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The Impact of a Therapist's Language in Computer-Mediated Communication

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THE IMPACT OF A THERAPIST'S LANGUAGE IN
COMPUTER-MEDIATED COMMUNICATION

A Thesis
Presented to
The Faculty of the Department of Psychological Sciences
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
Of the Requirements for the Degree
Master of Science

By
Robert E. Twidwell

May 2019

THE IMPACT OF A THERAPIST'S LANGUAGE IN
COMPUTER-MEDIATED COMMUNICATION

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I dedicate this thesis to all my family, friends, and supporters along this journey to obtain
my Master of Science degree.

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55 Pages

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Background: Nearly 45 million adults in the United States live with a mental health disorder and only 43% of them seek treatment. One of the major barriers to seeking treatment is accessibility and can be addressed through telepsychology, or providing services with technology. With technological improvements in written communication, using computer-mediated communication (CMC; e.g. text messaging) has become more regularly used and examined in healthcare. To date, little research has focused on the use of practitioner language in telepsychology.

Method: Two samples (university sample and national sample) totaling 396 participants were asked to rate a therapist on attractiveness (i.e. likability and sociability), expertness, and trustworthiness after reading one of four text-message introductions. The messages varied in the language used: Jargon, jargon with layman explanations, layman only, and text speak.

Analysis: The participants' ratings of the therapist were analyzed using analysis of variance to examine differences between the rating means.

Results: University participants rated a therapist higher in attractiveness when the text-message used layman language only compared to jargon, jargon with layman, and text speak. Both samples rated the therapist lower in attractiveness, expertness, and likelihood to use services of therapist when the text-message contained text speak.

Conclusion: The use of text speak by a therapist significantly decreases the perception of attractiveness and expertness. The use of layman only language increases a college student's perception of a therapist's attractiveness compared to jargon and text speak.

Keywords: Computer-Mediated Communication, CMC, Jargon, Net Speak, Telepsychology, Text Message, Text Speak

Introduction

According to the National Institute of Mental Health (NIMH, 2017), nearly 45 million adults in the United States live with a mental health disorder and only 43% of those living with a mental health disorder seek treatment. Accessibility and cost are often seen as two of the major barriers to treatment (Gulliver, Griffiths, & Christensen, 2010; Mojtabai et al., 2011; Rowan, McAlpine, & Blewett, 2013; Salaheddin & Mason, 2016). To address the concerns with accessibility and cost of treatment, research has begun to focus on the use of technology to provide mental health services, but little research has focused on the importance of the language used in these services.

Telepsychology is the use of telecommunication technologies (e.g. chat, email, mobile devices, telephones, text messaging, videoconferencing) to provide psychological services (American Psychological Association, 2013). Online interventions, as a form of telepsychology, have been explored in the treatment of alcohol use, anxiety, depression, and psychosis. White et al. (2010) analyzed eight articles examining online interventions for alcohol use and found that online interventions can be beneficial, especially for at-risk users, women, and young adults. Rice and colleagues (2014) performed a systematic review of 15 articles examining the use of online interventions for depression in young adults and found that all but one of the studies found significant positive results. Saddichha, Al-Desouki, Lamia, Linden, and Krausz (2014) examined 43 articles regarding online studies of anxiety and depression treatment. They found that the online treatments helped to significantly reduce anxiety and depression symptoms. Alvarez-Jimenez et al. (2014) reviewed 12 articles and found that interventions through online and mobile means were possible to use with psychosis.

As a form of telepsychology, mobile devices have the ability to provide interventions through applications and text messages. Donker and colleagues (2013) analyzed eight articles that focused on the use of smartphone applications with anxiety, depression, and substance use and found that the applications helped to significantly reduce stress, depression, and substance use. Hall, Cole-Lewis, and Bernhardt (2015) examined 15 articles and found evidence to support the use of text message-based interventions, though they acknowledged that additional research was needed.

Overall, research has not found significant differences between technology-based treatments and in-person treatments. Barak, Hen, Boniel-Nissim, and Shapira (2008) analyzed 64 articles that described 92 different online intervention studies. Fourteen of these studies compared face-to-face (FtF) interventions with online interventions. Significant differences were not found between FtF and online interventions.

