articles within the intrapersonal level were coded as looking at the effects of message design stratigies on individuals (Bell et al., 2010; Lienemann et al., 2013).

Bell et al. (2010) wanted to assess message preferences of individuals affected by depression and discover what messages were best at encouraging at-risk patients to talk to

their physicians about depression. The participants were individuals who self identified as either personally dealing with depression of having a family history of depression. Bell et al. used a mixed methods approach, utilizing focus groups and surveys. The focus group identified three general barriers to care-seeking: misunderstandings about depression, problems communicating with one's physician, and concerns about antidepressants. The survey analysis indicate that misunderstandings about depression are best addressed by conveying the idea that depression presents in a variety of ways and can include both psychological and physical symptoms. The survey also indicates providers should communicate to patients the high rate of depression in the general population.

Lienemann et al. (2013) were interested in the perceptions and attitudes of college students regarding mental health related messages. Viewing a depression ad caused people with greater depressive symptoms to experience greater levels of self-stigma. These findinsgs are important because heath related messages concerning mental health might have the opposite intended effect in the target population.

Channel. Channel research accounted for one of the articles coded as being interested in the intrapersonal aspect of communication (Wright, Rosenberg, et al., 2013). Channel research focuses on the differing levels of health communication effectiveness as a result of the channel by which health messages are delivered. Wright, Rosenberg, et al. (2013) studied college students using quantitative methods and looking into social support, and the relational health communication competence model and depression. The channel they were looking that was computer mediated communication specifically the social networking site Facebook. Wright, Rosenberg, et al.'s (2013) findings supported the communication competence model interpersonal motives predicted increased face-to-face and computer-

mediated competence, increased social support satisfaction with face-to-face and Facebook support, and lower depression scores. However this article was not looking at individuals with a clinical diagnosis of depression but people's self assessment of depression related symptoms.

Sender. Sender research accounted for one of the articles coded as being interested in the intrapersonal aspect of communication Witt et al. (2008). Sender research is looking at senders' characteristics on the audience's receptions about the health-related messages. Witt et al. (2008) also studied college students in the public speaking context using quantitative methods utilizing learned helplessness theory and how it is related to anxiety and depression resulting from public speaking. This research was specifically interested in public speaking anxiety, not clinical anxiety; however they used an abbreviated version of the A-trait scale of the State/Trait Anxiety Inventory (STAI) devised by Spielberger et al. (1970). Again this research was not interested specifically in clinical depression only in symptoms of depression as they related to public speaking anxiety. Depression was measured using an abbreviated version of the Goldberg Depression Screening Scale (Goldberg et al., 1988). The study found that students of public speaking generally have anxious feelings whenever they anticipate and deliver a speech, but anxiety levels quickly diminish for most speakers once they begin their speech and these levels decrease with each successive speech.

Program evaluation. Program evaluation research assesses and describes the effectiveness of a campaign, an education program, or measurement tools. Whittaker et al. (2012) conducted a mixed methods program evaluation of They found that program development on the basis of theory and evidence have the best chance of being effective and

when the target audience is involved in formative research to ensure interventions are engaging and useful.

Interpersonal

Articles were coded as addressing the interpersonal level of the socio ecological model is the were interested in the perceptions/ attitudes of social networks of the target populations, the behavior of social networks, the makeup of social networks and aiming at education, training and skills enhancement of people who interact with the target population (e.g., family members, friends, teachers, coworkers). This was the level most targeted by the research population with 21 articles looking at this level.

Audience. Of the research coded as addressing the interpersonal level four were also coded as interested in audience aspects of communication (An, 2008; Gonzalez et al., 2013; Ibrahim et al., 2008; Yamaguchi & Wiseman, 2003). Those studies are all investigating audience preferences, needs, cultural background, attitudes, and value systems; where the audience is a member of a social network with a person with mental health issues and utilizing quantitative methods.

An, (2008) looked at the effects of antidepressant direct-to-consumer advertising on the social perception of the prevalence of depression, utilizing the availability heuristic. Their survey study of adults found that people who had a high recall for antidepressant ads tend to have a higher estimate for the prevalence of depression. Ibrahim et al. (2008) were also interested in media effects. However they were looking at the mental wellbeing. Their study was specifically looking at the diffusion of news of the Shuttle Columbia Disaster as it was related to emotional responses. They found Respondents reported both sadness and anger, but sadness was the major response. The individuals who learned of the news sooner

expressed more sadness. Respondents who reported more sadness were more likely to pass the news and spend more time discussing it. The more likely a respondent reported anger as the primary response the more likely they were to contact more people. “Individuals who contacted more people and spent more time in discussion reported stronger emotional motives for talking with others, and were more likely to say that they felt better after interpersonal contact” (p. 91). The findings suggest that people use interpersonal news diffusion and discussion as a way to cope with emotional responses to disaster news coverage.

Gonzalez et al. (2013) and Yamaguchi and Wiseman (2003) were both interested in studying specific groups. Gonzalez et al., (2013) was interested in looking at the interpersonal level of communication, specifically the patient- provider interaction among Hispanic end stage renal disease patients and the influence of depression on the ability to participate in the interaction. Yamaguchi and Wiseman (2003) were also looking at audience aspects of the interpersonal level, specifically interested in general psychological health of Japanese international students living in the United States. Gonzalez et al. utilized the Beck Depression Inventory to assess levels of depression among the patients. Yamaguchi and Wiseman measured Psychological health with seven items drawn from Tanaka, Takai, Kohyama, and Fujihara (1994). Gonzalez et al. found the provider rated patients with depression as being significantly less likely to actively participate in the visit. Yamaguchi and Wiseman were examining the relationship between self construal, locus of control, intercultural communication competence and psychological health. Psychological health was positively related to stress management and host communication. In their study psychological health was positively related to stress management and host communication.

Channel. Channel research within the interpersonal level focuses on the differing levels of health communication effectiveness concerning the immediate social networks of individuals with mental health concerns as a result of the channel by which health messages are delivered. Within the articles coded as addressing the interpersonal level two were also coded as interested in the channel aspect of communication (Floyd et al., 2009; Kim & Stout, 2010).

