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Impacts of Text Messaging on Adolescents' Communication Skills: School Social Workers' Perceptions

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Impacts of Text Messaging on Adolescents' Communication Skills:

School Social Workers' Perceptions

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MSW Clinical Research Paper

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Abstract

The primary purpose of the present research was to gain a better understanding of how text messaging has affected adolescent communication skills. This research also explored school social workers' perceptions of ways that texting has impacted adolescents' lives. Qualitative interviews conducted with seven school social workers explored perceptions of adolescent communication with school social workers, peers, and families, along with benefits and challenges texting presents in adolescent lives. Findings from this study suggested that texting negatively affects adolescents' communication skills, particularly with regard to face-to-face communication skills, bullying, and teasing. Social workers should be aware of positive and negative effects of texting and of how texting impacts adolescents' communication skills and development.

Keywords: texting, communication, adolescent development, school social workers

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Introduction

As communication through technology-based mediums such as web-based communication and cell phones increases, it is essential to ensure that adolescents ages thirteen to eighteen possess the face-to-face social skills necessary to get by in the world (Tilley, 2009). Cell phones have become a vital social tool and text messaging has evolved into the preferred mode of communication among adolescents (Tilley, 2009). Despite shifts in how communication occurs, it is important for this age group to be able to communicate face-to-face during job interviews, class seminars, and other routine activities that might include ordering from a restaurant menu and other necessary basic communication interactions (Edgington, 2011). Although it is not clear to what degree the communication skills of today's adolescents differ from those of previous generations, face-to-face communication and traditional telephone usage does help people practice their social skills. Prior to the widespread use of cell phones, adolescents experienced firsthand reactions primarily while meeting and talking to people on the phone or in person. They were able to learn from their mistakes and successes while practicing the skills needed for successful face-to-face communication. Many adolescents mistake communication through technology as the same as actual face-to-face communication (Tilley, 2009). This correlation may contribute to, and affect, their ability to communicate face-to-face with one another.

While the long-term impact of technology on the quality of adolescent communication is unknown, it is evident technology has become increasingly present in the lives of adolescents (Subrahmanyam & Greenfield, 2008). Today's generation of adolescents uses communication technologies more than any other generation (Junco & Cotton, 2010). *Texting* is also known as *short messaging services* (SMS) and *instant messaging,* has become

adolescents' dominant mode of communication, exceeding phone calls and face-to-face interaction (PEW Internet and American Life Project, 2012). Reportedly between 66% and 80% of adolescents have cell phones (Durkin, Conti-Ramsdent, & Walker, 2010). Roughly 80% of cell phones have Internet access (Lenhart, 2011). Approximately 63% of adolescents report text messaging an average of 60 times per day (PEW Internet and American Life Project, 2012). Adolescents dedicate approximately 90 minutes daily to text message communication (Subrahmanyam & Greenfield, 2008). Availability of and access to cell phones and social networking have allowed for the replacement of traditional verbal and face-to-face communication methods.

There are many benefits to texting as a means of communication between friends and family. First, texting has become a way to maintain friendships among adolescents and contributes to their sense of well-being. Second, texting allows users ample time to read, write, and edit messages while affording more informal, relaxed, and private forms of communication (Durkin et al., 2010; Subrahmanyam & Greenfield, 2008). Third, texting allows adolescents to stay connected with their parents or guardians at all times. Therefore, texting and instant messaging can be a way for parents to keep track of their adolescents (Osit, 2008; Subrahmanyam & Greenfield, 2008).

Texting has become a medium for teaching and investigating topics or ideas within the classroom environment (Reich, 2008). As a result of constant connection and interaction with technology, today's students think and process information differently than previous generations (Prensky, 2001). To increase overall participation in class, teachers are encouraging the use of texting in the classroom as a teaching tool. Students can text rather than raising a hand and waiting to be recognized. This use of texting could have the potential to increase class participation (Reich, 2008). All the students in the classroom can participate by sending a text, while only a few can be called upon at one time.

Texting in school settings may also support a student's individual transition to university life by maintaining relationships that relate to their everyday life (Harley, Pemberton, Wilcox, & Winn, 2007). School-to-student text communication provides students access to networks of social support and facilitates learning among academic systems at new institutions (Harley et al., 2007). Students can receive text messages giving them information about upcoming events at their school such as games, meetings, and emergency notifications.

Although there are many ways to engage adolescents through texting, many parents and school officials find ways to monitor content, limit usage, and protect adolescents from the possible dangers of texting (Ludden, 2010). The impacts of texting among adolescents can lead to problematic outcomes such as poor school performance, interruption in sleep habits, bullying through text messaging, texting while driving, sexting, and other negative effects on communication skills (Dawson, 2005; Hafner, 2009; Subrahmanyam & Greenfield, 2008). While new methods of technology make communication more immediately available, the extent to which this paradigm shift can add or detract from the overall quality of adolescents communication skills is unclear. According to Edgington (2011), adolescents may have a difficult time being present in the moment because of the constant stream of text messages. It may be difficult to gain adolescents' full attention when they are constantly looking down at their cell phones to read messages. It therefore becomes less likely that adolescents will be completely present in their face-to-face conversations, homework, or family activities while texting or receiving text messages.

Texting impacts adolescents' relationships with family and friends by interrupting family time or helping families stay connected. The research on how family relations are affected by texting is so far inconclusive. However, adolescents' excessive texting with peers may harm relationships with their parents and siblings. According to Subrahmanyam and Greenfield (2008), electronic multitasking "has become pervasive, sometimes to the expense

of face-to-face family interaction, among siblings as well as parents" (p. 135). Adolescents are known to use cell phones to screen calls from parents and to interrupt family mealtime, vacations, and rituals (Subrahmanyam & Greenfield, 2008).

Over the past ten years, technology has become increasingly present in the lives of adolescents. This may be largely due to increased accessibility and prevalence of technology in everyday life (Subrahmanyam & Greenfield, 2008). Because the positive and negative effects of text messaging are not well understood, further examination of the short term and long term effects are indicated. Some specific areas for more study include the short-term effect of texting and how the instant gratification texting produces in adolescents, fuels the need to keep texting (Charman-Anderson, 2009). Another area for further research would be how texting can affect the safety and health of adolescents (Poncelet, 2009).

Some relevant statistics are helpful to further support the evidence of the availability and accessibility of texting. The increasing availability and presence of cell phones has made driving while texting a significant issue of adolescent safety. Texting while driving can be dangerous and even deadly. Road safety and motor insurance surveys have indicated that a large number of people, especially teens, admitted to getting distracted when driving while texting (Wisconsin Department of Transportation, 2012). Almost half of the subjects between the ages of 12 and 17 admitted to traveling in a car when the driver was texting. In 2007 alone, thousands of car crashes in the United States occurred as a result of texting while driving (Naik, 2010). Laws regarding texting and driving are just being developed and implemented. For example, in Wisconsin it is legal for adults to use cell phones but illegal to text. Wisconsin laws affecting novice drivers, usually adolescents, ban all cell phone use for these drivers as of November 1, 2012. The law primarily impacts teen drivers with learner's permits (Wisconsin Department of Transportation, 2012).

A review of the literature suggests that texting has had a definite impact on the adolescent experience. Its specific effect on communication skills has been difficult to understand entirely. The body of literature examining evidence-based knowledge of the effects of texting on adolescent communication skills is limited, a fact that further emphasizes the need for more research in this area. While much prior research has focused on other forms of social media used by adolescents, such as Facebook, MySpace, and other Internet services, little research has been done exclusively on the effects of texting on adolescent communication.

Sexting is another dynamic impacting adolescents' today. *Sexting,* or the sending of sexually explicit messages via cell phone or instant messaging (Poncelet, 2009), is a relatively new way for adolescents to communicate and is facilitated by technology via photos, video, and recordings. Although sexting is relatively new this practice concerns parents due to the potential for explicit pictures to wind up in the wrong hands or sent to a larger audience than initially intended. The practice of sending suggestive and explicit pictures has increased especially among teens and could be considered risky behavior. One example comes from recent research where a group of adolescent girls was surveyed and 51% stated that they felt pressure from boys to send explicit messages (Matte, 2012).

Texting is an activity available to adolescents 24 hours a day, and it can therefore interrupt an adolescent's daily life. This constant availability can result in inadequate amounts of sleep and can affect both school performance and relationships. Adolescents typically need nine hours of sleep a night to perform adequately in school (Dawson, 2005). Many adolescents will stay up late texting friends without their parent's knowledge. Wolfson and Carskadon's (2003) research indicates that there is a strong correlation between shortened and interrupted sleep time and poor academic performance, and that it can be detrimental in many ways, such as endangering other drivers.

School social workers have witnessed both the positive and negative effects of texting on adolescents. They are uniquely positioned to help adolescents understand the effects texting has on their lives. Social workers are then able to help adolescents safely navigate their environments and to teach the communication skills necessary to be able to successfully interface with others. Teaching adolescents the importance of face-to-face communication may be beneficial to the healthy development of identity and lifelong communication skills. In the field of social work, communication is seen as an integral part of the human experience. Social work professionals attempt to improve the lives of adolescents by helping them to develop healthy and effective ways of communicating their needs, desires, and dreams. It is vital that social workers are at the forefront of teaching these new communication skills.

