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School counselors are expected to be advocates, collaborators, consultants, and leaders in their work with students, families, administrators, school staff, and community based stakeholders (ASCA, 2005; Shoffner & Briggs, 2001; Rowley, 2000). Underlying these expectations is the belief that school counselors are knowledgeable in the areas that allow them to fulfill these professional roles effectively. Knowledge seems to be a foundation of school counselors' work. Despite the inclusion of knowledge in discussions of school counselor training (CACREP, 2009) and role expectations (Scarborough & Culbreth, 2008), school counselors' knowledge, as an isolated construct has not been investigated thus far in the school counseling literature.

Three main theories related to knowledge sharing were used as a starting point for discussing school counselors' knowledge sharing practices: diffusion of innovation theory (Rogers, 1962), social exchange theory (Homans, 1958), and theory of reasoned action (Fishbein & Ajzen, 1975). These theories were not intended to be tested nor applied as a result of this particular study. Instead findings will be reported that seem to coincide with these three theories, as well as finding that seem to differ from these theories' explanations of knowledge sharing.

Seven individual interviews were conducted with practicing school counselors to collect data about school counselors' knowledge sharing experiences. A focus group of six school counselors served a stability check. Consensual Qualitative Research (CQR)

was utilized as this study's methodology. Eight domains surfaced as a result of the interviews: 1) benefits and outcomes of knowledge sharing, 2) consequences of non-sharing of knowledge, 3) factors that influence knowledge sharing, 4) reasons for sharing knowledge, 5) knowledge sharing behaviors, 6) knowledge sharing content, 7) who knowledge is shared with, and 8) technology used for knowledge sharing purposes. The implications of these research findings can be applied to school counselors, but also extend beyond school counselors to include the larger counselor education community, as well as educational leaders.

AN EXPLORATION OF SCHOOL COUNSELORS' KNOWLEDGE SHARING PRACTICES USING DIFFUSION OF INNOVATION THEORY, SOCIAL EXCHANGE THEORY, AND THEORY OF REASONED ACTION

By

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To Dr. Mary Deck

"The question is, who…are you?"
-Rafiki, The Lion King

"He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me."

-Thomas Jefferson

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When I was losing my balance and losing my perspective, my Sylvan family has kept me from falling. It is indeed difficult to lose perspective when what really matters is seated in my big blue chair trying to be brave. I hope I have been able to give back enough to the place where my passion for education and school counseling really began. I owe quite a lot to JD Barrett for his leap of faith when he hired me to teach fifth grade. And despite the years and miles between then and now, I am still grateful for his wisdom and his vision for what I might become. He single-handedly changed the course of my life when he hired me as a teacher.

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caught up with who I had actually become (and she was right). And it was there that I was assigned Elysia Clemens as my mentor. I am grateful that two time zones has done little to limit our time together. I needed, and will continue to need, a sensorimotor-blocked rock in my life.

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CHAPTER I

INTRODUCTION

School counselors are expected to be advocates, collaborators, consultants, and leaders in their work with students, families, administrators, school staff, and community based stakeholders (ASCA, 2005; Shoffner & Briggs, 2001; Rowley, 2000). Underlying these expectations is the belief that school counselors are knowledgeable in the areas that allow them to fulfill these professional roles effectively. Knowledge seems to be a foundation of school counselors' work. Despite the inclusion of knowledge in discussions of school counselor training (CACREP, 2009), and role expectations (Scarborough & Culbreth, 2008), school counselors' knowledge, as an isolated construct has not been investigated thus far in the school counseling literature.

The term knowledge surfaces most often in relation to school counselor training. Some of the knowledge related to school counselors' work is acquired through their clinical preparation and professional training (Staton & Gilligan, 2003). Although graduation requirements of specific school counseling programs vary, the Council for Accreditation of Counseling and Related Educational Programs (CACREP, 2009) and the National Council for Accreditation of Teacher Education (NCATE) have defined and standardized the knowledge needed for school counselors-in-training to gain a solid foundation for beginning their professional practice. As of 2009, approximately 72

percent of school counseling programs in the United States are accredited by CACREP and/or NCATE.

School counselors' knowledge of the content areas outlined by CACREP and NCATE are typically measured near the end of graduate coursework and/or prior to entering professional practice to ensure a minimum level of mastery of these foundational components. The emphasis on ensuring that school counselors have the appropriate level of foundational knowledge is evidenced by measures that are put in place by degree granting institutions, state licensing agents, and the National Board for Certified Counselors. Degree granting institutions often employ program-specific comprehensive examinations as a way of ensuring students have learned the knowledge associated with their programs of study. States require applicants for licensure to pass examinations and demonstrate knowledge of school counseling practice through portfolio requirements. The National Board for Certified Counselors recently developed the National Certified School Counselor Examination to assess knowledge as part of the credentialing process. Moreover, licensure and certification requirements typically include the requirement of ongoing continuing education over a school counselor's career.

Although foundational knowledge is a critical aspect of a school counselors' knowledge repertoire, discrepancies exist between the knowledge school counselors receive in graduate programs and the knowledge actually required to perform their school counseling duties once employed (Scarborough & Culbreth, 2008). Through on-the-job training, it is assumed that school counselors eventually acquire necessary job-related knowledge that was not included in their formal graduate training. Therefore, the logical

conclusion that not all school counselors' knowledge is acquired through graduate studies is consistent with the broader counseling literature base that states much of counselor development occurs post-graduation (Brott & Myers, 1999).

Knowledge sharing is an area of investigation that has helped researchers conceptualize the types of knowledge shared within a profession, where this knowledge originates, how it is shared, and the processes available to facilitate knowledge sharing. Much of what is currently known about knowledge sharing originated in the business world, under the broader topic of knowledge management (Leibowitz, 2007). One of the main goals of knowledge sharing research, as it relates to business, has been to identify ways in which organizations might tap into individual employees' knowledge in order to benefit the overall organization (Li, Montazemi, & Yuan, 2006; Nonaka & Takeuchi, 1995).

Similarly, knowledge sharing could allow school counselors' individual knowledge to be integrated into the collective knowledge of the profession. For example, if a school counselor retires after thirty years of service, her or his experience will not be lost, but instead can be passed along to her or his successor, as well as to other school counselors. Furthermore, school counselors who may be particularly prone to isolation based on setting or responsibilities (e.g., an elementary school counselor working in a rural community or a school counselor working in a high school as the only senior class counselor) could access the knowledge of others who work in similar roles and settings. Capturing individual school counselors' knowledge and broadening the collective knowledge of the profession can expedite the process of school counselors' acquisition of

knowledge above and beyond the foundational knowledge learned in graduate-level training.

Intuitively, school counselors' knowledge sharing practices are important because individual and collective knowledge is the foundation of the profession. Individually school counselors may gain experience or knowledge that helps them serve schools, students, and families more efficiently, but if not shared, that knowledge is only worthwhile to the individual. School counselors' knowledge sharing practices could potentially impact student outcomes, future professional initiatives, education-related legislation, collaborative agencies, and counseling researchers. Understanding more about how school counselors share knowledge, what types of knowledge are shared, and influential factors that impact their knowledge sharing seems an important first step for exploring knowledge sharing as a relatively new concept for the school counseling field. A look at how other fields have discussed knowledge sharing will also help guide future directions for school counseling research in this area.

Theoretical Frameworks

Examining theoretical frameworks previously used to explore knowledge sharing in other disciplines may provide appropriate frameworks for studying school counselors' knowledge sharing practices in their respective settings. Three specific theories that may be most applicable to school counseling will be discussed in the following sections: 1) Diffusion of Innovation Theory, 2) Social Exchange Theory, and 3) Theory of Reasoned Action.

Diffusion of Innovation Theory

Diffusion of Innovation Theory (DOI) was developed originally as a rural sociology theory to explain farmers' adoption of hybrid corn seed (Ryan & Gross, 1943) and was later expanded upon by Everett Rogers (1962) as a way to explain the diffusion of a wide variety of innovations. Recently, DOI was introduced to the field of counseling by Murray (2008) as a framework for understanding the gap that exists between counseling researchers and practitioners. Murray outlines nine of the major tenets of diffusion of innovation theory as they relate to closing the research-practice gap in counseling. Six of the nine postulates outlined by Murray may be relevant for discussing school counselors' knowledge sharing practices for this study:

The first postulate of DOI is that characteristics of innovations themselves account for adoption rates. The five most important characteristics for an innovation to have in order to be adopted include: relative advantage, compatibility, complexity, trialability, and observability. In other words, an innovation must seem to have an advantage over existing methods, be compatible with the systems and culture already in place, be easy enough to use, able to be tried before committing to regular use, and able to be seen in use by other people. Rogers (1995) found that 49-87% of variance of rates of adoption were explained by a specific innovation's characteristics.

Depending on the innovation that is being investigated, certain characteristics can be more important than others. Tornatzky and Klein (1982), in a meta-analysis of research on innovation characteristics, found that three of the five characteristics seemed to best predict adoption: relative advantage, complexity, and compatibility. Relative

advantage and compatibility, specifically, consistently have been found to be "two of the most significant determinants of adoption" (Nelson & Shaw, n.d., p. 266). Additional researchers have found similar findings in disciplines such as business and information science (Lin, 2008; Rogers, 1995; Tornatzky & Klein, 1982). These findings may or may not be as influential for school counselors.

The second postulate of DOI proposes that knowledge is "gained largely through one-way communication" (Dearing & Meyer, 2006, p. 32) although there are also two way communication opportunities. A communication channel is "the means by which messages get from one individual to another" (Rogers, 1995, p. 18). The three types of communication channels available include mass media communication outlets (e.g. radio television, or other print materials), interpersonal communication (e.g., face-to-face communication), and interactive communication channels (e.g., Instant Messenger or weblogs). Depending on the stage of the diffusion process, the three communication channels can have different levels of significance. For example, mass media communication channels allow potential adopters to learn about an innovation, whereas information that persuades a potential adopter to commit to adoption is more likely to be a result of interpersonal communication (Sahin, 2006).

A third DOI postulate is that, in addition to innovation characteristics, individuals also can decide to adopt an innovation for a variety of social, personal, or psychological reasons (Tessmer, 1990; Farquhar & Surry, 1994). Some of the social contexts that can influence the diffusion process include opinion leadership, social networks, and community characteristics (Hornik, 2004).

Opinion leaders can be extremely important to the diffusion process (Rogers, 1995; Rogers & Kincaid, 1981; Valente, 1995) and in many ways control if and when information flows (Harik, 1971; Robinson, 1976; Rosario, 1971; Saunders, Davis, & Monsees, 1974) through social networks and in response to the community characteristics. Because opinion leaders are those whose opinions and advice are sought by other group members they naturally have the ability to influence others to adopt an innovation. Although social networks are used most often to "identify and utilize opinion leaders" (Rogers, 1995, p. 321), their influence extends beyond opinion leadership. For example, as network members choose to adopt or reject an innovation, others within the network can be influenced to do the same. The impact of social networks has even more influence when network members are in close proximity to each other (Rogers, 1995) because interpersonal communication that occurs in close proximity "drives the diffusion process" (Rogers, 1995, p. 342). Finally, the organizational environment in which an innovation is introduced can be an important influence on the diffusion process. These community characteristics include a range of potential influential factors such as organizational policies and procedures, leadership, norms, size, and reward structure (e.g., Frank, Zhao, & Borman, 2004; Hornik, 2004; Rogers, 1995) that can facilitate or hinder the innovation diffusion process within an organization.

DOI's fourth postulate is that potential adopters are more likely to adopt an innovation when they perceive a change agent to be similar to them. Communication is likely to be more effective between people who are similar because they are more likely to share similar language, a similar frame of reference, and similar experiences.

Therefore, diffusion is more likely to occur if the change agent is similar to those he or she is attempting to influence. Although members of homophilous groups (groups of people who share similar views, characteristics, or knowledge) typically have access to similar knowledge and social network contacts, heterophilous groups (with more differences among members) are more likely to provide members with new knowledge. Granovetter (1973) identified this concept as the *strength of weak ties* and used it to explain why most individuals find jobs through a friend of a friend rather than through a close friend or family member.

A fifth DOI postulate is that potential adopters go through a multi-phase decision-making process prior to adopting or rejecting an innovation. The six phases associated with decision-making as it relates to adoption of an innovation include: awareness, knowledge, persuasion, decision, implementation, and confirmation. When an individual is exposed to an innovation and learns of its existence or gains an understanding of the innovation, the first stage of the decision making process is said to occur. From there, an individual forms an opinion about the innovation (persuasion), decides to adopt or reject the innovation (decision), and may begin to use the innovation (implementation). Over time, the individual will seek reinforcement for the decision and will choose to continue to use the innovation or may reverse the initial decision (confirmation). Knowledge is most important during initiation of the adoption process, with communication and infrastructure gaining in importance as the process continues (Brown, Chervany & Reinicke, 2007).

A sixth postulate of DOI is that adopters fall into one of five categories based on their rates of innovation adoption and that adoption is a clearly defined and orderly process (Rogers 1995; Morehouse & Stockdill, 1992). Rogers (1995) identified five types of potential adopters: 1) innovators (2.5%), 2) early adopters (13.5%), 3) early majority (34%), 4) late majority (34%), and 5) laggards (16%). Adopters in each of these categories play crucial roles in the overall diffusion process.

Social Exchange Theory

Social Exchange Theory stems from Economic Exchange Theory (Bock & Kim, 2002), which is based on a behavioral reward system. Economic Exchange Theory posits that expected rewards will positively influence behavior; however, Bock and Kim (2002) found that attitude toward knowledge sharing is actually negatively correlated with external expected rewards. For example, an individual might be less likely to share knowledge with a colleague if a bonus that is tied to performance metrics is in place. Although Economic Exchange Theory did not hold up for knowledge sharing when tested by Bock and Kim, Social Exchange Theory fared better (Hall, 2003). Rather than being based on external, expected rewards, Social Exchange Theory is based on the notion that people exchange knowledge with those with whom they have a reciprocal relationship (Thibault & Kelley, 1952). Therefore, people are more likely to share knowledge with those who also share knowledge with them. Hall (2003) and others (e.g., Constant et al., 1994; Bock & Kim, 2002) have applied this theory to the study of knowledge sharing.

Theory of Reasoned Action

The Theory of Reasoned Action is intended to predict specific behaviors that individuals have control over, in this case, knowledge sharing practices. Knowledge sharing practices "can be studied by applying the theory of reasoned action, wherein attitudes are predicted by evaluating an individual's intention to perform certain behaviors and the available subjective norms" (Leibowitz, 2007, p. 15). In other words, individuals' intentions to share knowledge are based on individuals' attitudes toward knowledge sharing and the norms of their contextual environment that provides structure and rules that can either help or hinder knowledge sharing practices. Fishbein and Ajzen (1975) are credited with expanding this theory for the purpose of studying knowledge sharing behaviors. One critical aspect of the theory is the assumption that human beings are rational and make choices about their behaviors. Others also point out the relevance of the theory of reasoned action for studying knowledge sharing (Bock & Kim, 2002), especially because knowledge sharing is a voluntary behavior (Davenport & Prusak, 1998). The theory of reasoned action has been applied to such fields as psychology, healthcare, and business (Chang, 1998; Sheppard et al., 1988).

Depending on the specific behaviors and populations studied using Theory of Reasoned Action (Ajzen & Fishbein, 1980), possible predictors of knowledge sharing include attitude (Bock & Kim, 2002, Bock, Zmud, Kim, & Lee, 2005; Chang, 1988, Kim & Lee, 1995; Koys & Decotiis, 1991; Ryu et al., 2003; Shin & Jahani, nd) subjective norms (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975; Kim & Lee, 1995; Kurland, 1995; Mathieson, 1991; Shin & Jahani, nd; Taylor & Todd, 1995; Thompson et al.,

1991), social networks (Awazu, 2004; Chow & Chan, 2008), and shared goals (Chow & Chan, 2008). Other factors' influence on the prediction of knowledge sharing behaviors are still being debated in the knowledge sharing literature. One such factor is social trust. Although Staples and Webster (2008) found that trust and knowledge sharing were highly correlated, Chow and Chan (1998) found that social trust did not contribute to the prediction of knowledge sharing behaviors. These contradictions are likely the result of studying different populations in different settings.

Benefits of Knowledge Sharing

Much of the knowledge sharing literature focuses on business organizations and attempts to identify ways in which technology can help employees share knowledge more efficiently in order to increase a business' profitability (Hou, Sung, & Chang, 2009). Furthermore, benefits of knowledge sharing are often associated with businesses gaining competitive advantage (Leibowitz, 2007). In addition to research on business practices, some knowledge sharing research has been conducted in the medical community. In these instances, knowledge sharing has been cited as having benefits such as quality and efficiency for medical professionals (Ryu, Ho, & Han, 2003).

Knowledge sharing studies that focus on education are rare (Hou, Chung, & Chang, 2009). This could be because academic institutions do not utilize knowledge management strategies to the same extent that other professions tend to (Saba & McDowell, 2007), which means that knowledge sharing is then not studied at the same rate in education as it is in fields such as business. Therefore, there is less information regarding "knowledge sharing in an academic environment" (Kim & Ju, 2008, p. 284).

Studies that do exist within the educational field focus on teachers' or professors' knowledge sharing practices and are not typically outcome-based research but are more descriptive in nature. These studies are discussed below.

Saba and McDowell (2007) point out sources from which teachers typically gain knowledge. These sources include textbooks, Internet sites, fellow teachers, books, multimedia sources, and commercial education products. The systematic approaches available for teachers to collect knowledge from these sources, however, are "generally limited in their ability to organize multiple types of resources, include different digital format types, add notes, record reflections, suggest changes for future use, share with other teachers, and quickly search" (p. 41) so teachers gain knowledge from a wide variety of sources but do not have the means to store what is useful for later access or utilization.

Additionally, most of the knowledge that is compiled in schools is related to administrative tasks (Zahner, 2002). For example, test score data or attendance data is compiled and shared with teachers but there is little opportunity for teachers to share knowledge with each other. Of course, the extent to which knowledge sharing between teachers takes place is school, and school district, specific (Carroll et al., 2003).

One of the ways to increase knowledge sharing in schools would be to create knowledge repositories for school staff. Saba and McDowell (2007) suggest that teachers' unique needs be taken into account if and when knowledge repositories are created. Some of the technical capabilities of a knowledge repository for teachers would include the ability to store knowledge in multiple formats, the ability to comment on

others' postings, and the ability to easily upload materials and search for what is available.

In addition to knowledge repositories, allowing time for knowledge sharing can also increase the practice. Wood (n.d.) cites an example of a school-business partnership that allowed teachers time to share knowledge during the school day. With the help of a grant from Lucent Technologies, Lucent Learning Communitites (LLCs), were created as a "professional development initiative aimed at establishing learning communities as the organizational structure for teacher learning" (p. 281). The grant allowed substitute teachers to be available while classroom teachers met with one another on a regular basis. One of the main goals of this initiative was to help teachers combine knowledge-for-practice (passed on from outside experts) with knowledge-in-practice (tacit knowledge gained from experience) so that knowledge-of-practice could be increased. It was a way to make teachers' knowledge more public so that it could be critiqued, refined, and preserved rather than lost.

Limitations of Applying Previous Findings

In general, knowledge sharing has been shown to help organizations harness knowledge, stimulate productivity, inspire innovation, and improve employees' satisfaction (Leibowitz, 2007). School counselors' knowledge sharing practices have not yet been explored and the previously mentioned theories have not been applied to understanding and explaining knowledge sharing among school counselors. Applying findings from other disciplines' literature to the field of school counseling, although promising, is complex for three reasons.

First, many of the motivations and incentives inherent in the business world do not exist to the same degree for school counselors. For example, most school counselors are not rewarded through promotions or bonuses for creating more innovative ways to approach an issue related to their work.

Second, many of the countries that have been studied using knowledge sharing models are collectivist cultures, making it difficult to generalize findings to the individualistic culture of the United States. Van den Hooff, Riddler, & Aukema (2004) found that there are differences in the propensity to share knowledge between collectivist and individualistic cultures. Interestingly, more knowledge sharing occurs in groups when the norms are primarily individualistic since collectivist cultures tend only to share within their group. Thus, cultural differences seem to produce differences in motivations and incentives for sharing knowledge.

Finally, what constitutes knowledge also might be different for school counselors than members of other professional fields. Although school counselors collaborate and consult with other professionals, both inside and outside of the schools where they work, the actual knowledge that is shared has not been identified; therefore, it is possible that knowledge shared that is relevant to the practice of school counseling is qualitatively different than the types of knowledge that are shared in the fields in which knowledge sharing research has been conducted. For example, there is little perceived ownership to certain knowledge shared by school counselors, such as student transfer records, but other knowledge such as lesson plans are more proprietary. Proprietary knowledge, in other fields, can sometimes lead to knowledge hoarding, which occurs when someone

intentionally chooses not to share knowledge, but to instead keep the knowledge to herself or himself. Consequently, it is important to be informed of the literature that currently exists on knowledge sharing, yet also to recognize its limitations and potential shortcomings in regard to its utility for school counselors since less is known about school counselors' knowledge sharing practices.

Gap in the Literature

There is an extensive body of literature in which researchers attend to the process and practice of ensuring that school counselors acquire the knowledge necessary for beginning professional practice. Although the terms *knowledge* or *information* are mentioned in regard to the practice of school counseling, they are mentioned casually without considerable attention paid to defining or elaborating on these terms compared to the attention paid to knowledge acquisition during counselor preparation. For example, seeking information is mentioned as one aspect of collaboration under system support of the delivery system component of the American School Counseling Association (ASCA) National Model (2005) (Baker et al., 2009). Knowledge, specifically, is mentioned in terms of core professional knowledge, promoting knowledge of self, and knowledge as an advocacy skill (Green & McCollum, 2004). Although the importance of knowledge has been established within the school counseling field, how and when knowledge is shared has not been studied. The degree of applicability of knowledge sharing research findings in other fields is unknown. The gap in the literature, therefore, is understanding how knowledge is and can be shared post-graduation. Due to the lack of research in this area of study, a qualitative study will be conducted as a first step.

Purpose of the Study and Statement of the Problem

The primary objectives of this study are to 1) isolate school counselors' knowledge sharing practices, 2) focus on the types of knowledge shared, 3) identify the means by which knowledge sharing takes place, and 4) bring knowledge sharing to the forefront of school counseling literature. Knowledge sharing may contribute to school counselors' efficiency, innovativeness, and effectiveness but before any of these assumptions can be made, an investigation of school counselors' knowledge sharing practices must take place.

Research Questions

The following research questions are the focus of this proposed study.

1. To what extent is knowledge sharing occurring among school counselors?
2. What are the outcomes of knowledge sharing?
3. How does knowledge sharing impact school counselors' work?
4. With whom are school counselors sharing knowledge?
5. What types of knowledge are being shared?
6. What drives school counselors' intentions to share knowledge?
7. What opportunities are available (formal and informal) for knowledge sharing?
8. How do school counselors share knowledge?

Need for the Study

There is a gap in the research that does not address school counselors' knowledge sharing practices. Knowledge sharing has been shown to have beneficial outcomes for various types of organizations, with a strong emphasis on business, and those

organizations' employees. It is unclear if similar positive results might be realized for school counselors, but if knowledge sharing might help school counselors be more efficient, innovative, and/or effective in their work, it seems a worthy cause to investigate the practice. Understanding how school counselors are sharing knowledge is a first step toward filling the gap in the literature and toward improving those aspects of knowledge sharing that are beneficial and decreasing those that seem to hinder the process.

Definition of Terms

Knowledge is defined as all information related to a school counselor's professional work. For purposes of this research, the term knowledge is to be used the way Rogers used the term innovation. Rogers (1995) defined an innovation as "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (p. 475). Although not all knowledge shared by school counselors is necessarily innovative, in the general sense of the word, some of the concepts of diffusion of innovation theory might help make sense of characteristics of knowledge shared, communication channels used to share knowledge, the social context in which knowledge sharing takes place, who people choose to share knowledge with, the decision making process of sharing knowledge, and the characteristics of knowledge sharers. In school counseling an innovation may be associated with technological innovations and may be a confusing term, whereas knowledge better describes the information, ideas, and practices that school counselors may share with others.

School counselors' knowledge sharing is defined as an umbrella term used to describe the

acquisition and dissemination of information, ideas, and practices related to school counselors professional work. At any given time knowledge sharing may be a one-way communication of information, while at other times it might be a two-way communication of information. An exchange of knowledge takes place "when one party gives some knowledge that he or she has (explicit or tacit) to another party (a person or repository)" (Staples & Webster, 2008, p. 620).

School counselors will be defined as licensed school counselors who currently are employed as public school counselors.

Organization of the Study

This dissertation is presented in five chapters. The first chapter provides an overview of the research on knowledge sharing, the need for the proposed study to expand this research into the field of school counseling, and states research questions. The second chapter gives a detailed review of literature related to the topic of knowledge sharing and further elaborates the need for the proposed study in the field of school counseling. The third chapter describes the methods that will be used to collect data on school counselors' knowledge sharing practices, as well as information about participants, and limitations of the study. The fourth chapter will describe the results of the study presented. In the fifth chapter, implications and steps for future research will be discussed.

CHAPTER II

LITERATURE REVIEW

Before beginning a discussion of school counselors' knowledge sharing practices, it is important to examine the body of literature already available on the topics of knowledge and knowledge sharing. It is equally important to explore what is already known about school counselors' knowledge and knowledge sharing practices. The following sections contain theoretical and empirical research that will serve as a foundation on which to build future research in this area.

Knowledge

If someone is knowledgeable, he or she is aware of, or familiar with, specific information. Knowledge, itself, however is a fluid, dynamic concept that is difficult to define in terms of scope or tangibility. Researchers have attempted to define knowledge in terms of categorizing types of knowledge. For example, for Quinn, Anderson, and Finkelstein (1996) knowledge includes know-how, know-what, know-why, and self-motivated creativity. Davenport, De Long, and Beers (1998) defined knowledge as a person's experience, context judgment, beliefs, and information. Other researchers have utilized a broader definition such as "the essence of power in the information age" (Toffler, 1990). For purposes of this discussion, knowledge is defined as an over-arching term that encompasses ideas, practices, innovations, or procedural information.

Three aspects of knowledge make accessing an individual's knowledge base especially difficult. First, creating a comprehensive list of one's knowledge would be an impractical task that would surely produce an incomplete inventory limiting the accessibility of the scope of one individual's knowledge. Second, knowledge acquisition is potentially limitless with knowledge that is known continuously changing, which also limits access to the scope of one's knowledge. Third, most of an individual's knowledge is invisible much of the time and remains unseen by others, making an individual's knowledge intangible to others. Definitions of knowledge, therefore, can attempt to be all encompassing but may fall short. Consequently, because of these three factors, not knowing the scope of other's knowledge base becomes one of the greatest impediments for efficient knowledge sharing but this does not necessarily mean that knowledge sharing does not take place.

Because, or perhaps despite, the reality that knowledge is difficult to define, some researchers have attempted to describe knowledge using dichotomous variables such as tacit and explicit (Nonaka & Takeuchi, 1995), implicit and explicit (Polyani, 1967), or practical and book knowledge (Hara, 2007). Although these types of descriptions do not explain what knowledge is, they do offer additional ways to describe knowledge (Biggam, 2001). Expanding on each of these types of descriptors can be useful as discussion moves from knowledge to ways in which knowledge is shared.

Tacit and explicit knowledge are perhaps the most common descriptors of knowledge. Explicit knowledge is that which can be expressed or stated, while tacit knowledge is that knowledge which is more difficult to express (Hinds & Pfeffer, 2002).

Hara's (2007) examples of book knowledge (facts) and practical knowledge (use of book knowledge) would be considered explicit knowledge, whereas cultural knowledge (beliefs about specific practices or professional responsibilities) would be considered tacit knowledge that is gained through work experience (Hew & Hara, 2007). Similarly, Polyani's (1967) definitions of implicit and explicit knowledge overlap current uses of the terms tacit and explicit.