Kim and Stout (2010) examined the effectiveness of the Internet as a channel of communication and how the level of interactivity of a website effects attitude change, specifically regarding stigma of mental illness specifically schizophrenia. They developed and tested a theoretical model of website interactivity on information processing and tested for attitude change in among the participants. The experiment revealed that interactivity had positive effects on information processing and stigma reduction. Participants who were exposed the high interactive website (as opposed to the low) had higher message comprehension and lower negative perceptions of people with schizophrenia including lower desire for social distance from people with schizophrenia. These findings are hopeful for people with schizophrenia, as stigma is able to decrease, possibilities of increased social support system increases and a better outcome for these individuals.

Floyd et al. (2009) were interested in action as the channel of communication in the interpersonal level, specifically kissing and its effects on blood lipids, stress and depression. Depression was assessed with the Iowa Short Form (Kohout et al., 1993) of the Center for Epidemiological Studies Depression scale (Radloff, 1977). Stress was measured with the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). Increased kissing among the participants during the 6-week trial preceded statistically significant decreases in total

cholesterol and perceived stress, and a statistically significant increase in relationship satisfaction, however did not statistically significantly decrease depressive symptoms.

Message. Message research at the interpersonal level looks at the effects of message-design strategies on knowledge of, attitude toward, and behavior toward health risks and problems of the interpersonal social networks of people with mental health concerns. Of the articles identified as addressing the interpersonal level five were interested in the message aspects of communication (Chang, 2008; MacGeorge et al., 2005; Romer & Bock, 2008; Scott et al., 2013; Tankard & Adelson, 1982). Within these articles all used quantitative methods.

Chang (2008), MacGeorge et al. (2005), and Romer and Bock (2008) were all interested aspects of depression among college students or adolescences where Tankard and Adelson (1982) were looking at newspaper advice columns. MacGeorge et al. (2005) and Scott et al. (2013) were looking at supportive communication as a buffer to academic stress and depression. They looked at the effectiveness of different messages of support, informational and emotional. They found that college students' with high academic stress also had high levels of depressive symptoms and these factors were lowered when given informational support conveyed through messages regarding problem-solving activities like information or advice. Emotional support provided in messages targeting an individual's emotional distress such as expressions of sympathy or affection was associated with lower levels of depression. Chang (2008) were interested in effectiveness of narrative advertising and argument advertising in increasing awareness and literacy for depression. They found that narrative advertising was more effective in helping college students be able to identify signs and symptoms of depression in others, and was likely to have de-stigmatizing effects.

Romer and Bock (2008) were also interested in messages aimed at stigma reduction. They found that adolescence rated individuals who were described as successfully receiving treatment for depression with less stigma than those who have not received treatment. Tankard and Adelson (1982) were also interested in stigma particularly looking at the messages conveyed in newspaper advice columns regarding mental illness. Their study assessed weather or not the columnists refuted or supported myths regarding mental illness in the context of marriage. They found that overall advice was focused more on refuting myths and getting the partner to seek professional help than supporting myths and instilling fear. Scott et al. (2013) looked at the sophistication of responses of college students to depression disclosure. In their two part study, they found that rhetorical responses to depression disclosure were evaluated as significantly more supportive than conventional responses, and conventional responses were evaluated as more supportive than expressive responses, where rhetorical responses are rated more sophisticated, conventional responses less sophisticated and expressive responses were the least sophisticated.

Sender. Among the articles coded as addressing the Interpersonal level, two were coded as interested in the sender aspects of communication (Egbert et al., 2014; Mansson, 2013). Both studies were interested in college populations and depression. Egbert et al. (2014) were interested in what factors would make a person more likely to encourage a friend to seek help for depression. The study had shown that self-efficacy and response efficacy, and also as perceived knowledge, were determining factors in students' readiness to talk with a friend who may be suffering from depression. Mansson (2013) was interested in affectionate communication from grandparents as a buffer from stress, depression and loneliness in college students. The Iowa Short Form of the Epidemiological Studies

Depression Scale (Kohout et al., 1993; Radloff, 1977) was used to measure depression. Their study found that students perceived stress depression and loneliness were not related to love and esteem or caring affection from their grandparents. However, low levels of stress, depression, and loneliness was reported when they receive memories and humor (e.g., jokes) and celebratory (e.g., money) affection from their grandchildren.

Program evaluation/measurement evaluation. One of the articles among those coded as looking at the interpersonal aspects of communication was coded as being a measurement evaluation (Narissra & Wrench, 2009). This kind of research assesses and describes the effectiveness measurement tools. Narissra and Wrench (2009) developed and validate a measure of touch depravation. The measure was shown to be both reliable and valid. The research further tested the scale for relationships with gender, depression and self-esteem. To measure depression in this study, the depression subscale from Goldberg's (1972) General Health Questionnaire was utilized. The study found a positive relationship to touch depravation and depression. Self-esteem was also found to have a positive relationship with touch deprivation and males were more likely to report lower levels of touch.

Narrative. Narratives at the interpersonal level explore the storied nature of health communication as it involves the closer network of family and/or friends of a person with mental health issues. Of the articles coded as addressing the interpersonal level four were also coded as looking at the narrative aspect of communication (Duggan, 2007; Kaur-Bola & Randhawa, 2012; Knobloch & Delaney, 2012; Yang-Soo, 2007). Further Yang-Soo (2007), Kaur-Bola and Randhawa (2012), were interested in cultural factors influencing health communication and explored these issues using interviews and qualitative analysis. Yang-Soo (2007) studied the experience including physiological factors, of Korean immigrants

assimilating into the United States, where Kaur-Bola, and Randhawa, (2012) were interested in the differences in cultural and religious beliefs influencing help seeking among South Asian families from Muslim backgrounds with children with mental impairment. Yang-Soo (2007) assessed psychological health by allotting a portion of the interview to questions regarding positive and/or unpleasant experiences in the United States. Their analysis revealed host language competence, cultural knowledge, and cultural differences reflected on verbal behavior and work styles are significant sources of psychological challenge; and positive and genuine relationship with co-workers contribute to their positive psychological health. Kaur-Bola and Randhawa (2012) were looking to give health professionals a better understanding between Islamic religious beliefs and South Asian cultural beliefs regarding mental impairment. Their findings indicate most first generation Muslim families from rural villages were unable to distinguish between Islamic religious and cultural beliefs on impairment. Because of their children were at risk for missing essential services due to poor professional-parent/patient communication regarding what was a religious issue versus a cultural issue.