School social workers need to be aware of the effects of texting on adolescents in their communities. They need to understand both the positive and negative influence of texting on this group. School social workers must understand how texting affects adolescents in order to provide guidance. School social workers' understanding of how texting affects adolescents will shape their ability to guide students in this new frontier.

Literature Review

To better understand the impact of texting on adolescents, it is important to introduce the definitions, theories, and research relevant to better understanding the relationship between adolescents and text messaging. Excessive texting and social networking among adolescents has motivated this researcher to investigate the effects of texting on emotional and social development. First, technological terms that relate to texting and instant messaging will be defined. Second, relevant definitions and normative theories of development shall be discussed along with face-to-face communication skills. Third, seven studies will be reviewed in order to create a foundation from which to view adolescents and the effects of texting on their lives and communication skills, along with the foundational knowledge of adolescence presented in the work of Sigmund Freud and Erik Erikson. This review will also broadly examine implications for social work practice and include a statement of study for this specific piece of research.

Definitions

The language and technology surrounding text messaging is specific and therefore requires further definition. Within theoretical research literature, *text messaging* is defined as the exchange of brief messages through technology use (Tilley, 2009). That encompasses texting, short message service (SMS), and use of the social networking service Twitter over a cellular telephone network, and messages that sent to both individuals and groups. Adolescents have embraced short messaging service, also known as (SMS a mobile phone–based text messaging system, instant messaging (IM), and computer-based text chat systems (Tilley, 2009). The term *SMS* is used interchangeably with *texting*, *sending text messages*, and *text messaging* (Fendelman, 2012).

Adolescents have in effect created their own language. Text messaging often makes use of textual shortcuts because users are restricted to 160 characters (hence the name "short

messaging system"). Some cell phones have full keyboards for faster texting, while others require multiple taps of a number key to achieve a particular letter (Fendelman, 2012). Text messaging has developed its own language that is often referred to as text-speak or "textisms" (Durkin et al., 2010). Text language is distinctive; its foundations are rooted in the principles of the written language but contain features of the spoken language (Durkin et al., 2010).

Text messaging has brought convenience and quickness to our society. Text language could be seen as a book of shorthand. Users generally shorten words by dropping vowels or endings or by using single letters, numbers, symbols or combinations as a replacement for letters, syllables, or whole words (Durkin et al., 2010). For example, words are shortened (e.g., *Wed* rather than *Wednesday*), letters are removed (e.g., *goin* for *going*), acronyms are inserted (e.g., LOL for *laughing out loud*), and symbols are used to replace words (e.g., *&* instead of *and*). Sequences of characters, such as joining a colon, a dash, and a right parenthesis, are used to create "emoticons" that express emotion, and letters are capitalized to express strong emotions.

Table 1 shows some basic emoticons and their meanings. Table 2 gives some common abbreviations used in text messaging (Russell, 2002). These emoticons and abbreviations are used to enhance communication while texting.

Table 1

Emoticons that are Commonly Used While Texting

Emoticon	Definition
:-)	Smiling face
;-)	Smile with a wink
:-(	Frown
:-#	My lips are sealed
:-D	Laughing
:-O	Shocked
B-)	Cool
:-@	Screaming
:P	Sticking tongue out
:/	Confused

Note. This table includes common emoticons used in text communication (Russell, 2002).

Table 2

Abbreviations that are Commonly Used While Texting

Shorthand	Definition
AAMOF	As a matter of fact
AFAIK	As far as I know
BTDT	Been there done that
BTW	By the way
BRB	Be right back
F2F	Face-to-face
G2G (GTG)	Got to go
IKR	I know right
IDC	I don't care
IDK	I don't know
LMHO	Laughing my head off
LOL	Laugh out loud
ROTFL	Rolling on the floor laughing

Note. This table includes common shorthand abbreviations and definitions used in text communication (Russell, 2002).

History of Instant Communication

The origins of instant messaging can be traced back to the 1970s, when early forms of IM appeared in systems such as Programmed Logic for Automated Teaching Operations (PLATO), in which messages were carried over private networks (Instant Messaging Research Articles, 2011). Another early form of instant messaging, IM Internet Relay Chat (IRC), created in 1988 by Jarkko Oikarinien, allowed many users to communicate with each other (Instant Messaging Research Articles, 2011). The advent of IRC allowed users to send and receive short text messages in real time while performing other tasks at the same time. While this technology was initially intended for business purposes, it has found its way into mainstream use and was embraced by adolescents for the ease and privacy it affords users (Instant Messaging Research Articles, 2011).

Normal Adolescent Language Development

According to research done by the Pew Internet and American Life Project and the National Commission on Writing (2008), 700 youth ages 12 to 17, along with their parents, were polled, and 64% of teens admitted to using shortcuts and symbols regularly in school assignments. The study also revealed that although adolescents are rooted in text messaging,

adolescents overall do not feel that texting is a form of writing (Lenhart, Arafeh, Smith, & Macgill, 2008). The study also revealed that 50% of adolescents admit they sometimes use informal writing styles and punctuation instead of proper capitalization and punctuation in school assignments (Lenhart et al., 2008).

Adolescent development is a process that evolves through learning from experiences. Adolescents go through a significant developmental period from childhood to adulthood. Normal development affects all domains, including the physical, emotional, cognitive, and particularly environmental and social domains. The capability to use conceptual or abstract thinking improves during adolescence (Novak, 2002). Adolescents increase their ability to think about their own thoughts and regulate their thinking (Novak, 2002). Abstract thinking skills relate to time and space: for example, thinking about what someone else is thinking about and making decision about "what if" situations (Rice, 1990). During this time adolescents also demonstrate growth in linguistic competence, which is defined as the increased ability to use and understand the abstract meaning of words, concepts, and figurative language such as metaphors (Novak, 2002). The ability to adjust speaking styles according to audience needs and to control and reflect on the ideas that are conveyed also develops in adolescence (Novak, 2002). Adolescents are able to modify their communication to fit the listener's viewpoint (Novak, 2002).

Text messaging may limit opportunities for social interaction for adolescents who are specifically language impaired. In one research study, Durkin, Conti-Ramsdent, and Walker (2010) compared text use and literacy abilities between 17-year-old typically developing (TD) adolescents and in specifically language impaired (SLI) adolescents ($N = 47$ TD; $N = 47$ SLI). To measure this they administered standardized assessments of cognitive language and literacy abilities. Participants were also asked to send a text message and reply to texts sent by an experimenter. The experimenter texts consisted of "it would be great if you would

reply" "What do you usually do on Sat?" This text was sent to avoid yes-or-no answers. The adolescents with SLI performed significantly lower than the TD adolescents not only on measure of language, but also on measures of literacy.

The research indicated an association between text language use and literacy abilities indicated by the choice to return the text message, the structural features of the text, and the use of text language. The research also suggests that for adolescents, text messaging is the main way of keeping in touch with friends. SLI adolescents are less likely to participate in social networks and connect with peers, therefore reducing the social opportunities that are so vital to adolescent development (Durkin et al., 2010). This study is relevant to the current research because it shows how specifically language impaired adolescents can feel intimidated by texting. This could hinder and interfere with the SLI adolescents' ability to connect with peers through texting. Therefore communication opportunities with peers become limited, which could affect gaining self-confidence.

Research that was collectively reanalyzed in a study done by Grinter, Palen, and Eldridge (2006) revealed that adolescents are communicating with their peers mainly through SMS, a mode of communication that influences adolescents at a time in their lives when they are focused on forming identity. This study contributes to an understanding of adolescent electronic lives. Findings analyzed from the SMS literature state that although they are different types and styles of usage, both SMS and IM serve adolescent communicative needs (Grinter et al., 2009). Building knowledge about the use of instant messaging among adolescents, the study examined how their features shape social practice. Technology is being used at home in ways researchers are just starting to understand. Everyday family life, technological choices, and economics play a part in how technology fits into home life. The new challenges that SMS and IM add to domestic communication will influence the research

of future studies, especially how the information itself is gathered and analyzed (Grinter et al., 2009).

Face-to-Face Communication

Nonverbal communication can be an important part of developing healthy attachments. Bowlby (1969) describes "facial expression, posture, and tone of voice" as the essential vehicles of attachment communications between the developing self and the primary caregiver. Scaer's (2005) research regarding client–therapist relationships states that many characteristics of social interactions are nonverbal. These nonverbal interactions consist of slight variations of facial expression that set the tone for the content of the interaction. Body postures and movement patterns may also reflect emotions. Tone of voice patterns and speed of verbal communication and eye contact also contain elements of subconscious communication. These aspects of communication are not present in text messaging.

Facial Cues and Communication

Facial cues and personal relationships affect development throughout one's lifetime. Facial cues are not present in text communication. According to theoretical research done at the University of California, the human face has a way of helping individuals see what is behind interactions (Blum, 1998). Individuals are programmed to read faces. The ability to recognize emotions and facial cues is inborn; a smile is recognizable and scientifically measured in the originator's left frontal cortex (Blum, 1998). Siegel (1999), states that if the capacity of the mind to adjust remains into adulthood, then the emotional relationships we have throughout life may be seen as the medium in which further development can be fostered. Siegel's theory emphasizes the importance of personal relationships throughout life. Attachment relationships and other forms of close, emotionally involving interpersonal connections may serve to allow synaptic connections to continue to be altered even into adulthood (Siegel, 1999). Research states that humans universally recognize six different

expressions in the context of face-to-face communication that seem to be hardwired. They are anger, fear, sadness, disgust, surprise, and happiness (Blum, 1998). Face-to-face communication can impact a person's self-esteem, and engaging in face-to-face communication builds trust, lowers status barriers, and assists in personal relationship building (Keller, 2009).