Knowledge Sharing

Although knowledge may be useful to the knowledgeable individual, it only become useful to others once it is shared. One of the main goals of knowledge sharing is to utilize each individual's knowledge for a collective group's purposes (Li, Montazemi, & Yuan, 2006; Nonaka & Takeuchi, 1995). Knowledge sharing is "the willingness of individuals in an organization to share with others the knowledge they have acquired or created" (Gibbert & Krause, 2002) and takes place when "one party gives some knowledge that he or she has (explicit or tacit) to another party (a person or a repository" (Staples & Webster, 2008, p.620). Knowledge sharing is therefore a social process (Tuomi, 1999) that requires the participation of multiple individuals. Other terms that similarly describe the process of knowledge sharing include knowledge transfer, knowledge diffusion, knowledge distribution, and information sharing (e.g., Bergman et al., 2004; Hou, Sung, & Chang, 2009; Kelley, 2005; Kim & Ju, 2008; Kuo & Young, 2008; Van den Hoof, & Ridde, 2004; Wasko & Faraj, 2005). The specific term used tends to depend on the geographic area and discipline being studied. All of these terms, however, fall under the term knowledge management, which encompasses "creating,

capturing, codifying, applying and sharing" knowledge (Chindgren, 2005, p. 603). Knowledge sharing is considered to be the most critical part of knowledge management (e.g., Alavi & Leidner, 2001; Hickins, 1999).

The two main activities associated with knowledge sharing are absorption and transmission (Davenport & Prusak, 1998), which may also be referred to as acquisition and dissemination. Acquisition occurs when new knowledge is gained, whereas dissemination occurs when knowledge is passed along to others. A third aspect of knowledge sharing that might be necessary for effective knowledge sharing is knowledge interpretation which accounts for the accuracy of knowledge that is transmitted (Wijnhoven, 1998). These three key elements are necessary for the process of knowledge sharing to occur.

Knowledge sharing may occur through either formal or informal contexts. Holtham and Courtney (1998) identified informal communication channels as ways knowledge is spread informally such as impromptu meetings, informal workshops, or "coffee break conversations" (Alavi & Leidner, 2001, p. 120). These informal knowledge sharing opportunities promote socialization among colleagues, especially in smaller organizations (Holtham & Courtney, 1998). More formal knowledge sharing contexts would include trainings, workshops, or formal classes. These formal knowledge sharing opportunities are usually intended to ensure distribution of a body of knowledge (Kwok & Gao, 2005/2006).

At different phases of the knowledge sharing process, individuals can be viewed as internalizing or externalizing knowledge. As individuals acquire new knowledge

through “learning, reading, and interpretation” (Kuo & Young, 2008, p. 2699) they are internalizing that knowledge and adding new knowledge to existing knowledge which they already possess. Knowledge seeking would be considered a part of acquisition or internalizing knowledge, that occurs “through exposure to the opinions and practices of others also working in the same context” (Mathews & Candy, 2000, p. 49). When that knowledge is disseminated through “codifying, showing, and describing” (Kuo & Young, 2008, p. 2699), an individual is considered to be externalizing the knowledge they possess.

The knowledge management literature contains descriptions of two main approaches for externalizing or disseminating knowledge: personalization and codification (Leibowitz, 2007). Personalization involves person-to-person communication in which one person shares knowledge with another person. In contrast, codification uses a knowledge management system, sometimes referred to as a knowledge repository, in which knowledge can be stored and accessed by others at a later date. Personification is typically synchronous communication and utilizes relationships between people for the transfer of knowledge, while codification is asynchronous and typically utilizes some type of technological application such as groupware, intranet, or internal knowledge maps (Ruggles, 1998).

Holtham and Courtney (1998) described these two approaches to knowledge sharing as personal and impersonal channels. They identify personal channels, or personification, as more productive for sharing “highly context specific knowledge” (Gao

& Kwok, 2005/2006, p.47). Impersonal channels, or codification, can be more a more efficient way to generalize knowledge to other contexts (as cited in Gao & Kwok).

Factors that Impact Knowledge Sharing

Several factors that impact knowledge sharing have been identified through previous research. It is important to bear in mind that factors that impact knowledge sharing may be different for specific populations and different industries studied. For example, factors that contribute to knowledge sharing may be culture specific, especially considering that groups with individualist norms tend to share more knowledge than groups with a collectivist one (Van den Hoof, et al., 2004). Keeping this in mind previous research findings may prove beneficial for generalizing about knowledge sharing practices overall or at a minimum providing a starting point for discussion of knowledge sharing practices for additional populations.

Bock, Zmud, Kim, & Lee (2005) found three levels of motivational factors that influence individual's knowledge sharing practices: individual benefits, group benefits, and organizational benefits. People may choose to share knowledge with others if there is something in it for themselves, for the group to which they are members, or for the organization with which they are affiliated. In addition, Bock and Kim (2005) identified three positively related factors that determine intention to share knowledge: attitude, subjective norms, and organizational climate.

Attitude.

Attitude has been identified as a "critical factor" (p. 2700) for knowledge sharing (Kuo & Young, 2008). Meaning that person's dispositions or feelings about knowledge

sharing are likely to reflect their willingness to engage in knowledge sharing practice. Further, individual attitudes toward knowledge sharing in turn influence actual knowledge sharing behaviors (Bock et al., 2005; Bock & Kim, 2002; Constant et al., 1994; Jarvenpaa & Staples, 2000; Kolekofski & Heminger, 2003). Thus attitude toward knowledge sharing might be a critical aspect of a person's openness to the process as well as their knowledge sharing behaviors.

Bock and Kim (2005) identified expected awards (e.g., monetary incentives) as having a potentially negative effect on knowledge sharing attitudes and overall social interactions with colleagues. Specifically, when there is an external reward system that would create a competitive climate, individuals' disposition to knowledge sharing tends to be less favorable. Kwok and Gao (2005/2006) also found that extrinsic motivators were less significant factors for influencing positive attitudes toward knowledge sharing but identified absorptive capacity and channel richness as having an pro-social impact on attitudes toward knowledge sharing. Thus, if the goal is to promote knowledge sharing it may be more important to consider the degree to which colleagues have the foundation to acquire new knowledge (i.e., absorptive capacity) and the mechanisms in place for communicating knowledge as opposed to applying incentive programs that might foster competition.

Subjective norms.

Kuo and Young (2008) found that subjective norms, the unspoken rules of a culture or organization, partially explained individual's knowledge sharing intentions, along with attitude, compatibility, and self-efficacy. These four factors combined

accounted for 42% of variance in knowledge sharing intention is their study of a virtual community of teachers. Arthur, Defillippi, and Lindsay (2008) also mentioned social norms as one of the important aspects of organizational knowledge sharing practices that must be understood to improve organizational knowledge sharing practices. Subjective norms are similar to the construct of organizational climate.

Organizational climate.

The biggest barrier for knowledge sharing is organizational culture (Ruggles, 1998). Even if individuals are interested in knowledge sharing and have positive attitudes toward knowledge sharing, the organizational climate in which they work must be conducive to knowledge sharing in order for the practice to infiltrate individual's work. Chindgren (2005) indicated that "observing, listening, practicing, questioning, debating, and collaborating have all become part of a prosperous knowledge sharing environment" p. 603). Although Chindgren's list of behaviors is not exhaustive, it does provide concrete examples of behaviors that are often present when the organizational climate is facilitative of knowledge sharing.

Researchers assessing capacity for knowledge sharing within and across organizations also found that aspects of climate are important. Cross et al. (2005) described an organization's capacity to share knowledge using four factors: 1) knowledge of what others know, 2) access to knowledge, 3) engagement, and 4) overall feeling of safety. If these factors are not met, it is less likely that an organization's knowledge sharing potential can be met.

Similarly, Galaskiewicz (1985) examined inter-organizational sharing and found four necessary steps that must be taken for effective knowledge sharing to take place: 1) acquire resources, 2) reduce uncertainty, 3) enhance legitimacy, and 4) attain collective goals.

Practical factors also are important to consider in terms of creating organizational climates that are conducive to knowledge sharing practices including resources, training opportunities, and support (Mumtaz 2000; Tearle, 2003). For example, availability of staff who have specific roles related to knowledge sharing (Nantz & Lundgren, 1998) or having access to knowledge sharing software within a department can influence the organizational climate and the ease with which individuals are able to share knowledge.

In addition, an organization's workspace also can influence innovation and creativity for employees (Ahuja & Thatcher, 2005). In some aspects, this might also relate to proximity with those with whom an individual might share knowledge. Borgatti and Cross (2003) found that proximity mediates the relationship between "knowing what a person knows, valuing it, and timely access to information seeking" (p.432). Closer proximity makes relationships easier to maintain and much more likely to be "strong, stable, and positive" (Monge & Eisenberg, 1987 as cited in Brass, n.d., p. 2).

Technology.

Technology is one way that the process of collegial communication and collaboration has become an easier process since geographic constraints no longer restrict access (Baldwin, 1998). However, it is important that technology is chosen intentionally and because it is useful (Smith, 1997), especially since learning how to use technology

for the purpose of knowledge sharing requires time and effort (Hirschbuhl & Faseyitan, 1994; Nantz & Lundgren, 1998). For example, training school counselors to use a website that they do not find useful will not increase knowledge sharing regardless of the time and money that was invested in the websites' design.

Interpersonal relationships.

Ensign and Hebert (2009) found that past behavior and expected action influence knowledge sharing decisions. The ability and openness to reciprocate on the part of the potential knowledge recipient and previous knowledge sharing behavior have an effect on whether a knowledge holder is willing to share his or her knowledge with a potential recipient. The main underlying factor is interpersonal trust and whether people have bonded enough and feel secure enough to share knowledge. Other authors, however, have disputed the predictive power of these factors on knowledge sharing (e.g., Staples & Webster, 2008).

Social networks.

There also is a networking component to knowledge sharing. Knowledge spreads from person to person through an intricate social network. These networks can serve as facilitators of innovation (Leibowitz, 2007) and a place for new ideas to arise via information exchange between members (Rogers, 1995). Although social networking and knowledge sharing is a topic worthy of its own examination, it is worth mentioning briefly in this overall discussion of knowledge sharing as well.

A social network can "bridge knowledge and skills gaps" (Leibowitz, 2007, p. 18). These networks are defined by the content or knowledge that flows within them

(Marsden, 1982; Uzzi, 1996; McCarty, 2002 as cited in Hite, Williams, & Baugh, 2005). A social network's structure, members, and boundary span can influence how knowledge spreads throughout the network (Hite et al.).

Individuals can play a variety of roles within a social network to either facilitate or hinder knowledge sharing. Although there is little agreement that categories of network members exist, several authors have attempted to describe the various roles. Leibowitz (2007) described these roles as isolates, carriers, transmitters, and receivers. On this spectrum, individuals' roles vary from unconnected to others (therefore unable to share knowledge), connected to others within and across departments and organizations (therefore able to share knowledge more broadly), willingness to share information, and willingness to spread information. Cross, Linder, & Parker (2005) described the roles slightly differently with individuals taking on roles as central connectors (hold power or centrality within the group), boundary spanners (collaborate across departments or groups), peripheral specialists (isolated or on the periphery), information brokers (share within one department and have indirect connections to others), and facilitators (advise and put individuals in contact with one another).

Other researchers have attempted to describe the characteristics of those who take on specific roles, for example, those who are likely to connect two different social networks. Rosen (2000) identified those who are information hungry, vocal, and exposed to media as those most likely to span more than one network.

Factors that Hinder Knowledge Sharing

The most important first step in a discussion of factors that potentially hinder knowledge sharing is to recognize that knowledge sharing requires time and effort and people do not always want to share their knowledge with others (Husted & Michailova, 2002). Furthermore, knowledge sharing is often unnatural (Davenport, 1997) because knowledge is presumed to be within individuals (Nonaka & Konno, 1998) and is therefore invisible to others. Although most research on factors that hinder knowledge sharing was conducted in other disciplines, most often business, there may be transferability of the findings to the education arena as well.

Leibowitz (2007) identified specific organizational and individual constraints related to knowledge sharing. Although these constraints were reported by members of a business organization, they may be reflective of constraints that also are experienced by other groups. Lack of time and workload were reported as the biggest limitations for knowledge sharing. These were followed by too many people working individually on projects, not knowing who has information, job insecurity, organizational culture, and inefficient means of accessing internal knowledge. Other restrictive factors that were reported included standardization, politics, rigid hierarchical structures, geographical issues, limited access to intranet from home, communication issues, and lack of knowledge capture. Although this is not an exhaustive list of all possible issues related to knowledge sharing, it is at the very least a comprehensive one. It can be narrowed into the following categories: 1) factors related to workers and 2) factors related to organizations. A worker's lack of time, isolation, and uncertainty of consequences along

with an organization's incentives, norms, and infrastructure can lead to a lack of knowledge sharing among colleagues (Leibowitz, 1998).

Empirical research has supported some of Leibowitz and Parson's claims, as well as identifying additional factors that might reduce the likelihood of effective knowledge sharing. Lockett, Kerr, and Robinson (2008) studied knowledge sharing between higher education professionals and the business industry in the United Kingdom and identified three barriers for knowledge transfer including lack of time, biased incentives, and detachment of academics from real world issues. A lack of time with which to share knowledge is a common factor that has been identified in several studies. If individuals feel their time is limited, they are less likely to use their free time to share knowledge with others. In addition, activities such as knowledge sharing are not necessarily incentivized at the university level as much as isolated activities. Even collaboration efforts sometimes can take on the structure of two or more people working in isolation. Furthermore, higher education professionals sometimes have knowledge that does not easily translate into real world application, hindering knowledge sharing between university faculty and others.

Szulanski (1996) cited three different barriers to effective knowledge transfer: 1) ignorance, 2) absorptive capacity, and 3) lack of interpersonal relationships. Any one of these, or a combination of factors, may hinder knowledge sharing according to Szulanski. Not knowing what knowledge is available or what knowledge others need (ignorance), prohibits efficient knowledge sharing from taking place. Additionally, a lack of time or resources (absorptive capacity) keeps people from sharing knowledge they have or from

seeking knowledge from others. Finally, if people do not feel connected (lack of interpersonal relationships) it is less likely that knowledge sharing will occur.

Individual resistance to change also might inhibit knowledge sharing (Blumhardt & Cross, 1996; Cuban, 1993; Klein, 1995). In fact, the biggest difficulty for managing knowledge is changing people's behaviors (Ruggles, 1998), meaning that people usually must change their existing behaviors for knowledge sharing to occur. Rutherford and Grana (1995) identified fear of change, fear of time commitment, and fear of appearing incompetent as potential reasons for individual resistance.

Although Rutherford and Grana (1995) studied these types of fears focusing on resistance toward IT communications, such fears also may be relevant for general knowledge sharing as well since technology is one component of how knowledge is shared. Hannafin and Savenye (1993) found that although fear often is an initial barrier to knowledge sharing, it is not the only barrier for technology adoption. For example, although individuals may be afraid technology will be difficult to use, which presents an initial barrier, when individuals experience difficulty using technology for knowledge sharing the problem becomes compounded and they are less likely to try again (Albright, 1996). Further complicating these dynamics, Greene (1991) found that when higher education faculty experience problems with technology, the problems discourage not just the individual, but also others in their social networks from using the technology.

For some cultural groups, the values required for knowledge sharing are cultural norms. Chatman (1996) is credited with developing the Theory of Information Poverty, which focuses on the social justice aspects of knowledge sharing. For some cultural

groups, there is a lack of potential knowledge. These cultural differences often are associated with class distinctions in which lower class citizens lack access to knowledge. Secrecy and deception are often self-protective cultural norms that are utilized by members of these groups because of a sense of mistrust regarding interest, agenda, or ability of others to provide useful information. Further compounding the problem is the fact that new knowledge often is selectively introduced to the world of those living in poverty, whether intentionally or unintentionally.

In contrast to not having access to knowledge, in other cultures, especially organizational cultures, individual knowledge is rewarded. This sometimes can lead to knowledge hoarding (Ardichvilli, Page, & Wentling, 2003). Knowledge hoarding happens when an individual intentionally keeps knowledge from others instead of sharing what is known.

Theories Related to Knowledge Sharing

There appear to be two bodies of literature that are relevant to the exploration of school counselors' knowledge sharing practices. Both use distinctly different theoretical approaches to explaining knowledge sharing. The first, research on diffusion of innovations, is mostly found within communication literature and might offer a helpful framework for understanding how knowledge spreads (Rogers, 1962). The second is research on knowledge sharing, which is mostly found within business literature. Theory of reasoned action, social exchange theory, and social cognitive theory also have been used to explain knowledge sharing in the context of business (Bock & Kim, 2002). Both

bodies of literature will be discussed here since both may be helpful when examining school counselors' knowledge sharing practices.

Defining Constructs

In the larger body of literature on diffusion and knowledge sharing, the terms information, knowledge, ideas, and innovations are sometimes used interchangeably or can sometimes be used to describe different aspects of overall knowledge. For purposes of this study, knowledge is an over-arching term that will be defined as that which is shared between one individual and another person, sometimes in a one-way exchange and sometimes in a two-way exchange. Knowledge sharing might include an idea, practice, innovation, or could be procedural information. Both knowledge acquisition and knowledge dissemination are included in this concept of knowledge sharing.

References used throughout this chapter will these specific terms (i.e., knowledge, information, innovation, or ideas) as they have been used in specific studies. All of these terms, however, fall under the umbrella of *knowledge* for purposes of the current study.

Diffusion, according to Rogers (1995) is a type of communication in which the information being exchanged centers around a new idea that is being passed along, with the essence of diffusion being that information is exchanged when one individual communicates "a new idea to one or several others" (p.18). Individuals in this sense are seen as potential adopters of innovations. In order for adopters to adopt an innovation, four main elements of diffusion must be in place. These main elements include 1) an

innovation (i.e., knowledge), 2) communication, 3) elapsed time, and 4) members of a social system (Rogers, 1995).

Diffusion of Innovation Theory

Everett Rogers is often credited with the development of diffusion of innovation theory, although the theory actually had its beginnings in 1903 when Gabriel Tarde first wrote *The Laws of Imitation*. Tarde's work was the earliest diffusion study, although it would be decades before the term, *diffusion,* was used to describe the phenomenon. Tarde was the first to identify the S-shaped curve associated with the rate of imitation, the role of social status in the imitation process, and the importance of opinion leaders as potential accelerators of imitation. Valente and Rogers (1995) cite other early diffusion researchers including Pemberton (1936a, 1936b, 1937, 1938), Bowers (1937, 1938), and McVoy (1940), all of whom began studying the diffusion process long before Everett Rogers began his career and long before the term *diffusion* was introduced.

These early researchers laid the groundwork for Ryan and Gross to study diffusion as it relates to rural sociology. One of the most widely accepted beginnings of the diffusion process originated with Ryan and Gross' (1943) study of agricultural patterns among Iowan corn farmers' adoption of hybrid corn seed. The hybrid corn seed in question was one innovation that helped corn farmers yield larger crops since this new seed was more hardy and drought-resistant than traditional corn seed. Their original study was focused on understanding differences between farmers who adopted the new farming innovation and those who waited to adopt the innovation later, or perhaps never adopted the innovation despite its obvious benefits. They categorized farmers into four categories

based on the rate at which the farmers' tried the new corn seed innovation: 1) innovators, 2) early majority, 3) late majority, and 4) laggards. Ryan and Gross conducted individual interviews with Iowan corn farmers to better understand the process of adoption.

Some of the key findings from Ryan and Gross's (1943) study strongly influenced the direction of future diffusion research. Four key aspects of diffusion were especially helpful. First, each individual farmer experienced a decision making process when deciding whether or not to adopt the corn seed, which included stages of "awareness, trial, and adoption" (Rogers, 1995). Second, the roles of specific communication channels were influential at specific times during the decision making process. For example, although most farmers initially learned of the innovation through a salesperson, it was generally a neighbor that was most influential in the adoption decision-making process. Third, Ryan and Gross also identified the same S-shaped curve that had been identified previously as a model of the rate of adoption. Finally, characteristics of farmers were identified that potentially influenced the adopter category into which they best fit.

It is important to mention some of the personal, social, and economic factors that Ryan and Gross (1943) found to influence farmers' adoption rates. Personal characteristics such as age and formal education level were identified as important predictors of adopter category. Certain social characteristics also influenced farmers' decisions regarding adoption of hybrid corn seed. These social characteristics include: organizational participation, attendance at organizational meetings, participation in government farm programs, cosmopoliteness (trips to Des Moines), commercial recreation behavior, and nonfiction reading habits. Although many different economic

factors might contribute to some of these personal and social characteristics, the one economic factor that emerged as particularly influential was farm size. Some of the characteristics that did not influence adopter category were ethnicity, farm tenure, mobility, and frequency of reading books.

Three main questions surfaced as areas for further research after Ryan and Gross's study of Iowan corn farmers' adoption patterns (Valente & Rogers, 1995):

1. What factors influence innovativeness?
2. What factors influence the rate of adoption?
3. What are the roles of the various communication channels/sources?

Furthermore, Valente and Rogers (1995) identified holes in the Ryan and Gross study that could have strengthened their study. First, social network analysis was not conducted to gain a better understanding of how information flows among members of the social network. Although diffusion was identified as a social process, the flow of information through that social network was not studied. Second, spatial data was not collected to identify how proximity or other spatial factors might influence the diffusion process. Data in these two areas could potentially strengthen the contributions of Ryan and Gross.

Beal and Bohlen (1955), who both earned PhDs from Iowa State University, where Ryan and Gross first began their research on the diffusion process, were in an ideal situation to pick up where Ryan and Gross left off and contribute additional research in this area. Beal and Bohlen (1955) identified five stages an individual must go through when making decisions about adoption: 1) awareness, 2) interest, 3) evaluation, 4) trial, and 5) adoption. These built on the stages already identified by Ryan and Gross. Beal and

Bohlen also attempted to answer two of the three lingering questions left by Ryan and Gross' research study. First, they identified that the role of specific communication channels/sources may have significantly different impacts at various stages of the decision making process. For example, mass media is more important when fostering awareness, while interpersonal communication is more important during the evaluation stage when people are in a more active decision making role (Valente & Rogers, 1995). Beal and Bohlen also identified additional characteristics of adopter categories to help identify communications strategies that accelerate the diffusion process and/or target specific groups of adopters (Valente & Rogers, 1995).

Application to other disciplines.

Most diffusion research conducted prior to 1955 focused solely on rural sociology (Valente & Rogers, 1995). However, three important events occurred in the late 1950s that changed the course of diffusion research. The first was that Everett Rogers began his career, with Beal as his advisor, and further investigated the diffusion research that had already taken place. Rogers' *Diffusion of Innovations* (1962) cited diffusion as a general process that could be applied to a wide variety of disciplines. The second event was a study published by Coleman, Menzel, and Katz (1957) that researched a group of Illinois physicians' prescription of a new antibiotic and found similar results as Ryan and Gross' (1943) study of Iowan corn farmers, even though Coleman et al. were not aware of the earlier study. The third event that altered the course of diffusion research was that departments of communications studies were created on college campuses across the

United States beginning in 1960 (Valente & Rogers, 1995) providing a forum from which researchers could study diffusion as it relates to communications generally.

In the four decades following Ryan and Goss' initial discovery, Everett Rogers expanded the theory to an "interdisciplinary paradigm of innovation diffusion" (Singhal & Dearing, 2006, p. 19) by applying the theory to a variety of innovations and finding that the adoption of new ideas results from information sharing through a network of relationships among people (Rogers, 1995). Many disciplines have applied diffusion of innovation theory to explain diffusion in their own contexts. As of 1995, over 4000 diffusion research publications existed in the literature and spanned a variety of fields including "public health, economics, geography, marketing, political science, and communications" (Valente & Rogers, p. 264). Since the theory has been reviewed and tested in a variety of disciplines, there is greater generalizability of overall findings over time (e.g., Kwon & Zmud, 1987; Prescott & Conger, 1995). Although there have been lulls as the research paradigm becomes saturated in a specific discipline or on a specific aspect of diffusion theory, researchers continue to apply diffusion of innovation theory in innovative ways.

Application to counseling and counselor education.

Recently, Murray (2008) introduced Diffusion of Innovation theory to the field of counselor education as a framework for understanding the gap that exists between counseling researchers and practitioners. The introduction of diffusion of innovation theory into counselor education opens the door for current research to examine specific aspects of the theory as they relate to specific aspects of practice and/or research.

Six basic tenets of diffusion of innovation theory.

Murray (2008) outlined nine of the major tenets of diffusion of innovation theory as they relate to closing the research-practice gap in counseling. Six of the nine postulates outlined by Murray may be relevant for discussion of school counselors' knowledge sharing practices. The six postulates that will be discussed in relation to school counselors' knowledge sharing practices are: 1) characteristics of innovations, 2) communication channels, 3) social context, 4) homophily, 5) decision making processes of individuals, and 6) adopter categories.

Characteristics of innovations.

Diffusion of innovation theory explains the characteristics of innovations themselves that help account for adoption rates (Rogers, 1995). Rogers (1995) found that 49 to 87% of variance of rates of adoption is explained by the specific innovation's characteristics. The five most important characteristics an innovation must possess in order to be adopted include relative advantage, compatibility, complexity, trialability, and observability. In other words, an innovation must seem to have an advantage over existing methods, be compatible with the systems and culture already in place, be easy enough to use, be able to be tried before committing to regular use, and be able to be seen in use by other people. Findings regarding these five innovation characteristics are outlined below.

Depending on the innovation that is being investigated, certain characteristics can be more important than others. Tornatzky and Klein (1982), in a meta-analysis of research on innovation characteristics, found that three of the five characteristics seemed

to best predict adoption: relative advantage, complexity, and compatibility. Lin (2008) found that relative advantage and compatibility seemed to have a significant effect on specific business successes. Hornik (2004) pointed out that various versions of one innovation may be quicker to diffuse than another version. The example Hornik cited is that of 24-hour medication that must be taken only once per day versus 8-hour medication that must be taken three times per day. Thus, individuals are more likely to comply with the newer version of the drug since it has relative advantage over alternatives, is less complex, and is more compatible with a busy lifestyle.

Communication channels.

Rogers (1995) defined communication as "the process by which participants create and share information with one another in order to reach a mutual understanding" (p. 18). A communication channel then is "the means by which messages get from one individual to another" (p.18). The following communication components are necessary for diffusion to occur: 1) an innovation, 2) someone with knowledge of the innovation, 3) someone without knowledge of the innovation, and 4) a communication channel connecting the two.

There are three types of communication channels (Rogers, 1995). First, mass media communication outlets (e.g., radio, television, or magazines) are an effective means of spreading awareness of an innovation's existence. Second, interpersonal communication, which has been shown to be of greater importance during later stages of the diffusion process when individuals are making adoption decisions, is another potential communication channel. Third, interactive communication is now possible via

the Internet, supplying yet another potential communication channel for diffusion to occur (e.g., Instant Messenger, online chat, discussion boards).

Technological advances have increased the potential for knowledge to spread more quickly and more efficiently through mass media, interpersonal and interactive communication channels. Technology has created a new means for providing experiences that can build community between people and therefore increase the likelihood that knowledge might be shared (Farnham, Kell, Portnoy, & Schwartz, 2004). For example, Farnham et al. (2004) mention blogs and wikis as potential sources of knowledge creation and transfer. In fact, not only does technology lead to more knowledge sharing potentially, but also people are more likely to use electronic means to share knowledge if they have access to such opportunities. (Adler & Kwon, 2002).

Social context.

In addition to innovation characteristics, individuals also may decide to adopt an innovation for a variety of social, personal, or psychological reasons (Tessmer, 1990; Farquhar & Surry, 1994). The social aspect may be particularly salient to research as it is not specific to an individual. Social aspects that can influence diffusion include opinion leadership, social networks, and community characteristics (Hornik, 2004).

Opinion leaders are important to the diffusion process (Rogers, 1995; Rogers & Kincaid, 1981; Valente, 1995) and in many ways control if and when information flows (Robinson, 1976; Rogers, 1995; Saunders, Davis, & Monsees, 1974; Valente & Davis, 1999). Opinion leadership has been shown to be an effective means of bringing about changes in behavior, especially in health prevention research including randomized

controlled trials on HIV prevention, adoption of mammography, and the prevention of heart disease (Rogers, 1995). Typically a few people within a network are identified as opinion leaders and are utilized within the greater network to instigate change (Rogers, 1995).