Knobloch and Delaney (2012) and Duggan (2007) were also interested in the interpersonal, narrative aspect of mental health communication, their interests were specifically concerning adult couples in romantic relationships. Duggan (2007) conducted an analysis of semi structured interviews of adult couples where one partner was diagnosed with depression. Duggan used Inconsistent Nurturing as Control Theory to analyze sex differences in communicative attempts to help their partners get well over time. Duggan found that female partners attempted to help more when their partner was exhibiting symptoms but before the diagnosis of depression was made. Male partners made more attempts to help after the diagnosis was made. Knobloch and Delaney (2012) used the

relational turbulence model to explain the dynamics of depression in romantic relationships through a thematic analysis of online discourse. Knobloch and Delaney expanded the model uncovering key themes of relational uncertainty within the relationships areas of relational uncertainty (a) depression uncertainty, (b) self and partner uncertainty, and (c) relationship uncertainty. They also looked at perceived interference within the relationships when a partner has depression the key themes extracted are: (a) their daily routines, (b) their health and well-being, and (c) their relationship.

Interaction. Interpersonal interaction research studies senders, channel, audience, and messages simultaneously as it occurs within the context of personal relationships. Of the articles coded as addressing the interpersonal level one was coded as also addressing the interaction aspect of mental health communication (Schrodt, 2006). Schrodt (2006) conducted a survey of 586 college students who were children in stepfamilies. The aim of this research was to assess the step family functioning style, communication competence and the mental health of the stepchildren for any relationships between the two factors. Stepchildren's mental health was assessed using Dornbusch, Mont-Reynaud, Ritter, Chen, and Steinberg's (1991) health symptom instrument. The results revealed five types of stepfamilies, including bonded, functional, ambivalent, evasive, and conflictual. The stepfamily types predict meaningful differences in stepchildren's perceptions of communication competence for stepfamily members, but important to this thesis, the results also revealed a stepchildren's mental health. Stepchildren from bonded and functional stepfamilies reported fewer mental health symptoms than stepchildren from ambivalent, evasive, and conflictual stepfamilies.

Organizational / Intuitional

Research coded as addressing the organizational/ institutional level was interested in Education, training or skills enhancement of institutional members beyond the target population and immediate social groups. Research at this level is looking at modifications to institutional environments, policies, services, culture and perceptions and attitudes of intuitional leaders. Nine articles in the population were coded as addressing this level (Farrell & Geist-Martin, 2005; Fisher et al., 2012; Johnson, 1992; Kelly & Duran, 1984; Kirby, 2006; Miller, 2013; Nakash et al., 2009; Smolders et al., 2008; Themistocleous et al., 2009; Vogel et al., 2009).

One article in particular was coded as addressing the institutional level however was a commentary article that did not employ any specific methodology or was interested in a specific area of mental health or communication (Fisher et al., 2012) This article was an invited article with multiple contributing authors over a facebook private group conversation, transcribed, then published in *Communication Monographs*. The invited authors were to consider the role of communication in processes of mental illness and mental health. Topics and directions emerged organically within the group. Within the discussion it was agreed that mental health problems often interfere with effective communication, that humans as social animals need communication to interact to achieve mental wellbeing, the different relationship between communication and mental health and communication and mental distress. They also agree that there is great opportunity for improving mental health outcomes using various media. Also highlighted in the discussion was the possibility or need for mental health/ communication models and theorizing. The discussion covered the differing views of health and illness as well as methodological issues and possibilities.

Interaction. Among the articles coded as addressing the organizational/ institutional level two were coded as also interested in the interactional aspect of communication (Nakash et al., 2009; Vogel et al., 2009). Interaction research is concerned with multiple aspects of the communication interaction. Nakash et al. (2009) were interested in how the patient provider interaction and information gathering in the mental health intake visit. A mixed method analysis was conducted of videos of mental health intake visits as well as interviews of patients and providers after the intake visit. This study found that patient initiation of information influenced the providers decision making, information that patients initiated was weighted more than information that that which was obtained through probing by the providers. They also found that providers rated patient rapport higher the more patients initiated information. In this study a common theme among the patients was that of communication style preferences. Some of the patients stated that they would rather the provider take the lead in the interaction while others would rather have more influence in the interaction. This study shows that for the most effective and satisfying initial mental health intake visit it is important to establish between the provider and patient communication style expectations. Vogel et al. (2009) also studied patient provider communication however their study was not interested in the mental health intake but the mental health effects, of decision making for people with cancer. Levels of depression, quality of life, satisfaction with physician patient communication, and levels of decision-making were measured in patients diagnosed with breast cancer in three months intervals. Depression was measured with the German version of the Hospital Anxiety and Depression Scale (Herrmann, Buss, Snaith, 1995). The study revealed the more informed and the more satisfied with patient provider

communication the less depressed and the higher their quality of life at three and six months from diagnosis.

Message. Message research comprised two of the studies coded as addressing the organizational/institutional level (Kelly & Duran, 1984; Johnson, 1992). Johnson (1992) studied compliance gaining tactics within the context of a mental health institution. The subjects of the study were employees and were asked to rate the communication competence of two supervisors based of videotaped interaction between each of them and a subordinate. One supervisor used pro-social compliance gaining tactics and the other used antisocial compliance gaining tactics. The results of the study suggest that a supervisor using prosocial compliance-gaining tactics will be viewed as more communicatively competent than a supervisor who utilizes antisocial tactics for compliance. Kelly and Duran (1984) conducted a literature review aiming review that although communication disturbances are symptomology of mental disorders the most severe being schizophrenia, they are not always a reliable predictor of the disorder. Also covered in the review are levels of communication disturbances as well as the social effects of disturbed communication. Social effects are an additional symptom of mental disorders, like depression, however the authors imply that disordered communication and social problems are not two separate symptoms but are linked ad one may cause the other.

Sender. Smolders et al. (2008) was the only article within the institutional/ organizational level that was looking at sender effects. This research was interested in the patient provider interaction, specifically at the general practitioners' role as educator within the mental health intake visit based on their experience level. The results revealed differing levels of education on each items tested. Practitioners of all experience levels in general rated

high for educating patients on the effects and side effects of medical treatment for depression and low for the side effects of antidepressant medication on anxiety care. Moderate indicator scores were found for the delivery of patient education about the prevalence and the course of both depression and anxiety.

Meaning making. Studies of meaning making in the institutional/organizational level are concerned with physician patient relationship and communication. Of the article coded at addressing this level two were also coded interested in the meaning making aspect of communication (Miller 2013; Themistocleous et al., 2009).