One study, conducted by Besel and Yuille (2010), researched the relationship between types of empathy and emotion recognition. Accuracy and recognition of facial expressions in adolescents is the first step to considerate and appropriate responses when interacting with others. The research investigated individual differences in empathy and emotion recognition. The researchers recruited 135 participants (98 females and 37 males), of whom 93% were between the ages of 18 and 23. Respondents were presented with pictures of random faces and given personality questionnaires. The questionnaire asked respondents to choose emotions from a list to fit the face in the picture they were viewing. The hypothesis was supported in that social skills were the related factor and empathetic concern was not. Research indicated that difficulty in reading expressions was related to impaired basic social understanding (Besel & Yuille, 2010). While this study demonstrates the importance of face-to-face communication, it also establishes an understanding that face-to-face communication offers benefits that texting may not.

A corpus analysis done by Riordan and Kreuz (2010) states, nonverbal cues, such as eye contact, vocal intonation, and gestures, can give insight into personality. Cues are available that attempt to express emotion in computer-mediated communication, but it was unclear whether users of computer-mediated communication could adapt to this environment without emotional face-to-face cues. These cues include emoticons such as ☺ or :) and ☹ or :(, which can express happiness or sadness (see Table 1). According to Riordan and Kreuz

(2010), there are many different emoticons used to express different emotions (Riordan & Kreuz, 2010) (see Table 1 of common emoticons).

First, findings suggested that the more cues that were contained in a message, the stronger the recipients interpreted the sender's emotions. Second, findings suggested that the cues that correlate with online friendships allowed users to exchange social and emotional information. This could indicate that cues are influential in developing online relationships. Third, when computer-mediated users were shown text without emoticons, most users could not determine the senders' intentions. However, when emoticons were present in the text, participants significantly changed their perceptions of the senders' attitudes. This indicates that the cues may decrease vagueness in messages that do not show emotion (Riordan & Kreuz, 2010). Adolescents attempt to express emotions through the use of text messaging. Whether emoticons are able to directly replace the emotion present in face-to-face communication remains an unanswered question.

In another study including 280 high school students, Pierce (2009) stated that interactive technology enables users to avoid face-to-face communication. The research specifically examined the role of social anxiety in how teens communicate with others. General use questions were asked about various socially interactive technologies. Respondents were asked self-report questions using a Likert scale. Statistical analysis performed used various measures, including a t-test analysis, revealed a positive relationship between not feeling comfortable talking with others face-to-face and talking with others online. The study showed that users experienced positive feelings and lack of social anxiety while talking with others online via text messaging. Females revealed that they felt more comfortable than males using text messaging rather than talking face-to-face (Pierce, 2009). If a shy person feels more comfortable with using technology rather than face-to-face

communication, the interactive technology may become a way for the socially anxious person to avoid interacting (Pierce, 2009).

Pierce's (2009) findings suggest that teens are using socially interactive technologies to communicate with others and that social anxiety is influencing this use or serving as a substitute for face-to-face communication (Pierce, 2009). Adolescents tended to prefer texting because it allows for more control over the social interaction (Pierce, 2009). Users had the capability and the time to think about what they want to say without the added context of the social situation (Pierce, 2009). Text messaging was a way for adolescents to feel connected with peers without the anxiety face-to-face communication can produce. On the other hand, the lower anxiety level text messaging encouraged adolescents to say or do things that may have been detrimental to their relationships and that they might not have said or done during face-to-face communication.

Technology-Based Communication

Three research studies that have explored the effect of technology-based communication on the adolescent experience and communication reveal that technology has had an effect on their lives. In one study, Ho and McLeod (2008) examined the social psychological influences on opinion expression in face-to-face and computer-mediated media suggests that computer-mediated communication may avoid some of the dysfunctional social psychological influences found in face-to-face interactions. Ho and McLeod (2008) posed the question of whether individuals who were asked to speak in a face-to-face setting were less likely to express their opinions than those asked to speak out in a computer-mediated communication setting. A total of 352 randomly assigned undergrads were given an online questionnaire. Statistical analysis determined that there was a strong support for the hypothesis indicating that respondents were more reluctant to express opinions face-to-face than while using computer-mediated communication (Ho & McLeod, 2008).

Obtaining reliable and accessible sexual health information can be intimidating to adolescents. Adolescents report they have found barriers to obtaining information about sexual health (Selkie, Benson, & Moreno, 2011). One study showed how technology was used to obtain sexual health education by removing the barriers to obtaining the information. Focus groups of adolescents between the ages of 14 and 19 were formed were asked for their views regarding social networking sites and text messaging for the purpose of getting sexual health information. Tape-recorded interviews were transcribed and evaluated to determine the results.

Twenty-nine adolescents participated in the study. Most of the participants in the study were females (65.5%). Three themes emerged from the data. First, adolescents preferred sexual health information that was accessible. Second, adolescents preferred online sources that were trustworthy. Third, adolescents discussed preferences for safe resources (Selkie et al., 2011). Adolescents identified the potential technology had to be able to provide sexual health education in an interactive format (Selkie et al., 2011). Adolescents also discussed a preference for getting answers in a way that involves personal communication; something that text messaging could readily offer (Selkie et al., 2011). The use of text messaging in order to receive reliable information about sexual health could be helpful to adolescents in need. Adolescents may not seek out answers to sensitive sexual questions from face-to-face sources that do not offer the privacy of text messaging.

Although many developmental theorists give reasons why texting is so prevalent among adolescents and explanations of how it impacts their social skills, it is also important to understand the internal processes that occur during adolescence and further explain the reasons texting is so prevalent and popular among this age group (Grinter et al., 2009; Ho & McLeod, 2008; Pierce, 2009).

Conceptual Framework

This section explains the mission of adolescence and Erik Erikson's developmental theory of the stages of psychosocial development, and then discussed the theory in relation to the effects of texting on adolescent communication skills. The researcher's personal experience with texting and adolescents, and her professional experience working with adolescents in a high school setting were discussed. The examination of these three areas provides a deeper understanding of the developmental stages of adolescent individuals and how texting could impact their development during this stage.

Developmental perspectives were used to describe Freud and Erikson's theories. According to Hutchison (2008), developmental perspectives are how human behavior unfolds across the life course. Human development occurs in clearly defined stages and is seen as a complex interaction of biological, psychological and social progression (Hutchison, 2008).

Biological Changes during Adolescence

The hormonal changes that come with the onset of puberty, paired with the internal stress of rapid physical growth as well as sexual maturation and curiosity, can make adolescence an especially challenging and volatile time for many youth (Osit, 2008). The start of puberty is the generally thought to be the start of the adolescent stage. The exact age at which adolescence begins varies slightly among girls and boys. Puberty traditionally begins between the ages of eleven and thirteen (Berger, 2001). It is during this stage that the adolescent begins to explore their possibilities and define their own sense of identity. Developmental tasks of the adolescent involve identifying, evaluating, and selecting various roles for their adult life. In order to achieve a unique identity, a sense of both uniqueness and sameness are required (Hamman & Hendrick, 2005). For example, adolescents may explore their independence through texts to friends while staying connected to more familiar ways of being through texts to parents for advice. Adolescents can also explore their independence by

not being in close proximity to their parents or guardians but still keeping in regular contact with them through texting.

Psychosocial Theory of Development

Erik Erikson's psychosocial development theory Eight Stages of Man (Erikson, 1968), provides a lens through which to view adolescent development tasks and challenges. Erikson's theory, particularly the first five stages from birth through adolescence, could be seen as a continuation of Sigmund Freud's five stages of psychosocial development, which also cover development from birth through adolescence (Parrish, 2009). Freud's stages of psychosocial development were compared with the development of certain parts of the body that focus on pleasure or stimulation. Freud focused on the conflicts that result from unresolved issues related to each stage in childhood. He believed that if a child experienced a struggle in resolving the mission associated with each stage, this would result in fixation or being focused on that stage or corresponding part of the body, which would then result in an unhealthy development of the person. Freud also believed that these stages were completed by adolescence (Parrish, 2009). Erikson's and Freud's theories focus on sexual development. Erikson built on Freud's theories and focused more on psychosocial development across the entire lifespan (Parrish, 2009). Both theorized that the individual resolved, achieved, and worked through the stages with the aim of completing the task of a particular stage in order to go on to the next. This would suggest that individuals stay in a particular stage until they reach the resolution they need to be able to move forward (Erikson, 1959). Today the idea of stages of development is good in theory. It is widely acknowledged that adolescents may be working on a goal that pertains to more than one stage at a time. Stage theory is less clear and linear than previously assumed.

Erikson's Adolescent Development and Identity

Erikson's eight stages of psychosocial development are based on the idea that people's personalities continue to develop over the course of their lives based on their successes in negotiating eight life stages (Hutchinson, 2008). A brief description of Erikson's stages will provide helpful context about the stages and how they affect the adolescent. According to Erikson, healthy development depends on the mastery of life tasks at the right time in the sequence (Hutchinson, 2008). Erikson's stage theory combines societal influence on development as well as biological factors. In each stage there is potential for personal growth or failure.