Outside of efficacy and effectiveness for telepsychology treatments, a growing field of research has begun to explore the language used in telepsychology. Computer-mediated communication (CMC, e.g. text message, email, instant message), particularly text messaging, has become one of the most popular forms of communicating (Pew Research Center, 2015; Smith, 2015). A majority of the research around CMC has attempted to infer the client's current mental status or changes in mental status, due to treatment, from the language used by the client.

A popular use of CMC data is the exploration of messages for linguistic cues relevant to abnormal, clinical, and personality psychology. This often focuses on the relationship of an individual's word usage with respect to one of these areas. For example, a positive relationship has been found between neuroticism scores and negative

emotion words (Pennebaker, 2013; Pennebaker & King, 1999). Dirkse, Hadjistavropoulos, Hesser, and Barak (2015) examined client CMC during internet-delivered therapy for anxiety. They found that elements of the clients' linguistic style changed across the treatment, with decreases in anxiety, causation, insight, and negative emotion words and increases in past tense word usage.

Word usage for people with anxiety and depression has received much of the focus in previous research. It has been found that the use of "I" pronouns increase in those with depression (Pennebaker, 2013; Tausczik & Pennebaker, 2010). Al-Mosaiwi and Johnston (2018) examined the use of absolute words (e.g. always, completely, every, never) in relation to anxiety, depression, and suicidal ideation. They found that individuals posting in forums related to anxiety, depression, and suicidal ideation were higher in absolute word usage when compared to other forums.

Previous researchers have focused on the language of clients or individuals with symptoms of mental illness, but little of the research has focused on the CMC used with these individuals. If psychological practitioners are using CMC to connect with clients, then understanding how clients are influenced by practitioner language in CMC is important. Most research into therapeutic language styles has focused exclusively on face-to-face (FtF) communication and impact of jargon on communication that may not be analogous to CMC in important ways.

Jargon and Client-Practitioner Communication

Communication is a crucial factor in a client-practitioner relationship. Effective client-practitioner communication can have positive effects on the client's health outcomes (Stewart, 1995). When both parties understand each other it helps to build the

relationship between the client and practitioner (Collins, 2009). Effective client-practitioner communication depends on the practitioner's ability to avoid barriers to the effective communication. These barriers can be environmental factors (e.g. noisy setting, practitioner work load, support staff), the practitioner's anxiety related to the possibility of unintentionally distressing the client, or a gap in understanding between the client and the practitioner (Bramhall, 2014). Much of the literature regarding the client-practitioner gap of understanding has come from medically-centered research focused on the health literacy of the client and the use of jargon (or technical language specific to a profession) by the physician.

In the medical field, most of the educational material and effective communication research indicate that jargon should be avoided (e.g. Bramhall, 2014; Rosdahl & Kowalski, 2008; Townsend, 2011). Similarly in psychology, a psychologist is typically told to avoid the use of jargon, though psychological research does not necessarily support this advice (Hyatt, Tingstrom, & Edwards, 1991). The use of jargon has been shown to positively impact a participant's perception of therapist expertness (Atkinson & Carskaddon, 1975). Both the psychological and medical literatures suggest that expertise can affect the relationship between the client and the practitioner (Atkinson & Carskaddon, 1975; Wright, Holcombe, & Salmon, 2014). Effective communication is supposed to be understood by both parties and it is important in forming a therapeutic relationship. If clear communication should avoid jargon because of a lack of understanding by clients, but the use of jargon can positively influence a client's view of the therapist's expertise, then what role does jargon play in client-practitioner communication?

Medical Jargon. Medical jargon is the technical language and terminology used within the medical field. The use of such language has been thought to be harmful for clients and associated with poor health outcomes and poor adherence to treatment (Collins, 2009; Schillinger et al., 2003, Stewart, 1995). Clients with low health literacy have a poorer understanding of medical jargon (Korsch, Gozzi, & Francis, 1968; Safeer & Keenan, 2005; Schillinger et al., 2003). Because of such reasoning, practitioners are often told to avoid the use of jargon and include simple language (Bramhall, 2014; Hironaka & Paasche-Orlow, 2007; Howard, Jacobson, & Kripalani, 2013; Rosdahl & Kowalski, 2008; Townsend, 2011). A plethora of research has been devoted to client and outsider understanding of medical jargon, revealing that what may be considered basic terminology by practitioners may not be as well understood by clients.