Themistocleous et al. (2009) explored the relationship between providers and patients diagnosed with schizophrenia and how mutual understanding is attempted through incidence of repair. Using conversation analysis, was conducted on 15 outpatient consultations. It was discovered that patients made most effort to make their part of the interaction understandable, while providers made most effort to repair misunderstandings additionally physicians made more effort to repair misunderstandings when they rated the relationship positively. Miller (2013) conducted a study of three recorded initial mental health intakes with patients and primary care providers and analyzed how they negotiated the sensitive topic of suicide idealization. The analysis revealed that the interaction between the patients and providers is collaborative however seemed most successful when the provider asked open ended questions, did not interrupt, and addressed the matter in a minimal damaging way including indirectly addressing stigma.

Criticism of social structure. Among the population of articles one was a criticism of social structure at the institutional/ organizational level (Kirby, 2006). Kirby (2006) wrote a critique of the current state of work type institutions and their attempt to assert dominance

into the lives of their employees. The workplace does this by renegotiating the socially constructed boundaries between work life and home life balance through programs presented as supportive and aimed at helping employees balance these aspects of their life. Kirby critiques, mental health, a previously private topic has now been made the concern of work institutions through wellness programs and stress reduction programs and campaigns. Kirby writes "organizations have colonized realms that were formerly private by performing family-like roles and this phenomena seems worthy of additional work in the communication discipline" (p.478).

Narrative. Farrell and Geist-Martin (2005) conducted an analysis of employee narratives concerning the workplace and mental health and wellness. This research aims to inform the influx of employer health and wellness related programs who currently neglect the issues of social health and wellness. The analysis revealed three themes of employee social health and mental wellness: building camaraderie with peers, communing with superiors, and reconnecting with family.

Community

Articles coded at addressing the community level were focused on Education, training, skills enhancement of general community beyond target population and immediate contacts, including community leaders, modifications of community environments or services, delivery of community services, or community physical environment. Among the population of articles two were coded as addressing the community level (Ginossar & Nelson, 2010; Rasmussen & Ewoldsen, 2013). Rasmussen and Ewoldsen (2013) conducted a content analysis of episodes of Dr. Phil and issues of Psychology Today to reveal the types of mental disorders covered and treatments recommended, and to determine whether their

coverage of mental disorders corresponds to the national prevalence of mental disorders. This research was also coded as addressing the message aspect of communication and at the community level because of the potential to inform the community. Both information sources provide content about depression more than about any other mental illness. Both the television show and the printed media also make recommendations for psychotherapy more than they recommend other forms of treatment, however there was no link to prevalence and the mental disorders covered. Ginossar and Nelson (2010) described a community based \ health intervention aimed at increasing access to mental healthcare, and mental health information and internet/computer literacy for underinsured and uninsured Latinos in low-income neighborhood. The innovative intervention employs women from the community, giving them training, and leadership positions, as a way to gain access to these communities at the same time providing an opportunity for empowerment. In addition to the training the women also participated in the creation by and dissemination of a low literacy level website increasing access to mental health information for the community. This intervention demonstrates the possibility of community members having the opportunity and ability to make positive impact on mental health in their communities.

Policy

Policy level studies are concerned with the creation or modification of public policies, capacity for policy advocacy, Perception and attitudes of policy makers, and the creation or reinforcement of public policy. McCabe (2013) was the only article among the population that was coded as addressing the policy level. This review article was concerned with exploration of admirable dishonesty in medical practice using the Virtue Ethics of Care perspective. This exploration of the ethics of the patient- provider encounter covers the moral

difference between honesty, lying and deception, lying being morally unacceptable in the patient care setting. McCabe discusses instances where deception would morally acceptable if it achieves the patients stated goals, calling it admirable dishonesty. McCabe uses an example of a depressed man who wished to stop his narcotic use but is unable to because of a mental dependency. In this example McCabe argues for the use of morally acceptable dishonesty by weaning the man off the narcotics through the use of placebo injections. This review challenges the current policy of ethics within healthcare and offers insight to acceptable dishonesty practice.

Chapter 5: Discussion

This thesis has successfully answered the research questions, and has produced a clear and organized narrative of the health communication literature organized using the social-ecological model and further organized by the communicative aspect studied. This research is the first to systematically analyze the past and current research on mental health communication. The findings can be compared to other systematic reviews using the socio ecological frame, however the comparisons are reaching and only anecdotal in that the topic of mental health is central to the difference in outcome. The discussion and conclusion of the findings will be considered in the following section, organized by research question.

Discussion and Conclusion

RQ1. What topics of mental health are studied published health communication research?

For each article, the specific mental health topic studied was identified. Past research (Beck et al., 2006; Freimuth et al., 2006; Kim, Park, et al., 2010) has identified topical interests within the health communication literature, and these topics were used as the primary coding categories for this analysis. In conducting the coding it was revealed that the coding categories taken from the past research were not relevant to the specific topic of mental health. For example Kim, Park, et al. found that the most common health topics of interest were cancer, HIV/AIDS, and smoking. In the current analysis the most common health topics of interest were depression, general mental health, and anxiety. All topics identified in the current analysis, were not in the original coding scheme. There were no topics in the original coding scheme that were identifiable within the current article population. Comparisons to past research can not be made based on these findings. However

the findings can be compared to prevalence statistics. According to the The National Institute of Mental Health the leading cause of disability for people in the United States ages 15-44 is major depressive disorder. The high output of research concerned with depression reflects the incidence of depression among this population. However, absent from the literature was research concerning bipolar disorder. Bipolar disorder affects approximately 5.7 million American adults, or about 2.6 percent of the U.S. population age 18 and older in a given year (Kessler, Chiu, Demler, & Walters, 2005). Future research may expand into this aspect of mental health furthering testing the applicability of communication theories and concepts in the context of this mental disorder.

The most common mental health topic studied was depression. However this finding is misleading. The majorities of the studies coded as looking at depression were not looking depression as a clinical diagnosis, but were looking at depressive symptoms to gage general emotional states. While these studies are in general looking at mental wellness, they are not specifically looking at populations diagnosed with depression. Further, the majority of the articles from the entire population were not looking at populations, or samples diagnosed with a mental disorder but were studying general populations measuring for depressive, anxious, and stress traits or states of being. Although the research addresses issues of mental health, it is not specifically addressing any disorder specific communication issues. Researching mental health in a general sense gives rise to similar issues in studying people in a general sense. I recommend that researchers take a cultural approach to studying mental health, looking at the communicative issues within each disorder as distinct.