Erikson divided the life cycle into eight stages, each with a specific psychosocial crisis. Stage one includes (birth to one year) includes *basic trust vs. mistrust*, and during this stage the individual learns to trust others by getting their basic needs met therefore they will learn to trust others. Stage two includes (ages two to three) includes *autonomy vs. shame*, and during this stage the individual completes the developmental task of controlling and directing one's own behavior. During this stage the individual will either become independent or, if the stage is not completed, learn self-doubt and shame. Stage three (ages three to five) includes *initiative vs. guilt,* and during this stage the individual completes the task of controlling one's own behavior and acting appropriately in situations. If the task is completed, the individual develops initiative; if this task is not completed, the individual will feel irresponsible, anxious, or guilty. Stage four (ages six to 12) includes *industry vs. inferiority,* and in this stage children begin to develop a sense of pride in their accomplishments in learning new tasks and skills. If this stage is not completed, the individual will feel incompetent.

During adolescence independence is explored in order to develop an identity. According to Erikson Stage five is when this occurs. Stage five (ages 12 to approximately 18) includes *identity vs. role confusion,* in which the adolescent is figuring out who they are and

what they want out of life and their own identity. If this task is not completed, they may become confused or withdrawn. This developmental stage is when texting is prevalent.

Stage six (early to late 20s), includes *intimacy vs. isolation;* in this early adulthood stage, the developmental task is being able to share one's own identity with another in a committed relationship. If this task is not completed, isolation occurs. Stage seven (late 20s to 50s includes *generativity vs. stagnation*; this stage involves being able to be produce something that makes a difference to society. If this task is completed, the individual will be able to feel productive and that their life is meaningful. If the stage is not completed, inactivity and a sense of meaningless of existence can occur. Stage eight (late adulthood) involves *integrity vs. despair.* Upon completion, this stage consists of a sense of having had a meaningful life. If the task is not completed, the individual may fear death and struggle with wondering if their life had meaning (Hutchinson, 2008).

Erikson's concept of the state of identity vs. role confusion, or stage five in the developmental process, will be discussed and summarized in relation to the proposed study. Erikson's research states that the search for identity is a basic human need (Berger, 2001). The process of developing an adolescent identity helps with the formation and development of an adult identity later in life. Normal adolescent development affects the physical, cognitive, and social areas of the individual (Novak, 2002). All of the developmental areas are involved in the transitional time of adolescence (Novak, 2002). Therefore, the internal developmental process that adolescents experience includes the adolescent's need to feel connected and the urgent sense of belonging with peers (Berger, 2001).

Independence or separation from the experiences of childhood is needed in order to form a new identity separate from one's parents or caregivers (Berger, 2001). This independence from parents and caregivers makes way for the development of more meaningful relationships with peers. Separation in childhood, for example, is when children

first discover that they are unique and separate people from caregivers and other siblings. In adolescence, however, separation is a time in which adolescents distinguish themselves and build on the functions of childhood. During separation, adolescents begin to understand that they are no longer the same people they were during childhood: they begin to look different, sound different, and interact with their world in a different way. During adolescence, youth learn to be more responsible for themselves and no longer rely on caregivers for tasks like personal hygiene, eating, sleeping, or reminders to do schoolwork. While the tasks of separation occur progressively and throughout the course of adolescence, adolescents are becoming more autonomous, developing identity, finding intimacy and exploring sexuality (Subrahmanyam & Greenfield, 2008). Texting is a way for adolescents to develop their own identities by connecting with peers. They have some control over what kind of identity they want to have within their peer group.

Normative psychosocial development helps the adolescent eventually attain adult status and maturity (Berger, 2001). *Internal schema,* which is an internal self-portrait, is also developed during the adolescent years (Osit, 2008). Erikson states in his developmental theory that adolescents are trying to understand how they relate to the world (Hamman & Hendricks, 2005). According to Erikson, if this process is hindered, the adolescent becomes confused about who they are and what their role is (Hutchinson, 2008). Adolescents have an increased need for peer relationships (Hutchinson, 2008). This increased need for peer relationships may be one reason texting is so popular among adolescents. Adolescents are motivated by a need to feel a sense of belonging and sameness (Pierce, 2009).

Erikson (1968) has noted that adolescents search for belonging and sense of self in their peer group and look to their peers to navigate their developing identity. Research states that texting continues to be the dominant mode of communication among adolescents, and therefore there is a need to understand how this is affecting adolescents' sense of belonging

and identity and their ability to effectively communicate with their peers and others in their lives.

Personal and Professional Lens

The current study originated from this researcher's personal interest in adolescent texting and communication skills. As a developing clinical social worker who will inevitably work with adolescents and young adults, and as a mother of four children who is and will be affected by the prevalence of texting, this researcher believes that research on this topic is extremely relevant and important. This researcher has recently completed a clinical placement at a high school, and texting was prevalent among the students there.

Today's youth need to be able to connect with others in a meaningful and valuable way. If social workers are aware of and understand the ways in which youth are able to do this, and of how texting affects them and their ability to form relationships that will affect them into adulthood they can make a positive impact in their lives. As the use of social networks among teens increases, and as research continues to demonstrate that teens are using social networks to maintain existing friendships from their off-line life, there is a need to understand how texting can influence teens' safety and security as well as the communication skills they are developing—or not developing—because of these technologies.

Methods

Research Design

The purpose of this qualitative study was to better understand what effect texting has on adolescent communication skills. This *qualitative research design*, which involved participants describing their world in their own words (Berg, 2009), was chosen because the research was focused on communication skills and trying to understand the affects texting had on adolescent communication skills as seen through the eyes of school social workers. Seven semi-structured interviews were conducted. Eight predetermined, open-ended questions were asked in order to allow space for the researcher to ask follow-up questions (Berg, 2009). Use of a qualitative method of research allowed school social workers sharing their perspectives, experiences, and voices, and contributed to making the research process more collaborative.

Protection of Human Subjects

Prior to any contact with participants or data collection, the research proposal was reviewed by a number of individuals to ensure the protection of the participants. This proposal was reviewed by committee members. The committee reviewed and approved the goals, design, and methodology of the research.

At the time of the interview, this researcher verbally went over the consent form and discussed the sensitivities of the subject (see Appendix A). This researcher informed participants that they may stop their participation in the research at any point during the interview and up to one week after the scheduled interview time by contacting the researcher by e-mail or phone. The participants were also informed that they could skip any questions within the interview schedule and that participation in this research was completely voluntary (see Appendix C). In addition to the discussion of confidentiality within the consent form, this researcher described the steps that would be taken to ensure that participants' data remain

confidential. At the end of interview process, this researcher provided participants with a list of mental health and texting-related resources that were available for psychoeducation and therapeutic support following participation in the study, (see Appendix D). This list was provided in the case that participation in this study caused emotional distress for participants by answering questions related to how adolescents' communications skills are affected by texting. To ensure the protection of participants, this research was reviewed and approved by the research committee and University of St. Thomas Institutional Review Board (IRB) prior to any contact or outreach to potential participants. An expedited level of review was required for this study, meaning that two IRB members in addition to the IRB chair examined this study.

Data Collection

The method of data collection for this study was semi-structured interviews, which lasted between 20 and 60 minutes. The interview consisted of eight open-ended interview questions (see Appendix C) that were reviewed by the research committee and University of St. Thomas Institutional Review Board (IRB). The interview questions were developed by this researcher for the purpose of this particular study and were based on qualitative interview questions and studies from previous adolescent and instant messaging literature (PEW Internet and American Life Project, 2012).

To ensure the protection of human subjects, the researcher interviewed participants in a private location of their choosing in order to make participants more comfortable. Interviews were audio-recorded and then transcribed on the researcher's computer into a password-protected folder. In order to protect participants' information, no identifying names were audio-recorded.

After the interviews were conducted, this researcher personally transcribed each interview using a handheld recording device. This allowed the researcher to listen to the

audio recording of the interview while typing the context of the interview on the personal computer. The researcher then went through the transcript manually to ensure accuracy. The researcher numbered the interviews and referred to them by number during data analysis to ensure confidentiality of the participants. The recordings will be kept in a locked cabinet at the researcher's home until June 1, 2013, at which time the audio recordings will be destroyed.

Data Analysis

The researcher used content analysis with an interpretative approach in order to examine the transcribed text gathered from the interviews. *Content analysis,* a systematic examination of a body of material in order to identify patterns, themes, biases, and meaning (Berg, 2009), allowed the themes and meaning to come from within the transcribed text and then be compared to the current literature. The interpretative approach also suggests that the data will be interpreted through the theoretical framework that is driven by both the researcher and state of the literature (Berg, 2009). Data reduction analysis was used to move from the specific accounts within the transcribed data to a more general interpretative organization of themes and meaning. This researcher used the examination process of context analysis and the language terminology form to identify meaning from the data. Themes and subthemes rose from the questions asked during the interviews. The themes were present in all the interviews, while the subthemes varied among participants. The findings section will explore the data, and the discussion will compare it to the current literature.