Identifying opinion leaders has been useful for targeting professional development and training initiatives (McCay, Speedie, & Kerr, 1988). There are four ways to measure opinion leadership: 1) mapping, 2) informants' ratings of each other, 3) self-designating techniques, and 4) observing others (Rogers, 1995). All four methods of identifying opinion leaders are equally valid methods and have a "high degree of stability over time" (p. 312) over a relatively short period of time.

Some key characteristics of opinion leaders have surfaced as common traits. Most fall under four categories: external communication, accessibility, socioeconomic status, and innovativeness (Rogers, 1995). Opinion leaders typically have greater exposure to mass media, travel outside of their local area more often, and have greater contact with change agents. They also participate more in social activities, hold a higher economic status, and a higher social status than non-opinion leaders. Opinion leaders also are typically more innovative.

Although social networks typically are used to "identify and utilize opinion leaders" (Rogers, 1995, p. 321), they also can be used in other ways. For example, proximity to others within a network can influence the diffusion process significantly. Interpersonal communication that occurs within close proximity to peers "drives the diffusion process" (Rogers, 1995, p. 342). The social network also can provide normative

pressure on an individual to adopt a particular innovation particularly when the network influences an individual's perceptions of how many others also have adopted the innovation (Schelling, 1978).

The organizational environment is another social context that may influence the diffusion process. Frank, Zhao, and Borman (2004) cite job conditions and job stress as influential on the diffusion process. An organization's rules, norms, policies, priorities, communication systems, and social networks can significantly alter an individual's adoption decisions and the overall diffusion of an innovation (Hornik, 2004). Any changes in these job conditions, such as new leadership, changes in policies, or new colleagues, can create job stress that also can influence individual adoption decisions (Hornik, 2004).

The professional environment and factors within that environment can play a large part in determining which communication channels are utilized. Jacobsen (1998) examined the top ten ways that higher education faculty choose to stay knowledgeable about change and innovation. The top three responses included a social context: 1) colleagues on campus, 2) informal network of family and friends, and 3) innovative graduate students. For example, researchers who have examined co-teaching found that co-teaching with an experienced teacher was a better model of learning teaching methods than traditional student teaching methods (Henderson, Beach, & Famiano, 2007). Knowledge diffuses best when people acquire knowledge from people they know and to whom they have immediate access (Jacobsen, 1998) making them…

Using Rogers' (1995) individual-level diffusion model, the social context of an organization can influence adoption of an innovation because members of an organization share the fate of the organization. Therefore, they are much more likely to adopt an innovation that will help themselves and the overall organization (Frank, Zhao, & Borman, 2004). Furthermore, organizations typically provide members with key benefits that they might not otherwise have (e.g., social rewards, access to resources, status) (Frank, Zhao, & Borman, 2004).

Many times work environments are not designed to encourage workers to have access to the knowledge of their co-workers. For example, Brown and Duguid (2002) found that there is often useful knowledge within a company, but that "too often the people who need it either failed to find it or were unable to make use of it" (p. 429). Researchers (e.g., Lin, 2007) have attempted to determine organizational factors that help or hinder workers' knowledge sharing practices. For example, Bock and Kim (2002) found that evaluation and external rewards are not necessarily as useful for increasing knowledge sharing practices as are identifying ways to motivate workers to want to share knowledge. Similarly, workers' lack of time, isolation, and uncertainty of consequences, as well as an organization's incentives, norms, and infrastructure can lead to a lack of knowledge sharing among colleagues (Leibowitz, 1998).

Homophily.

Homophily is the "degree to which a pair of individuals who communicate are similar" (Rogers, 1995, p. 305). The traits on which two people are similar can vary, but the critical criterion is that they see themselves as similar. This general concept originated

with Gabriel Tarde in 1903 when he stated that social connections seem to be of greater significance for individuals who share similar occupations and similar education levels (Rogers, 1995). Communication is likely to be more effective between two people who are similar (homophilous) than those who are less similar (heterophilous) because they are more likely to share similar language, a similar frame of reference, and similar experiences. Furthermore, as communication between two homophilous individuals increases, they also are likely to become even more homophilous (Rogers, 1995).

For purposes of information diffusion, homophily can serve as both help and hindrance. Although communication within a homophilous group may be easier and more comfortable, new information is much more likely to be shared between heterophilous groups (Granovetter, 1973). Those within one homophilous group already are likely to have access to the same information whereas those from outside the group are more likely to contribute new knowledge or information (Granovetter, 1973). Granovetter would call this the "strength of weak ties". Innovative people tend to cluster together, "staying close to those who share their visions, understand their insights, and advance their ideas" (Brown & Duguid, 2002, p. 430), whereas heterophilous links (or connections with those that see things differently) are most important for encouraging the spread of ideas and innovations (Valente, 1995). For these networks to be effective; however, relationship between group members must be strong (Butler, 1999).

Decision making processes.

There also are phases of decision-making associated with diffusion of innovation theory. The six phases associated with decision-making as it relates to adoption of an

innovation include awareness, knowledge, persuasion, decision, implementation, and confirmation (Rogers, 1995). When an individual is exposed to an innovation and learns of its existence or gains an understanding of the innovation, knowledge is said to be created. From there, an individual forms an opinion about the innovation (persuasion), decides to adopt or reject the innovation (decision), and may begin to use the innovation (implementation). Over time, the individual will seek reinforcement for the decision and will choose to continue to use the innovation or may reverse the initial decision (confirmation).

This decision making model has been compared to Prochaska and DiClemente's Stages of Change Theory (1982). Although there seem to be similarities between the two in terms of stages, there have not been "consistently successful findings of empirical support that different theoretical processes are influential at each stage" of Prochaska and DiClemente's theory (Hornik, 2004. p.147). However, there is more support for this regarding the diffusion model (e.g., Brown, Chervany, & Reinicke, 2007).

Frank, Zhao, and Borman (2004) interviewed teachers about their use of computers, decisions to use computers, and the social context in which they make decisions about computer use. They found that cohesion in a department leads to greater social capital and greater flow of information since social capital is guided by social exchange and relationships.

Adopter categories.

Diffusion of innovation theory attempts to group individuals into categories based on the rate at which they adopt a specific innovation, and assumes that adoption is a

clearly defined and orderly process (Rogers, 1995; Morehouse & Stockdill, 1992). In fact, several mathematical models of diffusion of innovations (e.g., Avvakumor & Kiselev, 2003) have been created to portray these ideal categories that allow comparisons to be possible based on the normal distribution (Jacobsen, 1997).

According to diffusion of innovation theory, there are non-random patterns among people in terms of how early they decide to adopt an innovation. In fact adoption of innovations generally follows an S-shaped curve when graphed, which becomes a normal curve when cumulative adopters are included, but initially begins as an S-shaped curve when looking at just the diffusion process as it occurs over time. It is S-shaped because initially only a few adopters will adopt an innovation so that the curve has a gradual incline until the critical 10-20% is met and then the curve begins to rise more steeply. Once 50% of potential adopters have adopted a particular innovation, the S-shaped curve begins to level off as there are fewer potential adopters left to adopt.

Rogers (1995) identified five types of potential adopters: 1) innovators (2.5%), 2) early adopters (13.5%, 3) early majority (34%), 4) late majority (34%), and 5) laggards (16%). Rogers (1995) found that each of these potential adopter categories plays a crucial role in the adoption or non-adoption of innovations within a given population. His descriptions of key characteristics of each, paired with more recent research findings, are described below.

Innovators are typically keen to new ideas and are willing to cope with the uncertainty and risk associated with trying a new innovation. Often innovators have ties within several social networks and are networked with other innovators regardless of

geographic location. Innovators typically understand complex technologies and can apply that knowledge to other situations. Innovators are the "gatekeepers" of information into the network.

Early adopters are the opinion leaders within a network. These are the people that other people go to for advice about adoption decisions. They are role models within their networks and their opinions are well respected. The stamp of approval of early adopters decreases uncertainty among others regarding potential adoption decisions.

The early majority paired with the late majority makes up the mainstream (Rogers, 1995). The early majority adopts just before the average person would, while the late majority adopts just after. Neither are opinion leaders, but together they make up two thirds of an overall network. They are deliberate decision-makers who need more time to contemplate a decision than the early adopters. Late majority members are often skeptical and cautious when making adoption decisions and sometimes only adopt out of pure necessity and peer pressure.

Finally, the laggards are those who are last to adopt an innovation, if at all. They typically are isolated from the rest of the network and use the past as their primary frame of reference. They are suspicious of change and innovation and hold traditional values that have worked for them in the past and they see no reason to change now.

These categories are important, not just to explain behaviors, but also to target specific types of adopters in order for innovations to diffuse through each group (Rogers, 1995). Specific communication channels might be more advantageous to use with specific types of potential adopters, for example.

Several key characteristics can be cited as important for determining the difference between early adopters and others including socioeconomic factors, personality values, and communication behaviors (Rogers, 1995). Socioeconomic variables such as level of formal education, social status, and social mobility can impact an individual's adopter category. Furthermore, personality values such as degree of empathy, rationality, intelligence, and fatalistic attitude also can influence an individual's orientation toward innovation. Finally, communication behaviors such as how social a person is, how interconnected a person is, or how exposed a person is to new information also can influence which adopter category a person falls.

Hornik (2004) grouped these characteristics of adopters by relatively fixed personality characteristics, moderately fixed personality characteristics, learned beliefs and skills, and structural characteristics. Many of the traits overlap those laid out by Rogers, with only the grouping of characteristics varying. However, Hornik added two theoretical bases to help understand aspects of the learned beliefs and skills category. Fishbein and Ajzen's (1975) theory of reasoned action and Bandura's (1986) social cognitive theory are included in Hornik's descriptions as potentially helpful for understanding individual adoption decisions.

Application to school counselors.

Relying on previous researchers' attempts to understand diffusion of innovations may prove useful in examining school counselors' knowledge sharing practices. Using Murray's (2008) postulates as a framework will provide a helpful starting point for identifying critical aspects of knowledge diffusion among school counselors. Identifying

what knowledge is being shared, how that knowledge is being shared, the social context for knowledge sharing, the decision making process behind knowledge sharing, and characteristics of individuals who are or are not sharing knowledge can provide a starting point for this research. Previous research will serve as a guide for examining the diffusion process.

At least one research study (Casey, 1995) has examined school counselors' innovativeness. Casey found that there is extreme variance between the innovators and laggards within the school counseling profession in terms of technology usage. Interestingly, much of the diffusion research that has been conducted in education in general, and especially in higher education, centers on faculty's adoption of technology. It is important to keep in mind, however, that the use of technology is not the only indicator of innovativeness. As Jacobsen (1997) points out, "there are plenty of innovators in education that make no use of technology at all" (Gilbert, 1995, p. 33).

It is also important to note that most diffusion of innovation studies concentrate on product innovations rather than process innovations (Surry & Brennan, 1998). Surry and Brennan (1998) hypothesized that this may be due to the fact that product innovations are easier to study because products are more "concrete and easier to define" (p. 10) than process innovations. Examining process innovations, such as knowledge sharing, "could reveal adoption factors that are different from those found in the adoption of product innovations" (Surry & Brennan, 1998, p. 11).

Knowledge Sharing Theories

Researchers have also used a variety of theories and theoretical models to explain knowledge sharing that takes place in various types of organizations. Thus far, the majority of theory-based research has focused on knowledge sharing as it applies to business organizations. Very little research has been done attempting to understand knowledge sharing as it relates to academic settings, and far less has focused on knowledge sharing in public K-12 school settings. Consequently, the theoretical foundations discussed below will be used to guide initial steps toward understanding school counselors' knowledge sharing in public school settings, although none have been tested in such a capacity. The most prominent and relevant theories and/or models include Social Exchange Theory and Theory of Reasoned Action.

Social Exchange Theory.

Social Exchange Theory (Homans, 1958) is based on economic exchange theory and posits that there is an exchange of non-material goods between individuals in relationships. These non-material goods might include affection, prestige, power, or in this case, knowledge (cite). Ideally there is a balance in this exchange, with both parties receiving an equal share of non-material goods.

Social Exchange Theory, as it applies to knowledge sharing, is based on reciprocal relationships between knowledge sharers. In other words, individuals are more likely to have positive attitudes toward knowledge sharing when they anticipate a reciprocal relationship will form with the person with whom they choose to share knowledge, meaning both parties will benefit.

Bock and Kim (2002) tested this theory as part of an exploratory study of attitudes toward knowledge sharing. Their study used a sample of 467 employees from four large, public organizations in Korea. One hypothesis stated that people would have more positive attitudes toward knowledge sharing if they believed "they could improve relationships with other employees by offering their knowledge (p. 16)." This hypothesis was supported at the $p<.001$ level, with similar findings in a follow up study (Bock et al., 2005) that found anticipated reciprocal relationships to be among the most significant factors that influence people's attitudes toward knowledge sharing. Anticipated reciprocal relationships, in this case, were defined as "the degree to which one believes one can improve mutual relationships with others through one's knowledge sharing" (Bock et al., p. 107).

According to Social Exchange Theory, school counselors might be more willing to share knowledge with people they think might have something to offer in return. It is unclear whether the reciprocating party would need to do the same type of sharing (e.g., knowledge) or if something else could be shared to maintain the reciprocal relationship (e.g., prestige). For example, school counselors might share knowledge with other school counselors or with school administrators and what is shared in return may be very different. Another school counselor might reciprocally share knowledge whereas a school administrator might be able to provide more responsibility. Regardless, Social Exchange Theory could be useful to consider school counselors' choice regarding with whom they share knowledge.

Theory of Reasoned Action.

The Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), has been used in social psychology to explain human behavior and has been applied to psychology, business, marketing, and health professions (Chang, 1998; Sheppard et al., 1988). TRA assumes that humans are rational beings and states that human behavior is determined by three elements: 1) attitude toward the behavior, 2) subjective norms, and 3) behavior intention.

Miller (2005) provided a general definition of each of the three factors associated with TRA. First, attitude accounts for the sum of a person's beliefs about a behavior, with specific weights given to each aspect of that behavior. For example, a school counselor might have the attitude that knowledge is important for being successful at work, but might assign different weights to various types of knowledge (e.g., knowledge of counseling theory, knowledge of school personnel, knowledge of outside agencies). Second, the subjective norm consists of the opinions of people in a person's environment. For example, a school counselor's principal might think sharing information is a valuable way to spend part of a work day, while a co-counselor might see the same activity as less worthwhile. The school counselor assigns weights to various people in various roles, which then influences knowledge sharing behaviors. Finally, behavior intention is a function of both attitudes and the subjective norm. For example, a school counselor must weigh his or her attitudes together with the subjective norm to decide whether or not to participate in knowledge sharing behaviors. These three factors are what contribute to the actual behavior exhibited by an individual.

TRA has been used as a model for explaining knowledge sharing behavior (Bock & Kim, 2002). The three main components of TRA, as outlined above, include attitude, subjective norms, and behavior intentions. These three predict actual behaviors. All other factors that could arise influence behavior by influencing attitude and/or subjective norms (Davis et al., 1989). The only criteria for using TRA to study a behavior is that the behavior in question must be one which is under a person's control (Sheppard et al., 1988).

In many studies, attitude and subjective norms, separately and together, have been shown to be positively related to actual knowledge sharing (Bock et al, 2005; Kim & Lee, 1995; Koys & Decotiis, 1991; Kurland, 1995; Mathieson, 1991; Taylor & Todd, 1995; Thompson et al., 1991). In one study of 142 faculty surveyed in Malaysia, 39.7% of variation in intention to share knowledge can be explained by these two variables, with attitude playing a bigger part in knowledge sharing than a person's intention to share knowledge (Shin & Jahani, nd). Similarly, Ryu, Ho, and Hon, (2003) found similar results when studying the knowledge sharing intentions of hospital physicians in South Korea.

The significance of the variables tested within the TRA model varies depending on the population and behavioral intentions being studied (Ajzen & Fishbein, 1980). The predictive formula associated with TRA assigns different weights to each of the factors depending on the population and behavior being studied. Consequently, factors that carry significant weight when predicting physicians' knowledge sharing behaviors might carry a very different weight for school counselors.

Critiques of Current Diffusion and Knowledge Sharing Theory

One problem attributed to diffusion of innovation theory is that the theory lends itself to a pro-innovation bias when not all effective innovations diffuse and not all innovations that diffuse actually make organizations more efficient. The pro-innovation bias can be problematic and most often occurs when third parties influence innovation decisions or organizations have unclear goals, which can make measuring efficiency more difficult (Abrahamson, 1991). Rogers' model of diffusion within organizations has "a managerial focus and may not apply well to schools" (Etzioni, 1961, Frank, Zhao, & Borman, 2004).

So far, no one theory or theoretical model, in particular, stands out among the others as a concrete explanation for how or why knowledge sharing occurs. A wide variety of theoretical perspectives (e.g., behavioral, cognitive, social) have attempted to make sense of knowledge sharing among co-workers. Although each of these perspectives has made a contribution to the knowledge sharing literature, none fully explain the phenomenon. Rather, researchers have attempted to use previously existing theories to understand specific aspects of knowledge sharing (e.g., attitudes toward knowledge sharing, motivation for knowledge sharing, environmental factors that influence knowledge sharing, etc.). Furthermore, most of these aspects of knowledge sharing have been studied within only within the field of business.

Further complicating the use of theory to explain school counselors' knowledge sharing behaviors is the fact that not only has much of the application of theory taken place outside of the education fields, much of the research that has been conducted also

has taken place outside of the United States and in male-gendered professions. Generalizing findings from any of these research studies should be done cautiously since many cultural differences could influence the relevance of any of these findings. Theoretical findings may not be generally applicable for school counselors working in public school settings in the United States.

Theories that were originally used to study innovation, human behavior, and interpersonal relationships have surfaced as the top models for studying knowledge sharing. Despite previous disclaimers that current theories used to explain knowledge sharing ultimately may not be applicable for school counselors, these theories provide a starting point from which to begin examining the knowledge sharing process among school counselors.

Knowledge Sharing in Education

Much of the knowledge sharing literature focuses on business organizations, a male gendered entity, and attempts to identify ways in which technology can help employees share knowledge more efficiently in order to increase a business' profitability (Li, Montazemi, & Yuan, 2006; Hou, Sung, & Chang, 2009). Knowledge sharing studies that focus on education are rare (Hou et al., 2009). This could be because academic institutions do not utilize knowledge management strategies to the same extent that businesses tend to (Leibowitz, 2001), meaning that knowledge sharing has not been studied to the extent in education as it is in business. Therefore, there is less information regarding "knowledge sharing in an academic environment" (Kim & Ju, 2008, p. 284).

The following is a summary of some of the knowledge sharing literature that currently exists in the field of education.

Hew and Hara (2007) conducted a study to understand "knowledge flows among teachers" (p. 573). Knowledge sharing was one of nine activities teachers engage in with each other. They examined knowledge sharing through a listserv in which teachers communicated about literacy and followed up their initial data collection with phone interviews. Many of the research questions asked in their study parallel the research questions being asked in the current study. For example, Hew and Hara (2007) found that teachers were sharing four main types of knowledge on the listserv: book knowledge, personal opinion, personal suggestion, and institutional practice. Most of the knowledge shared was practical knowledge (personal opinion and personal suggestion) and centered on problem solving.

In terms of motivators for knowledge sharing, Hew and Hara (2007) found seven: collectivism, altruism, egoism (personal gain), principilism (reciprocity), respectful environment, technology, and the interest of the seeker. Barriers to knowledge sharing included lack of knowledge, lack of time, technology, not wanting to cause a fight, and the negative attitude of the knowledge seeker. Eighty percent of teachers in the study indicated that there were motivating factors and barriers present and in competition with each other. Hew and Hara (2007) did not mention knowledge hoarding on the listserv, although knowledge hoarding may be difficult to spot online if people are withholding, or hoarding, knowledge. In their study, most knowledge sharing occurred after a question

had been asked. Therefore "knowledge sharing may generally be conceptualized as a response to a question" (p. 591).

Overall findings of the Hew and Hara (2007) study are presented here. Teachers are motivated to share knowledge by an overall sense of collectivism and reciprocity of knowledge sharing. When teachers share knowledge with each other, it is likely that reciprocity will begin to occur (Hew & Hara, 2007). Technology can hinder knowledge sharing but also can be addressed easily by creating opportunities for people to engage in face-to-face knowledge sharing. Knowledge sharing requires time and energy from teachers; therefore, knowledge seekers must make it known that they appreciate this investment in their questions and that they intend to utilize the knowledge gained.

Hou, Sung, and Chang (2009) examined 441 Taiwanese teachers' knowledge sharing in an online forum using both qualitative and quantitative methods, in which individual case studies were examined along with a qualitative content analysis of teachers' online discussions in an asynchronous discussion board. Some of the limitations of knowledge sharing noted for teachers in Taiwan were a result of an isolated culture in which teachers plan classroom activities on their own. The main goal of the Hou et al. study was to identify ways in which technology might help teachers better facilitate knowledge sharing.

Kim and Ju (2008) conducted a study at a four-year university in South Korea to identify 109 faculty members' attitudes toward knowledge sharing. The basis for their study was that because faculty members create new knowledge by "processing existing knowledge" (p. 282) there is a need for a "systematic structure to help faculty members

share knowledge and collaborate effectively" (p. 282). According to Kim and Ju (2008), two studies have been conducted which resulted in proposed knowledge management strategies for higher education faculty members, and which include effective knowledge management by departments and universities as well as through repositories where knowledge can be stored (Cronin, 2001; Kidwell, Linde, & Johnson, 2000). One of the biggest barriers to overcome in higher education is the "fear about intellectual property issues and…scholarly credit" (Kim & Ju, 2008, p. 284). For faculty members in South Korea, the most important aspect of knowledge sharing was found to be "perception of the necessity and importance of sharing teaching and research materials" (Kim & Ju, 2008, p. 286) followed by reward systems. Kim and Ju (2008) also found that trust was not 'significantly associated with knowledge sharing among faculty in academic institutions" (p. 287), which differs from findings in other disciplines (e.g., Chowdhury, 2005; Gray, 2001). Openness of communication was not a factor supported by Kim and Ju's (2008) study, nor was collaboration or communication through IT.

Research on knowledge sharing among educators is scarce. Very few educational research studies refer to specific practices of knowledge sharing. Carroll et al. (2003) have argued that much of the knowledge related to teaching is tacit knowledge (Carroll et al., 2003) and is therefore difficult to share with others and difficult to study. Studies that do exist within the education field focus on teachers' or professors' knowledge sharing practices which may be very different from school counselors' knowledge sharing practices. For example, differences in ratios of teachers to school counselors within one school building might be enough to potentially change the dynamics of knowledge

sharing practices, making the research on teachers' knowledge sharing practices relevant but not necessarily representative for school counselors. Furthermore, higher education institutions function much differently than public schools. Thus, it is important to study the phenomenon of knowledge sharing with school counselors.

Knowledge Sharing and School Counselors

Applying findings from previous knowledge sharing literature to the field of school counseling, although promising, is complex for two reasons. First, many of the motivations and incentives that exist in one profession can be very different in other professions or may not exist to the same degree. For example, most school counselors are not rewarded through promotions or bonuses if they create a more innovative way to approach an issue related to their work. Thus, the organizational structure, motivations, incentives, and intentions necessary for school counselors to share knowledge are likely different than for other professions. Second, what constitutes knowledge also might be different for school counselors; therefore, the very content that is shared might create a completely different context when it is shared. Although school counselors collaborate and consult with other professionals, both inside and outside of the schools where they work, the actual knowledge that is shared has not been identified; therefore, it is possible that knowledge shared in an educational environment is qualitatively different than the types of knowledge that are shared in the fields in which knowledge sharing research has been conducted.

Previous studies that focused on school counselors' knowledge sharing practices were not found through a thorough literature review, however, the importance of school

counselors broadening their knowledge base is present in the ASCA National Model. The ASCA National Model has been posited as the standard of practice for school counselors (Sink, Akos, Turnbull, & Mvududu, 2008). Baker et al. (2009) indicated that seeking information is one aspect of collaboration that falls under the delivery system component of the ASCA National Model under the subheading *collaboration*. Galassi et al. (2008) encouraged school counselors to "draw on knowledge from related disciplines to enrich theory, practice, and research about the newer themes of leadership, advocacy, collaboration, and systemic change" (p. 176). Given the dearth of research on knowledge sharing practices in the school counseling literature, it may be important to consider research in other disciplines as a foundation for exploring the important process of knowledge sharing in school counseling practice. In the following section research pertaining to ways that other disciplines share knowledge is considered in the context of school counseling practice.

How School Counselors Share Knowledge

One of the ways in which it is assumed that school counselors share knowledge is by attending professional conferences. De Vries and Pieters (2007) studied the effectiveness of professional conferences (in general, not specific to school counselors) in terms of knowledge sharing and found that what takes place at such events falls under the category of information dissemination, one aspect of knowledge sharing, but with less focus on "exchange of materials, co-creating of knowledge, or setting of research agendas" (p. 237). The authors did recognize, however, that both formal and informal opportunities for knowledge sharing exist at professional conferences. Although difficult

to measure, one of the knowledge sharing benefits of professional conferences for school counselors is that individual knowledge and individual networks could be broadened through attendance (Leibowitz, 2007), which could lead to future knowledge sharing even if knowledge sharing does not take place at the conference itself.

School counselors also may be using technology as a means of knowledge sharing. Hew and Hara (2007) found that listservs are good mediums for teachers to share knowledge since "continuous professional development is one of the core practices for teachers" (p. 593). Since school counselors have similar professional development requirements as other educators, the same may be true for school counselors' use of listservs. According to Hew and Hara (2007), listservs can help teachers stay up to date on current issues and can also help people solve problems together, meaning that knowledge is more than likely shared in these forums.

Another finding that is potentially relevant for school counselors is that higher education faculty groups that are homophilous have stronger communication relationships with each other than faculty groups that are heterophilous (Valente, 1996). Homophily could be based on any number of characteristics including working in the same building, being of the same age, working with students at the same school level, or having the same cultural background. Homophilous groups are likely to have stronger communication relationships, but while heterophilous links likely allow for new knowledge to be shared that cannot be found within the homophilous group (Valente, 1995).

Recommendations Regarding Knowledge Sharing

There is a need for a shift in how school counselors think about knowledge and knowledge sharing in order to improve the efficiency and effectiveness of knowledge sharing. Business strategies for increasing effective knowledge sharing include cross-functional teaming, cross-staffing, cross-departmental meetings, mentoring programs, expertise locators, and information get-togethers (Leibowitz, 1998). A greater use of technology, especially electronic meeting spaces and knowledge repositories can lead to greater knowledge sharing potential (Leibowitz) among school counselors since these uses of technology serve to eliminate the constraints of geography and distance.

Perhaps one of the most important considerations is that effective knowledge sharing cannot be forced or mandated (Bock et al., 2005). Instead, the motivating factors for individual and group knowledge sharing must be encouraged and barriers to knowledge sharing eliminated as much as possible. This may be a cultural shift for some school counselors and the districts in which they work.

Conclusion

In summary, most of the literature that has explored knowledge sharing comes from the business world, where the benefits of knowledge sharing help businesses realize competitive advantage over other companies. Three theories in particular have been used to conceptualize knowledge sharing: 1) diffusion of innovation theory, 2) Theory of Reasoned Action, and 3) social exchange theory. It is uncertain, at this point, if these same theories will prove useful for explaining school counselors' knowledge sharing practices. In general, there is a dearth of research related to knowledge sharing in the

education field, especially school counseling, but there is an implicit sense that knowledge is a key foundational component of school counselors' work. A qualitative exploration of school counselors' knowledge sharing practices will hopefully provide a starting point for research in this area.

CHAPTER III

METHODOLOGY

The purpose of this research study is to explore the ways in which school counselors engage in knowledge sharing practices. The primary objectives are to isolate school counselor's knowledge sharing practices, focus on the types of knowledge shared, identify the means by which knowledge sharing takes place, and bring knowledge sharing to the forefront. Qualitative methods will provide a starting point for this line of research. Specifically, consensual qualitative research, using seven individual interviews and one focus group interview, will be conducted to examine the knowledge sharing practices of professional school counselors.

Research Questions

1. To what extent is knowledge sharing occurring among school counselors?
2. What are the outcomes of knowledge sharing?
3. How does knowledge sharing impact school counselors' work?
4. With whom are school counselors sharing knowledge?
5. What types of knowledge are being shared?
6. What drives school counselors' intentions to share knowledge?
7. What opportunities are available (formal and informal) for knowledge sharing?
8. How do school counselors share knowledge?