The populations and samples used within the studies were primarily college students. This limits the research base that mental health communication scholars can draw from.

College students may be the easiest population for researchers to gain access to however the population is very specific in its experience, and existence which limits the applicability of these studies. Mental health is a concern for people belonging to a variety of classes, and groups and it is important that researchers attempt to reach these populations. Reaching the populations directly affected by issues of mental illness is of utmost importance in this research and was lacking in the research. The benefits of using a sample directly affected by mental illness outweigh the benefits of a larger sample size.

RQ 2. What aspects of communication are present in health communication journals?

In order to assess the aspects of communication present in the literature, each article was coded for its theory use and aspect of communication studied. The original coding scheme for theory use was comprised from the findings of past research (Beck et.al 2004; Freimuth et al., 2006; Kim, Park, et al., 2010). The coding scheme was comprised of 30 theories found in other similar research. The theory use in the current article population did not substantially reflect that of past analysis'. Out of the thirty possible theories only eight were present in the article population (Compliance Gaining, Grounded theory, Message design, Narrative, Relational Health, Communication Competence Model, Self Efficacy, and Social Cognitive Theory). These theories have been shown to be applicable for a variety of research interests. Thirty-eight additional theories were identified within the article population of 46 articles, and are shown applicable to the mental health communication topic. In the analysis of Kim, Park, et al. (2010) only 38.5% of the articles were identified as being grounded in any particular theory, as opposed to 78.3% in this analysis. Researchers with interests in mental health communication can utilize these theoretical identifications as a starting point from which to conduct research. By identifying theory use among the article

population, future research will be enriched and better informed of the applicability and outcomes of a particular theory, which offers boundaries for the theory use. Theories have an important place in the construction and dissemination of knowledge. Kuhn (1962) explains that scientific revolutions occur through conflicting theories leading to a paradigm shift. In order to create new knowledge and a new way of thinking theories must be continually tested and questioned through research, making way for new theories. If science fails to do this, then the current science would become stagnate and obsolete. Therefore research that evaluates the use and shifts of theory is valuable in the necessary momentum need for scientific revolutions. Thompson (2006) offers the argument that health communication research does not need to be grounded in theory because of its highly applicative nature. However research grounded in theory and situated within theoretical models is able to be a predictive tool for behavior and health campaign outcomes. Without the use of theory research is merely testing outcomes of educated guesses. The highest goal of any mental health communication research should be arriving at a predictive model or theory to guide practice.

In order to identify the aspects of communication studied each article was coded for the aspect of communication of interest. The initial categories are based on categories used by Kim, Park, et al. (2010) and were maintained throughout the analysis. The findings can be compared to those of Kim, Park, et al. where audience research was most prominent (41.4%), followed by interaction research (15.0%) and message research (13.1%). In the current analysis the majority of articles were coded as either being interested in message (28.2%) or audience (22%) aspects of communication. Articles looking at the narrative aspects of communication comprised ten percent, which is a contrast to Kim, Park, et al.

where no articles were coded as narrative. Their findings may be different because their analysis was conducted on *Heath Communication*, a single journal, who may not find value in publishing narrative perspective articles, similar to case studies because of their limited general applicability (Nissen & Wynn, 2014).

The finding that most articles were concerning message and audience aspects of communication, is not surprising considering the findings of past research. There is little room for an evaluative critique of this finding. The very nature of health communication research being based in message design and audience behavior lends itself to this particular finding. It is important for future research to look at a variety of aspects of communication particularly narrative and critical aspects. Narrative aspects give the field a rich and detailed look at the issues surrounding people and their mental health concerns. These perspectives can help future research find out what issues are most important to individuals with mental health concerns. Very little research in this population was concerning the experience of individuals affected by mental illness. This is a flaw within the literature and should be addressed by future research. Critical research was lacking within the population studied, and also has important implications for the betterment of the study of mental health communication research. Individuals who are affected by mental illness are a subjugated population, particularly those who have been deemed disabled by their illness. Critical evaluations of the health care, social security, public assistance, are necessary to improve the health and social status of individuals who rely on these systems for their livelihood. Critical evaluations are necessary to address policy change, an action required to make far-reaching changes to health outcomes.

RQ 3. What are the socio-ecological levels addressed in health communication journals?

Using Social ecological models to illustrate characteristics that underlie health outcomes have been recommended to guide health interventions. Systematic literature reviews that organize the findings suing this model have implications for health interventions (Cassel, 2010; Golden & Earp, 2012; Nelson et al., 2010). Coding each article for the socio ecological level addressed can help identify trends and gaps within the literature (Cassel, 2010; Golden & Earp, 2012; Nelson et al., 2010). Similarly to Golden and Earp, the findings indicate that a majority of articles address the intrapersonal and interpersonal levels. Like other past research (Cassel, 2010; Golden & Earp, 2012; Nelson et al., 2010) there is a gap within the literature for research addressing the policy level of the socio ecological model. This finding indicates a need for future research to look at this under studied aspect of mental health communication.

Policy level interventions would perhaps be the most difficult interventions considering the political structures and legal makeup of this level. However the implications would be have the greatest effect for mental health concerns. The most innovative mental health communication research would be the construction and description of a successful policy changing health campaign. The social ecological model describes the direction of influence of each level upon the next. The majority of communication studies top down communication and its effects. However a campaign aimed at the policy level would have an upward influence. Research aimed at the policy level of the socio ecological model is important and understudied and future research should make a considerable effort to address metal health concerns at this level.

RQ 4. What methodological approaches have researchers used in health communication journals?

The type of research was identified in this analysis. The research type was determined by the goal of the given article. This was assessed using coding categories based on Kim, Park, et al. (2010) who identified five types of health research: original research; review; program description and/or evaluation; and commentary. The findings of the current analysis reflected that of past research (Kim, Park, et al., 2010) with the majority of the articles published being coded as original research. Similarly, commentary articles comprised the lowest percentage in both analysis less than 2.5% in both studies. Reviews comprised of 6.5% of the articles in this analysis compared to 9% in Kim, Park, et al. Four percent of the articles in the current population were program description/measurement evaluation in comparison to the 1.7% of Kim, Park, et al. These findings seem to reiterate those of past research of this type, and inform researchers what type of work is being published within the context of mental health communication.