Sample

The researcher recruited participants through purposive sampling, which is a nonprobability sampling technique in which researchers use their judgment and prior knowledge to choose people for the sample who best serve the purposes of the study (Monette, Sullivan, & DeJong, 2011). A list of Wisconsin and Minnesota school social

workers was obtained through the Wisconsin School Social Worker Association and the Minnesota School Social Worker Association. Possible participants were contacted for recommendations and as possible research participants though an initial e-mail. After the first interview, the researcher was able to use snowball sampling and convenience sampling to recruit participants. *Snowball sampling* is a nonprobability sampling strategy in which participants are asked to identify other potential participants at the conclusion of their interview (Berg, 2009). *Convenience sampling* relies on available subjects who are close at hand or easily accessible. At the initial contact, this researcher sent out an e-mail or made a phone call to potential participants providing them with information about the study. The information included the Letter of Recruitment and Introduction (Appendix B), Letter of Informed Consent (Appendix A), and the Interview Questions (Appendix C). Upon reviewing the information and agreeing to the informed consent, the researcher and participant set up a time with the researcher for the interview to be conducted.

The researcher interviewed seven Wisconsin school social workers. The current sample included seven female Wisconsin social workers ($n = 7$); participants worked in suburban and rural school settings in grades five through 12. Five of the school social workers were in suburban school settings and two in rural settings. The school social worker participants had experience that ranged from five to 18 years.

Findings

The current research aimed to gain an understanding of the effect text messaging had on adolescent communication within their lives, with people they engaged with, as perceived by school Wisconsin social workers. In this findings section, the five findings that emerged from the data will be described. The five main themes that emerged from the data were (1) communication with school social workers, (2) communication with peers, (3) communication with family, (4) skills, and (5) life comparisons. Each of the themes and subthemes will be discussed in this section. Table 3 illustrates the effects texting had on adolescents' communication and the corresponding themes and subthemes.

Table 3

Themes, Subthemes, and Sample Responses among School Social Worker Respondents

Theme	Subtheme Sample Response
Theme 1: Communication with school social workers	
Convenience	"Texting has been a helpful tool for me I can give a quick positive reinforcement or encouragement through a text."
Bullying and teasing	"They don't realize how quickly they can hurt each other and how fast it can spread with texting."
Emergency situations	"They will call me or text me and say one of their friends is talking suicide."
Theme 2: Communication with peers	
Inappropriate connections	"Texting comes up in negative aspects with bullying and harassment, peer-to-peer conflicts."
Face-to-face connections	"Actual texting causes them to lose that face-to-face interaction, but when they actually are engaging in face-to-face they are being interrupted by someone texting them."
Connections at school	"Shy kids may be more willing to text a classmate a question about school or to hang out."

Theme 3: Communication with family

Enhanced communication	"I think it allows them to stay in touch more, and parents are able to check on their son or daughter quite easily."
Decreased communication	"There is too little communication happening between parents and their adolescents because of the technology that we have everywhere."

Theme 4: *Skills*

Deficits in skill development	"The shortening of words and slang spelling, some adolescents' writing skills are affected by that."
Avoidance	"I think texting allows them to avoid a lot of challenging situations which are really the situations where you have to learn how to communicate."
Conflict	"Lots of drama seems to occur among friends through texting."
Application to life skills	"Texting could affect their ability to make decisions about the people they come in contact with. It will affect them later in life when they are trying to get a job or work with others, they may not have the social skills necessary to communicate successfully."

Theme 5: Life comparisons

My life	"With a land line, for example, our parents knew that we were calling from our girlfriend's if they called the girlfriend's house and the parent picked up and said, 'No, Suzie ain't here,' you had concrete evidence. It is hard to track electronic devices that way."
Their life	"In my generation we would be writing notes in class, and so in a note you wouldn't have written secrets or things you knew. There was a chance the teacher might catch you, so you probably wouldn't put your most private secrets in a note, but sometimes kids did. Now it's this whole cyberworld where anything goes."

Note. This table includes the themes and subthemes that evolved from this study. Sample responses for each subtheme are provided in this chart.

Texting Communication with School Social Workers

All of the respondents (*n* = 7) reported communicating with their clients through face-to-face meetings, group sessions, phone calls, and e-mail contact. A slight majority of school social worker respondents reported that they used text communication with their student

clients (*n* = 4; 57%). The number of respondents who did not use text communication with their student clients was slightly lower (*n* = 3; 43%). When analyzing the data on communication with school social workers, three subthemes emerged: convenience, bullying and teasing, and emergency situations.

Convenience. Texting as a convenience was seen by the respondents as a way for parents and their adolescent to keep in contact quickly and easily. Texting as a convenience was stated six times throughout the interviews by respondents. Respondents stated texting as being quick communication, it can be used 24/7, and there was no need to leave to find a phone at a basketball game, or in a movie or a restaurant. "*It is a quick and simple way of communicating, it is easy for adolescents.*" Another respondent stated that, "*If a teenager needs an answer from a parent like can I go to the basketball game they don't have to wait until the parent gets off work they can text them.*"

Bullying and teasing. Bullying and teasing through text messaging emerged as a subtheme over the course of four separate interviews. One participant explained how, over the course of texting, things could get quickly out of hand. She noted how, in the past, students had bullied and teased one another without realizing how much damage they inflicted upon others: "*They don't realize how quickly they can hurt each other and how fast it can spread with texting. It gets out of hand for them very quickly.*" Another respondent indicated that she has seen texting used as a medium for bullying and teasing: "*Texting is a huge opportunity for being bullied and teased. You open the door to all things that include a way for adolescents to get inappropriate things out, thinking no one is going to see.*

Emergency situations. The helpfulness of text messaging during emergency situations came up during two interviews. One participant noted that she used text messaging to help in suicide prevention among her students, who would text if they felt they or their

friend was in danger of suicide and/or needed help assessing the situation and to get

resources:

> *Situations where suicide is usually a strong concern, they call me or text me and say one of their friends is talking suicide or writing suicide on their Facebook or Tumblr. They are very concerned and wondering what course of action they should take, and so they are seeking advice and resources that way, usually they give me a little more detail and there is a dialogue back and forth and I give them the appropriate method, all through texting. I then follow up with them personally, usually the next school day.*

Another participant, who was working with a student who had an abusive father, indicated

that she relied on texts in her communication with this particular person: *"Sometimes she*

needed to leave home, and she lived outside of town and didn't have neighbors and her mom

worked nights, so if a situation came up where she needed transportation to somewhere safe

she could text me."

Texting Communication with Peers

Within the second main theme, the effect of texting on peer communications, all

seven respondents agreed that texting was the preferred method of communication among

adolescents and across peer-to-peer communication. Subthemes found within this theme were

inappropriate connections, losing face-to-face connections, and connections at school.

Inappropriate connections. Bullying and sexting were some of the inappropriate

connections mentioned by respondents. The majority of respondents ($n = 5$; 71%) stated that

they felt the use of text messaging contributed to inappropriate connections among peers. All

five respondents who spoke about how texting led to inappropriate connections indicated that

they did not believe adolescents understood the larger implications or the public nature of

their text messaging. One respondent provided an example of adolescents' lack of awareness

of situations in which text messages were inappropriate, stating, "*I have had meetings with*

students about the appropriate use of cell phones and what the implications are that can

occur through texting, such as texts that contain sexual content or pictures." Another

respondent explained, "*Texting has created a false sense of confidence in people: they feel they can do things electronically that they might not otherwise do.*"

Face-to-face connections. Participants mentioned losing face-to-face communications because of texting five times during the interviews. Each of these respondents said that they felt texting was detrimental to adolescents' social development because no face-to-face connection occurred. One respondent noted that texting had contributed to adolescents' decreased or lost face-to-face connections with one another. This respondent stated,

> *I think the texting alone causes them to lose that face-to-face interaction, but when they are actually engaging face-to-face they are being interrupted by someone texting, so it seems they are never really fully present in their interactions.*

Another respondent noted the lack of eye contact among adolescents and stated, "*When I am dealing with students, eye contact is almost nonexistent, you know, they are looking down, they don't engage anymore.*"

Connections at school. Texting was used as a way for students to ask peers for help with homework, or for shy kids to reach out. Four respondents stated that texting was a way for students to connect with others. One of those ways was by reducing the anxiety of not having to talk face-to face. One respondent indicated that texting was a way in which shy students reached out to others at school when they might not have done so in person:

> *If they are shy they might be willing to text a classmate a question about school or to hang out, so there are some positives, ways that it might open some doors for students who don't like the face-to-face interaction.*

The text connections at school were mostly in relation to peer-to-peer interactions. One respondent who said she communicated with students by text during emergency situations stated,

> *I don't give out my number, but you know it is one of those things that becomes public knowledge. I can't prevent it, I just have very stern boundaries. I think technically they are not supposed to have my number.*

Texting Communication with Family

Within the third theme, the effect texting had on family communication, the subthemes found were enhanced communication and decreased communication.