Research Design

Consensual Qualitative Research

Consensual Qualitative Research (CQR) is a structured method of collecting and coding data obtained through the use of interviews, and in this case, individual and focus group interviews. Hill et al. (1997) were the first to introduce this methodology as an alternative to other forms of qualitative research previously utilized in social science research that may have been more subjective or biased based on one researcher's perspective and findings. Although Hill et al. (2005) described this inquiry approach as "predominantly constructivist with some postpositivist elements" (p. 197), other qualitative researchers describe CQR as more postpositivist (Morrow, 2007). Most qualitative researchers, however, agree that CQR, as a method of inquiry, falls somewhere between the postpositivism and constructivist research paradigms based on consideration of the philosophy of science parameters: ontology, epistemology, axiology, rhetorical structure, and methodology (Ponterotto, 2005).

The basis of CQR stems from the Grounded Theory approach to qualitative research set forth by Strauss and Corbin (1990), but also utilizes elements of phenomenological (Giorgis, 1985) and comprehensive process analysis (Elliott, 1989). It has been widely used as a method of inquiry in social science research, especially in counseling psychology (Hill, et al., 2005). Although most research utilizing this method of qualitative research has focused on individual interviews, at least two studies (Hendrickson et al., 2002; Veach, et al., 2001) have combined the use of CQR with focus group interviews. This study utilized both individual and focus group interviews.

The core concepts of consensual qualitative research are outlined in Hill et al. (2005):

(a) Semi-structured interviews using open-ended questions are used to collect data for an in-depth examination of experiences as well as identification of patterns across cases

(b) A research team is utilized to obtain multiple perspectives when examining data

(c) Consensus is reached by all members of the research team at various points throughout the process in order to interpret and analyze data collected

(d) Auditors, who are separate from the research team, are utilized to check the work of the research team to reduce bias when analyzing data

(e) Data analysis consists of identifying domains (i.e., common themes) and core ideas (i.e., subthemes) that emerge through data collection as well as conducting cross-analyses to identify common themes

Individual interviews.

Seven individual interviews were used to access school counselors' experiences and practices as they relate to knowledge sharing. The purpose of these individual interviews was to gather data by inviting school counselors to use their own words to describe knowledge sharing as it relates to their work. The initial interview began with a written exercise that allowed school counselors to list ways in which knowledge sharing exists in their regular practice. In this way, as well as through the use of additional open-

ended questions, school counselors' perspectives on knowledge sharing could surface since observations of these practices was not possible.

Conducting such qualitative individual interviews was "based on the assumption that the perspective of others was meaningful, knowable, and able to be made explicit" (Brott, 1996, p. 85). Questions asked during the individual interviews were almost identical to those questions created using focus group interview guidelines (discussed below) in order to maintain consistency between the primary method of gathering data and the stability check. The opening and closing questions were altered in order to accommodate for the interviewing of a single subject rather than a small group. These questions allowed the interviewer to access both explicit and implicit knowledge that school counselors have about their knowledge sharing practices. The following questions were utilized:

1. Introduction
Let's begin with an activity to get us thinking about school counselors' knowledge sharing practices.
Introductory Knowledge Sharing Activity (see Table 2)

2. Transition
What kinds of knowledge do you typically share and are different types of knowledge shared differently?

3. Transition
How does knowledge sharing typically start?

4. Key
Give an example of a knowledge sharing experience that really impacted your work as a school counselor.

5. Key
What factors facilitate and/or inhibit knowledge sharing?

6. Key
How important is knowledge sharing for school counselors? What makes it so?

7. Ending
What else would you like to add about school counselors' knowledge sharing practices that haven't already been brought up?

Although these interview questions were used as a guide for the individual interviews, the researcher was allowed the freedom to intentionally probe, clarify, or ask additional questions in order to gather richer data, as well as to maintain a conversation-like flow to the dialogue. Every attempt was made to make interviewees comfortable and feeling natural during individual interviews. Specific protocols for the individual interviews will be discussed further in later sections.

Focus group interview.

One focus group interview served as a stability check for the seven individual interviews; therefore, literature regarding planning, moderating, and conducting focus groups was consulted in addition to the CQR literature. The use of focus groups has predominantly existed in marketing research, especially following World War II (Krueger & Casey, 2009). In the past 20 years, however, focus groups also have been considered a mode of choice among social scientists (Krueger & Casey, 2009). With the popularity of focus group interviews for research purposes came a tendency for many different types of groups (e.g., support groups, information groups) to be labeled *focus groups*; therefore, a working definition of the term *focus group (*Krueger & Casey, 2009), as it pertains to this study, is necessary to ensure accurate understanding of the methodology used.

A true focus group has a specific research topic that is being explored and is conducted with a structure in place for planning, conducting, and analyzing the results of the focus group. Questioning follows a specific format to best access information related to the research questions proposed. Focus groups also access the naturalistic conversation between and among participants; however, the focus groups are not utilized as a back door to survey research nor as a faster way to access individual interview data (Morgan, Krueger, & King, 1998). Intentional consideration was given to these aspects of focus group interviews before this particular method was chosen for the current study.

The protocol for the focus group interviews was based on the work of Morgan, Krueger, and King (1998) and also considered recommendations by Hill et al., (1997). Morgan, Krueger, and King's Focus Group Kit (1998) guided the planning and implementation of the focus group interviews conducted. A summary of the steps followed are briefly listed below:

(a) Focus group questions were developed through the use of a team of experts

(b) Questions were intentionally phrased, categorized, and sequenced

(c) Focus group questions were piloted

Participants

Participants were selected from one school system in the Triad area of NC, in which the primary researcher is employed. Individual interviews, as well as one focus group interview, were utilized as a means to gather data from participants. Although two focus group interviews were initially planned for the full study, seven individual interviews and one focus group were actually conducted in order to gather richer data

based on a larger number of cases. The focus group was used as a stability check for the individual interviews to ensure that conducting interviews in a focus group format, where subjects are able to build on each other's ideas. In this way the researcher can be more certain that there is stability in the findings, similar to the way focus group researchers strive to achieve a saturation point before reporting results (Morgan et al., 1998). A saturation point has occurred when no additional categories or domains arise with additional focus group interviews.

Participants were selected from the larger population of school counselors within the school district. First school counselors, whose principals have consented to their potential participation, were asked to participate in a focus group interview. Next, school counselors who did not participate in the focus group interview were asked to participate in an individual interview. The individual interviews did not require principal permission. Individual interviews were conducted with school counselors from all three school levels including 1 elementary school counselor, 4 middle school counselors, and 2 high school counselors. The focus group consisted of six participants: four elementary school counselors, one middle school counselor, and one high school counselor, creating a homogenous (i.e., school counselors from one school district), but varied, group composition (i.e., school counselors working with varying age groups and at different school levels). Each school level was represented during both the individual and focus group interviews with a total final sample of 13 participants. Hill et al. (1997) recommended 10 to 15 participants when conducting individual interviews. Including the

focus group, the number of participants in this study approximates this recommended range.

The thirteen participants included twelve females and one male who identified their ethnic/cultural group as Caucasian/white (n=10), African American (n=2), or Pacific Islander (n=1). Ages of participants ranged from 30-62 with a median age of 40 and a mean age of 41 (sd=10.66). All thirteen participants have at least a master's degree and are licensed by the state as school counselors. Three school counselors also have an education specialist degree. In addition, five of the school counselors are National Certified Counselors (NCC), one is a Licensed Professional Counselor (LPC), and one is a National Board Certified School Counselor (NBCSC). Years of experience ranged from .5-21 years with a median of 5 years and a mean of 6 years. In terms of years at their current schools, 15% were in their first year, 46% were in years 1-3, 23% were in years 4-7, and 15% were in years 7-10. Six of the school counselors are the only counselors at their respective schools, five school counselors have one other school counselor on-site, and two school counselors have two other school counselors on-site.

Professional activities such as professional memberships and conference attendance also were reported. All but two participants are members of the North Carolina School Counselor Association (NCSCA), eight are members of the American School Counselors Association (ASCA), and one is a member of the American Counseling Association (ACA). One participant reported being a member of Chi Sigma Iota (CSI) and one reported being a member of North Carolina Association of Educators (NCAE). All of participants reported attending at least one professional counseling

conferences in the past 24 months, eight reported they had attended two conferences, and two reported that they had attended three conferences. It is important to note that the interviews were conducted after the NCSCA annual conference in 2009.

Recruitment of participants took place by first contacting all school system principals to gain permission to invite school counselors at their schools to participate in the research study. School counselors from each school level (i.e., elementary, middle, and high school) were contacted via email to invite them to participate in a focus group interview. During this first contact, information was provided to the school counselor about the study's purpose and methodology. If the school counselor agreed to participate, information regarding scheduling was provided. Focus group interview times were scheduled to accommodate school counselors' schedules and to take into account principal's requests; consequently, the focus group interview took place during the early morning (8:00am). Furthermore, because the focus group interview was held so early in the day, the risk of school counselors being unable to attend because of situations that might arise at school was reduced. The focus group interview lasted approximately 90 minutes and was held at the school system's central offices in a private conference room.

Upon completion of the focus group interview, another email was sent to all district school counselors who did not participate in the focus group inviting them to participate in an individual interview. In this case principal permission was not necessary because the interviews took place off-campus and before or after school hours. After the initial email invitation was sent, two reminders also were sent out via email. A total of seven individual school counselors responded to the request for participants. Individual

interviews were scheduled at participants' convenience at a location that was comfortable for them (e.g., coffee shop, bakery).

Hill et al. (1997) recommended providing interview questions to interviewees; however, because that approach might hinder natural discussion, only the general topic of the groups was be provided beforehand. All participants, regardless of the type of interview in which they participated, received a $25 gift card for Barnes & Noble bookstores as compensation for their time. Although this type of external reward has been found to negatively influence individuals' attitudes toward knowledge sharing in a natural setting (Bock & Kim, 2002), it can incentivize participation in research.

Instrumentation

The focus of the study was exploring knowledge-sharing practices among professional school counselors. A brainstorming team was responsible for the creation of appropriate interview questions and probing questions as well as for reviewing the questions in final form as suggested by focus group methodology (Morgan et al., 1998). Interview questions were developed by a team of three licensed school counselors, and one counselor educator who also is a licensed school counselor to narrow the focus of questions further. Two licensed school counselors brainstormed a list of questions separately and then combined the lists and narrowed them down to a final set of eight research questions. The final list was then sent to one licensed school counselor and one counselor educator for review. Minor adjustments to wording were made by the initial question developers after feedback was obtained. The final set of interview questions is included below:

To get to know each other better, let's go around the circle and have everyone share with the group their name, which school you're from and one piece of knowledge you think is invaluable as a school counselor. (used only in the focus group interview)

1. Let's begin with an activity to get us thinking about school counselors' knowledge sharing practices.

Introductory Knowledge Sharing Activity (see Table 2)

2. What kinds of knowledge do you typically share and are different types of knowledge shared differently?

3. How does knowledge sharing typically start?

4. Give an example of a knowledge sharing experience that really impacted your work as a school counselor.

5. What factors facilitate and/or inhibit knowledge sharing?

6. How important is knowledge sharing for school counselors? What makes it so?

7. What else would you like to add about school counselors' knowledge sharing practices that haven't already been brought up?

Hill et al. (1997) noted that participants would likely not be able to "provide detailed analysis of reasons for their behaviors" but would be able to "describe their experiences" (p. 538). This perspective was considered as interview questions were created, therefore *why* questions were avoided.

Phrasing, categorization, and sequencing of questions.

Questions, were categorized as opening, introduction, transition, key, and ending questions (Morgan et al., 1998) as recommended by focus group literature. The final composition of the focus group questions included one opening question, one introduction question, two transition questions, three key questions, and one ending question. The goals of these questioning formats are shown in Table 1.

Table 1

Categories of Questions

Question Type	Goals
Opening	Focus group members become acquainted
Introduction	Topic is first introduced
Transition	Provide smooth transition to key questions while maintaining established rapport and interest
Key	Core questions related to the research study
Ending	Brings closure to the discussion and allows participants to add additional emphasis to their responses

Once categories of questions were in place, the phrasing was double checked to ensure compliance with the suggested rules set forth in Morgan et al. (1998):

(a) General questions are asked before specific questions

(b) Positive questions are asked before negative questions

(c) Uncued questions are asked before cued questions

Procedures

Choosing and structuring a research team.

This study utilized two research teams, one to brainstorm focus group interview questions and another to code and analyze data obtained from these interviews (see Appendix M). However, two members, a licensed school counselor and the primary researcher, were members of both teams to ensure the focus of each team's work toward the same end goal. Using one research team for all aspects of the research project could be useful since those people would have the most in-depth knowledge of the current research study, and some research projects employing CQR have adopted such a model (Hill et al., 2005). However, there also is a risk in taking this approach, which could lead to unintended "tunnel vision" among researchers. Thus, using two different teams of researchers in the present study, with a minimal amount (two) of the researchers overlapping both groups (as described above), was intended to help ensure objectivity and lessen any "tunnel vision" that could in turn influence the trustworthiness of the study, yet still taking advantage of the benefits of having just one research team. The composition of both research teams is illustrated in Figure 1.

Figure 1: Research Team Members

Brainstorming team.

According to Morgan et al. (1998), "the key to good focus group research is to work with others to create the right questions" (p. 13). The recommended strategy for developing focus group questions as outlined in Morgan et al. (1998) was followed. This strategy includes brainstorming with a group of individuals, creating a draft of potential

questions, seeking feedback on the draft version of the questions, and preparing a final version of the questions.

A 1 to 2 hour brainstorming session was conducted as a necessary step for creating clear, unbiased, inclusive interview questions and was followed by a review of the proposed questions by two external reviewers. The team that helped brainstorm these questions included two licensed school counselors. The primary researcher led the brainstorming session and provided general information about the purpose of the research as well as a general summary of relevant literature. After creating an initial set of focus group questions, two external reviewers, one licensed school counselor and a counselor educator who is also a licensed school counselor, were asked to provide feedback about the questions' clarity and focus. As a final step, the focus group questions were re-evaluated and finalized by the brainstorming team.

Coding team.

Four individuals made up the coding team, which included the primary researcher (who is both a counseling doctoral student and practicing school counselor), one counselor educator who is also a licensed school counselor, and one licensed practicing school principal. This is an ideal situation, according to Hill et al. (1997), since "therapists and therapists-in-training…generally have good interpersonal skills, welcome feedback about how they come across to other people, and are motivated to work on interpersonal relationships" (p. 528). Although school counselors do not generally call themselves therapists, they are helping professionals with training that overlaps with those professionals who do refer to themselves as therapists. In addition to including

helping professionals, including a licensed practicing school principal, who has a different training background and a broader perspective of school counseling, offered a varied point of view.

These individuals were responsible for the collection, transcription, and coding of data. Furthermore, both the licensed school counselor who served as an assistant moderator, the counselor educator who served on the coding team, as well as the counselor educator who served as an auditor, have previously conducted research using CQR methodology. All members of the coding team had studied the two foundational articles (Hill et al., 1997, 2005) on conducting consensual qualitative research. All coders also had earned a minimum of six to nine graduate level course credits in research methods by the time coding began.

Auditors.

The counseling faculty members (dissertation committee co-chairs) served as auditors throughout the course of the research study, as has been done in previous studies mentioned by Hill et al., (1997) (e.g., Knox & Hess, 1997). They were not members of the research teams, and did not participate in the focus group or in the transcribing and coding of data. This hopefully avoided some of the potential power differentials that can occur when faculty members and students work together on a project that requires researchers to reach consensus. This is particularly important for these two counseling faculty members since they also serve in a supervisory role for two of the primary research team members.

Data collection.

The research setting deemed most appropriate for conducting individual interviews was a location of each participants choosing (e.g., coffee shop, bakery). This location allowed participants to choose a setting in which they are comfortable and would be most likely to engage in a natural discussion. Participants were informed that should in the event of changes in the interview environment (e.g., a colleague walks in) the interview could be discontinued without penalty. The research setting deemed most appropriate for conducting the focus group interview was the school district's central office. This location allowed school counselors to participate in the focus group in a setting that presumably maintains the work environment. The central office is the location where professional development trainings, workshops, and meetings are regularly held for school counselors and therefore was a comfortable setting in which to discuss matters relevant to professional school counselors' work-related behaviors.

Roles of moderators.

Focus groups, unlike individual interviews, require the use of a moderator, as well as one assistant moderator, during the focus group interviews. Before beginning the actual interviews, the assistant moderator obtained informed consent in writing from each participant. The informed consent included participation in the focus group interviews as well as permission to audiotape the interviews. Once informed consent was obtained from each participant, the assistant moderator started the digital audio recorders placed in two locations in the room and then asked all focus group interview participants to sign a confidentiality agreement before the interview process began. The assistant moderator

was then seated outside of the group, poised to record information on the content of the focus group interview, including recording notes on the dynamics of the group, including any potential bias or values introduced by the moderator. This record will be used later to provide context for data collected and to ensure adherence to research protocols.

Once informed consent was obtained and the audio recorders were started, the moderator provided all participants with information on the purpose of the research study in order to minimize tacit assumptions by participants. The research team member who conducted the individual interviews also moderated the focus group to ensure consistency across interviews.

Interviews.

At the beginning of the interview process, the following definition of knowledge sharing was provided to all focus group and individual interview participants: Knowledge sharing is an umbrella term used to describe the acquisition and dissemination of information, ideas, and practices from one school counselor to one or several others. The following questions were asked of all participants during the interviews:

Opening

To get to know each other better, let's go around the circle and have everyone share with the group their name, which school you're from and one piece of knowledge you think is invaluable as a school counselor. (asked only during the focus group interview)

Introduction

Let's begin with an activity to get us thinking about school counselors' knowledge sharing practices. See Table 2

Table 2

Introductory Knowledge Sharing Activity

	Inside the School	**Outside the School**
Formal Knowledge Sharing		
Informal Knowledge Sharing		

Transition

What kinds of knowledge do you typically share and are different types of knowledge shared differently?

Transition

How does knowledge sharing typically start?

Key

Give an example of a knowledge sharing experience that really impacted your work as a school counselor.

Key

What factors facilitate and/or inhibit knowledge sharing?

Key

How important is knowledge sharing for school counselors? What makes it so?

Ending

What else would you like to add about school counselors' knowledge sharing practices that haven't already been brought up?

A questioning protocol in which questions were explicitly written on note cards, was chosen over a topic guide as a preferred method of questioning during the focus group interviews. The questioning route helps moderators remember specifically what questions to ask of the group and increases consistency across different focus groups.

The semi-structured questioning approach outlined by Morgan et al. (1998) parallels the approach recommended by Hill et al., (1997), and therefore was chosen as the best approach for the current study. Hill et al., (2005) and Morgan et al. (1998) both recommend a mix of scripted questions and probes along with more spontaneous questions and probes. The scripted questions and probes allow for consistency across

interviews, while the more spontaneous questions and probes allow the moderator to gather in-depth information when deemed necessary. Unscripted questions were withheld "until near the end of the discussion" (p. 48) as recommended by Morgan et al.(1998). Morgan, Krueger, and King (1998) also cautioned moderators to use probes only when necessary, with more probes being used during the beginning phase of the interviews to emphasize the importance of detail rich responses. A list of acceptable probing questions was created prior to beginning interviews for reference by the moderator during the individual and focus group interviews.

Immediately following the conclusion of each focus group interview, the moderator (and assistant moderator in the focus group) recorded notes about the "length of the session, impressions of the interviewee(s), comments about the flow of the session, and reactions of the interviewer to the interviewee(s)" (Hill et al., 1997, p. 542). The assistant moderator did not participate in individual interviews.

Data Analysis

Research team members on both teams discussed their biases and expectations related to the topic under investigation "prior to, and throughout, the research process to ensure that these biases do not unduly influence the data analysis" (Hill, et al., 2005, p. 198). These biases and expectations were discussed before data analysis begins and recorded by the primary researcher so they could be referenced as needed throughout the study. The purpose of recording biases was to note the types of information research team members might be inclined to look for, which could interfere with their objectivity when analyzing data.

Complete and check transcripts.

Once the interviews were completed, the systematic analysis of data began. Following the protocol for CQR, a reputable transcription company transcribed audio recordings. Transcripts were sent to all interview participants for feedback and corrections as a validity check. Once accuracy was confirmed, all identifying information of participants was deleted and code names were assigned to each participant. Transcripts were then passed along to the other research team members for preliminary analyses of the data.

Once the initial steps required by CQR were completed, the research team began the analysis of data obtained through individual interviews. For analysis purposes, each individual was treated as a separate case. Hill et al., (1997) outlined the following steps for data analysis:

1. Within case analysis
2. Cross analysis
3. Examining patterns in the data

In addition, all research team members were asked to record notes on any insights they had as they proceed through these steps.

Within case analysis.

Domains (i.e., general themes that emerge from the data) were created using transcript data. All coding team members independently reviewed transcripts of individual interviews and created a list of applicable domains. Once all transcripts were reviewed, coding team members reconvened to reach consensus on the applicable

domains. Once domains were agreed upon, the same three research members coded the transcript data using these domains.

Next, the primary researcher, created a consensus version of the transcripts using NVIVO software, which included domain titles and all raw data that research team members coded under the appropriate domain titles. All raw data fell under at least one of the domain titles. Extraneous material was coded into a domain labeled "other". An original copy of the raw data transcript was preserved for later reference throughout the course of the research study, while the coded (i.e., consensus) versions of the transcripts were used for the next steps of data analysis.

The consensus version of the transcript, an NVIVO document, was returned to all three members of the research team who individually created lists of core ideas for each of the domains. The three research team members then collectively created a list of categories, which are clearer, more concise ways of describing common core ideas.

Once consensus was reached in regard to the categories and core ideas represented under each domain, the primary researcher sent the agreed upon domains and categories, along with two raw data transcripts to an external auditor (counselor educator who is a dissertation co-chair). The auditor "serves as a check for the team" (Hill et al., 1997, p. 548). Thus far in the process, the auditor has not been involved in the process of collecting or coding the data and is therefore an outsider to the process, but also someone who is familiar with the research study underway. The auditor checked to make certain that the domains and categories fit for the raw data and that there were not significant domains or categories missing from the list.

Next the research team coded raw data from domains into categories of core ideas, reaching consensus for each coding decision. Once the raw data was coded into the categories, an additional audit was conducted by an external auditor (a second counselor educator and dissertation co-chair) to be certain the raw data was coded into appropriate domains and categories. This auditor also is charged with identifying categories that could be merged or subdivided for a better fit of core ideas into categories.

The auditor's comments were then returned to the team for review. These comments were considered by the team and accepted or rejected as the team deemed appropriate. All changes were made in consensus.

Cross analysis.

The research team once again reconvened to engage in a cross analysis of the data. The categories were divided into four types, *general, typical, variant,* and *rare*. Table 3 indicates how categories are categorized based on the frequency of occurrence.

Table 3

Categories by Frequency of Occurrence

Category Type	**Frequency of Occurrence**
General	All but one of the cases
Typical	> 50% of the cases up to the cutoff for general
Variant	At least two cases up to the cutoff for typical
Rare	A single case

Pilot Study

Hill et al., (1997) recommended that interview questions be piloted several times with individuals similar to the target group of participants. One focus group, consisting of three professional school counselors of varying school levels was conducted as a pilot study before the main study took place. Although focus group interview questions were only formally piloted with one group of school counselors, the questions went through an extensive auditing process in which they were reviewed by licensed school counselors as well as two counselor educators, as discussed earlier in regard to the full study.

Purpose

The purpose of the pilot study focus group interview was to receive feedback regarding the focus group interview questions developed for the main study. In addition, the logistical aspects proposed for the main study were assessed for feasibility with a school counselor population. Thus, one focus group interview was conducted to meet these goals.

Sampling

Convenience sampling was utilized to obtain pilot study participants. An email was sent to three school counselors (one elementary, one middle, and one high school level) that were known colleagues from one school district in North Carolina. (different from the school district used for the full study). Each school counselor contacted was invited to participate in the pilot study. Each of these three school counselors was asked to invite other school counselor colleagues to participate in the focus group interview as well. Three high school counselors participated in the pilot study.

Procedures

Recruitment was conducted via email. Three school counselors from one school district participated in a focus group, conducted at a local high school conference room. Although the focus group interview was expected to last approximately 2 hours, session lasted approximately an hour and a half due to participants' time constraints. The moderator and the assistant moderator for the full study served in their respective roles during the pilot study interview. The focus group began with the assistant moderator obtaining informed consent from all participants by providing participants with an informed consent document and reading over the document with participants to ensure understanding. After obtaining informed consent, the assistant moderator started the digital recorders. Demographic data was collected and all participants signed a confidentiality agreement. prior to beginning the focus group interview.

Participants were asked a series of the same eight questions that were proposed for use in the full study. The primary researcher served as the focus group moderator while the assistant moderator recorded content and process notes from outside of the focus group. After questioning, participants were asked to provide feedback on the overall focus group experience to inform future research procedures.

Results

Three high school counselors, two males and one female, participated in the pilot study focus group interview. Ages of participants ranged from 41 to 59 years of age. All three participants listed their ethnicity as white. Each of the school counselors currently works in schools with at least one other school counselor in the building. Years of

experience ranged from five to ten years. Two of the school counselors' school counseling work experience was limited to schools where they were currently employed. The third participant had three years of experience in another school setting. One of the participants was currently supervising a practicum student. All three focus group interview participants are North Carolina licensed school counselors with at least a master's degree. One of the participants also holds an education specialist degree.

It was expected that the focus group interview would last for approximately two hours. However, when attempting to schedule the interview it became clear that asking for two hours of school counselors' time after school hours, with no concrete incentives offered, would be difficult. The focus group interview was shortened to an hour and a half to accommodate scheduling needs of participants related to responsibilities outside of work (e.g., family obligations). Before beginning the interview, one of the participants informed the researcher that an unexpected family scheduling conflict had arisen that would require leaving thirty minutes early. That participant was not present for processing the focus group experience, but was present for the rest of the interview questioning. The eight question focus group interview lasted a total of one hour with an additional half hour for processing the procedures and clarity of questions. One hour was a sufficient amount of time for questioning.

Procedures related to obtaining informed consent, confidentiality agreement, and gathering demographic data seemed clear to all participants. One participant seemed unsure, however, about the type of professional license school counselors hold, but the other two participants clarified. This information was solicited on the demographic

questionnaire. Confusion seemed less about the wording of the question and more about actual confusion about what to call the license.

Overall study procedures were discussed with participants after conducting the focus group interview. Logistics such as time required for participation, experience of participating in a focus group with other school counselors, and number of questions asked were discussed to eliminate unnecessary barriers to data collection.

Study Modifications

Based on the results of the pilot study, the following modifications were made to the proposed research study. First, the participants expressed that it was difficult for them to devote two hours of time to participate in a research study, but they indicated that 1.5 hours would be more feasible, therefore the amount of time required of participants was shortened to an hour and a half rather than two hours as had been initially planned. Furthermore, it was decided that a $25 incentive would be offered to all full study participants to compensate them for their time based on participant's feedback regarding how limited their time is. Twenty-five dollars is an approximation of how much a school counselor typically makes during one hour of work.

Second, although no changes were deemed necessary to the existing demographic questionnaire based on participants' feedback, three additional questions were added for the full study: 1) Please list any professional organizations to which you are a member, 2) How many professional counseling conferences have you attended in the past 24 months?, and 3) Please list the names of three other school counselors in your school system with whom you regularly share knowledge relevant to your work. These three

questions were added to provide additional information regarding potential influences of school counselors' knowledge sharing practices based on literature on diffusion theory that offers potential characteristics of those who share knowledge (Rogers, 1995).

Third, although a definition of *knowledge sharing* was provided to school counselors at the onset of the focus group interview, school counselors did not have the definition available for reference throughout the interview, which resulted in participants potentially losing the context of this definition during the interview process and possibly forgetting the working definition presented at the beginning of the focus group interview.