Understanding Healthcare and Medical Jargon. Clients tend not to understand healthcare jargon. Boyle (1970) found that physicians and clients had significantly different definitions for 12 general medical jargon terms (i.e. ‘Arthritis,’ ‘Constipation,’ ‘Heartburn,’ ‘Palpitation’) with the exception of one, the term ‘Good Appetite’. The results suggested that definitions for some general medical terms may be ambiguous.

Redlich (1945) and Romano (1941) also reported that general medical terminology was not well understood by clients. Romano (1941) asked clients to define 60 medical terms during a study and concluded that client knowledge of the terms was low and that clients tended to know more about their own illness. However, a statistical analysis was not provided to support Romano (1941). Redlich (1945) also examined the client understanding of 60 medical terms at a neuropsychiatric hospital. The findings

indicated that no general term emerged as being known by most clients and many of the clients indicated that they may have gained knowledge of terms from being in the facility.

In addition to medical terminology, Hadlow and Pitts (1991) found that psychological terminology was also misunderstood by clients. Clients correctly identified only 36% of all jargon (compared to 70% for doctors and 54% for support staff). A large understanding gap was found in certain jargon terms, such as ‘depression,’ ‘eating disorder,’ ‘psychopath,’ ‘migraine,’ and ‘schizophrenia’ (Hadlow & Pitts, 1991, p. 195). These findings suggested that the most misunderstood jargon terms were psychological terms.

Psychological Jargon and Expertise

The findings of Hadlow and Pitts (1991) indicated that both medical and psychological jargon are misunderstood by clients. As in the medical field, psychologists are told to avoid the use of jargon (Hyatt et al., 1991). However, research in psychology suggests a complex role for jargon that entails a risk of decreased understanding, but also a positive impact on the perceptions of interventions and counselors (i.e. Atkinson & Carskaddon, 1975; Hyatt et al., 1991). A practitioner who uses jargon may be perceived as being an expert and expertise has been seen as an essential element in the persuasiveness of a communicator (Aronson & Aronson, 2012; Fiske & Taylor, 2014; Gilovich, Keltner, Chen, & Nisbett, 2015; Petty & Cacioppo, 1986; Petty, Cacioppo, & Goldman, 1981). An additional benefit of a therapist being seen as an expert is that it may increase the likelihood that a client would visit the therapist again (Atkinson & Carskaddon, 1975).

Expertise. Literature on persuasive communication has often indicated that expertise is critical for a communicator to be persuasive (Aronson & Aronson, 2012; Fiske & Taylor, 2014; Gilovich et al., 2015; Petty & Cacioppo, 1986; Petty et al., 1981). Petty and colleagues (1981) found that undergraduate students were more likely to endorse the implementation of a comprehensive exit exam for future students if the message was given by a distinguished professor compared to a report given by a high school class. The perceived expertise of the communicator has an effect on how the message is received.

Perceived Practitioner Expertise. Barak and colleagues (1982) found that students rated counselors as more attractive (i.e. likable and sociable) when using simple language over jargon. However, students rated counselors higher in expertise when observing the counselor use jargon with a client (Atkinson & Carskaddon, 1975; Barak et al., 1982). Atkinson and Carskaddon, (1975) also found that students, incarcerated individuals, and mental health clients were more likely to see a counselor for services if the counselor portrayed in a video used jargon. Both studies indicated that the perception of counselor expertise was positively influenced by the use of jargon.

Although previous research indicates that jargon influences the perception of expertise (Atkinson & Carskaddon, 1975; Barak et al., 1982), one recent study by Berman and colleagues (2016) found that ratings of professionalism in rheumatology fellows (doctors training in a specialty) were negatively influenced by jargon usage. During a fellow training examination, fellows participated in nine minute interactions with actors portraying clients. The fellows were rated on professionalism and use of jargon by the client-actors and evaluating physicians. The use of jargon was found to be

related to lower professionalism scores by both the client-actors and physicians. Though this might be an indicator that jargon may have a negative effect on expertise, it is important to remember that the clients were actors rather than naïve clients. The client-actors had been given training on what to look for with professionalism, though the training was not explained. In educational settings, medical professionals are told to avoid the use of jargon (e.g. Bramhall, 2014; Rosdahl & Kowalski, 2008; Townsend, 2011). It is possible that the training received by the client-actors may have influenced the professionalism scores of the fellows and that the scores may not generalize to real clients who have not received the training.