Enhanced communication. Text messaging was seen as enhancing communication for the majority of respondents. Six respondents (86%) agreed that texting enhanced communication between parents and their adolescent children. Each of these respondents indicated during their interviews that they saw texting as a quick and easy way to exchange relevant information. These respondents reported that with adolescents' lives being so full and busy, texting helped families know where each other were and where they needed to go. These respondents further expressed that texting allowed parents and children to keep in contact easily. One respondent stated,

> *Texting can be so helpful for parents; I know it is helpful to me when I am trying to communicate a quick message to my kids. I think it is an easy and convenient way for parents to keep in touch with their kids.*

Another respondent noted it was easy for parents and their children to stay in touch, stating,

> *I think it allows them to stay in touch more, and parents are able to check in with their son or daughter quite easily with just a simple text, and if the adolescent is not willing to phone home and let them know every place they are, they may be willing to send their parent a text to let them know what is going on.*

Decreased communication. Texting was seen as a way communication decreased. One respondent stated that texting was not beneficial in terms of overall quality of family communication. She stated that texting decreased communication and that texting was actually contributing to families not connecting with each other:

> *I see that there is so little communication right now happening between adolescents and their parents because of the technology that we have everywhere. Kids get in the car and there is a video or DVD player or they are texting their friends or playing a game on an iPod that there is literally no communication happening.*

Skills

The fourth main theme that emerged was skills and how adolescents are deficient in social skill development because of texting. All participants (*n* = 7) stated during their interviews that adolescents engaged in text messaging to avoid feeling uncomfortable and to avert conflict situations. All seven respondents stated that they believed that texting hindered adolescents' development in one of four ways: deficits in skill development, avoidance, conflict, and application to life skills.

Deficits in skill development. Texting was seen by participants as causing deficits in skill development among adolescents. Every respondent (*n* = 7) stated that she believed that texting was a correlate or a cause of deficits in adolescent skill development. Respondents specifically discussed deficits in adolescent social development and written or verbal language development. One respondent who noted that adolescent writing and grammar skills suffered due to texting stated,

> *Their written communication is also suffering. They are lacking in their spelling and grammar, that can be influenced when you are texting and you are doing short little phrases, and then when they have to write their texting language can show up.*

Another respondent stated, "*The shortening of words and slang spelling, some adolescents' writing skills are affected by that.*" Yet another respondent stated that texting negatively impacts spelling and grammar: "*Texting has been said to affect writing skills also spelling.*"

During their interviews, five respondents discussed how texting contributed to loss of verbal skill development among adolescents. One respondent stated, "*I think adolescents may be losing very important social skills that may not be good for their development or their adult lives.*" Another respondent stated, "*The impact of texting on communication is not doing adolescents any favors with respect to their social skills. They are unable to hold a conversation with adequate eye contact.*"

Avoidance. Avoiding face-to-face situations with texting was mentioned by a majority of the respondents. Four out of seven of the respondents (57%) stated during their interviews that texting contributed to adolescents' avoidance of communicating in face-to-face situations such as asking for assistance or avoiding conflict with others. They noted that adolescents were growing up not learning how to deal with face-to-face situations appropriately. One respondent stated, "*I think texting allows them to avoid a lot of challenging situations which are really the situations where you have to learn how to communicate.*" Another respondent commented,

> *They seem to avoid situations where they have to actually talk to a real person. I have noticed with adolescents that if someone does not want to do something or answer something they just don't reply at all; they become missing in action, so to speak.*

Conflict. Conflict because of text communications was reported by four out of seven respondents (57%). This indicated that adolescents' use of text messaging increased the likelihood of conflict in adolescent lives when communicating with peers and/or family. One respondent provided an example of how texting seemed to produce conflict: "*Lots of drama seems to occur among friends through texting.*" Another respondent stated, "*I think texting causes excessive drama and gossiping. Hurting people's feelings through texting is quite common.*" Yet another respondent suggested that texting caused conflict between parents and adolescents, as well as with their peers, and stated, "*The excessive use of texting comes up a lot, parents are fighting with their kids because they think they are texting too much, mostly it is about their own relationships with peers that the conflict comes up.*"

Application to life skills. Four respondents stated that they perceived texting as detrimental to adolescents and their ability to gain fundamental life skills for adulthood such as obtaining a job or communicating with co-workers. One respondent stated,

> *Texting could affect their ability to make decisions about the people they come in contact with. It will affect them later in life when they are trying to get a job or work with others, they may not have the social skills necessary to communicate successfully.*

Another respondent said that she worried that adolescents would not be successful in their careers because of texting. This respondent indicated,

> *They are going to be faced with a lot of issues in their adult lives and when they are in their career world relationships, I mean, not everything can be done by texting, your job or very few jobs can be done by texting, so you get into a position at your job where you may have a conflict with a co-worker but you have never practiced knowing how to handle this situation so now you are in trouble because you are lacking all those fundamental skills.*

Yet another respondent noted that she worried about whether texting decreased adolescents' overall levels of initiative. This respondent stated,

> *The other thing I have noticed over the years is a lack of or decreasing initiative in students. They don't know how to personally approach another human and ask for help or how to approach someone when they want to pursue, like, job applications, things like that, because with texting, they can take time to reword things on texting, you know, so they feel they have it perfect and then send it, they can't do in-the-moment stuff anymore, so I feel in that way it has been very difficult and not good for the development of adolescents.*

Life Comparisons

Comparing participants' lives to the adolescent lives was the fifth main theme, life comparisons, with two subthemes that emerged as *my life* vs. *their life.* The subthemes were a comparison of the quality of life now and when the respondents were growing up.

My life. My life refers to how the participants' lives were different because texting was not a part of their lives. Four out of seven (57%) respondents referenced their upbringings and how they benefited from growing up without texting. These respondents also noted that they were able to obtain needed social skills for success, that their parents knew their whereabouts (e.g., could called via landline), and that overall they were able to develop more meaningful relationships through voice-to-voice and face-to-face communication. One respondent reflected,

> *As a teenager myself we used to sit on the phone for hours, and our parents used to complain about that but at least we were actually talking with each other and learning to understand verbal cues and hearing different vocal intonations. With texting the face-to-face or voice-to-voice aspect is eliminated.*

Another respondent stated that today's parents could not really follow up with their children due to the absence of concrete evidence regarding their children's whereabouts. For example, this respondent stated,

> *With a land line, for example, our parents knew that we were calling from our girlfriend's if they called the girlfriend's house and the parent picked up and said, "No, Suzie ain't here," you had concrete evidence. It is hard to track electronic devices that way.*

Their life. This subtheme consisted of reasons given by respondents for why texting made life harder than when they grew up without texting. The lack of traditional phone conversations was given as a reason for life being more difficult now. Adolescents' misunderstanding of the vastness and free availability of texting was compared to writing notes to peers. Four respondents stated that adolescents' lives were more difficult today because of texting. The same four respondents who stated that they felt their lives growing up without texting were better also felt that adolescent lives today were affected negatively by texting. One respondent stated that passing notes in class in her day was similar to texting today. She said,

> *In my generation we would be writing notes in class, and so in a note you wouldn't have written secrets or things you knew there was a chance the teacher might catch you, so you probably wouldn't put your most private secrets in a note, but sometimes kids did. Now it's this whole cyberworld where anything goes.*

Discussion

The intent of this research is to better understand school social workers' perceptions of how text messaging affects adolescents' communication skills. The findings from this study help contribute to a better understanding of social workers' perceptions of text messaging and its effects on adolescent communication skills. The discussion compares and contrasts the existing literature with the results of this study.

Communication with School Social Workers

Communication with school social workers is discussed in three subthemes: convenience, bullying and teasing, and emergency situations.

Convenience. Within the third subtheme that addressed texting communication with school social workers, *convenience*, the findings are supported by the research literature (e.g., Subrahmanyam & Greenfield, 2008). Subrahmanyam and Greenfield (2008) state that texting and instant messaging can be a way for parents to keep track of their adolescents. In the present study, texting is seen by respondents as a way for social workers to quickly contact a student or have a student contact them in a way that is familiar to them. Convenience is relevant for social workers connecting with students because texting is the preferred method for communication for adolescents. This is an area of research that could be further explored to give school social workers the necessary tools to be able to connect with students in a more convenient and relevant way.

Bullying and teasing. Within the second subtheme that addressed texting communication with social workers, *bullying and teasing*, the findings are supported in the literature by Mate (2012). The research literature states that sexting can be seen as a form of bullying. (Mate, 2012) finds that 51% of adolescent girls stated they feel pressure from boys to send explicit messages. Participants stated that texting happens 24/7 and that text bullying/sexting can happen at any hour, when parents may not be around to witness it.

Respondents note that face-to-face communication is more intimidating than texting for adolescents. Therefore, it may be easier for a bully to send something over a text rather than to interact face-to-face. The majority of the participants in the present study mention bullying and teasing multiple times throughout the interview process as a negative effect of text messaging. School social workers can help students respond appropriately and deal with bullying and teasing through text messaging.

Emergency situations. Within the first subtheme that addressed texting and communication with school social workers, *emergency situations,* the findings are supported by the research literature (e.g., Selkie et al., 2011) For example, the study findings of Selkie et al. (2011) suggest that adolescents' use of text messaging offers this age group quick and easy access to reliable information. Similarly, in this study, school social workers describe adolescents' use of text messaging to reach out for help in emergency situations or to access information. Findings from Selkie et al.'s (2011) study suggest that adolescents prefer to have information that was trustworthy, accessible, and safe. Adolescents who participated in Selkie et al.'s research stated that use of text messaging could offer them quick and easy access to reliable information. The study identified sensitive information, such as that about sexual health, as a type of information adolescents may seek via text messaging. In the present study, the majority of participants mentioned that text messaging could be used as a way for adolescents to reach out for help in emergency situations.