The majority of articles within this population were alike past similar research in that they primarily utilized quantitative methods. This finding is not surprising considering the heavy reliance on the social scientific paradigm by scientific journals. It is important for mental health communication research to utilize a variety of methodological approaches to fully address all the components of this matter. Qualitative narrative analyses (Kaur-Bola & Randhawa, 2012) and community based participatory research (Ginossar & Nelson, 2010) are of increasing interest because of their ability to look at the complexity of the communicative event as well as address a myriad of issues important to the topic. Critical inquiries are a forum for which to address perplexing difficulties that this topic involves.

Each methodological approach brings a unique perspective to the issue. It is unclear whether or not the high output of quantitative work is a result of editorial choice, or it is reflective of the work being done. It is important for the issue of methodological diversity to be addressed not only by researchers, but also it is a challenge to editors to publish a variety of methodological approaches.

RQ 5. What were the researchers' key findings in articles published in in health communication journals?

The key findings of each article were presented in the results section of this thesis. This section will highlight some of the unique articles within the population. Among the articles coded as addressing the intrapersonal level Clark-Hitt et al. (2012) utilized qualitative analysis of focus groups of military service members to inquire about message preferences to facilitate help seeking. This research was unique because it reached the affected target group in their home setting. The focus groups were conducted at army posts, where the subjects regularly congregated. This research highlights the importance of reaching the affective populations in their natural settings in addition to using qualitative research methods. This research was able to offer many conclusions based off their findings, conclusions that can be applied to health interventions regarding this specific population.

Research concerning new/digital media are at the forefront of future research (Ginossar & Nelson, 2010; Knobloch & Delaney, 2012; Wright & Rains; 2013; Wright, Rosenberg, et al., 2013; Whittaker et al., 2012). Because of the advancements in consumer selected medial like telephone aps, social media and internet website, research concerning these channels is particularly important. With the high cost of healthcare many individuals utilize technology to gain access to healthcare. There are no governing bodies that regulate

the quality of information provided through these avenues and individuals may not me discerning enough to evaluate the reliability of the source or information. With the advent of smart phones and wireless internet access, people can access information within a few clicks. It is important for health communication research to address the validity of the information being presented. Whittaker et al. (2012) addressed this issue among smoking cessation apps and found that they were not theory based and were not effective. They created a theory based app and fount that it was affective in fostering behavior change. People are utilizing digital media to access health care and to address their health concerns it is the responsibility of the field of mental health communication research to actively peruse research concerning these media.

Research studying communicative issues of diagnosed mental illness within relationships should be commended for tackling the sensitive and difficult yet important subject. Two such studies Duggan (2007), and Knobloch and Delaney (2012) looked at communication aspects within a romantic relationship where one partner is diagnosed with depression. Research of this type is important because it addresses quality of life issues that are important to over all health and life satisfaction. Looking at the effects certain mental illnesses effect relational communication should be a priority in the field because of the highly communicative nature of personal relationships and the great influence that mental states have on communication. More published research needs to examine the effects that different mental illness have on relationships, provide models addressing the issue and offer the public ways at which to improve the communication within their relationships when they are affected specific mental illnesses.

Stigma is an issue of great concern for people affected by mental illness. Communication research that addresses stigma in some way is a significant part of the literature population (Chang, 2008; Clark-Hitt et al., 2012; Lienemann et al., 2013; Romer & Bock, 2008; Wright & Rains, 2013). Stigma research is a vital component of addressing mental health and illness concerns. The majority of this type of research looked at message design and stigma reduction (Chang, 2008; Clark-Hitt et al., 2012; Romer & Bock 2008; Wright & Rains, 2013) with the exception of Lienemann et al. (2013) who looked at the stigmatizing effects that anti stigma campaigns have on individuals with mental health concerns. Often times research seems to optimistic concerning stigma reduction and researchers should be aware that even with the entirety of stigma reduction research stigma remains a large issue for people with these concerns. Researchers and practitioners looking to reduce stigma must also grapple with the stigma perpetuating effects of entertainment programming.

Research addressing the patient provider interaction was a critical portion of the research population (Gonzalez et al., 2013; McCabe 2013; Miller, 2013; Nakash et al., 2009; Namkoong et al., 2010; Smolders et al., 2008; Themistocleous et al., 2009). This finding is corresponds with Beck et al. (2004), and Freimuth et al. (2006) who found that patient provider was a key communication context studied. The biomedical perspective on health largely ignores the highly communicative aspect of diagnosis and treatment of mental disorders. It is important for health communication scholars to continue to address this topic in new and interesting ways. Patient satisfaction and health outcomes depend on the successful communication that occurs within this context. The mental state has a large effect on the participation of patients seeking treatment for other health issues (Gonzalez et al., 2013; Namkoong et al., 2010). The ability for physicians to effectively diagnose and address

mental health concerns (Miller, 2013; Nakash et al., 2009; Smolders et al., 2008; Themistocleous et al., 2009) is particularly related to their ability to adapt their communication style to meet the needs of each patient. In the past, health communication literature has been critiqued for being primarily interested in this context however it is important to continue to address this context.

Limitations

In conducting this thesis a chief limitation must be addressed. In calculating intercoder reliability, a percentage was used. While this does give a look at the agreement among the coders it does not factor in the amount of choices that were available within each category. A more sophisticated method of calculating inter coder agreement would have given a higher inter coder agreement rating.

A second issue in the analysis lies in the coding category identifying theory use. The initial goal of this code was to identify articles that were grounded in a particular theory. However this proved a difficult task among the coders. This coding category was expanded to include coding article s who mentioned particular theories as relevant to their study even if the research questions or hypothesis were not specifically directed at or derived from that theory. This change led to a broader look at the use of theories within the article population, however it strayed from the methods of past research (Kim, Park, et al., 2010).

Implications

This thesis is useful not only as it provides the primary researcher with an organized literature base, but also a modifiable database from which to draw from when working in the field, or conducting future research. This thesis also informs the field about the current state of the mental health communication literature, and identifies trends and gaps therein. It

illuminates theory use among the research, as well as identifies the topics studied and aspects of mental health of interest. Additionally it provides a reference for researchers on differing scales used by communication scholars to assess various mental illnesses and mental health states.

Future Research

The scope of this thesis can be expanded in future research to include a larger population of articles. This thesis limited the article population to only include relevant articles from communication specific journals. Future research should look into increasing the scope of the analysis to provide a more complete view of all research interested in the intersection of communication and mental health.