The Use of Text Speak

Previous research has indicated that using layman language instead of jargon increases perceived attractiveness (e.g. likability, sociability), but lowers the perceived expertness of the practitioner (Atkinson & Carskaddon, 1975; Barak et al., 1982). An extreme form of layman language is the use of colloquialisms, slang, or text speak. Text speak, or net speak, is language that has become affiliated with computer-mediated communication (CMC). Examples of text speak include abbreviations for phrases (e.g. btw for ‘by the way,’ lol for ‘laugh out loud’) or single letters or numbers to represent words (e.g. u for ‘you,’ r for ‘are,’ 2 for ‘to’ or ‘too’). Though text speak has been used in interventions, the influence of text speak on perceived attractiveness or expertness, to my knowledge has not been examined.

Mason, Benotsch, Way, Kim, and Snipes (2014) examined a text message-based intervention adaptation of an in-person intervention for readiness to change behaviors with substance use. Mason and colleagues (2014) found that the text-based intervention

was effective, but the language used in the intervention may be perceived as unprofessional. Mason and colleagues (2014) provided 26 of the text messages sent to participants of the study. Of those 26 messages, 25 of the messages used text speak (examples include: “How U feeling today?”, “Howz life?”, “Thx for ur texts.”, Mason et al., 2014, pp. 48-49). It is possible that the use of text speak may negatively affect the perceived authenticity of the therapist (i.e. the therapist is being fake and attempting to mimic a stereotype of a person using text speak). An additional consequence of reduced perceived authenticity could be reduced perceived attractiveness and expertness.

Summary

CMC and Telepsychology. The increasing use of communication technology has led to the development of telepsychology. Research suggests that using technology to provide psychological services can be effective (e.g. Barak et al., 2008; Donker et al., 2013; Hall et al., 2015; Rice et al., 2014; Saddichha et al., 2014). Research has also begun to examine the language used in computer-mediated communication (CMC), which has become one of the most prominent ways to communicate (Pew Research Center, 2015; Smith, 2015). The main focus of CMC research has been on the language of clients in therapy or individuals with mental illness symptoms (e.g. Al-Mosaiwi & Johnston, 2018; Dirkse et al., 2015; Pennebaker & King, 1999; Tausczik & Pennebaker, 2010), but little research has focused on the use of practitioner language in CMC.

Text Speak. The impact of using text speak in CMC interventions has, to my knowledge, not been studied. Text speak has been used in interventions (e.g. Mason et al., 2014), but previous research has not examined how the use of text speak is perceived by individuals.

Jargon. Effective communication between clients and practitioners can have an effect on clients' outcomes (Stewart, 1995). Jargon plays a significant role in effective communication, with both disadvantages and advantages. Because of low literacy and low health literacy in adult clients, jargon may be undesirable for all client-practitioner communication. A lack of understanding and misunderstanding of the technical language may be detrimental to clients' health outcomes. On the other hand, it is possible that jargon helps generate a positive perception of interventions and the practitioner. A more positive view of a practitioner's expertness may increase the likelihood that a client will continue to see the practitioner and will adhere to an intervention.

It is still unclear whether to use jargon in client-practitioner communication focused on mental health. In some instances, jargon may be harmful to clients, but if jargon can be beneficial to clients (such as increasing a client's perception of the practitioner's expertise), then the benefits may outweigh the costs. It is possible that a combined use of jargon with simple language to explain the jargon may increase the perceived expertise of the practitioner and help the client's understanding. Using a method of combining jargon with simple language may be the key to improving effective client-practitioner communication.

Literature Gap

A gap exists in the CMC literature regarding an individual's perception of a therapist based on the therapist's language use. Previous research (i.e. Atkinson & Carskaddon, 1975; Barak et al., 1982) has indicated that a therapist's use of jargon influences an individual's perception of a therapist in FtF conversation. To my knowledge, the effect of jargon on the perception of individuals within the context of

CMC has not been examined. Also, research relating to a therapist's use of text speak has not been fully examined for its influences on an individual's perception of a therapist.

Research Question and Hypotheses

The purpose of this study was to determine how specific types of language used by a therapist in CMC (i.e. text message) influenced an individual's perception of the therapist and if the individual was more or less likely to use the therapist depending on the use of jargon, layman language, or text speak.