Communication with Peers

Texting's effect on peer communication is discussed in three subthemes: inappropriate connections, face-to-face connections, and connections at school. These findings are supported by the literature (Durkin et al., 2010; Subrahmanyam & Greenfield, 2008), which states that texting has become a way to maintain friendships because of accessibility.

Inappropriate connections. Within the first subtheme that addressed texting's effect on peer communication, *inappropriate connections,* the findings in this study are supported by previous literature e.g., (Wolfson & Carskadon, 2003), which indicates strong correlations between shortened and interrupted sleep time because of texting and poor academic performance. Adolescents do not get adequate amounts of sleep because of late-night unsupervised texting that could include sexting and bullying. As a result of the late night texting students are unable to perform well in school. Similarly, in the present study, the presence of inappropriate connections such as sexting and bullying is mentioned by the majority of respondents. The majority of participants stated the use of text messaging could contribute to inappropriate connections among peers, such as sending photos, sexting, texting and driving, and unrestricted and unsupervised use of texting at all hours. All present participants note that adolescents may not understand the larger implications or the public nature of text messaging.

Face-to-face connections. Within the second subtheme that addressed texting's effect on peer communication, *face-to-face connections*, the findings in this study are supported by the research literature (e.g., Besel & Yuille, 2010; Riordon & Kreuz, 2010), where the importance of face-to-face communication and facial recognition among adolescents is discussed. This indicates that those who had difficulty reading facial expressions also had impaired social understanding. In addition, Riordan and Kreuz's (2010) research emphasizes the importance of eye contact and vocal intonation in effective communication. School social workers can help students develop appropriate eye contact and vocal intonation in order for them to be able to have effective face-to-face communication.

Present participants expressed concern regarding the loss of face-to-face and voice-to-voice communication among adolescents. Bowlby's (1969) research literature states that facial expression, posture, and tone of voice are all instrumental to developing healthy

attachment communications. The importance of face-to-face communication was mentioned by a majority of the participants in the present study. They felt texting was causing adolescents to lose face-to-face connections with people in their lives because of the constant use of texting.

Connections at school. Within the third subtheme that addressed texting's effect on peer communication, *connections at school,* the finding was not supported by previous literature. Participants viewed texting at school as a way for shy kids to connect with each other or for students to ask each other about homework. The literature mentions Reich's (2008) findings, which reveal that texting has become a medium for teaching and for students to be able to participate more. Participants in this research project did not mention texting as a learning tool in the classroom but rather as a distraction. One participant noted feeling amazement that students were able to concentrate on their schoolwork at all with the constant interruptions from text messages. Previous literature, including Harley et al. (2007), finds that text communication provides students with networks of social support within their academic system. Present participants mentioned that some coaches use text messaging to remind players about practice. The discrepancy may have been due to the participants' individual schools policies on texting in class. Texting is generally not allowed during class time in many schools. This is an area of research that could be further explored to pursue the possibilities text messaging could offer for enhancing students' experiences in the school setting such as a way to include more students in class discussions.

Communication with Family

Effects of texting on communication with the family are discussed in two subthemes: *enhanced communication* and *decreased communication*.

Enhanced communication. Within the first subtheme that addressed texting's effect on family communication, *enhances communication,* these findings are not supported by the

current research within this area of study. The majority of the participants in the present study (*n* = 6) stated that texting enhanced communication between parents and children. They see texting as a quick and easy way to exchange information. The ease of use and convenience allow for more connections between parents and children.

Decreased communication. The second subtheme that addressed texting's effect on family communication, *decreased communication,* is supported by the literature (e.g., Subrahmanyam & Greenfield, 2008). For example, findings from Subrahmanyam and Greenfield's (2008) research suggest that texting and other electronic forms of communication have become all-encompassing, to the detriment of face-to-face family interaction, among siblings as well as parents. Adolescents screen calls from parents, and they interrupt family time with use of electronic communication. One participant in the present study mentioned that texting was actually contributing to families not connecting with each other. The use of texting could decrease connections between family members by limiting the amount of interaction with each other.

Skills

The main theme of skills is discussed in four subthemes: deficit of skill development, avoidance, conflict, and application to life skills.

Deficits in skill development. Within the first subtheme that addressed skills, *deficit of skill development,* the findings are supported by the research literature (e.g., Durkin et al., 2010; Lenhart et al., 2008). For example, in Lenhart's (2008) study, half of the adolescent respondents questioned admitted to using informal writing styles and text abbreviations in school assignments. In the current research, participants felt that adolescents' spelling and grammar were affected by the use of shortened language and symbols. Participants suggested that writing skills were being compromised by the use of texting.

Novak's (2002) research states that language development is also affected by texting. Adolescents' developmental skills are affected by text messaging, specifically their ability to understand abstract meanings of words or concepts and their ability to modify their communication to fit the listener's viewpoint. In the research by Conti-Ramsdent et al. (2011), texting is found to be potentially intimidating to some students who are specifically language impaired. The current research indicates that more than half of school social workers interviewed felt that language development was affected in some way by the use of text messaging. They noted that adolescents' specific grammatical language development was affected by the use of texting.

Avoidance. Within the second subtheme that addressed skills, *avoidance,* the findings are supported by the research literature (e.g., Pierce, 2009), which states that interactive technology enables users to avoid face-to-face communication. The role of social anxiety and not feeling comfortable was the reason for avoidance through texting. This was confirmed within the present study when half of the participants stated during their interviews that texting contributed to adolescents' avoidance of communication in face-to-face situations such as asking for assistance or avoiding conflict with others. Participants specifically acknowledged that students avoid certain situations through the use of texting. Adolescents may find it easier to call into their job through a text or simply not answer or ignore a text that may be bothersome.

Conflict. Within the third subtheme that addressed skills, *conflict,* the findings are supported by the research literature (e.g., Riordan & Kreuz, 2010), which suggests that the more emoticons a message contained, the stronger the recipients interpreted the sender's emotions. However, when texts were sent without emoticons, recipients could not determine the sender's intentions. This suggests the possibility for conflict to arise because of misinterpretation. This was confirmed within the present study when participants felt the

adolescents were not developmentally able to understand the connection between texting and possible negative outcomes of their texting. The misrepresentation or misunderstanding of text messages among peers was mentioned in the present study as a way for conflict to arise. Without the means to effectively express emotion through text messaging misunderstandings can easily occur.

Application to life skills. Within the fourth subtheme that addressed skills, *application to life skills,* the research literature (e.g., Grinter et al., 2009; Ho & McLeod, 2008) supports the findings and states that texting impacts social skills in a variety of ways. It is important to understand the internal processes that take place during adolescence to further explain the prevalence of texting among adolescents. Participants in the present study perceived texting as detrimental to adolescents and their ability to gain fundamental life skills for adulthood. All participants stated that adolescents engaged in text messaging to avoid feeling uncomfortable and to avert conflict situations. All seven respondents believed texting hindered adolescents' development in one of the four subthemes.

Life Comparisons

The fifth main theme was life comparisons, with two subthemes that emerged: *my life* and *their life*. The subthemes were a comparison of the quality of life now and when the participants were growing up, reminiscing that maybe their way was a better way.

My life. Within the first subtheme addressing life comparisons, *my life,* the findings were not supported by the research literature. The majority of participants in the current study referenced their upbringing and how they benefited from growing up without texting. Participants reflected on their lives during the interviews.

Their life. Within the second subtheme addressing life comparisons, *their life,* the findings were not supported by the research literature. Participants in the current study mentioned why texting made life harder than it was when they grew up without texting. Erik

Erikson's perspective is reflected in the life comparisons theme. Erikson's stage eight (late adulthood), integrity vs. despair, states that individuals reflect on their own life experiences and whether their life was meaningful, much as the present participants did. However, adolescents in stage five of Erik Erikson's stages are more grounded in identity vs. role confusion, when adolescents are trying to figure out who they are (Erikson, 1968; Hutchinson, 2008).

Strengths and Limitations

One strength of this current study is that it employs a qualitative research method. This allows participants to convey, in their own words, their firsthand experiences in their work with adolescents. This allows for rich data because of the use of unedited interviews with participants. This study includes participants in the research as much as possible in order to make it a collaborative and meaningful process for both researcher and participants.

One limitation of this study was the small sample size. This was caused by the limited data base and sampling method employed by the researcher. The evidence based research is mainly focused on social media such as Facebook, MySpace and other Internet services. A limitation is the lack of text-specific, evidence-based literature to further validate the research.

Implications for Future Social Work Practice

The implications for future social work practice are exciting because of the advantageous position school social workers have as the eyes and ears on what happens in adolescent lives. School social workers, are the professionals who often instigate and facilitate the communication process in the lives of adolescents. They are often on the front lines when it comes to observing adolescents' lives. Educating social workers on the effects of texting prepares them to understand the challenges adolescents face in their daily lives, in particular with regard to their communication methods and skills.

It is important for social workers to understand how big a role texting plays in the lives of adolescents. Grinter et al. (2009) research states that adolescents are connecting with their peers through SMS. Many adolescents have grown up with much of their lives being public knowledge because of the expansion of technology-based communication. Adolescents' boundaries in regard to the information they share about themselves are very different compared to those their parents held while growing up. It is crucial for social workers to understand the implications texting has for adolescent relationships in order to be able to relate to and understand the issues adolescents face today. Selkie et al., (2009) states technology based communication can be a way for adolescents to obtain reliable information about sensitive issues.