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Appendices

Appendix A: Article Population 132

Appendix B: A Content Analysis Spanning 30 Years of Mental Health Communication Scholarship CODE BOOK 136

Appendix A: Article Population

Article Population
An, S. (2008). Antidepressant Direct-to-Consumer Advertising and Social Perception of the Prevalence of Depression: Application of the Availability Heuristic. *Health Communication*, *23*(6), 499-505. doi:10.1080/10410230802342127
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Appendix B:

A Content Analysis Spanning 30 Years of Mental Health Communication Scholarship

CODE BOOK

Primary Researcher: Camille Velarde

Within this code book are the operationalization of the units for analysis for this content analysis. The code sheet is provided to you in a Microsoft Excel spreadsheet document. The document contains article titles, journals, authors, abstracts, and links to full text articles. Like past research (Beck et al., 2004; Kim, Park, Yoo, & Shen, 2010; Freimuth, Massett, & Meltzer, 2006), most coding categories will be fulfilled through an analysis of the abstract. If the particular code is not evident to in the abstract coders you will have access to the full text version of the article.

Training

After the primary researcher has explained the codes, and coding schemes you will be allowed to ask for clarification, and if revisions need to be made to the codebook they will be done so, followed by an additional training. After the secondary training, the coders will conduct a sample coding, of the first 5 articles together in an open forum. Consensus will be met on all codes for these articles. Once this is accomplished the coders will code 5 more articles, separately and will convene and discuss all coding differences afterwards and will reach a consensus on all codes. After each set of examples is analyzed, the team will convene and discussed the coding. This will be an ongoing process, which will allow coders to raise questions, clear ambiguities and clarify coding rules when needed. When coders demonstrated a satisfactory level of understanding of the coding rules and procedures and a high degree of accuracy in coding the sample coding will take place.

Sample Coding

After the training phase accomplishes its purpose of creating consistency across coders, a random sample of 30 articles will be assigned to the coders. After those articles are coded a check for inter-coder reliability will be made using Cronbach's alpha. If reliability is not met, coders will discuss all incompatible coding and will recode until a final reliability greater than .8 is met.

Final Coding

After a final reliability is met and coders have had a chance to have all coding questions answered, the final coding will be conducted. Coders will be given a proportional amount of articles to code. They will submit their data in electronic format, utilizing the coding sheet provided. Coders will only code each article once on their own, article that has a code that is difficult to classify should be coded a "difficult to classify" and will be analyzed among the team. After all articles, are completely coded the coding sheets will be submitted to the primary investigator for analysis.

Population

Identify the population of interest in the study using the predetermined options below. Populations are the subjects of the study. For example, in a survey research study, those who were given the survey would be considered the population. In the case where a judgment is difficult to make, categorize as “hard to classify” and the coding team will return to discuss the appropriate category, or if a new category is needed.

Population Studied	
adolescents (13–19 years)	college/university students
Adults	Seniors
Patients	health service providers
health service providers + patients	family of patients
patients + non-patients	patients + family of patients
adolescents + students	students + adults
adolescents + students + adults	special groups

Diagnosis

Each article should be classified by types of illness, disease, or risk of interest. To identify health topics, existing reviews on health communication such as Beck et al. (2004) Kim Park Yoo & Shen (2010) and Freimuth et al. (2006) are utilized. From the current literature the analysis will begin with 51 health topic codes. They are:

Diagnosis/ illness/ disease/ risk			
Aging	AIDS	Alcohol	Breast cancer
Cancer (with out breast cancer)	Death	Dental care	Diet
Drug	Eating	End of life	Health information
Health in general	Heart disease	HIV	Marijuana
Medical communication	Medication Nutrition	Obesity	Organ donation
Pediatrics	safer sex	Smoking	Social support
Structure	Terminality		

It is anticipated that the final coding scheme for this project will differ from the coding scheme used by previous studies, since the topic of mental health is more specific than the general topic of health. Each coder should identify the illness, disease or risk of interest of each article. Only the most salient topic should be used if there are multiple risk factors, illness or diseases studied. The coding values will be continually updated until all possible cases are exhausted, and unused values will be eliminated from the final scheme.

Aspects of Communication Studied

Each article should be coded for the aspect of communication of interest using the categories provided.

Aspects of Communication Studied	
Code	**Description**
Senders	Focuses on the effects of a sender's characteristics on the audience's receptions about the health-related messages
Channel	Channel research focuses on the differing levels of health communication effectiveness as a result of the channel in which health messages is delivered.
Audience	Audience research includes studies investigating audience preferences, needs, cultural background, attitudes, and value systems.
Messages	Message research looks at the effects of message-design strategies on one's knowledge of, attitude toward, and behavior toward health risks and problems.
Meaning-Making	Meaning-making research explores the dynamic and continually negotiated communicative processes through which meanings of health are co-created.
Narratives/Stories	Narratives/stories explore the storied nature of health communication.
Criticism Of Social Structures	Criticisms of social structures look at the interplay of power and control in the institutional structures of policymaking organizations, structures of campaign design and implementations, and structures of health care delivery.
Interactions	Interaction research studies senders, channel, audience, and messages simultaneously.
Program Evaluations/Measurement Evaluations	Evaluation research assesses and describes the effectiveness of a campaign, an education program, or measurement tools.

Types of Research

The type of research will be identified in this analysis. The research type will be determined by the goal of the given article. This will be assessed using coding categories based off Kim, Park Yoo, & Shen (2010) where they identified five types of health research: original research; review; program description and/or evaluation; commentary. Original research articles are empirical studies that use various data collection strategies to investigate research problems. Review articles are non-data based articles of which the main purpose is to systematically summarize research trends and often provide future research suggestions. Program descriptions/evaluation articles are evaluative analyses that described and assessed the effectiveness of health educational programs or health campaigns. Commentary articles are short articles with responses to, suggestions for, or critical feedback on particular published works or notable new problems or issues in the field.

Constructs

The constructs of interest within each article will be identified. Identifying the constructs of interest is a novel coding category therefore the categories will be created as the analysis is conducted. Constructs can be understood to be the topic/s of interest and/or the variables studied. For each article, every construct of interest should be identified. Examples of potential constructs: Barriers, Perceived Control, Perceived Severity, Perceived Vulnerability, Self-Efficacy, Social Influence, Social Support.

Theories

Theories use has been identified in several systematic literature reviews of health communication (Beck et.al 2004; Kim, Park, Yoo & Shen 2010; Freimuth, Massett, & Meltzer, 2006). In this analysis theory is considered "an abstract scheme of thought" about the phenomenon of inquiry (Chaffee, 1996, p. 16). A basic understanding of theory can de described as a conceptual device that aids in the understanding of as an aspect of reality or phenomenon. This view of theory is purposefully broad as it will allow the inclusion of various theorizing configurations ranging from social scientific theories to grounded theory.