It was hypothesized that the use of jargon, layman language, and/or text speak by a therapist in a text message will influence an individual's perception of the expertness and attractiveness (e.g. likability, sociability) of the therapist and influence how likely an individual would be to engage in treatment with the therapist. A therapist using jargon was predicted to be rated higher in expertness than a therapist not using jargon and more likely to have the therapist's services used by the participant when using jargon (Atkinson & Carskaddon, 1975; Barak et al., 1982). Therapists were hypothesized to be rated as more attractive (e.g. likable, sociable) in the conditions using layman language (Barak et al., 1982) than conditions using jargon. The condition using text speak was explored for its influences on individuals' ratings of the therapist and expected to be lower in expertness and use of the therapist's services.

Method

Participants

Participants were recruited from a university in the southern United States and Amazon's Mechanical Turk (MTurk). The university participants were recruited from the accessible population of the university students to represent the target population of all college students. University participants received credit through an online system

used to manage participation in research. The credit received from the online system may have been used for credit in a course or as extra credit in select courses. The university participants also had the option to be entered into a drawing to win a gift card.

The sample of MTurk workers was recruited to represent the target population of the United States from the accessible population of MTurk. MTurk gave workers the opportunity to receive monetary compensation for the participation in studies. MTurk workers were compensated with \$2.50 for participation through MTurk.

Inclusion criteria for the studies were that individuals needed to be: (a) Age 18 or over, (b) Residents of the United States and located in the United States, and (c) Native English speakers.

The demographics of the participants were collected for university participants and MTurk workers. University participants ranged in age from 18 to 34 ($M=19.55$, $SD=2.15$). The university participants identified as 80.4% female, 16.8% male, 0.9% gender variant/non-conforming, and 1.9% preferred not to answer. Ethnically and racially, the university participants were: Black or African American (7.5%), Hispanic or Latina/o (0.9%), White (89.7%), and Other/Mixed (1.9%).

MTurk workers ranged in age from 19 to 71 ($M=36.40$, $SD=10.78$). The genders reported by the MTurk workers were 43.2% female, 55.8% male, 0.4% transgender male, and 0.7% gender variant/non-conforming. The ethnic and racial makeup of the MTurk workers were: American Indian or Native American or Native Alaskan (1.4%), Asian (6.8%), Black or African American (6.5%), Hispanic or Latina/o (4.7%), White (76.3%), and Other or Mixed (4.3%). MTurk workers reported their educational background as: Some high school (0.7%), high school graduate or GED (11.9%), some college (17.6%),

trade/technical/vocational school (4.3%), associate's degree (12.2%), bachelor's degree (41.4%), master's degree (9.0%), professional degree (e.g. DDS, JD, MD; 1.4%), and doctorate degree (e.g. PhD, PsyD, EdD; 1.4%).

Sample Size. Two hundred and sixteen participants were sampled from the university population and 98 (45%) were excluded from the study. Data of participants were excluded because of failure to follow directions (i.e. missed an attention check) or not finishing the survey. The data of 118 university participants were used in the university participant study.

Four hundred and thirty-two MTurk workers participated in the data collection process. One hundred and fifty-three MTurk workers (35%) were excluded for: attempting to take the survey twice, failing to follow direction (i.e. missed an attention check), not being located in the United States, not being born or raised in the United States (in case of language/dialect differences from home country), and/or having a shared location (shared IP address and/or GPS). Data from a total of 278 participants were used in the MTurk study.

Design

The study was a between-subjects design. Participants were randomly assigned to one of four conditions. The condition was randomly generated when participants began the survey. Each condition had a text message introduction from a therapist to a client (see Appendix A). The introduction varied on language usage for each message: (a) the therapist used *jargon* in the message, (b) the therapist used *jargon and layman* language to explain the jargon, (c) the therapist only used *layman* language, and (d) the therapist used *text speak* in the introduction. Participants were asked to read one of the four text

message introductions and to rate the therapist on attractiveness (e.g. likability, sociability), expertness, trustworthiness, and how likely the participant would use the services of the therapist. The therapist ratings were compared across the groups.