School social workers should be aware of the possible benefits texting could have in connecting with students in emergency situations, or in providing reliable information that students might not seek in a face-to-face meeting. Texting could help social workers contact students they might not be able to reach using more traditional methods. Social workers should to be open to the possibilities texting can bring to student relationships, but also cautious with regard to personal boundaries.

Implications for Future Research

This current study reveals areas for future research that would be beneficial to improved understanding how text messaging affects adolescent communication skills. There is a clear need for text-specific, evidence-based research in the areas of how texting affects adolescents' communication skills, development, and relationships. Ho and McLeod (2008) examined adolescents' reluctance to express opinions face-to-face. An understanding of the internal processes that take place during adolescence and their relationship to the popularity of texting may be beneficial.

The majority of respondents mentioned that texting affected family and peer relationships both positively and negatively. Future research on how texting affects peer and family relationships would be beneficial. It would be wise for future researchers to interview parents and adolescents to gain a sense of how texting is directly affecting their lives. Grinter et al. (2009) stated that the new challenges SMS and IM add to the domestic communication will influence further research and how this information is gathered and analyzed. Gathering qualitative interviews from parents and adolescents would be beneficial to understanding how texting affects family relationships.

Implications for Future Policy

One implication for future policy that was brought to this researcher's attention was the lack of literature being published in peer-reviewed journals that is specific to both texting and adolescents. Successful completion of the developmental stage of adolescence is crucial for adulthood and the prevalence and availability of texting in adolescents' lives speaks to the importance of research-based information in this area. Therefore literature specific to texting and adolescents would be beneficial.

<div align="center">

Conclusion

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This research study explored the important topic of how school social workers perceive the impacts of text messaging on adolescent communication skills. It establishes that text messaging impacts adolescents' communication skills in many ways. Seven school social workers interviewed for this study shared their experience communicating with adolescents and how text messaging has become more prevalent. Adolescents communicate with school social workers, peers, and parents by texting. Text messaging can be a helpful tool for emergency situations and can be detrimental to developing social skills. Awareness and understanding of the impact text messaging has on adolescent lives are necessary in order for social workers to support adolescent development. It is also necessary for developing an

understanding of how adolescents are communicating with each other. Human interaction plays a vital role in human development, and although texting has changed the way we interact, we need to be aware that the changes are not all negative. Texting has allowed for more possibilities for interaction and supporting adolescent development. The support school social workers give students is different in that it may not always be face-to-face or about traditional face-to- face relationships but support can be about and delivered through texting.

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Appendix A: Informed Consent
How Has Text Messaging Influenced Adolescents' Communication and Social Skills in Our Society?
RESEARCH INFORMATION AND CONSENT FORM

Introduction: You are invited to participate in a research study that aims to explore how the text messaging has impacted adolescent communication skills. This study is being conducted by Jacquie Graham a Master of Social Work Student at University of St. Thomas and St. Catherine University. You were selected as a possible participant because you are over the age of 18, and are a current licensed social worker that interacts professionally with the adolescents in grades 9-12. Please review this form and ask any questions you may have before consenting to participation in this study.

Background Information: The purpose of this study is to examine how text messaging affects adolescent communication skills. Approximately eight to 10 people are expected to participate in this study.

Procedures: If you choose to participate in this study, you will be asked to do a one-one interview with me in person or over the phone that takes approximately 45-60 minutes. You will have the option to receive the complete schedule of interview questions, letter of introduction, and consent form prior to the scheduled interview time. If you do not feel comfortable or do not want to answer any particular question you may skip that question. Our meeting will take place in private area, such as an office, and will be decided through a collaborative process between you and the researcher. For purposes of transcription the interview will be audio recorded, and the audio recording will only be accessible to me as the researcher. You confidentiality and privacy are my highest concern; therefore audio recordings will be kept in a locked location at my home and will be destroyed at the end of my research project on June 1, 2012. During our interview I will read the interview questions, and may ask some follow up questions depending on your answers. You may terminate participation in the study at any point within the interview and up to one week after completion of the interview by contacting me through e-mail or phone.

Risks and Benefits to Participation: There are minimal risks associated with participation in this study. Benefits of participating in this study would be making a contribution to the research regarding how texting affects adolescents' communication skills.

Confidentiality: Care will be taken to protect all of your information and ensure your confidentiality. There will no identifying information given in any written report or oral presentation of this study. As previously mentioned, only this researcher will handle and transcribe information gathered from the interview process. In addition all information will be kept locked and in password protected files in the researchers home and computer. All information gathered from your participation will also be destroyed at the completion of this research project on June 1, 2013.

If at any point during the interview process you want to skip questions you may do so. If at any point, up to one week following the scheduled interview, you wish to terminate your participation in the study you may do so. If during the interview you express emotional or physical distress the interview process will be ended, we will debrief, and then connect you with one of the resources listed previously. In this particular case, your information and data will be destroyed immediately and will not be used in this study.

Voluntary Nature of Study: Participation in this study is completely voluntary. Your decision to participate in this study or not will not affect future relations with the University of St. Thomas, St. Catherine University, or this researcher. Termination of participation in this study will have no effect upon these relationships and no further data will be collected.

Contacts and Questions: If you have any questions about this study or consent form please feel free to contact me at (xxx)xxx-xxxx or Grah@stthomas.edu. You may also ask any questions now. If you have further questions you may contact my supervising faculty member and Chair of my research committee Kari Fletcher, Ph D., LICSW at flet1660@stthomas.edu or 651-962-5807. If you have other questions or concerns and would like to contact someone other than the researcher and research Chair you may contact (Name), the Chair of the University of St. Thomas Institutional Review Board at (651-962-5341). You may keep a copy of this form for your records.

Statement of Consent: By signing below you are giving your consent and making a decision to participate in this study. Your signature confirms that you have read the information in this form and all of your questions have been answered by the researcher. Even after signing this form, you may terminate your participation in this study up to one week following the scheduled interview.

I consent to participation in this study and I consent to be audio-taped.

_____   _____

Signature of Participant   Date

_____   _____

Signature of Researcher   Date

Appendix B: Letter of Introduction
Potential Interview Participants

October 21, 2012

Name of Potential Participant

E-mail Address

Dear Potential Participant,
My name is Jacquie Graham, and I am a Master of Social Work student at University of St. Thomas and St. Catherine University, under the supervision of Assistant Professor Kari Fletcher, Ph.D., LICSW. I have contacted you because you are a licensed Social Worker in Minnesota or Wisconsin who currently works in a secondary school setting grades 9-12. I would like to invite you to participate in an interview study exploring how text messaging affects adolescent communication skills.

I would like to invite you to participate in my study because of your experience interacting with adolescent populations. Participation in this study is completely voluntary and you may terminate your participation in this study up to one week following your scheduled interview. Care will be taken to keep your participation in this study and information confidential. I will apply your non-identifying information to my project presentation and final research paper, which will be published electronically through the St. Catherine University and University of St. Thomas.

I hope you will agree to participate in this study, where you can help contribute the body of information surrounding text messaging and how it affects adolescent communication skills in the social work and research community. Included with this letter of introduction is the schedule of interview questions and informed consent form for your consideration before the scheduled interview time. Before scheduling an interview for this study please verify that you are an adult (over the age 18), a Social worker who has or has experience with the adolescent population.

Thank you once more for your time and consideration. Please do not hesitate to contact me by email at Grah@stthomas.edu or telephone at (xxx) xxx-xxxx if you have any questions.

Sincerely,

Jacqueline Graham, BS

Appendix C: Interview Questions

1. Can you start off by telling about your experience serving the adolescent population?

2. In what ways does texting or technology influence the communication between you and the adolescents you serve?

3. How would you define the effects of text messaging upon adolescents?

4. In what ways does texting come up in your work with adolescents?

5. Do you communicate with adolescent clients via texting?

6. How do you perceive the benefits of texting in adolescent's lives?

7. How do you perceive the negative aspects of texting in adolescent's lives?

8. Can you recommend anyone else who might complete these questions? How can I get in contact with them?

Appendix D:
Counseling Services and Adolescent and Texting Information

Counseling Services
UWRF Counseling Services 715-425-3293
410 S. 3rd Street, 211 Hagestad Hall
River Falls, WI 54022

Hudson Counseling Services 715-531-6760
410 Stageline Rd Hudson, WI 54016

Walk in Counseling Center 612-870-0565
2421 Chicago Avenue S Minneapolis, MN 55404

Walk-in Counseling Center offers free counseling services. No appointment is necessary and no insurance is necessary. Walk in hours are Monday, Wednesday, Friday from 1:00- 3:00 PM and Monday through Thursday 6:30- 8:30 PM.

Interprofessional Center for Counseling & Legal Services 651-962-4820
30 S. 10th Street, Minneapolis, MN 55403

Interprofessional Center for Counseling & Legal Services is an organization developed through the University of St. Thomas in collaboration between the School of Law, Graduate School of Professional Psychology, and School of Social Work. This organization offers free counseling services. More information can be found at http://www.stthomas.edu/ipc/

Crisis Connection Minnesota 612-379-6363 or Toll Free MN 1-866-379-6363
Crisis connection is a 24 hour/ 7 days a week support line that is available for anyone at anytime, and specializes in crisis counseling, intervention, and finding referrals. This is a free service and more information can be found at http://www.crisis.org

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