During the pilot study, there seemed to be more focus on participants' knowledge seeking practices rather than on their knowledge sharing practices. Although knowledge seeking is one aspect of knowledge sharing, it is important that school counselors' are provided the opportunity to talk about all aspects of knowledge sharing in order to avoid potentially missing valuable data. Although participants did not ask to have the definition repeated during the focus group interview, both the moderator and assistant moderator listed providing participants with a copy of the definition as a potentially useful modification for future focus group interviews. During the full study interviews, school counselors were given a copy of a definition of the term for reference throughout.

In addition to providing participants with a working definition, the introductory focus group question was modified to include an activity that would serve as a primer to allow participants to think more holistically about knowledge sharing. The activity asked school counselors to identify formal and informal knowledge sharing opportunities that

are available inside and outside of the school buildings in which they work. A 2x2 matrix served as a framework for this activity (see Table 2 listed earlier).

CHAPTER IV

RESULTS

A review of 7 individual cases produced 8 domains, with 3 to 17 categories within each domain (see Appendix M for a list of all domains and categories). A focus group of 6 school counselors was utilized as a stability check for these domains and categories. Results of the stability check suggested that the domains and categories that surfaced as a result of the individual interviews, were indeed stable. These domains and categories address the research questions proposed:

1. To what extent is knowledge sharing occurring among school counselors?
2. What are the outcomes of knowledge sharing?
3. How does knowledge sharing impact school counselors' work?
4. With whom are school counselors sharing knowledge?
5. What types of knowledge are being shared?
6. What drives school counselors' intentions to share knowledge?
7. What opportunities are available (formal and informal) for knowledge sharing?
8. How do school counselors share knowledge?

Domains and Categories

Eight domains surfaced as a result of seven individual interviews with school counselors. These eight domains describe school counselors' knowledge sharing practices: 1) reasons for knowledge sharing, 2) benefits and outcomes of knowledge

sharing, 3) factors that influence knowledge sharing, 4) knowledge sharing content, 5) knowledge sharing behaviors, 6) who knowledge is shared with, 7) technology used for knowledge sharing, 8) consequences of non-sharing of knowledge. Each of these domains will be discussed below. In addition, categories that surfaced within each domain will also be discussed.

Reasons for Knowledge Sharing

Within the first domain, school counselors cited three main reasons for engaging in knowledge sharing practices: 1) student-driven knowledge sharing, 2) proactive knowledge sharing, and 3) reactive knowledge sharing.

Student-driven.

The most common reason cited for knowledge sharing was to meet the needs of students. Five out of seven school counselors mentioned knowledge sharing as a student-driven practice. Typically knowledge sharing centers around student needs and may take place between a school counselor and an administrator, a parent, a teacher, a school committee, a district committee, or an outside agency. When seeking knowledge that is student-driven, school counselors look for expertise and experience that will help them meet the student needs that arise. In other instances, parents, teachers, and administrators request knowledge from school counselors, who are seen as the ones with the expertise or experience in certain situations. Some of the situations that were mentioned include child abuse, grief and loss, or behavioral issues.

> "[The assistant principal] will come to me and say this is the situation with this kid…He'll ask, 'What can I do for this child?' or I'll share what I've done with a kid and he'll take that information and use it for whatever his needs are for the best of the child."

The school counselors interviewed did not mention any instances in which they were asked to share student-driven knowledge with an outside agency.

School counselors seemed to recognize the value of the student-centered knowledge sharing that occurs on an informal basis, and several mentioned their desire to formalize the knowledge sharing components of their work with students. For example, one participant stated, "It would be nice to have a formal meeting time once a week even if it was just once a week to talk about these kids."

There are two most commonly mentioned instances in which student-driven knowledge sharing is reported to be regularly taking place. The first, is during Student Services Team meetings in which student support staff, which varies from school to school, (e.g., school counselor, school nurse, school social worker, drop out prevention specialist, administrator, school resource officer, school psychologist) meet to discuss specific student needs and then collaborate as a team to provide effective services in the most efficient means possible. Most student support services teams were reported to meet "once a week".

The second, is during Response to Intervention meetings in which school counselors are a part of a larger school team that is responsible for identifying students who are struggling academically or behaviorally in the classroom. School counselors are often a part of this team within the school district from which the school counselors

interviewed were selected. During these meetings, individual students are often the topic of discussion with a focus on sharing knowledge as a team and identifying interventions to help students achieve to their potential. One school counselor referenced her contributions during such meetings, "I have something to share about all of the students that are in the RTI process."

Proactive services.

Two school counselors, both middle school counselors, discussed the ways in which knowledge sharing occurs at their schools in an attempt to proactively address common issues that may arise. They discussed times when schedules cleared, either because time was protected or the school year had yet to begin, in which they were able to meet with administrators or student services team members to plan for anticipated issues. Having scheduled, protected time seemed to be an important aspect of taking a proactive approach. One school counselor brought up the importance of scheduled, protected time, "Now fortunately, before school started, we didn't have those crisis, we were able to sit down and start thinking clearly about what our objective and plans were."

These school counselors seemed to have the sense that the work they were doing was enhanced by this proactive approach to their work. Not only did the proactive approach lead to a likelihood of sitting down as a team, but it also helped school counselors avoid potential pitfalls that might get in the way of serving their schools to the best of their abilities.

> I think we took the initiative and just said we needed to [be proactive]. Because there, at one point, we just felt like we were just rolling off the cuff, and playing

> like that after a while will burn you out and wear you out. So we just knew we had to really think about, 'what are the needs of our population?'

Reactive services.

Three school counselors mentioned the reactive reasons for knowledge sharing. In these instances, there is usually little planning and school counselors find themselves reacting to whatever situation arises. One school counselor described it in the following way, "We've had to roll of the cuff because so many things was just like a snowball coming."

In each instance, the reactive approach to knowledge sharing was initiated by a request or consultation by a parent, administrator, or teacher. In each, another person sought the school counselors' knowledge. The following situation illustrates an example of an instance in which a reactive approach to knowledge sharing was necessary:

> And you know, take like today, where we had a situation of physical abuse that was you know brought to [the principal's] attention first and then she, my principal, called me in and said we need to do something about this and so…I shared my prior knowledge that I had working with the student and where we should go from here so some days I feel great and I feel like, 'Wow! We worked as a team. We got this solved.'

In addition, there are times when requests that call for school counselors to participate in reactive knowledge sharing also results in school counselors then seeking knowledge from additional sources.

> Parents that call in and say, "Oh, my child is so upset about his granddaddy dying; the school needs to do something." Well, [the other counselor and I agree, 'Well, we better get Hospice in to help us with it…'

Benefits and Outcomes of Knowledge Sharing

Within the second domain, school counselors discussed five outcomes of knowledge sharing. All of the school counselors interviewed discussed the learning that results from their professional knowledge sharing. All but one also discussed the ability to offer better or expanded counseling services to students as a result of knowledge sharing. Two school counselors also cited social networking, support, and facilitated collaboration between schools and communities because of knowledge sharing.

Learning.

All school counselors interviewed cited learning as one of the main benefits and outcomes of knowledge sharing:

> It's extremely important. We work in a profession that's constantly changing and evolving. We work with student bodies that we get situations that are always different, always new, always changing based on culture changes, and shifts, based on the times, just there's always new things or better ways to do things.

Although several ways of learning (i.e., conferences, web pages, online courses) were mentioned, most frequently cited is the learning that occurs when school counselors are able to share knowledge with each other:

> We're not geniuses. We, myself especially, we learn from experience and listening to other people's experiences which are completely different than what I've done. It adds to my program…

In fact, school counselors report gaining something from every interaction with other school counselors:

> I get, 'Oh! I didn't know that!' every time I go [to school counselor meetings]. Whether it's county policy or local school board policy or ideas on how to motivate students. So every time we've had a meeting that I've been to I've gained something from it.

Better or expanded counseling services.

All but one school counselor discussed knowledge sharing as a way to provide better or expanded counseling services for students. For example, when school counselors work with other members of the student support services staff and the team shares knowledge with each other about student issues or school needs, services can be offered more efficiently:

> The same kids don't need to be seen by three or four people. That's why we opened our communication about it now so we know, 'Okay, you're seeing that one child. Well, that's the one – you're gonna be the main go-to for that child,' instead of them feeling they can go to all three, because it's sad when kids have to go and share stuff three or four different times, especially stuff that's hard to share.

Furthermore, having a variety of perspectives allows school counselors to acquire a more holistic view of a student's situation which also helps school counselors provide better services:

> I think it's essential because everybody has different styles and knowledge bases and experiences so I just think it's really important to be able to put our heads together and share and consult and get a bigger picture. I think that leads to better services for the students.

In some instances, school counselors report not just offering better services through knowledge sharing, but that it would be impossible to offer services without knowledge sharing, "I couldn't do my job if it was just me. It wouldn't work."

Social networking.

Two school counselors directly mentioned social networking as a benefit to knowledge sharing. Building social networks is an unanticipated effect that stems from school counselors' knowledge sharing. At times unexpected knowledge is gained through an individual conversation (e.g., one parent mentions a job opening and the school counselor is aware of another parent who is looking for a position). Another way social networking occurs as a result of knowledge sharing is that one person gains information and then passes it to another person within their social network which can then lead to resources and services for the school:

> Passing on that information to other people, kinda like a domino effect. And so they've shared so other people have come out of the woodwork, where we've got more people we're starting to pull into our schools.

Support.

Two school counselors also mentioned knowledge sharing as a means of gaining support for the work that they are doing. Support in this sense means emotional support. School counselors find this support from within their own district:

> This small group counseling that I do with my peer counselors I think that works very well because it's a small group and we all know what the focus is and we can come to the table and just talk and it's nice. I would say…I feel most confident when I'm there.

School counselors also cited school counselor friends from outside of their own district as a means of finding support:

> I would say more so like for example my counselor friends that are elsewhere, the are a good support system, especially because they're not here…They just know the small pieces and they can be kind of neutral about how they respond to you.

Other school staff members were also cited as knowledge sharing partners as well as people who provide emotional support for school counselors:

> The media specialist is my support system at the school. She's the one that I…if I'm having a bad day I go to her and I vent, I guess you could say. Again it's all about the sharing of knowledge. I can ask her questions about technology or media and she can direct me where to go and it works out perfect.

Facilitates collaboration between school and community.

Two school counselors discussed the ways in which knowledge sharing facilitates collaboration between schools and the community. One school counselor discussed the benefits of learning about community agencies when a representative of a local agency spoke at the monthly school counselor meeting:

> I get to ask questions…I get to clarify…I called that lady the next day and said, 'I have two people for you.' And they were referred and they were accepted and that was...and I would've called around eventually but just having that face made it easier to go ahead and make that connection.

Factors that Influence Knowledge Sharing

Within the third domain, four factors that influence knowledge sharing were addressed. These include personality, time, roles/additional duties, and accountability.

More than half of school counselors also mentioned eight additional factors that seem to influence knowledge sharing: communication/communication gaps, relationships, fear of perception, knowledge base, principal support, directives (from Central Office, community, committees, etc.), forums to share knowledge, and group dynamics. Finally, six other factors were mentioned by more than 2 but less than half of school counselors interviewed: crisis/need, accessibility, societal or historical events, confidentiality, ASCA National Model, and budgeted resources.

Personality.

Several school counselor personality traits or factors were mentioned by school counselors as possible factors that influence knowledge sharing: empathy, optimism, enthusiasm, attitudes, and innovativeness. These personality traits influenced both the school counselors' willingness to share with others as well as others' willingness to share with them.

> I think attitudes and personalities. People have a good attitude and a positive outlook that really facilitates knowledge sharing and their openness to learning new things and teaching new things.

Overall attitude was the most frequently mentioned aspect of personality that was mentioned as a factor that influences school counselors' knowledge sharing practices.

> It's just all about how, it's all about your attitude number one. And if you're open to listening to other's ideas and letting other people in. I think that's probably one of the most important factors for me.

School administrators, teachers, and other school staff's personalities also were perceived as having influence over school counselors' knowledge sharing practices. Some of the personality traits that were seen as helpful for school counselors' knowledge sharing include perseverance, empathy, openness, and supportiveness.

> …I think the social worker at our school is pretty supportive…the assistant principal that I keep on talking about. She's pretty supportive.

In fact administrative support was referenced so frequently that it is also included as its own separate category to be sure to include the varied aspects of this type of support.

Time.

Every school counselor interviewed made reference to time as one of the most important factors for knowledge sharing. They mentioned a number of competing factors that get in the way of their abilities to participate in knowledge sharing: testing responsibilities, lack of planning time, individual student needs, meetings, lack of scheduled and protected time, large meeting sizes, interruptions, and recurring procedural tasks. While there will always be competing factors, one school counselor described what could be helpful for school counselors' knowledge sharing in terms of helping them create an environment in which knowledge sharing becomes a priority:

> It's scheduled. Too it's not at our school so we can't get interrupted and we don't have those things pulling us away um and we're actually sitting there concentrating on..and we have an agenda and a reason for coming and I think you know those are the three biggest things.

Additional roles or duties.

Each of the school counselors mentioned additional roles or responsibilities influencing their knowledge sharing practices. In some cases, these additional roles are the result of a directive. At other times, circumstances arise that create an additional role or duty for school counselors:

> they were without a social worker there for a little bit, so we had to help out there for a little bit to do some things to help out with social work-wise and communication-wise.

In addition, school counselors' expectations of their roles and school staff's expectations of school counselors' roles can sometimes differ or conflict:

> I'm on bus duty, I have to be here at 7:30 a.m., make sure they clean the tables, yadda yadda, cafeteria. And the secretary walks out and says, 'you have a new student in the front office. You need to take her round.' And I said, 'Look, I'm on bus duty.' And so she said, "Well, [the school counselor] pissed me off this morning, the way she' – and I did snap at her. But the thing is, even the secretaries think they can tell us, 'Okay, drop this. Now go do this.' There's a terrible mentality that because you do call counselors when a child's upset or something to put out the fire, they feel like you can be called about every little. So they have you enrolling students, taking them on tours, doing that. You have to be very creative to share any knowledge with anybody, to be honest with you.

Previous school counselors can sometimes shift staff expectations, which then continue even when another person has filled that role. Those expectations and norms may linger. One participant stated, "The principal said do it or I inherited it because that's what the person before me did."

Furthermore, budgetary restrictions may create additional roles for school counselors when positions are cut from school budgets. For example, one school counselor described taking on the role of testing coordinator because of budget cuts, "Unfortunately since we lost so many positions last year. We lost our test coordinator."

Unfortunately, many of the additional roles and duties assigned to school counselors do not necessarily match the school counselors' expectations of their professional roles in schools:

> I think that the non-counseling tasks we have inhibit information sharing about our job description and what we're supposed to be doing. Um cause then it gets down to ok count the books and ok I can count to 100 over and over again. So that just inhibits being able to be a acting the role of a school counselor.

It is not necessarily the role, itself, that influences knowledge sharing, but the amount of time allocated for such additional responsibilities that takes away from school counselors' potential knowledge sharing time:

> Other things that inhibit, I guess would be just time with the different demands of our roles, that keep us from having the time to share adequately.

In many instances, it is these additional roles and duties that create difference between school counselors' expected and actual responsibilities:

> Everything else that you have to…I went into school counseling for the counseling aspect of it and now all of the paperwork that has to be done you don't even have time to do that.

Accountability.

Each participant mentioned the accountability movement, either by directly discussing data and standardized testing or by indirectly discussing spending time on tasks such as counting testing supplies. In most instances, accountability was linked to additional roles or duties school counselors are expected to fulfill.

Communication and communication gaps.

School counselors reported communicating with other counselors, although the degree to which they are able to communicate with others seemed varied. The most frequent communication seems to be among school counselors working at the same school level (e.g., middle school) since they meet face to face on at least a monthly basis. However, school counselors also have access to communication with each other through other means, such as email or telephone calls.

> All the counselors, we have a very good line of communication, so there's not one that you can't pick up the phone and call about work or something.

In many cases, although school counselors are able to communicate with each other and with other key stakeholders, it seems that school counselors desired better communication overall. In some instances, they desired the ability to get to know others who might be able to help them do their jobs better. For example, one school counselor indicated the importance of "…anything that helps counselors network I think, and build rapport, helps communication flow more freely."

They also see the potential for technology to facilitate the communication process for school counselors. In terms of addressing communication needs and communication

gaps, one school counselors suggested that more could be done at the district level in an attempt to facilitate communication between school counselors, "…just better communication, better communication… using or having the use of modern technology…"

Finally, expectations for how communication occurs seem to depend on school norms and personalities of school and school system staff.

> It's almost kinda like you just do your job as long as you don't need anything from [other people in the building], we don't need to talk. That's kinda how I feel some days.

A desire for protected, unstructured communication among school counselors was another consideration that was referenced by school counselors. One first-year school counselor, referenced the supervision received in graduate school that was beneficial during training that is lacking now that employed for the school system. Collegial relationships and monthly school counselor meetings were expected to be comparable but instead have fallen short of meeting this need.

> I wish there was more of an opportunity to have a two-way communication, to share with other school counselors without it being a bitchfest. I miss supervision, I really do.

Relationships.

Five school counselors mentioned relationships as one of the factors that influences knowledge sharing. Relationships with co-workers, within the school building and within the school district can facilitate knowledge sharing:

> The No. 1 thing that facilitates knowledge sharing would be building networks and building positive rapport with my co-workers. The No. 1 thing that inhibits is pretty much the opposite. It's a relational business, so anything that prohibits or gets in the way of building those relationships. So meetings where there's no time to get to know people, a lot of one-way communication, things like that.

Fear of perception.

Four out of seven school counselors reported a fear of perception as influential for knowledge sharing. These school counselors referenced the possibility of being perceived as inept at their jobs if they seek knowledge from an administrator or from another counselor. In some cases, specific examples were cited in which a school counselor was made to feel less than adequate for seeking knowledge:

> I've worked in places where because I went to [a certain university] and it's a predominantly black school my degree wasn't as good as somebody who went to [another school]. Um and it was brought up that that was it.

In other instances, school counselors had a general sense that seeking knowledge could jeopardize their reputation, but there was not a specific instance cited in which that had been the case:

> I think I've been inhibited by not wanting to not know [something]. Or not wanting to appear that I can't do my job.

Knowledge base.

Five school counselors discussed the necessity of having a foundation of knowledge from which to build. The depth of one's knowledge base can be a factor that influences knowledge sharing. This knowledge base could include knowing about

community resources (e.g., agencies, businesses, organizations), social capital (e.g., who knows what, who works where, who has access to resources), and formal education (e.g., graduate school courses, trainings, workshops).

> And being aware of your resources and things in the community that can help us find that. Or knowing the people on your staff you can email…

Principal support.

Four school counselors mentioned administrative support as a factor that influences school counselors' knowledge sharing. First, school administrators may not be clear on what school counselors' expectations of their roles are. School principals are certainly knowledgeable about roles within their schools "but administrators don't necessarily understand counselors. I mean, they're not counselors." School administrators, therefore do not necessarily recognize when a school counselor might benefit from gaining knowledge in a specific counseling area (e.g., using counseling theory, co-leading counseling groups, working with specific populations using evidence-based practices). The school counselor may be the only one who recognizes how knowledge sharing could improve his or her practice. Depending on the school counselors' ability to self-advocate, the principal may or may not recognize the need for knowledge sharing around a particular topic.

Second, school administrators have their own agendas and priorities for school counselors working within their buildings:

> …but ultimately, that's what we have to go by is what our principal says though. I would say that makes an impact because it impacts how I do my job, how I shift my priorities.

Therefore, if knowledge sharing is not valued or prioritized by the school's administration, school counselors will likely have a more difficult time prioritizing knowledge sharing as one of the more essential aspects of their jobs.

Directives.

Directives that influence school counselors' knowledge sharing practices can come from many places, but typically directives come from school administrators, central office, or state and federal legislation. Four school counselors reported that directives from principals can influence their knowledge sharing practices and when principals change expectations and directives also may change:

> we thought we'd made a lot of progress. I mean, we didn't have bus duty, we didn't have testing, and then we got a new principal and it all came back again, so.

In some instances, school counselors are not sure where directives are coming from. For example, one participant explained, "Central Office, I guess, although they're not very clear a lot of times."

Directives from both, school administrators and central office staff, can sometimes be in conflict with one another.

> I'm not really sure what goes on there because I hear what [the director of student support services] wants out of counselors and he says that he talks to [principals] about that at their principals meetings and assistant principal meetings but then I go back to school and I'm on a specials schedule and I'm you know doing all of these extra things that take away from what I should be doing. You know, seeing kids.

Forum to share knowledge.

Four school counselors reported that having a forum for sharing knowledge influences their knowledge sharing practices.

The space in which school counselors do their work can be one of the forums for sharing knowledge:

> They [administration] put us in a smaller old classroom, we can have little informal groups now in our classes, and do different activities and stuff, like, and get more kids in here when there's a crisis or drama or situation.

New ways for using technology can also provide a forum for knowledge sharing, as one school counselor pointed out, "I've been doing webinars lately so there's more technology based sharing"

Most frequently cited, were the informal opportunities that arise (typically as a result of formal meetings) where school counselors can share knowledge amongst themselves:

> And as far as those district meetings I really at least on the high school level, I can't speak for elementary or middle, I really think they got it right. Because it's not just all formal like, 'Here's the policy and you're going through this. And you have to do it this way and that's it. And peace out we'll see you next month.' You know? There's a lot more collaboration. Um and you know time to share and it's not "I have more experience than you so you need to listen to me" type of thing. So yeah I really like it.

Group dynamics.

In a group setting, the make-up of the group can influence school counselors' knowledge sharing practices. Depending on characteristics of the group, knowledge sharing can be facilitated or hindered. One school counselor described the monthly school counselor meeting in which school counselors working within the same school level meet to discuss concerns, share knowledge, gain support, and stay informed. She described the group dynamics of these meetings in two different contexts:

> When I'm outside my school, especially at our counselor groups (the large counselor groups), it seems like there's a lot of negative complaining. I hate to say that but it's what it is, a lot of venting, which everyone needs, I get that. But I'm less hesitant to talk…more in those meetings because I guess I worry about how it's gonna be accepted by you know or received by the other people because there's just an air about the room that you know "I've been here how many years now" and 'this is how I do it' and 'it's the right way' you know. It's just kind of how I feel.

She went on to describe one monthly school counselor meeting in which she felt more comfortable to participate in knowledge sharing. She associated group dynamics, specifically size of the group, as one of the main differences between the two meetings.

> …because there was only about 8 people there. And normally, it was a smaller group, more intimate. And that's me…I'm an introvert so for the most part I can do well in smaller groups…

The personalities of group members were also brought up by school counselors describing their experiences working in groups. All four of the school counselors that

discussed group dynamics as a factor influencing knowledge sharing discussed them in the context of the monthly school counselor meetings.

Crisis or need.

Three school counselors mentioned knowledge sharing as sometimes influenced by a crisis or need arising, which precipitates knowledge seeking from those with more experience, typically another school counselor at the school or a school counselor with whom he or she has a pre-established relationship. The communication that occurs when school counselors consult on such crises typically concerns how to handle a specific situation such as a suicide assessment or a report of abuse.

> I wasn't quite sure whether that was something that I needed to report for safety for the school…and I actually consulted with several different people about it without using the student by name.

Accessibility.

Three school counselors mentioned accessibility being a factor that may influence school counselors' knowledge sharing practices. Accessibility could pertain to accessing administrators, parents, local community resources, community agencies, teachers, school counselors, or students.

One of the ways school counselors discussed accessibility was in terms of proximity and centrality to other staff in the school building. In some cases, other staff referred to another school counselor, which is more typical in middle or high school settings in this particular school district, but also refers to administrators, teachers, and students.

> Because [the school counselor] offices are right side by side. And it's better for the principals and the teachers and the students –everybody can see us and find us better…better access, better communication all the way around.

Proximity seemed to influence visibility, communication of referrals, and informal knowledge sharing (e.g., "Tell her I gotta go down, there's a crisis on such-and-such a floor.") which results in knowledge sharing occurring more frequently than if school counselors are less centrally located and less proximally close to one another.

One of the other ways in which accessibility was discussed is in terms of being able to access help from outside of the school building (e.g., counseling agencies, community organizations). Policies and procedures were reported to be a factor that influenced how effectively and efficiently knowledge was able to be shared between these agencies and the school system.

> Because there's lots of agencies and different…we want to get in, but by the time we get some of the background checks and stuff done on some of these people, half the year's gone. And we needed this issue six months ago, not six months later.

The phrase "easiest" came up several times throughout the interviews with school counselors. School counselors, as well as other school system employees, are more likely to utilize the "easiest" means of accessing resources.

Societal or historical events.

Two school counselors brought up the ways in which their individual schools had experienced budget cuts that were a direct result of the United States' current economic situation. These budget cuts resulted in additional responsibilities for school counselors.

> Yeah unfortunately since we lost so many positions last year. We lost our test coordinator. And we lost so ____is taking care of that and I had to take over student assistance team which is totally academic and it's time consuming and I am the 504 chair and the tutor coordinator which it can that can be time consuming because it's like drip drip drip but it doesn't end.

Confidentiality.

Three school counselors, all middle school counselors, referenced confidentiality as an influential factor for knowledge sharing. Although school counselors recognized the importance of confidentiality and referenced the need to keep certain knowledge confidential, they also described confidentiality as one aspect of their jobs that also influences knowledge sharing in a negative way. Paperwork associated with informed consents can be a factor that influences who knowledge is shared with:

> …there's a lot more things we'd want to do in our school, but getting the consents and all those things like that have to happen, you know, sometimes that paperwork gets in the way.

Furthermore, a lack of understanding concerning the limits to confidentiality by other school staff can also influence how knowledge is shared:

> And if you don't tell an administrator why you had a kid in here for an hour- you know, it's confidential - then they don't perceive that you've done anything with the kid.

ASCA National Model.

Two school counselors mentioned the ASCA National Model as a factor that influences knowledge sharing. Although the national model does not specifically address knowledge sharing, it does address aspects of school counseling such as consultation and

collaboration, which would fall under knowledge sharing. Again, the extent to which school counselors are able to abide by the national model depends somewhat on their principal's expectations as well as their abilities to self-advocate for their roles:

> [what the principal expects] doesn't always match what is expected for the national model or what he expects of us from even our student services, but ultimately, that's what we have to go by is what our principal says though.

Budgeted resources.

Money is, of course, always a consideration, especially in the education field. Knowledge sharing opportunities, (e.g., school counseling conferences) can sometimes require financial resources. Some school districts choose to support school counselors' professional development, which includes knowledge sharing. However, during times when budgets are scarce, money is sometimes allocated elsewhere leaving individual school counselors to foot the bill for their own knowledge sharing opportunities. Whether or not a school counselor has to pay for their own professional development (i.e., knowledge sharing opportunities) could become a factor that influences the forums in which they choose to participate:

> I didn't go to the [school counselor conference] this year because of money and I just couldn't afford to fork out my own money…

Knowledge Sharing Content

Within the fourth domain, there are four content areas that every (or all but 1) school counselor cited as likely to be shared as part of their professional knowledge sharing: student issues/concerns, community resources, policies and procedures, and

school needs. More than half of the school counselors also discussed K-12 curriculum topics and specific counseling interventions as likely content topics during knowledge sharing. Less prevalent was knowledge sharing concerning data.

Student issues or concerns.

When discussing knowledge sharing centered on student issues or concerns, Student Services Team (SST) meetings were brought up frequently. Although these meetings vary in structure and composition depending on the school and the school level, all school counselors seemed to believe that these meetings were helpful for knowledge sharing about student issues or concerns:

> …what we call 'student service team' within our building level, and we meet weekly. And during that weekly meeting, we communicate about different kids… behaviors, academic, whatever's going on…

Family members also seem to precipitate knowledge sharing "regarding their child". School counselors described parents contacting them about a student issue via email, telephone, or stopping by the school counselor's office, "I have a lot of parents who'll just pop up because they've had an issue with a child."

There also seem to be regularly occurring events that warrant knowledge sharing about specific students. For example, at the end of an academic year, school counselors from one level may meet with school counselors from the next level up to try to facilitate smoother transitions for students:

> When our kids transition from middle school to high school, we sit down and informally have a meeting with the school social worker up there to try to give them some high spots about – give them a little bit of knowledge about who our kids are. Who we're sending to you, who are the kids that are gonna need extra support, who are the kids that have different parental things going on in their family, kids who are high flyers that we know if we don't stay on them each quarter, they will fall through the cracks and they're gonna drop out of school, or different issues and stuff like that.