In order to identify theory use, as opposed to brief mentions of theory, there will be a specific protocol used. In order to qualify as a theory-using article the hypothesis or research question must be derived from a given theory. As did the analysis of Kim, Park, Yoo & Shen (2010) merely mentioning certain theories in the article did not suffice as qualifying as a theory driven article. Building on the Beck et al. (2004) and Kim, Park, Yoo & Shen (2010) a classificatory scheme of 30 theories, including grounded theory, will be used as initial coding constructs as identified below.

Theory Use			
Agenda setting	Health belief	Protection motivation	Structuration theory
Compliance gaining	Health persuasion	Priming	Social cognitive
Cultivation	Information seeking	Problematic integration	Social capital
Elaboration likelihood model l	Knowledge gap	Reasoned action	Social identity
Extended parallel process	Message design	Relational	Social norm
Fear appeal	Narrative	Risk perception attitude framework	Uncertainty management theory
Framing	Planned behavior	Self efficacy	
Grounded theory	Psychological reactance theory	Social learning	

Every article should be coded for theory use. If an article uses a theory not identified in the initial coding scheme, that theory should be added to the coding scheme.

Research Paradigms

Articles in the population will be categorized by paradigm from which the research originates. The three coding constructs for research paradigm are based off Miller (2005) are: social scientific/post- positivistic; interpretive; and critical.

Research Paradigms	Description
Social scientific/post-positivistic	Articles that use empirical findings and testable quantitative research hypotheses or quantifiable patterns should be coded as social scientific/post-positivistic paradigm.
Interpretive	Articles that utilize qualitative information gathering methods, seeking understanding from the perspectives of research participants will be categorized as originating form an interpretive paradigm.
Critical	Articles that address power, structure, and/or social class issues surrounding the knowledge, attitude, and behavior of underprivileged groups with regards to health problems or risk will be categorized as critical paradigm.

For this coding construct articles that do not fit in to one of these three categories will be classified as “others”.

Socio-ecological levels addressed

To determine the number and types of social ecological levels addressed in the literature, articles will be coded for this construct. The coding constructs for this factor are based off a five level model described by McLeroy et. al. (1988) and elaborated on by (McLeroy, Norton, Kegler, Burdine, & Sumaya, 2003; Stokols, Pelletier, & Fielding, 1996) to include: individual/intrapersonal, interpersonal, organizational/institutional, community, policy. The social ecological model analysis will be conducted based off the Golden, & Earp, (2012) social ecological analysis model for coding interventions and research. This coding scheme offers a method of analysis for all research articles and intervention articles separately. This part of the analysis will identify the goals of the research and what social ecological level is being addressed. Specifically this coding factor aims to identify what group or individuals received the education, training, or skills enhancement or according to the level of environmental modification made.

Intervention articles will be coded based on the type of health behavior identified and/or measured in the article as a mechanism for change. Golden & Earp, (2012) coding system was designed to assign behavioral determinants of social ecological levels and will be the tool for analysis for this factor. Each article will be coded once, the articles that do not readily fit into a category will be coded as "difficult to identify" and will analyzed by the group.

Social Ecological Model Level	**Coding Intervention articles**	**Coding all articles**
Intrapersonal/ Individual	• Education/training/ skills enhancement of target population	• Knowledge of intervention participants • Perception/attitudes of

		affected populations • Stages of change/ behavioral intentions • Self-efficacy
Interpersonal	• Education/training/ skills enhancement of people who interact with target population (e.g., family members, friends, teachers, coworkers) • Modifications to home/family environments	• Perception/attitudes of social networks • Behavior of social networks, including provision of social support • Makeup of social networks
Institutional/ Organizational	• Education/training/ skills enhancement of institution members beyond target population and immediate contacts, including institutional leaders • Modifications to institutional environments, policies or services	• Perception/attitudes of institution leaders • Institutional culture • Institutional policies • Institutional physical environment • Institutional capacity
Community	• Education/training/ skills enhancement of general community beyond target population and immediate contacts, including community leaders • Modifications or services	• Delivery of community services • Community physical environment • Community capacity
Policy	• Education/training/ skills enhancement of general community beyond target population and immediate contacts specific to policy change • Creation or modification of public policies	• Capacity for policy advocacy • Social norms • Perception/attitudes of policy makers • Public policy (creation or enforcement)

Methodological approaches

The articles in the sample will be coded for the methodological approach used. This thesis will distinguish the articles as using either qualitative or quantitative research methods. According to Denzin and Lincoln (2000), qualitative research involves "the studied use and collection of a variety of empirical materials—case study; personal experience; introspection; life story; interview; artifacts; cultural texts and productions; observation, historical interactional, and visual texts—that describe routine and problematic moments and meaning in individuals' lives" (p. 3). Its major purpose is to "get a better understanding of the subject matter" and it emphasizes "the qualities of entities" Denzin & Lincoln, 2000, pp. 4). Qualitative research methods do not use experimentation, or measurement in numerical terms (ie. quantity, frequency, amount, intensity) (Denzin & Lincoln, 2000). Quantitative research entails conceptual operationalization going from "propositions" to observable and testable hypotheses (Chaffee, 1996). It uses quantities resulting from and measurement of operationalized variables to investigate relationships among variables. Both qualitative and quantitative while fundamentally different, are investigative instruments used to further understand a phenomena.

With these concepts of research methodologies in mind, the articles will be classified as either utilizing either a quantitative or qualitative approach. Utilizing Kim Park, Yoo, & Shen (2010) coding constructs: articles will be coded as quantitative if they are utilizing one of the following data gathering approaches: surveys; experiments/quasi-experiments; quantitative content analyses; quantitative conversational analyses; and quantitntive others. Articles will be coded as qualitative research methods articles if they utilize: focus groups; in-depth interviews; case studies; qualitative content analyses; qualitative conversational

analyses; ethnography; participant observation; and qualitative others. Research articles that use both quantitative and qualitative methods will be coded as mixed methods.

Key findings

Articles will be analyzed for key findings. Key Findings should be extracted from the article's abstracts and listed. After initial coding, this list will be analyzed and salient themes will be constructed. From these themes conclusions will be made about trends in the literature, the history and the future of mental health communication research.