Knowledge sharing regarding student issues and concerns also takes place within the school building. Written records can serve as knowledge repositories from which school counselors can access knowledge about a student from the historical data that has been kept since kindergarten. This can be especially useful to gain longitudinal knowledge or to access knowledge about students who are new to a school. One school counselor specifically acknowledged the use of cumulative academic records saying, "I always look at the cum[ulative] folder of these new kids to see – because I don't know them."

Written communication from school staff can also contain knowledge sharing content regarding specific student issues or concerns. Although this knowledge may come from any staff member, teachers and administrators were mentioned most frequently, for example, "[teachers] send a key email, 'Oh, check on such-and-such student,' or 'Such-and-such has been withdrawing in class,' or 'Such-and-such hasn't been here.'"

Similarly, school staff members may engage in face-to-face interactions with school counselors in order to pass along content about a student issue or concern. "[The assistant principal] will come to me and say, 'Well this is the situation with this kid,'…he is looking for my input."

The specific content regarding student issues or concerns varies, but can include academic issues, behavioral issues, or personal/social issues. In many cases, the person seeking knowledge has a question about how to handle a situation or is looking for additional insight into a situation. Sometimes people seek knowledge regarding student issues or concerns from school counselors:

> I've got a kid that's doing this in class and I don't know how to…can you give me an idea on how to calm him down or how do I just deal with him with 30 other kids in the classroom as well?

There are also times when school counselors may seek knowledge regarding individual student issues or concerns from others. One specific example of the type of content that might prompt a school counselor to seek knowledge is if a student reports physical or sexual abuse:

> I wasn't quite sure whether that was something that I needed to report for safety of the school versus – you know, where does the confidentiality versus what needs to be reported. And I actually consulted with several different people about it without using the student by name.

Community resources.

All but one school counselor mentioned sharing knowledge about community resources. Knowledge sharing about community resources seems to be an important aspect of school counselors' attempts to delegate responsibilities so that individually school counselors can meet all the demands of their roles within the school building. One school counselor questioned, "How can we get the right people to come in so we can do some education, do some stuff for our kids?"

With so many competing priorities, school counselors sometimes access community resources in order to avoid criticism of providing counseling services for students that might take away from instructional time in the classroom. One school counselor described the decision to involve an outside agency in services for students stating, "Well, we better get Hospice in to help us with [a group] because we sure are gonna catch grief if we try to run a grief group, and take kids out of class."

In larger groups, it seems important to school counselors to stay abreast of the community resources being offered by community agencies in order to know what resources are available, how to access those resources, and who is eligible for those resources:

> What's going on in the community, what new agencies and things in the community are happening that can help us to better help our students, the families, and our community.

Also,

> All of a sudden in that conversation I might learn about maybe [parents'] career, or different things they do. And so we'll learn some things during that conversation that opens up avenues of things or opportunities where I know I can pull them in to participate in certain things, or that they could help us out.

Monthly school counselor meetings seem like one efficient way that school counselors are identifying the knowledge they wish to have and are inviting community agencies to share knowledge with the larger group:

> We also bring in someone, a professional, each time we have [monthly school counselor] meeting so it could be somebody from the community who has resources that are available as far as counseling, mental health, coming in so to basically show us tools to put in our tool belt.

The face-to-face sharing of knowledge with groups of school counselors by community agencies seems to facilitate further knowledge sharing and collaboration between the schools and the community:

> I get to ask questions. I get to clarify. You know, 'what do you mean by intensive in-home treatment? Who would qualify for that?'…you know and to have a face with a phone number….I called that lady the next day and said, 'I have two people for you.' And they were referred and they were accepted and that was…and I would've called around eventually but just having that face made it easier to go ahead and make that connection.

Several school counselors mentioned gaining direct knowledge through contact with community agencies and then finding that indirect knowledge was also gained that later helps them meet school, student, and family needs in unanticipated ways:

> A lot of those agencies [we used for the Career Fair] are gonna come back, and a lot of those agencies we still have contacts and are resources that we're using now, is helping us connect with some of these kids.

Policies and procedures.

All but one school counselor discussed knowledge sharing that relates to policies and procedures. School system policies and procedures are typically shared via one-way communication with school counselors and is often reflective of an accountability model in place for schools:

> …all [the assistant principal] want to talk about is attendance, I'm telling you. Because she's got to fill out some kind of paper on what she's doing about getting the dropout rate or something.

The origin of policies and procedures, at times, seems unclear to school counselors. They are not sure which directives are driven by federal legislation, state legislation, school board policies, school district policies, or school administrator policies:

> it's part of our student service team responsibility this year based on a new attendance policy created by a committee, like by someone at the school level, school board level.

School counselors sometimes feel at odds with some of the policies that are shared with them in terms of how they impact their work with students. For example, one school counselor mentioned a new attendance policy that has ethical implications for counselors:

> [The Central Office] has decided that the student services team is responsible for attendance policy in the high school, which goes against how we feel ethically, having to make decision about students about to-or how their attendance affects them and their grades and such…From a counseling perspective, yes like a meeting with them and helping them-'What's going on here,' but coming in behind and saying, 'Okay, you know our committee is supposed to decide who gets waived in an attendance appeal or not. We don't feel like that's in the realm of school counseling honestly.

The other type of knowledge shared regarding policies and procedures has to do with the daily operations of individual schools. School counselors often share individual school's policies and procedures with students and their families (e.g., rising freshmen or new

students). One school counselor stated, “I think a large part of the knowledge I share is how the school works.”

School needs.

All but one school counselor addressed knowledge sharing that addresses school needs. This type of knowledge sharing seems to take two forms: 1) brainstorming school needs to find ways to address those needs and 2) making sure appropriate people and agencies are informed of school needs. By working together as part of a team, school counselors are able to identify school needs from a variety of perspectives:

> Once we talked to our administrators, and team, and talked over our Student Support Team-’what is it that we want to offer our students…this year? What are our needs?’

Furthermore, making sure others are aware of school needs, provides better access to services and resources that may be available to “inform [the community] about things that’s going on in our schools and our needs.”

K-12 curriculum.

Five school counselors mentioned sharing knowledge about the guidance curriculum they are expected to cover as part of their jobs. School counselors shared knowledge about curriculum with teachers as well as other school counselors. Sharing with teachers typically was collaborative in nature, with an interest in meeting a specific need, “Most of the time when I share working with the teachers, we’re centering around one particular issue with a particular child or issue such as bullying.”

When school counselors shared knowledge about curriculum with other school counselors, sharing centered on an exchange of ideas for ways to address curriculum needs:

> I really didn't know which direction to go when it came to career counseling and how to do that with elementary school students and so I emailed on e of my friends that is a school counselor in Chapel Hill and she told me everything that she did and she sent me a nice email about her agenda, what she did and how she did it.

School counselors also shared curriculum knowledge more broadly, and more formally, in district level committees with a goal of standardizing the implementation of curriculum across school levels:

> We're developing a lesson plan, formal lesson plan, for each grade level for academic, social, and career domains that theoretically starting next year every school counselor would implement that or a similar lesson plan in the same time period…

Although some sharing of knowledge about curriculum issues was reported to take place in face-to-face meetings, it was also shared via email, telephone, or websites. The means by which curriculum knowledge is shared seems to depend on whether a school counselor was tapping into an individual's expertise and experience or was searching more broadly for knowledge:

> [On the website] we might have a section that's lesson plans, a folder that's lesson plans. Career or resources that we have like our book titles, in case we want to share books. Or we see a book, 'Oh! I'm doing something on that topic. Can I borrow your book?'

Interventions.

Five school counselors reported sharing knowledge of interventions utilized. This knowledge is sometimes shared with other school counselors, administration, and school staff. Interventions are sometimes shared at monthly school counselor meetings in order to pass on knowledge of what has worked based on an individual school counselor's experience. One school counselor described the sharing of intervention knowledge as "sharing knowledge on what we do that might help and can be implemented in other schools and vice versa."

A more collaborative approach to creating interventions is reported as a more likely scenario within the building level. This can sometimes occur one on one, for example, "we [the assistant principal and the school counselor] can kind of together try to come up with an intervention."

Collaborating and sharing knowledge to identify useful interventions also occurs in school committees, such as Response to Intervention (RTI) Teams where a variety of perspectives and expertise come together with a goal of identifying student issues and ways to address those issues through specific, measurable interventions:

> [During RTI] we come up with interventions to help students. And I specifically concentrate more on the behavior interventions that when students come to us because it's a behavior issue then I can provide behavioral interventions or I can provide my assistance by saying let's, well this student can be invited to join my group on divorce or on anger issues right now and that might help. Or I can work with the student on social skills.

Data.

Two school counselors discussed sharing knowledge about data in order to determine school needs as well as individual student needs. Sometimes data was consulted in order to determine efficiency of services provided:

> So one's just looking at raw data, which is great…attendance, discipline, surveys, informal reports, as well as formal reports. You know, bringing all that information together and looking at whether things are making an impact…

Data was also collected and shared to determine how to better serve individual students and to provide a more holistic context for results obtained through formal assessment:

> We looked at EOG scores and different things like that and tried to look at the big picture, trying to see what was going on in some of these kids' lives-other than the normalcy of life that was happening-that caused them to maybe make 1's and 2's on these EOGs.

In these instances, knowledge was gained through formal and informal data collected, but it is not clear with whom the knowledge gained is shared. However, larger scale data regarding district-wide or state-wide data is shared with school counselors as a means of comparison, "Within our school and within our system….state wide data…that would be another source of information sharing…"

Knowledge Sharing Behaviors

Within the fifth domain, every school counselor interviewed reported participating in giving and seeking knowledge. Depending on the circumstances, they all

reported knowledge being shared formally and informally, both in written and verbal form.

Seeking knowledge.

School counselors seek knowledge from a variety of sources including other people, web resources, and published materials. Reasons for seeking knowledge seem to usually stem from a need that arises (i.e., student need, school need, family need, etc.). Deciding from where to seek knowledge depends upon the situation, as described by one school counselor, "It's usually more, it's how quickly I need [knowledge]."

Seeking knowledge from others is reported as a common occurrence for school counselors. One group from whom school counselors frequently seek knowledge is other school counselors in the district. One school counselor described other school counselors as the first group from whom to access knowledge, "School counselors are more of my-that resources come from-they're my go-to people."

Most often school counselors start seeking knowledge from the closest available school counselor and then branch out from there, especially when another school counselor is in close proximity. "…I just went next door [to the other counselor]…cause I've never done this."

However, strong relationships with a particular school counselor or previous experience successfully accessing knowledge from a specific individual may prompt school counselors to utilize those resources first, "…I have a lot of friends that are counselors that are in other school systems or are throughout North Carolina."

Often school counselors seek knowledge during face-to-face meetings, but also utilize technology as a means of seeking knowledge. For example, one school counselor reported emailing someone who worked outside of the school system for more information about a training, "I emailed him and I said, 'what are the, are there any other resources?'"

Technology can also assist with knowledge seeking by allowing school counselors to gain knowledge on their own without the assistance of another person. Informal knowledge seeking using technology often includes the use of websites and online search engines. When asked how to find knowledge, one school counselor stated, "I just use Google."

Technology can also facilitate more formal knowledge seeking through webinars and online courses. "I've been doing webinars lately…I've taken online courses, not necessarily through the graduate school."

In addition to seeking knowledge from other school counselors and using technology to facilitate knowledge seeking, school counselors also seek knowledge from others. For example, there are times when school counselors seek knowledge from parents in order to best serve the needs of a student:

> …I said to the mom, 'you know, I really would like to help you with your child. I'm wondering if you could help – I think I could help your child if I know some more, if I had a little bit more information.'

Another school counselor reported seeking knowledge initially from people within the building for help with specific student needs, but that seeking knowledge

outside of the school building can help her grow professionally and gain new perspectives:

> I think in dealing with specific students, I think, [I go to people] in my building. I've got that opportunity already. But as far as pushing me to think beyond what I do already, people outside of my school building, I have found have been able to do that a little bit more.

Giving knowledge.

Giving knowledge is another knowledge sharing behavior that all school counselors interviewed mentioned. School counselors give knowledge to a wide variety of people and organizations.

School counselors give knowledge to community agencies and organizations that are involved with collaborating to provide services for students and the school. For example, "I go out to a lot of different agencies…and I just try to knowledge-inform them about things that's going on in our schools and our needs."

School counselors also provide parents with knowledge that might be helpful for families. One school counselor stated,"we put a few [handouts] together in the office that [parents] could come by and pick up…."

They also mentioned making attempts to keep their school counseling websites up-to-date in order for parents to have access to current information about counseling services and related information, "…we're trying to work with [the technology teacher] about getting some stuff up on the website."

Within the school building, school counselors provide knowledge to school staff, including administrators, teachers, and student support staff. Sometimes this giving of

knowledge happens one on one as described by one school counselor, "[my school administrator] will ask me to come to their office and we'll talk."

Other times school counselors provide knowledge to staff in a larger forum, such as a staff meeting, "Staff meetings where we share information with the staff."

Another larger forum in which school counselors give knowledge is professional conferences, especially the state school counselor conference. One school counselor brought up participation in the most recent conference stating, "…we did the presentation at the School Counselors Association…"

School counselors seemed interested in providing knowledge with others outside of their school systems, but sometimes were unsure of the forums that exist for such sharing opportunities. One school counselor discussed having knowledge but not knowing what types of forums exist for sharing that knowledge, "I mean, the question suddenly is, 'Where do you present outside?'"

Two school counselors mentioned providing knowledge with future school counselors. These types of sharing reportedly take on two forms. First, a school counselor can agree to host a school counseling intern, "[the intern] makes us have to re-teach things and remember we have to show people our steps of things we're doing."

Second, school counselors provide knowledge to future school counselors who are still completing coursework by presenting during one of their regular class meetings, "…I've spoken to the intro to school counseling class bringing real life to the classroom."

Finally, school counselors also mentioned giving knowledge to each other. This can occur via online interactions such as counseling websites or through face-to-face

meetings, particularly in monthly school counselor meetings, "From those books I end up sharing with other people what I have done or taken from a book."

Formal verbal knowledge sharing.

Some knowledge sharing takes place in scheduled, planned forums in which knowledge is shared verbally. Sharing knowledge verbally in a formal setting can take on a wide variety of formats.

There are many meetings in which school counselors are expected to take part that require knowledge to be shared verbally in a formal setting. The most frequently mentioned of these is monthly school counselor meetings where school counselors meet with other school counselors from their same school level (e.g., elementary, middle, or high school):

> …there's informal communicating around planning through email but then there's pretty much a formal structure when we get to the meetings. And we usually do the meetings at the central office.

The next most frequently mentioned forum in which knowledge is shared verbally in a formal setting is the annual school counseling conference that is sponsored by the state counseling association. One school counselor brought up a recent presentation in which knowledge was shared verbally, "…we recently just came back from the North Carolina School Counselors' Conference…we did a presentation on anxiety…"

School counselors also discussed several other types of meetings such as staff meetings, district committees, district-wide trainings, and school committees. One school

counselor found it difficult to list all of the formal meetings she was expected to attend, "I don't know if you can list all the different types of meetings. That would be formal." In general, knowledge seemed to be shared more reciprocally at the school level and at the monthly school counselor meetings, whereas knowledge was described as more one-way verbal, formal communication at the district level, "the trend for central office trainings tends to be this is how it's gonna be done, instead of you know, what do you guys think?"

One school counselor also mentioned online courses as a way that she participates in formal, verbal knowledge sharing. These courses are offered through local colleges and universities. This particular school counselor referenced enrolling in a course offered through the local community college.

Informal verbal knowledge sharing.

All school counselors mentioned verbal, informal knowledge sharing that takes place as part of their work in schools. This informal knowledge sharing is more casual and more spontaneous. Informal, verbal knowledge sharing can occur with a variety of individuals.

School counselors frequently mentioned sharing knowledge verbally on an informal basis with parents. Sometimes parents seek knowledge from school counselors, for example, "…we had a lot of parents at our school that volunteer and they'll just stop me in the hallway and ask questions."

Other times, parents provide knowledge to school counselors:

> That communication, informally, not even thinking, just talking off the cuff, hearing about and talking with a parent, 'Oh, tell such-and-such to call me, we got a job opening.'

Furthermore, this type of contact with parents sometimes can lead to unexpected reciprocal sharing of knowledge:

> I have a lot of parents who'll just pop up because they've had an issue with a child, and then all of a sudden in that conversation I might learn about maybe their career, or different things they do. And so we'll learn some things during that conversation that opens up avenues of things or opportunities where I know I can pull them in to participate in certain things, or that they could help us out.

In addition to sharing knowledge verbally and informally with parents, school counselors also share knowledge in similar ways with school staff. For example, one school counselor described sharing knowledge with the school social worker, the school nurse, or classroom teachers unexpectedly:

> I'll grab [the social worker]. Is this a good time to talk to you? I have some questions or I need to collaborate on this certain child. Some with the nurse as well….the teachers and I will collaborate a lot about a different child or different children…sometimes that's through them showing up in my office of me showing up in their classroom during their planning, whichever is easiest.

While knowledge can be shared verbally and informally on the spur of the moment, it can also occur when regular interactions are scheduled, but when the intention to share knowledge is not expected, for example, "[school counselors] eat lunch together sometimes and we'll share information as well."

Informal knowledge sharing is difficult to capture because it happens frequently and spontaneously. In many cases, it was hard for school counselors to verbalize how these interactions take place in anything more than general terms. One school counselor described the knowledge sharing that takes place at one school. "[The school counselors at my school] are just constantly sharing information, it's not like an official call to meeting." School counselors did, however, suggest that informal knowledge sharing often can lead to more formal knowledge sharing, stating, "I would say a lot happens informally first and then it's brought to the formal level."

Formal written knowledge sharing.

All school counselors mentioned knowledge sharing that occurs formally in a written format. This written knowledge is sometimes focused on an individual student. For example, every student has a cumulative file that contains all academic records since initial enrollment in public school and one school counselor talked about accessing those records consistently for specific populations, "I always look at the cum[ulative] folder of these new kids…"

Written knowledge can also help inform school counselors' practice. School counselors mentioned consulting counseling journals and books for knowledge about evidence-based practice, interventions, or ideas, for example, "…I get the ACA journal, and a couple other journals I get."

It is interesting to note, however, that specific journals (e.g., *Professional School Counseling* or *Journal of Counseling and Development*) were not mentioned by name.

For example, when one school counselor was asked specifically which journal she references the most, she replied, “whatever falls in my lap”.

Another source of knowledge for informing practice is emailing other school counselors. Although sometimes emails can be addressed to one individual, there are also more formal emails that are addressed to a larger group of school counselors:

> I’d say there’s a lot of emailing going on between the middle school counselors and you know copied to everybody, all the middle school counselors, and people replying, replying all so there can be debate or discussion about times or an issue that’s come up that they would like to bring up at the meeting.

Most of these formal, written knowledge sharing behaviors are described in terms of seeking knowledge. However, school counselors also use formal, written formats to provide knowledge as well. For example, one school counselor mentioned the use of the school’s website to share knowledge with parents and students, stating, “we also use websites within the school. I have a counseling website that is available to parents and students.”

Informal written knowledge sharing.

School counselors also share knowledge in written form that is more informal in nature. All of the examples cited for conveying knowledge informally in written form utilize technology. Email is the most frequently employed method of conveying knowledge informally in written form and seems to be a more efficient means of conveying knowledge than methods employed in the past. One school counselor described the benefits of email, stating, “[email] is a better avenue to get to it now. Because in the past, people would just maybe drop you a note.”

One school counselor received a text message during our interview, which prompted her to then discuss how she uses text messaging to informally communicate with other school counselors in the system, stating, "I've texted the counselors outside, but it probably wasn't related to work, unless it was like, 'Where's the meeting at?'"

Two school counselors mentioned joining online discussion groups as a means of sharing knowledge informally. One mentioned a specific group, "I joined the website Yahoo Counselors…"

It is interesting to note that there is not yet a similar means of communicating with school counselors within the district. In other words, there is not a discussion board for school system school counselors. Also, interesting to note, is the fact that posts can be made to these types of discussion boards anonymously, though it is reported that some school counselors choose to share identifying information.

Who Knowledge is Shared With

Within the sixth domain, school counselors reported sharing knowledge with numerous key stakeholders, as well as with each other. All or all but one school counselor mentioned sharing knowledge with teachers, administrators, parents, and counseling colleagues. More than half of school counselors mentioned sharing knowledge with agencies, student support services staff, school staff, school committees, and students. Less than half of school counselors mentioned sharing knowledge with district committees, professional organizations, interns, school psychologists, the local community or the central office. Only one school counselor mentioned sharing knowledge with counselor educators.

Teachers.

Every school counselor interviewed reported sharing knowledge with teachers:

> I would say teachers on a daily basis, multiple times a day, this year especially…come up to me on a regular basis just to ask advice about their kids or if they want me to talk to their students.

These interactions take place in structured meetings as well as impromptu encounters:

> I try to walk around the halls and I'll catch teachers in the calls and ask how things are going and that's where I get a lot of my referrals from.

Administrators.

All school counselors mentioned sharing knowledge with school administrators. Depending on the reason for knowledge sharing school counselors might meet with school principals, or sometimes, assistant principals if their roles include serving on committees on which school counselors are appointed. One school counselor stated, "Our assistant principal that's on the SST has been a pretty good resource."

The amount of knowledge sharing that takes place with school administrators varies depending on the individual school. Some school counselors respond to administrators' needs in response to a student issue whereas other school counselors meet with administrators on a more frequent basis, for example, "I'm in their office on a daily basis give or take."

Parents.

Every school counselor mentioned knowledge sharing that occurs between themselves and parents of students within their schools. At times, knowledge sharing with students takes place individually face-to-face, for example, "I have a lot of parents who'll just pop up because they've had an issue with a child." School counselors also share knowledge with parents through other methods of communication as well, for example, "I do talk with parents by email and by phone." One school counselor also mentioned preparing presentations specifically geared toward parents' needs, "Well now, I have in the past done parent-presentations for the parents."

School counseling colleagues.

All of the school counselors reported sharing knowledge with other school counseling colleagues. These school counseling colleagues are sometimes located within the same building, and are working with the same student population. A likely response from school counselors who work with other school counselors within the same building was, "my first resource is the other counselor."

These knowledge sharing opportunities are sometimes impromptu conversations or may be regularly scheduled meetings. One school counselor described formally scheduled meetings between building-level counselors as informal meetings, "And just the way our site functions with counselors, our meetings are really informal, the three of us."

School counselors also report participating in monthly school counselor meetings, regardless of the school level in which they work. They also report knowledge sharing interactions between formal meeting times via email or telephone conversation:

> All the counselors, we have a very good line of communication, so there's not one that you can't pick up the phone and call about work or something, and it's how we communicate. Or email, we're constant emailing.

One school counselor also discussed a formal meeting time that occurs on a monthly basis between herself and a small group of school counselors outside of the monthly school counselors' meeting, "Outside of school, formally, we have that small group counselors meeting." These meetings resulted from the monthly school counselors' meetings not providing the support and resources desired from this small group. The size of the larger monthly school counselor meetings was reported as a deterrent for sharing knowledge, therefore, the smaller group meetings are more conducive for this school counselor's willingness to share knowledge.

Outside of the school system school counselors are also sharing knowledge with other school counselors with whom they have relationships:

> I would say informally I would say I have a lot of friends that are counselors that are in other school systems or are throughout North Carolina. And you know, we'll shoot each other an email every once in a while.

In addition, one school counselor also mentioned joining an online discussion group with school counselors nationwide in order to share professional knowledge, "Yahoo counselors"

Agencies.

Five school counselors mentioned sharing knowledge with outside agencies. The decision around which agencies to contact is sometimes prompted by a need that arises within the school. For example, one school counselor stated, "When we need different things in the school, I go out to a lot of different agencies."

However, contacting outside agencies for knowledge sharing can also be proactively planned by groups of school counselors (i.e., speakers at monthly meetings) or by individual school teams:

> When we had out SST meeting in the beginning, we sat down and thought about, 'What are some of the key agencies that last year we didn't pull into our schools that we should have pulled in?'

These agencies are sometimes useful for helping school counselors meet some of the expectations for services provided. For example, two school counselors discussed bringing in Hospice counselors to facilitate a counseling group for students experiencing grief and loss. Their reasons for contacting Hospice were two-fold. First, the school counselors reported having a lot of priorities vying for their attention. Second, outside agencies were reported to give services more credibility with school staff with less likelihood of negative feedback if an outside agency was involved in providing services to students.

Student support services staff.

Five school counselors mentioned sharing knowledge with other student support services staff. The composition of the student support services teams at each school can

be very different but can include school counselors, school nurses, school social workers, drop-out prevention specialists, administrators, school psychologists, as well as other school staff deemed appropriate for such teams. Typically these teams meet weekly to discuss individual student issues. In addition, all student support services team members (from all schools) meet once or twice a year to discuss common goals and priorities. "We have a beginning of the school year Student Support Team meeting-that's with all the [district] Student Support Team."

School staff.

Five school counselors mentioned sharing knowledge with other school staff (i.e., other than teachers, school counselors, school psychologists, or administrators). In some instances, knowledge is shared with an individual, for example, "I work very closely also with my secretary and my data manager as well. That's a really important connection." Another way school counselors share knowledge with school staff is by presenting to the larger group in staff meetings.

School committees.

Five school counselors mentioned several types of school committees. The most frequently mentioned committee is the student services team meetings. Other school committees that were also mentioned include leadership team, student council, 504 teams, Student Assistance Teams, Parent Teacher Associations, Response to Intervention Teams, and Limited English Proficiency committees. All of these committee meetings take place on-site at individual schools.

Students.

Although sharing knowledge with students is a part of every school counselors' work in schools, five out of seven school counselors directly mentioned knowledge sharing with students. This knowledge sharing can take place in classroom settings, in which school counselors are presenting curriculum material as outlined by the Department of Public Instruction:

> We go around to the classrooms and do the classroom presentations we're doing- and we've done those on bullying, friendship, test anxiety, all those kinds of things, and career.

Knowledge sharing with students can also take place in smaller groups or with individual students:

> I meet with students formally. I have 5 groups going right now. And I see kids informally when they just are in the hallway or when they want to come see me they just stop by.

District committees.

Three school counselors discussed knowledge sharing that occurs within district committees. A wide variety of these types of committees were mentioned, for example, "…registration design committee…curriculum committee...technology committee…"

Professional organizations.

Two school counselors mentioned knowledge sharing with professional organizations. In each of these instances, the school counselors referred to the annual school counseling conference held by the state school counseling association, "We just

came back from the North Carolina School Counselors Conference…we actually presented." One of the school counselors interviewed holds a leadership position within the organization.

Interns.

Two school counselors discussed knowledge sharing with master's level counseling interns. Their descriptions of their knowledge sharing experiences with a school counseling intern were positive. One school counselor stated, "It's a bonus having an intern."

School Psychologist.

Two school counselors mentioned knowledge sharing with school psychologists. Neither of the two went into detail about the knowledge sharing that occurs between themselves and the school psychologist, but spoke instead of the school psychologist's role within the school setting, for example, "The school psychologist comes in to test the kids."

Community.

Two school counselors discussed knowledge sharing with members of the community at large. Knowledge sharing between school counselors and the community (e.g., businesses) usually centered on a school need, "I do a lot of community outreach when we need different things in the school."

Central office staff.

Knowledge sharing between school counselors and central office staff was brought up by three school counselors. Each described knowledge sharing from central

office staff as one way communication. They also described the knowledge shared as more formal knowledge, saying, “A lot of information does start formally if it’s coming from the central office or director of student services.” None of the school counselors discussed reciprocal knowledge sharing between themselves and central office staff. A more likely response was, “When it comes to sharing knowledge with central office, I don’t really do that.”

Counselor educators.

One school counselor discussed knowledge sharing between herself and counselor educators. She discussed seeking knowledge from former professors, one in particular, and from other counselor educators at nearby universities. This knowledge seeking occurred via email and telephone conversations. For example, one school counselor stated, “I have called upon instructors from the past, specifically my dean of students, asking him for some [help] on how to handle situations.” She also reported visiting a former professor’s class to discuss her experiences as a school counselor with master’s students currently enrolled in the school counseling program from which she graduated.

Technology Used for Knowledge Sharing

Within the seventh domain, all school counselors agreed that technology facilitates knowledge sharing. However, three school counselors also recognized that technology can sometimes hinder knowledge sharing. All of the school counselors recognized their use of technology as an interpersonal communication channel. Five school counselors reported using technology-related mass media communication

channels for knowledge sharing. Similarly, five school counselors reported using technology-related interactive communication channels for knowledge sharing.

Technology facilitates knowledge sharing.

Every school counselor cited ways in which technology facilitates knowledge sharing. In fact, most cited the need for additional technological support in order to more efficiently perform their job responsibilities:

> It would be nice to have technology where we could get on a conference or a video, a web…a web camera conference call to consult or to have meetings. I think technology could facilitate it more.

School counselors reported support at the district level, in the form of a technology committee, that is working on developing a website to assist school counselors in their roles.

> On the technology committee for the county…basically we're looking for easy ways to be able to implement the ASCA model without having people having to reinvent the wheel every time and trying to go for a more unified system approach.

Technology has the potential to unite school counselors that are isolated from one another in terms of geographical proximity. One school counselor stated, "Technology is just a real key to do that since we're spread out all over the state." Technology applications can also act as knowledge repositories in the sense that a school counselor can post knowledge to a website, which can later be accessed by school counselors elsewhere in the district or in the country. One school counselor described the usefulness

of such a technology-assisted repository, "You can go to the websites and they can help you out so just kind of building [a list of resources] up."

On a daily basis school counselors are utilizing communications technologies to communicate with one another, seek knowledge, share knowledge, and collaborate with other professionals. For example, "I'm sending them constantly emails saying, 'I've got this situation…have you ever had to deal with it and how could you handle it? Or can you help me?'"

Two aspects of technology that were not mentioned by school counselors include 1) the use of technology by school counselors with students and 2) the use of technology hardware (as opposed to technology software or online resources).

Technology hinders knowledge sharing.

Two school counselors discussed the ways in which technology hinders knowledge sharing. There were two main ways that technology appears to hinder knowledge sharing. First, some school counselors are reportedly hesitant to use newer technologies:

> People are afraid of technology, or data, and using data driven work…people aren't sure and afraid, so some people can be closed off to those ideas. So when it comes to progressive…I don't want to use that, it sounds too judgmental, but just changing or doing new things, it can be difficult. Those can be inhibitions.

Second, some of the technology that is utilized in schools is outdated or inefficient for the types of knowledge sharing school counselors are doing. For example, one school counselor discussed her use of the fax machine and her inability to send a fax without multiple attempts, stating, "I sent a fax three times yesterday."

Furthermore, school websites are maintained by someone assigned the duty of updating the website, therefore it is not always possible for school counselors to update the counseling website for their individual schools. One school counselor stated, "I just got my name on the website instead of the school counselor from last year."

A first year school counselor reports her experiences working in a school in which the technology that is in place is not meeting her needs and is hindering her ability to perform her job responsibilities:

> And, honestly, the limited technology at school…I mean I can't, there's this great agency that I heard of but their website is blocked. Or I cannot figure out how to make a call out of my phone so that someone who has blocked unidentified call won't use it. And when I finally get in touch with someone at the help desk they're like you have this kind of phone and you have to dial star pound and then star 82 and then that will get you out. Oh, wow! Why didn't I guess that? That makes so much sense! No, it makes no sense. So I think that's been frustrating too.

The same school counselor reports feeling as though the technology is also hindering other people's abilities to share knowledge with her:

> Phone systems in schools are awful. It's completely inefficient….all calls go to the receptionist. The receptionist has to buzz me, ask if I am available. If I'm not in the room she has to buzz [the other counselor's] office, then she'll buzz the workroom, you know…I don't have a direct line. It would be really nice to just say, 'Just leave me a voicemail,' or 'Here's my extension.'

Furthermore, technology issues can also have ethical implications for school counselors. One school counselor described the ethical considerations of not being able to have a personal printer in her office:

> If I print out an email from a parent…then it's just sitting there in the computer lab and there are students in there who come in as a class and there's confidential information in it.

The consequences of limited, or outdated, technology in schools can also result in school counselors feeling less than effective in their roles:

> The fax machine…it's little stuff like that, I hate to admit it, but the more frustrated I get with little stuff like that, the less effective I am and it really frustrates me sometimes.

Interpersonal communication channels.

All school counselors reported using interpersonal communication channels for knowledge sharing. Although discussion boards fall under interactive communication channels, emailing individuals falls under interpersonal communication:

> Knowing the people on your staff you can email-like our social worker's only here three days a week. In the two days she's not here, I know I can email her, I can call her on the phone, or whatever and say, 'This is the issue we've got going on,' and I can trust that she'll get back to me with the answer.

Although personal emails are useful in some circumstances, school counselors also rely on other forms of interpersonal communication, depending on the circumstances surrounding the knowledge sharing that is occurring:

> I think I rely on email to get that procedural [information]…or in collecting information, I email like, 'How's Johnny doing in that class? Would you mind shooting me a quick email back?' And I think for general kinds of stuff like that and then for the individual stuff I'm more inclined to walk and talk to that person face to face.

Telephone calls are another way that school counselors share knowledge through interpersonal communication channels. For example, "I'll call up and say, 'Have you done this before? Have you had any experience with this?' and get a couple people's opinions." Individual telephone calls were mentioned, as well as conference calls and text messaging as means of knowledge sharing via interpersonal communication channels.

Mass media communication channels.

Technology that reaches the masses was reported as useful for knowledge sharing by five school counselors. Online search engines and websites are the most commonly cited mass media resource for school counselors. School counselors are using these online web resources to access knowledge:

> I used the Internet, and then it seems like I may have had a – seems like I had an article out of a journal or something – I don't even remember where I got the journal.

They are also using online web resources as a means of disseminating commonly requested knowledge to students and key stakeholders:

> I've asked out assistant principal you know 'Can we put the student code of conduct on the website? Can we put procedures for student transfers?'…because it seems like a lot of my time is spent clarifying those procedures which would be very easy to say this is how you do it and to say it's on the website just print it out or I can print it out for you and send it home with your student.

Interactive communication channels.

Interactive communication channels are those that are online, but are also have an interactive component rather than being a stagnant webpage. Five school counselors

reported using technology-based interactive communication channels for knowledge sharing. These include webinars, online courses, group sites, discussion boards, and online groups. Websites with an interactive component also fall under this category:

> We have [a website] just for middle school counselors for us to consult and collaborate and upload lesson plans and share things. We have a space just for that that no one else can get on."

In addition to interactive communication channels within the school system, school counselors are also accessing more public interactive communication channels to reach a broader audience for knowledge sharing:

> It's just nice to be able to type an email and say, 'Can somebody out there help me with…working with a student who has…depression right now and is crying every day and he goes home and he hits.' And then I get twelve emails back saying, 'I've done this.' and 'I've done this.' and 'I've done this.'

Consequences of Non-Sharing of Knowledge

Within the eighth domain school counselors mentioned three consequences that may occur when knowledge sharing does not take place. Frustration was the most frequently mentioned consequence, followed by gaps in service and inefficient use of time.

Frustration.

Four school counselors reported frustration stemming from non-sharing of knowledge. In one example, a school counselor discussed an issue that arose when one of her counseling colleagues advised a student that was assigned to her:

> If one of my other counselors sees [a student]…I got the schedule change I'm like 'what in the world? Now he's not gonna graduate.' And I didn't do it. Who did it? And why was it done? And I'm sending a letter home to the parent saying, 'what in the world?" Calling them in and going through all this and if that counselor had just said, 'Just so you know, Johnny came to see me today and he has an issue in this specific class and I'm taking him out. He's still gonna graduate because we're doing it online…Yeah, that still irks me now that I think about it.

Another school counselor reported frustration when information was not easily accessible as a result of non-sharing of knowledge. One school counselor stated, "When I'm on my sixth phone call and I still don't have an answer it gets kind of frustrating."

Gaps in service.

Three school counselors discussed how the non-sharing of knowledge can result in gaps in service for students. Sometimes non-sharing of knowledge by an individual, such as a parent, can lead to gaps in service. For example, "I can think of things where knowledge was not shared where if it had been then a light bulb would have gone off as far as things that were going on." School counselors also report not having knowledge shared with them during their training, which can also lead to gaps in services for students:

> If she had addressed [the restraining order] before it expired she could have renewed it but since it had already expired she couldn't renew it…I didn't know that I needed to know that.

Inefficient use of time.

Two counselors reported non-sharing of knowledge resulting in an inefficient use of school counselors' time. Parents and students may not share knowledge with a school counselor until rapport and trust are established as part of the working relationship.

Nevertheless, the non-sharing of knowledge hinders school counselors' abilities to efficiently meet students' needs:

> It's like we're spinning our wheels trying to figure out what's going on and testing show that the kid's able to do the work. It's not an intellectual ability…after six months of saying, you know, going through the educational process as far as looking at services to provide for him…and something's going on that you're not telling us….

Furthermore, when knowledge is not shared between those working in a school who have overlapping roles (e.g., a school counselor retires and does not leave his or her community contact information) and there is not a knowledge repository of some kind in which to store known information, school counselors time is spent relocating knowledge that once already existed.

Stability Check

A focus group interview was utilized as a stability check for the seven individual interviews conducted. The focus group consisted of four elementary school counselors, one middle school counselor, and one high school counselor. Five participants identified themselves as white and one participant identified as Pacific Islander. Five participants were female and one participant was male.

The focus group transcript was provided to the research team for review. Each member of the research team reviewed the transcript individually, coding each statement into the pre-existing domains and categories. The research team then met together to reach consensus regarding whether the additional data altered the previously agreed upon

domains and categories. It was decided that additional domains and categories were not necessary.

This chapter reported results of seven individual interviews with elementary, middle, and high school counselors from one school system in the Triad area of NC. Stability of findings was confirmed through the use of a focus group of six additional school counselors from the same school district. The next chapter will discuss implications for school counseling research and practice, as well as school counselor education. Limitations of this study also will be addressed.

CHAPTER V

DISCUSSION AND IMPLICATIONS

The purpose of this study was to explore school counselors' knowledge sharing practices. Theories were introduced that have been used to study other professions' knowledge sharing practices, however, these theories were not intended to be tested nor applied as a result of this particular study. Instead, findings will be reported here that seem to coincide with the theories used by other professions, as well as findings that seem to be different from those theoretical models. Furthermore, implications for the school counseling field, counselor education, and educational leadership will also be discussed in relation to findings.

School Counselors' Knowledge Sharing Practices

This study provides a foundation for further exploration of school counselors' knowledge sharing practices. Knowledge sharing, thus far, has been examined in other fields (e.g., business or medicine), however, it has remained unclear if school counselors are similar or different from these other professionals in the ways in which knowledge is shared. Therefore, this study is an important first step for learning more about how school counselors share knowledge, reasons for knowledge sharing, and outcomes of school counselors' knowledge sharing. Theories from other fields are provided as a starting point to begin a discussion of school counselors' knowledge sharing practices, but are not intended to predict or explain these practices.

Theoretical Approaches

Three main theories related to knowledge sharing were used as a basis for this study: diffusion of innovation theory (Rogers, 1962), social exchange theory (Homans, 1958), and theory of reasoned action (Fishbein & Ajzen, 1975). First, diffusion of innovation theory describes how knowledge passes through a network of individuals as well as possible reasons why some knowledge diffuses more easily than other knowledge. Second, social exchange theory describes the intrinsic reasons why an individual may decide to share knowledge with others. Third, the theory of reasoned action utilizes a model to describe the factors that contribute to individuals' intentions to share knowledge and attributes those intentions to attitudes and social norms.

Diffusion of Innovation Theory

Characteristics of innovations.

An innovation, which could include abstract concepts such as knowledge or more concrete concepts such as technological applications, will have a better chance of adoption if five characteristics exist: 1) relative advantage, 2) compatibility, 3) complexity, 4) trialability, and 5) observability. School counselors discussed each of these characteristics as they relate to knowledge sharing. For example, school counselors discussed utilizing online chat groups because they could remain anonymous (relative advantage), they already have the means to access these groups online (compatibility), the chat group is easy to use (complexity), they could try out the group without making a commitment (trialability), and could observe the types of responses others posted (observability).

Communication channels.

Participants reported sharing and receiving knowledge through a wide variety of communication channels including interpersonal, interactive, and mass media. Interpersonally, school counselors talked about meeting in groups, both formally and informally to share knowledge reciprocally. In addition, these school counselors also utilized interactive communication channels such as web chats, discussion boards, and online courses for reciprocal sharing of knowledge. Mass media communication channels seemed to be utilized the least, with the exception of web-based resources such as individual websites. Although journals, magazines, and books were mentioned as sources through which school counselors seek knowledge, websites were cited as the most frequently utilized mass media channel for seeking knowledge. However, it is possible that school counselors may not always have access to some mass media sources such as online journal articles or specific websites because of school system firewalls or because many school systems do not subscribe to online databases. Furthermore, although school counselors mentioned seeking knowledge through mass media channels, interestingly they did not mention providing knowledge through mass media sources.

Adoption for social, personal, or psychological reasons.

Participants frequently referenced social networks as an important aspect of knowledge sharing. They mentioned networks within the school building, school system, local community, and school counseling community at large. These network ties seem to be critical for school counselors' knowledge sharing practices, based on the frequency with which social networks were mentioned or referenced during individual interviews.

Although opinion leadership within these social networks was not mentioned as frequently, one school counselor's name was mentioned frequently throughout the interview transcripts. She was the school district's counselor of the year during the 2008-2009 academic year, and gained visibility and recognition through this honor. Since these school counselors did mention not necessarily knowing well other school counselors within the district, it is possible that those who are labeled formally as leaders become opinion leaders by default. School counselors also mentioned seeking knowledge from colleagues within their buildings, with proximity being a major determinant of who is consulted as an opinion leader.

Homogeneity.

School counselors are likely to adopt new innovations, including new knowledge, when that knowledge is shared by individuals, or through groups, that they see as similar to themselves. Participants discussed adopting practices and ideas from other school counselors, especially those that were shared at school level meetings or at state conferences. There seems to be a disconnect between what is shared through the school district or through the Department of Public Instruction and what is understood about that knowledge or how it is expected to be applied.

Phases of decision making.

Participants in this study did not explicitly discuss the phases of decision making in terms of making adoption decisions. These phases include: awareness, knowledge, persuasion, decision, implementation, and confirmation. These school counselors did allude to evaluating their own knowledge, deciding who else might have additional

knowledge, seeking that knowledge, and applying knowledge gained through this consultation process. The decision making process for using knowledge, therefore, might be somewhat different than the decision making process for adopting a specific innovation. However, knowledge of where to access additional knowledge seems like a critical component early on in this decision making process. Without knowing where to access additional knowledge, the individual is more likely to act solely on the pre-existing knowledge he or she already has. Communication and infrastructure, after initially deciding where to access additional knowledge, seem to be important for the rest of the process to continue.

Categories of adopters.

School counselors' adoption categories are difficult to determine in this particular exploratory study. However, many participants brought up the fact that some school counselors seem to be able to adopt innovative practices, especially those utilizing technology, fairly easily while others resist change, or perhaps even fear the consequences of change. Participants did not mention possible reasons for these differences.

Social Exchange Theory

Social exchange theory is based on the premise that people share knowledge with those who share knowledge with them (Homans, 1958). External rewards for sharing knowledge are not necessary, but that the reciprocal sharing of knowledge is (Thibault & Kelley, 1952). This theory seems to apply to situations in which school counselors' knowledge sharing is expected, such as during school level meetings. School counselors

mentioned meeting with other school counselors from the same school level monthly. Depending on school level, some school counselors seemed to gain a lot of knowledge and share a lot of knowledge during these meetings, while others did not feel the meetings were as beneficial as they would like. Some participants referenced meeting outside of these formal district meetings in smaller groups in order to share knowledge. It is not clear whether those with whom they meet with outside of the district meetings are school counselors who are more likely to reciprocally share knowledge. If these are more reciprocal relationships, social exchange theory may explain how these groups are formed, or at least how they maintain.

Theory of Reasoned Action

The theory of reasoned action has several components that contribute to the likelihood that knowledge sharing could occur including: 1) attitude, 2) intention, 3) subjective norms, 4) social network, and 5) shared goals (Fishbein & Ajzen, 1975). Of these, participants mentioned attitude most frequently as a predictor of knowledge sharing. There may be additional personality traits also attributing to school counselors' knowledge sharing practices. Attitude, as well as additional personality traits, may also influence relationships school counselors have with others with whom they could potentially share knowledge.

Social networks, as mentioned earlier, were also referenced as critical components that must be present for knowledge sharing to occur. Additional factors that arose frequently as factors influencing participants' knowledge sharing practices included time, additional roles or duties, and accountability models. All three of these factors may be

collapsed under the over-arching umbrella of *time*, but were separated for purposes of clarifying types of factors that might be influencing how school counselors spend their time.

Subjective norms were not explicitly addressed, although some surfaced throughout individual interviews with counselors. For example, administrators seem to be the gatekeepers of how school counselors spend their time at work. Variables such as administrators' personalities, accessibilities, perceptions, and experiences may influence the subjective norms of a work environment, which in turn influences the ways in which school counselors go about their jobs. Additionally, having two or more school counselors within a school building can influence the subjective norms present within the building. Finally, subjective norms may be difficult to alter once they are set. Therefore, monthly or annual meetings may have norms in place that either help or hinder knowledge sharing; however norms keep practices in place whether they are effective or not.

Conclusions about Theoretical Approaches

Since theories were not tested as a part of this research study, conclusions cannot be drawn as to the extent to which these three theories (diffusion of innovation theory, social exchange theory, and theory of reasoned action) explain or model school counselors' knowledge sharing practices. Components of each theory, however, seem clearly to be worthy of further exploration. Additional theories, or new theoretical models, also may prove useful for further exploring school counselors' knowledge sharing practices.

Summary of Findings

Seven individual interviews were conducted to collect data about school counselors' knowledge sharing experiences. A focus group of six school counselors served as a stability check. Eight domains surfaced as a result of these interviews, each with 3-19 categories. There are four potential labels for the categories that describe school counselors' knowledge sharing experiences: 1) general, 2) typical, 3) variant, and 4) rare. If a category applied to all participants, or all but one, the category is labeled *general.* Categories that applied to more than half of participants, but less than the *general* category, they were labeled *typical.* Categories reported by less than half of the participants, but more than one participant, were labeled *variant.* Finally, a category that was mentioned by only one participant was labeled *rare.* General findings are reported below; additional findings are reported in Appendix M.

General Findings

Categories surfaced within six domains that all participants, or all but one participant, mentioned in relation to their knowledge sharing practices (Table 4).

Table 4

General Research Findings

	MS	**MS**	**MS**	**HS**	**ES**	**MS**	**HS**	Category Type
Benefits and Outcomes of Knowledge Sharing								
Learning	**X**	**X**	**X**	**X**	**X**	**X**	**X**	General
Better or Expanded Counseling Services	**X**	**X**	**X**		**X**	**X**	**X**	General

Factors that Influence Knowledge Sharing								
Personality	X	X	X		X	X	X	General
Time	X	X	X	X	X	X	X	General
Roles/Additional Duties	X	X	X	X	X	X	X	General
Accountability	X	X	X	X	X	X	X	General
Knowledge Sharing Behaviors								
Seeking Knowledge	X	X	X	X	X	X	X	General
Giving Knowledge	X	X	X	X	X	X		General
Formal Verbal	X	X	X	X	X	X	X	General
Informal Verbal	X	X	X	X	X	X	X	General
Formal Written	X	X	X	X	X	X	X	General
Informal Written	X	X	X	X	X	X	X	General
Knowledge Sharing Content								
Student Issues/Concerns	X	X	X	X	X	X	X	General
Community Resources	X	X	X	X	X	X		General
Policies and Procedures	X	X		X	X	X	X	General
School Needs	X	X	X	X	X	X		General
Who Knowledge is Shared With								
Teachers	X	X	X	X	X	X	X	General
Administrators	X	X	X		X	X	X	General
Counseling Colleagues	X		X	X	X	X	X	General
Parents	X	X	X	X	X	X	X	General
Technology Used for Knowledge Sharing Purposes								
Interpersonal Communication Channels	X	X	X	X	X	X	X	General
Technology Facilitates Knowledge Sharing	X	X	X	X	X	X	X	General

Findings by Research Question

Eight research questions were addressed through seven individual interviews with school counselors. Results of this study are discussed in the context of each research question below.

RQ1: To what extent is knowledge sharing occurring among school counselors?

The reasoning behind this research question was that the researcher did not want to assume that school counselors were indeed sharing knowledge. None of the participants, either in individual interviews or in the focus group, had trouble discussing and describing the knowledge sharing they do as part of their professional work. In many cases, they discussed knowledge sharing as something that is done "regularly," in some cases on a "daily basis."

Participants also discussed the level of importance that knowledge sharing plays in their professional work. The most common response was that knowledge sharing is "extremely important". All school counselors elaborated on the importance of knowledge sharing for their work in schools.

RQ 2: What are the outcomes of knowledge sharing?

Participants reported five benefits and outcomes of knowledge sharing: 1) learning, 2) better or expanded counseling services, 3) increased collaboration between school and community, 4) social networking, and 5) support.

RQ 3: How does knowledge sharing impact school counselors' work?

When asked for specific examples of times when knowledge sharing occurred as part of their work, most participants initially responded with an example of a time when knowledge was not shared and negative consequences were the result. Participants reported three consequences of non-sharing of knowledge: 1) frustration, 2) gaps in service, and, 3) inefficient use of time. In addition, when asked how important knowledge

sharing is for school counselors' work, the most common response was, "extremely important".

RQ 4: With whom are school counselors sharing knowledge?

Participants reported sharing knowledge with a variety of people and organizations. All participants, or all but one participant, reported sharing knowledge with: 1) teachers, 2) administrators, 3) counseling colleagues, and 4) parents. More than half of all participants also reported five additional categories with whom they share knowledge: 1) agencies, 2) student support services staff, 3) school staff, 4) school committees, and, 5) students. Fewer participants reported sharing knowledge with: 1) Central Office staff, 2) district committees, 3) professional organizations, 4) interns, 5) school psychologists, and 6) the community at large. Only one participant mentioned sharing knowledge with counselor educators.

RQ 5: What types of knowledge are being shared?

Types of knowledge being shared fell under seven categories: 1) student issues/concerns, 2) community resources, 3) policies and procedures, 4) school needs, 5) interventions, 6) K-12 curriculum, and, 7) data.

RQ 6: What drives school counselors' intentions to share knowledge?

Participants cited three reasons for knowledge sharing: 1) student-driven, 2) proactive services, and 3) reactive services. Additionally, 19 factors that influence participants' knowledge sharing practices were discussed. All participants, or all but one participant, mentioned four factors that influenced their knowledge sharing practices: 1) personality, 2) time, 3) additional roles or duties, and 4) accountability. More than half also discussed

an additional eight factors: 1) communication/communication gaps, 2) relationships, 3) fear of perception, 4) knowledge base, 5) principal support, 6) directives (from Central Office, community, committees, etc.), 7) having a forum to share knowledge, and, 8) group dynamics.

RQ 7: What opportunities are available (formal and informal) for knowledge sharing?

All participants cited opportunities for school counselors to seek and share knowledge formally and informally, in written and verbal form. All participants recognized opportunities that exist in which they are participating in a variety of these types of knowledge sharing. District level knowledge sharing is reported to take place in more formal ways in which knowledge is shared with school counselors, but these counselors rarely reciprocate knowledge sharing with the district level central office.

RQ 8: How do school counselors share knowledge?

Participants mentioned sharing knowledge through a variety of ways. Face-to-face, online, and telephone sharing were mentioned by all participants. Technology appears to play a large role in the ways participants share knowledge. For example, all school counselors discussed ways in which technology facilitates knowledge sharing in their professional work, with an emphasis on technology that allows for interpersonal communication. However, technology that is interactive as well as technology that allows for easier access to mass media sources was mentioned by more than half of participants as impacting the ways in which they share knowledge. Participants also observed that there are times when technology may hinder knowledge sharing because it is outdated

technology or because some school counselors may be hesitant to utilize new technologies.

Implications

The implications of these research findings can be applied to school counselors but also extend beyond school counselors to also include the larger counselor education community, as well as educational leaders. In this section, implications as they apply to each of these groups will be discussed.

School Counselors

It is evident from the results of this study that knowledge sharing is a critical aspect of school counselors' work in schools. It also is evident that while school counselors realize the value of knowledge sharing, there are factors that sometimes hinder knowledge sharing from taking place. Through advocacy and self-advocacy, school counselors may be able to remove some of the boundaries that currently hinder more knowledge sharing. For example, there are technology needs of which school counselors are aware that, if met, could facilitate greater knowledge sharing. School counselors could collaborate with each other, as well as with district level staff, to identify grants or advocate for internal resources that might allow those needs to be met.

Furthermore, results of this study suggest that school counselors need a place to store knowledge, a knowledge repository, so that knowledge gained can be organized and accessed at a later date. This includes individual knowledge, school specific knowledge, district specific knowledge, and broader school counseling knowledge. For example, school counselors taking National Boards exams should have access to experiences of

others who have already taken the exams. First year school counselors should have access to an updated list of community resources without having to track down individual agencies' contact information themselves. Retiring school counselors should be able to pass along the wisdom and knowledge that is the result of 20 years of experience. A knowledge repository could capture these types of knowledge and instantly broaden the knowledge base of an entire district of school counselors, making them able to more efficiently and effectively perform their work responsibilities.

Time was one of the most frequently cited hindrances to knowledge sharing. This is likely the case for many professional groups, not just school counselors. Identifying ways to find additional time in school counselors' busy schedules is not an easy task for school counselors, school administrators, or district level administrators. Some suggestions for advocacy in this area include documenting how school counselors' time is spent to identify activities or roles that could be shifted so that knowledge sharing can be included. Furthermore, school counselors may need to consider documenting the benefits of knowledge sharing time spent as part of their professional work. Sharing results of such interactions could demonstrate the importance of knowledge sharing in terms of outcomes for students, school counselors, families, or school staff. District leaders' and school administrators' understanding of the importance of knowledge sharing can also help school counselors find time to practice knowledge sharing.

Counselor Educators

One of the topics frequently discussed in counseling research journals is the gap that exists between researchers and practitioners within the counseling field. One

explanation for this gap is that knowledge may be shared differently between the two groups. In other words, while counselor educators typically share knowledge via classroom lessons, conference presentations, and peer-reviewed journal articles, these do not seem to be the most likely sources for reference by school counselors who are seeking knowledge to put into practice. Perhaps online resources or e-newsletters might be ways to share knowledge with school counselors in addition to journal articles and conference presentations. At the very least, these could be mediums to highlight key findings from research studies to help direct school counselors to articles or presentations that might be of interest to them.

Furthermore, counselor educators could examine some of the individual factors that influence school counselors' knowledge sharing practices to begin to understand reasons that school counselors and counselor educators do not seem to reciprocally share knowledge. Counselor educators may have additional factors that impact their abilities to share knowledge with school counselors. Although, it seems beneficial for counselor educators and school counselors to have regular contact, there appear to be factors that influence these types of interactions, such as limited time or roles/additional duties. Each group may be able to help the other reduce those factors that hinder knowledge sharing while increasing those factors that facilitate knowledge sharing. For example, school counselors may be able to provide a clinical perspective for counselor educators' students, alleviating some of the planning time required for teaching. Counselor educators could, in turn, assist school counselors with the collection of data or with accessing research-based practices.

Educational Leaders

Educational administrators may want to consider benefits and outcomes of knowledge sharing for school counselors in their school districts. School counselors are asking for time together so that they can expand their own knowledge bases in order to offer better or expanded services for students and their families. Perhaps building in protected, semi-structured time for school counselors to interact and work together could be beneficial for school counselors and those with whom they work.

In fact, those school counselors who participated in the focus group interview were surprised by how much knowledge they gained by spending an hour and a half reflecting on their own knowledge sharing practices. For many, these unanticipated consequences were a surprising benefit of simply spending time with others who share a similar role within the same school district. Discussion that followed centered around brainstorming ways to allow these types of meetings to occur, with most suggestions requiring school counselors to meet after school or on the weekends. In other words, participants in the current study expressed their willingness to meet after school and on the weekends to share knowledge with other school counselors because knowledge sharing is that important to them. In fact, many reported doing just that.

Furthermore, educational leaders may also be able to help school counselors find other ways, in addition to meeting with each other, to alleviate some of the barriers that are hindering their knowledge sharing practices. Creating forums for school counselors to share knowledge, as well as to create new knowledge from existing knowledge, could be

an important aspect of educational leaders' roles in facilitating school counselors' knowledge sharing practices.

If knowledge must be shared from educational leaders in a one-way communication with school counselors, it may be worthwhile for educational leaders to consider targeting key opinion leaders within the district. First, opinion leaders' knowledge is valued within the system. Second, school counselors reported having a better understanding of how to apply knowledge that was shared among their (homogenous in terms of roles) peer group, whereas knowledge shared from the central office had less clarity in terms of application and expectations. Explaining initiatives to key opinion leaders may help the spread of knowledge as well as the actual application of knowledge to practice.

Research Implications

In addition to implications for specific types of professionals, this study also has implications for the future study of knowledge sharing and for the utilization of Consensual Qualitative Research. First, a focus group was utilized as a stability check in this study in order to check findings (i.e., domains and categories) using a distinctly different format from the seven individual interviews. Utilization of a differing format as a stability check previously has not been reported in CQR literature, however, this type of stability check increases the validity of findings. The questioning format (i.e., individual interviews or focus group interviews) was not found to affect the domains and categories that surfaced. Second, the focus group was determined to create richer data when investigating school counselors' knowledge sharing practices since the format allowed

school counselors to build and expand on each other's responses. In the future, a focus group format may want to be considered for exploring knowledge sharing practices.

Future Research

Steps for future research include the need to test specific theories and theoretical models to better understand school counselors' knowledge sharing practices. Again, the purpose of this particular research study was not to test theories, but to be a first step for researching and identifying school counselors' knowledge sharing practices. A model or a theory, specific for school counselors' knowledge sharing practices, could serve as a foundation for building interventions or best practices to better facilitate knowledge sharing for this group.

Additionally, it could be equally useful to identify ways in which other groups, with whom school counselors report sharing knowledge, practice knowledge sharing. Examining similarities and differences between groups could allow for better understanding of the gaps that may exist between groups. The gap between school counselors and counselor educators is one example, but there also are likely gaps between agencies and school counselors, administrators and school counselors, central office staff and school counselors, and professional organizations and school counselors or any of the other groups mentioned in this study. Closing these knowledge sharing gaps could lead to numerous benefits and outcomes for schools and communities.

Finally outcome research examining the relationship between school counselors' knowledge sharing practices and other factors could provide additional insight into outcomes and benefits of these practices. For example, knowledge sharing potentially

could be linked to school counselor job satisfaction, school counseling program quality, or school counselor retention rates. Additionally, each of the factors named as influential to the knowledge sharing process could also be researched further as potential predictors of knowledge sharing behaviors.

Limitations

As with all research studies, this one has some limitations that must be considered when reviewing its findings. Attention has been paid to each of these and intentional decisions about how to proceed were made before continuing with the current study. Experienced researchers, current literature, and faculty advisors were consulted to ensure that these limitations do not denigrate the credibility or usefulness of the study. Limitations that were considered include those related to focus group participants' relationships with the group moderator as well as their relationships with other participants and limitations related to sampling.

Participants' Relationships with Moderator

Attributes of the moderator can be viewed in a positive and negative light with regard to reflexivity. First, as an individual who does span both the researcher and practitioner sides of the issue, the researcher brought insight from both sides. However, it was crucial that any predetermined bias based on the moderator's individual experience was kept in check. The tasks assigned to the assistant moderators were designed to help monitor these biases. Second, as an employee of the school system in which participants are employed, the moderator was less likely to be seen as an outsider to participants and also had increased access to resources such as contact information and research settings.

An abuse of these employee privileges would be inappropriate and all assurances were made to follow research protocols of the school system, as well as the university. Finally, because the moderator is an employee, and as such may have a prior relationship with some participants, it was imperative that the researcher consider these relationships and whether or not they might unduly influence the results in either a positive or a negative way.

Relationships with Other Participants

On a similar note, because the participants work in the same school system, it is likely that some of them may have prior relationships with each other. At the very least, it is likely that they have met those school counselors who are currently working at the same level at which they are employed in monthly school counselor meetings.

In an attempt to reduce the possibility of pre-existing groups and encourage group discussion, the focus group consisted of a diverse group of school counselors from each of the following levels: elementary, middle, and high school. Although participants may be currently working at one of these levels, because North Carolina school counseling licenses are issued as K-12 licenses, it is possible that participants also have worked at another level, meaning they may have previous relationships with other participants in the group that were not expected or may have more years of experience at a different level than the one in which they are currently employed. Therefore it was important to keep in mind that the intentional variation in focus group members was an attempt to create some diversity in group members, while maintaining a homogenous group of school counselors from one school district, but should not be assumed to be a pure

method of eliminating pre-existing group member relationships, nor is it assumed to eliminate the variance in potential focus group member experiences.

Sampling

One final limitation of this study is that the sampling procedures utilized may impact results. All school principals from one school system were contacted via email to request their permission to allow school counselors whom they supervise to participate in the focus group interview portion of the research study. For various reasons, some principals chose not to allow their school counselors to participate. Therefore, there may be an unforeseen difference in the school counselors who were able to consent to participate and those that were not. In other words, if school administrators impact school counselors' knowledge sharing practices, the results of the proposed study may be skewed.

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APPENDIX A: RECRUITMENT SCRIPT FOR PILOT STUDY

"Would you be interested in participating in a research study that will be a pilot study for my dissertation research at The University of North Carolina at Greensboro. I am looking for three to six practicing school counselors to participate in a focus group to give feedback on the focus group questions focused on school counselors' knowledge sharing practices. It will take approximately two to three hours of your time at no cost to you nor will there be any payment for participation. The focus group will be held in a private meeting area in close proximity to those who choose to participate in the study. The meeting area will be located in Henderson County, NC. If you are interested, I will send you an email outlining the details I have just outlined that will provide you with contact information for how to get in touch with me if you would like to participate or if you have questions. What questions do you have at this time? Would you like me to send you an email outlining the details of the study for further consideration?"

APPENDIX B: LETTER TO SCHOOL SYSTEM PRINCIPALS (FULL STUDY FOCUS GROUP)

Dear ABSS Principal:

I am currently in the process of conducting a dissertation research study as partial requirement for completion of a PhD in Counseling and Counselor Education through the University of North Carolina at Greensboro. I have received IRB approval through the Alamance-Burlington School System to ask school counselors within the system to participate in my study. I also hope that you will allow school counselors you supervise to participate in this research opportunity.

The topic of my dissertation research is school counselors' knowledge sharing practices. It requires 10-14 school counselors (elementary, middle, and high school) participate in a 1 ½ to 2 hour focus group that will be held at the Central Office of the Alamance-Burlington School System. There will be two potential dates on which school counselors can choose to participate. Focus group interviews will take place at two different times, one at 8:00am and one at 3:00pm.

Participation in the research study has several advantages for school counselors:

- School counselors will have time to reflect on knowledge sharing practices;
- School counselors will learn about the knowledge sharing practices of other school counselors;
- School counselors may apply information gleaned during the interview to future work as a school counselor.

Furthermore, the larger school counseling profession may benefit from understanding more about the knowledge sharing practices of school counselors and in turn find out how to make these practices more efficient and effective.

Thank you for considering allowing school counselors to participate in this research opportunity. If you have any questions, please feel free to contact me at adria_shipp@abss.k12.nc.us or 336-376-3350.

Sincerely,

Adria E. Shipp, MAEd, NCC, NCLSC, NCLPC Board Eligible

APPENDIX C: RECRUITMENT EMAIL TO SCHOOL COUNSELORS (FULL STUDY FOCUS GROUP INTERVIEW)

Dear _____, (school counselor)

I would like to invite you to participate in a study I am conducting as part of my dissertation research at The University of North Carolina at Greensboro. This study is focused on learning more about school counselors' knowledge sharing practices. You have been chosen for this study because you are employed as a school counselor with the Alamance-Burlington School System and because your principal is willing to allow you to participate in this research study as indicated by his or her response to an earlier email sent directly to principals. A $25 gift card will be given to all school counselors who choose to participate in the research study.

The research study will consist of two focus group interviews with school counselors. I will ask some questions about knowledge sharing that takes place as part of your position as a school counselor Each focus group will consist of 5-7 elementary, middle, and high school counselors employed by ABSS. If you would like to participate, please email me at (adria_shipp@abss.k12.nc.us) and indicate which of the following dates you would like to be a part of a focus group held at the Alamance-Burlington School System's Central Office.

Date 1:
Date 2:

Thank you for considering participating in this research opportunity.

Sincerely,
Adria E. Shipp

APPENDIX D: RECRUITMENT EMAIL TO SCHOOL COUNSELORS (FULL STUDY INDIVIDUAL INTERVIEWS)

Dear _____ (school counselor),

I am currently working on dissertation research at The University of North Carolina at Greensboro that is intended to explore the ways in which school counselors share knowledge about their work. You have been invited to participate as a school counselor for Alamance-Burlington Schools.

If you choose to participate, you will be asked for about 30-45 minutes of your time to participate in an individual interview discussing your knowledge sharing practices. Interviews will take place after school or on a weekend day, whichever is more convenient for you. A $25 Barnes & Noble gift card will be given to all school counselors who choose to participate in the research study.

If you would like to participate, please email me (adria_shipp@abss.k12.nc.us) and we can set up a time to meet. I am also happy to answer any questions you have regarding the research study.

Thank you for considering participating in this research opportunity.

Sincerely,
Adria Shipp

APPENDIX E: FULL STUDY INFORMED CONSENT
(FOCUS GROUP INTERVIEW)

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: School counselors' knowledge sharing practices

Project Director: James Benshoff, PhD, LPC, NCC and Adria E. Shipp, MAEd, NCC, NCLSC

Participant's Name: _____

What is the study about?
You are being asked to participate in a research study. The purpose of this study is to learn more about school counselors' knowledge sharing practices.

Why are you asking me?
You have been chosen for this study because you are employed as a school counselor with the Alamance-Burlington School System and because your principal has agreed to allow you to participate in this research study as indicated by his or her response to an earlier email sent directly to principals. You were randomly chosen from among the other school counselors who work at your school level (i.e., elementary, middle, high school) to be invited to participate in this research study.

What will you ask me to do if I agree to be in the study?
You will be asked to spend approximately two hours participating in a focus group interview with two to five other practicing school counselors. This is a one-time commitment and requires no additional time from you outside of the focus group.

Is there any audio/video recording?
You will be audio recorded throughout the course of this study. Because your voice will be potentially identifiable by anyone who hears the tape, your confidentiality for things you say on the tape cannot be guaranteed although the researcher will try to limit access to the tape as described below.

What are the dangers to me?
The risks involved in this study include the potential that confidentiality is not guaranteed since information is being gathered through audiotaped group interviews. However, the researcher will keep all information you provide anonymous and confidential once the focus group has ended – and the researcher asks that you as a potential member in the group do the same with all other group members' information.

If you have any concerns about your rights or how you are being treated please contact Eric Allen in the Office of Research and Compliance at UNCG at (336) 256-1482. Questions about this project or your benefits or risks associated with being in this study can be answered by [Adria E. Shipp] who may be contacted at (828) 243-7560 (aeshipp@uncg.edu).

Are there any benefits to me for taking part in this research study?
The benefits to you for participating in this study may include time to reflect on your knowledge sharing practices, learning about the knowledge sharing practices of other school counselors, and possibly applying information gleaned during to the interview to your future work as a school counselor. Furthermore, the larger school counseling profession may benefit from understanding more about the knowledge sharing practices of school counselors and in turn find out how to make these practices more efficient and effective.

Are there any benefits to society as a result of me taking part in this research?
School counselors' reflections on their own knowledge sharing practices may influence their effectiveness with students, families, faculty, and staff, within the school system in which they work. Society may benefit from changes school counselors make in their knowledge sharing behaviors that affects the students, families, and school communities with which they work.

Will I get paid for being in the study? Will it cost me anything?
A $25 gift card will be provided to all school counselors who choose to participate in the research study.

How will you keep my information confidential?
Your privacy will be protected by keeping all consent forms and the recorded interview in a locked file cabinet in the supervising faculty member's office on UNCG's campus. A reputable transcription company will be used to transcribe focus group interview data. This company has strict confidentiality procedures in place to ensure your privacy. You can visit their website at www.verbalink.com. In addition, focus group interviews will be held in a private meeting room behind closed doors. All consent forms will be destroyed in a paper shredder three years after the closure of this research study. The audiotape recording of the interview will be destroyed within 30 days of the interview by physically removing and cutting the tape from the cassette. All information obtained in this study is strictly confidential unless disclosure is required by law. In addition, the investigator must add a description of any legal duty to report abuse that might supersede these confidentiality promises.

What if I want to leave the study?
You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect your in any way. If you choose to withdraw, you may request that any of your data, which has been collected be destroyed unless it is in a de-

identifiable state.

What about new information/changes in the study?
If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:
By signing this consent form you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate, or have the individual specified above as a participant participate, in this study described to you by Carla Emerson.

Signature: _____ Date: _____

Witness:_____Date:_____

APPENDIX F: FULL STUDY INFORMED CONSENT

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: School counselors' knowledge sharing practices

Project Director: James Benshoff, PhD, LPC, NCC and Adria E. Shipp, MAEd, NCC, NCLSC

Participant's Name: _____

What is the study about?
You are being asked to participate in a research study. The purpose of this study is to learn more about school counselors' knowledge sharing practices.

Why are you asking me?
You have been chosen for this study because you are employed as a school counselor with the Alamance-Burlington School System.

What will you ask me to do if I agree to be in the study?
You will be asked to spend approximately 30-45 minutes participating in an individual interview discussing your knowledge sharing practices related to your work. This is a one-time commitment and requires no additional time from you outside of the interview.

Is there any audio/video recording?
You will be audio recorded throughout the course of this study. Because your voice will be potentially identifiable by anyone who hears the tape, your confidentiality for things you say on the tape cannot be guaranteed although the researcher will try to limit access to the tape as described below.

What are the dangers to me?
Because interviews will be audio recorded, confidentiality cannot be guaranteed but every measure will be taken to protect information shared by participants. Specific measures that will be in place to protect confidentiality are explained below.

If you have any concerns about your rights or how you are being treated please contact Eric Allen in the Office of Research and Compliance at UNCG at (336) 256-1482. Questions about this project or your benefits or risks associated with being in this study can be answered by [Adria E. Shipp] who may be contacted at (828) 243-7560 (aeshipp@uncg.edu).

Are there any benefits to me for taking part in this research study?

The benefits to you for participating in this study may include time to reflect on your knowledge sharing practices. Furthermore, the larger school counseling profession may benefit from understanding more about the knowledge sharing practices of school counselors and in turn find out how to make these practices more efficient and effective.

Are there any benefits to society as a result of me taking part in this research?
School counselors' reflections on their own knowledge sharing practices may influence their effectiveness with students, families, faculty, and staff, within the school system in which they work. Society may benefit from changes school counselors make in their knowledge sharing behaviors that affects the students, families, and school communities with which they work.

Will I get paid for being in the study? Will it cost me anything?
A $25 gift card will be provided to all school counselors who choose to participate in the research study.

How will you keep my information confidential?
Your privacy will be protected by keeping all consent forms and the recorded interview in a locked file cabinet in the supervising faculty member's office on UNCG's campus. A reputable transcription company will be used to transcribe interview data. This company has strict confidentiality procedures in place to ensure your privacy. You can visit their website at www.verbalink.com. All consent forms will be destroyed in a paper shredder three years after the closure of this research study. The audiotape recording of the interview will be destroyed within 30 days of the interview by physically removing and cutting the tape from the cassette. All information obtained in this study is strictly confidential unless disclosure is required by law.

What if I want to leave the study?
You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect your in any way. If you choose to withdraw, you may request that any of your data, which has been collected be destroyed unless it is in a de-identifiable state.

What about new information/changes in the study?
If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:
By signing this consent form you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate, or have the individual specified above as a participant participate, in this study described to you by Carla Emerson.

Signature: _________________________ Date: ________________

Witness:__________________________Date:_________________

APPENDIX G: DEMOGRAPHIC QUESTIONNAIRE (PILOT STUDY)

1. Please indicate your sex:

_____ Male
_____Female

2. What is your age? _____

3. Which of the following best describes your ethnicity?

___ Asian American / Pacific Islander
_____ American Indian
_____ African American / Black
_____ Caucasian / White
_____ Hispanic / Latino/a
_____ Multiracial
_____ Other (please specify) _____

4. Which of the following best describes the setting in which you work?

_____ Elementary School
_____ Middle/Jr. High School
_____ High School
_____ Other

5. How many school counselors (including yourself) work in your school?
_____

6. How many years of experience do you have in the school counseling field?
_____

7. How long have you worked at the school in which you are currently employed?_____

8. What professional license(s) and/or certifications do you hold?_____

9. What is your highest degree in a mental health field?

____ Bachelor's Degree
____ Master's Degree
____ Education Specialist Degree
____ Doctoral Degree

APPENDIX H: FULL STUDY DEMOGRAPHIC QUESTIONNAIRE

1. Please indicate your sex:

_____ Male
_____Female

2. What is your age? _____

3. Which of the following best describes your ethnicity?

___ Asian American / Pacific Islander
_____ American Indian
_____ African American / Black
_____ Caucasian / White
_____ Hispanic / Latino/a
_____ Multiracial
_____ Other (please specify) _____

4. Which of the following best describes the setting in which you work?

_____ Elementary School
_____ Middle/Jr. High School
_____ High School
_____ Other

5. How many school counselors (including yourself) work in your school?
_____

6. How many years of experience do you have in the school counseling field?
_____

7. How long have you worked at the school in which you are currently employed?_____

8. What professional license(s) and/or certifications do you hold?_____

9. What is your highest degree in a mental health field?

___ Bachelor's Degree
_____ Master's Degree
_____ Education Specialist Degree
_____ Doctoral Degree

10. Please list any professional organizations to which you are a member (e.g., ACA, ASCA,
NCSCA):_____
_____

11. How many professional counseling conferences have you attended in the past 24 months? _____

12. Please list the names of three other school counselors in your school system with whom you regularly share knowledge relevant to your work.

1._____

2._____

3._____

APPENDIX I: FOCUS GROUP QUESTIONS (PILOT STUDY)

(Say aloud) For the purpose of this study *school counselors' knowledge sharing* is defined as knowledge exchange involving at least one professional school counselor and can include both the giving and receiving of all types of information related to school counselors' professional work. At any given time knowledge sharing may be a one way communication of information, while at other times it might be a two-way communication of information.

Opening
To get to know each other better, let's go around the circle and have each of you share with the group your name, the school where you work and one lesson that you have learned from a student since you've been a school counselor.

Introduction
It sounds like we definitely learn lessons about school counseling from our students. Where else does school counselors' knowledge come from?

Transition
What kinds of knowledge are typically shared and are these different kinds of knowledge shared in different ways in terms of when, where, and by whom it is shared?

Transition
How does knowledge sharing typically start?

Key
Give an example of a knowledge sharing experience that really impacted your work as a school counselor.

Key
What factors (both internal and external) facilitate and/or inhibit knowledge sharing?

Key
How important is knowledge sharing for school counselors? What makes it so?

Ending
In the last 20 minutes, what else would you like to add about school counselors' knowledge sharing practices that hasn't already been brought up?

Process Questions:
This is the first of these types of discussions that I will be having with school counselors. I am planning to have several more over the next few months. What advice do you have for me? Were there any questions that seemed confusing or difficult to understand? If so, which ones? Was there anything about the sequencing of the questions that you would change?

What else would you be interested to know about school counselors' knowledge sharing practices?
Is there anything that could have made it easier for you to answer these questions?

APPENDIX J: FOCUS GROUP QUESTIONS (FULL STUDY)

(Say aloud) For the purpose of this study *school counselors' knowledge sharing* is defined as an umbrella term used to describe the acquisition and dissemination of information, ideas, and practices related to school counselors professional work. At any given time knowledge sharing may be a one way communication of information, while at other times it might be a two-way communication of information.

Opening
To get to know each other better, let's go around the circle and have everyone share with the group their name, which school you're from and one piece of knowledge you think is invaluable as a school counselor.

Introduction
Let's begin with an activity to get us thinking about school counselors' knowledge sharing practices. See (Figure 1)

	Inside the School	Outside the School
Formal Knowledge Sharing		
Informal Knowledge Sharing		

(Figure 1)

Transition
What kinds of knowledge are typically shared and are different types of knowledge shared differently?

Transition
How does knowledge sharing typically start?

Key
Give an example of a knowledge sharing experience that really impacted your work as a school counselor.

Key
What factors facilitate and/or inhibit knowledge sharing?

Key
How important is knowledge sharing for school counselors? What makes it so?

Ending

In the last 20 minutes, what else would you like to add about school counselors' knowledge sharing practices that haven't already been brought up?

APPENDIX K: CONFIDENTIALITY AGREEMENT (FOCUS GROUP INTERVIEW)

Confidentiality Agreement
For participation in the following research study:

School Counselors' Knowledge Sharing Practices:
A Consensual Qualitative Research Study

I understand that focus group participants should consider all information shared during this focus group interview confidential. Although confidentiality cannot be guaranteed because of the nature of focus groups, I agree to keep all information shared during this focus group interview confidential, meaning that it will not be shared with anyone outside of this group.

1._____Date_____

2._____Date_____

3._____Date_____

4._____Date_____

5._____Date_____

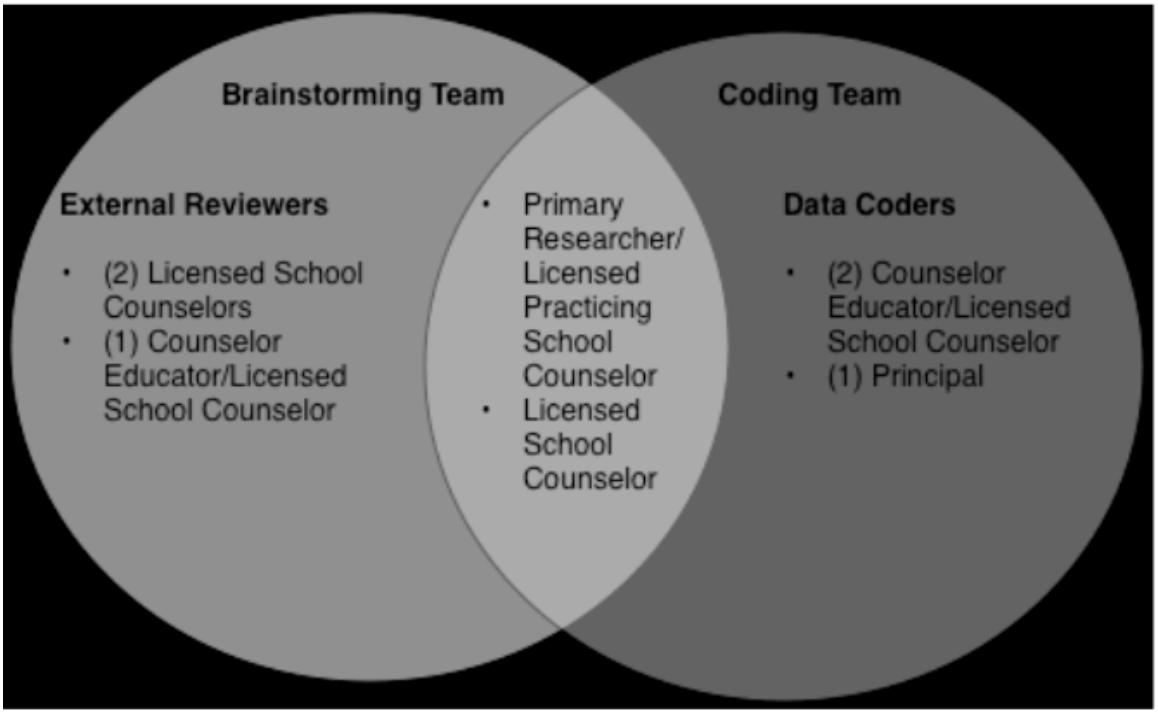
6._____Date_____

7._____Date_____

8._____Date_____

9._____Date_____

APPENDIX L: DIAGRAM OF RESEARCHERS



APPENDIX M: RESULTING DOMAINS AND CATEGORIES
(FULL STUDY)

	MS	MS	MS	HS	ES	MS	HS	Category Type
Benefits and Outcomes of Knowledge Sharing								
Learning	X	X	X	X	X	X	X	General
Better or Expanded Counseling Services	X	X	X		X	X	X	General
Facilitates Collaboration Between School and Community	X		X					Variant
Social Networking	X		X				X	Variant
Support	X				X			Variant
Consequences of Non-Sharing of Knowledge								
Gaps in Service	X		X	X				Variant
Inefficient Use of Time	X			X				Variant
Frustration	X	X	X	X				Typical
Factors that Influence Knowledge Sharing								
Communication/Communication Gaps	X		X	X			X	Typical
Relationships			X	X	X	X	X	Typical
Crisis/Need			X		X		X	Variant
Accessibility			X		X	X		Variant
Societal or Historical Events					X	X		Variant
Personality	X	X	X		X	X	X	General
Fear of Perception	X		X	X	X			Typical
Confidentiality	X	X	X					Variant
Knowledge Base	X	X	X		X	X		Typical
Cultural Factors								
Time	X	X	X	X	X	X	X	General
Principal Support		X			X	X	X	Typical
Directives (from Central Office, community, committees, etc.)		X			X	X	X	Typical
Forum to Share Knowledge		X	X	X		X		Typical
Roles/Additional Duties	X	X	X	X	X	X	X	General

Accountability	X	X	X	X	X	X	X	General
ASCA National Model					X		X	Variant
Budgeted Resources	X		X		X			Variant
Group Dynamics	X			X	X	X	X	Typical
Reasons for Knowledge Sharing								
Proactive Services			X			X		Variant
Student-Driven	X	X		X	X	X		Typical
Reactive Services			X	X	X			Variant
Knowledge Sharing Behaviors								
Seeking Knowledge	X	X	X	X	X	X	X	General
Giving Knowledge	X	X	X	X	X	X		General
Formal Verbal	X	X	X	X	X	X	X	General
Informal Verbal	X	X	X	X	X	X	X	General
Formal Written	X	X	X	X	X	X	X	General
Informal Written	X	X	X	X	X	X	X	General
Knowledge Sharing Content								
Student Issues/Concerns	X	X	X	X	X	X	X	General
K-12 Curriculum		X	X		X	X	X	Typical
Community Resources	X	X	X	X	X	X		General
Policies and Procedures	X	X		X	X	X	X	General
Data			X				X	Variant
Interventions	X	X		X	X	X		Typical
School Needs	X	X	X	X	X	X		General
Other		X	X	X	X		X	
Who Knowledge is Shared With								
Agencies	X	X	X			X	X	Typical
Teachers	X	X	X	X	X	X	X	General
Student Support Services Staff	X		X		X	X	X	Typical
School Staff	X	X	X		X		X	Typical
Administrators	X	X	X		X	X	X	General
Central Office					X	X	X	Variant
Counselor Educators				X				
Counseling Colleagues	X		X	X	X	X	X	General
School Committees	X		X		X	X	X	Typical
District Committees					X	X	X	Variant
Professional Organizations			X		X			Variant
Parents	X	X	X	X	X	X	X	General
Students	X	X	X	X	X			Typical

Interns	**X**		**X**					Variant
Counselor in the Building								
School Psychologist		**X**					**X**	Variant
Community			**X**	**X**				Variant
Technology Used for Knowledge Sharing Purposes								
Mass Media Communication Channels	**X**	**X**	**X**	**X**			**X**	Typical
Interactive Communication Channels	**X**		**X**		**X**	**X**	**X**	Typical
Interpersonal Communication Channels	**X**	**X**	**X**	**X**	**X**	**X**	**X**	General
Technology Facilitates Knowledge Sharing	**X**	**X**	**X**	**X**	**X**	**X**	**X**	General
Technology Hinders Knowledge Sharing	**X**			**X**			**X**	Variant