Measures

Counselor Rating Form-Short Version. The short version of the Counselor Rating Form (CRF-S; Corrigan & Schmidt, 1983) was used to measure attractiveness, expertness, and trustworthiness (see Appendix B). Twelve items were used to measure the constructs. Each construct was measured using four different items. Each item was measured on a seven-point Likert scale from one to seven. The scale used “not very” as the anchor for one and “very” as the anchor for seven (Corrigan & Schmidt, 1983, p. 65). Twenty-eight was the maximum possible score for each construct and four was the minimum possible score. Higher participant scores indicated higher ratings of perception of the therapist on the construct. Lower scores indicated lower ratings of perception of the therapist.

Attractiveness. The construct of attractiveness was measured on the four items of friendly, likable, sociable, and warm. A seven-point Likert scale from one to seven was used to measure each item (Corrigan & Schmidt, 1983). The interitem reliability of the CRF-S attractiveness scale is $r=.91$ (Ponterotto & Furlong, 1985).

Expertness. The construct of expertness was measured on the four items of experienced, expert, prepared, and skillful. A seven-point Likert scale from one to seven was used to measure each item (Corrigan & Schmidt, 1983). The interitem reliability of the CRF-S expertness scale is $r=.90$ (Ponterotto & Furlong, 1985).

Trustworthiness. The construct of trustworthiness was measured on the four items of honest, reliable, sincere, and trustworthy. A seven-point Likert scale from one to

seven was used to measure each item (Corrigan & Schmidt, 1983). The interitem reliability of the CRF-S trustworthiness scale is $r=.87$ (Ponterotto & Furlong, 1985).

Use of Therapist's Services. Participants were asked to rate how likely they would be to use the services of the therapist (see Appendix C). This was done on a seven-point Likert scale from one to seven and used the same anchors as the CRF-S. Lower scores indicated a lesser likelihood of seeking out the therapist for services and higher scores indicated a higher likelihood of seeking out the therapist for services.

Other Therapist Ratings. Participants were also asked to rate how relatable they found the therapist and how likely the client in the text message would be to continue using the services of the therapist (see Appendix C). These were measured on seven-point Likert scales using the same points and anchors as the CRF-S.

Manipulation Checks. Participants were asked if they found anything strange about the study, the text message they read, and asked to rate the message read on level of jargon, layman, and text speak used in the message (see Appendix C). The message ratings were done on a seven-point Likert scale from zero to six. The anchors used were “no” for zero and “all” for six.

Mental Health and Stigma. Participants were asked several questions about their mental health, use of mental health services, and stigma regarding mental health (see Appendix D). Participants were asked if they had a mental health disorder diagnosis and what disorder(s) they had been diagnosed. Participants were also asked if they had received mental health services and what types of services they had received.

Stigma. Only two items were used to measure stigma in order to help conserve time during the survey. One item was from the Stigma Scale for Receiving

Psychological Help (SSRPH; Komiya, Good, & Sherrod, 2000). The other item was from the Self-Stigma of Seeking Help (SSOSH) scale (Vogel, Wade, & Haake, 2006). Each item was chosen from its respective scale based on item-total correlation. “People will see a person in a less favorable way if they come to know that he/she has seen a psychologist” (Komiya et al., 2000, p. 140) was used from the SSRPH and had an item-total correlation of $r=.64$. “It would make me feel inferior to ask a therapist for help” (Vogel et al., 2006, p. 327) was used from the SSOSH scale and had an item-total correlation of $r=.80$. Each item was measured on a five-point Likert scaled used from the SSOSH. One was “strongly disagree,” three was labeled with “agree and disagree equally,” and “strongly agree” was five (Vogel et al., 2006, p. 327). Higher scores indicated higher levels of stigma and lower scores were related with lower levels of stigma toward mental health services.

Demographics. Several demographics questions were asked of the participants (See Appendix E). Participants were asked to state their age, their identified gender, level of education, and ethnicity origin (or race).

Procedure

The surveys were created using Qualtrics. Each Qualtrics survey contained a pre-screening questionnaire (see Appendix F), questions about mental health and stigma (see Appendix D), demographic questions (see Appendix E), a fictitious text message introduction (see Appendix A), and scales to rate the therapist in the introduction (see Corrigan & Schmidt, 1983 and Appendix B and C).

Participation in this study took approximately 15 minutes and the study was available online. Participants were first presented with a pre-screening questionnaire (see

Appendix F) that asked the participants to complete a captcha, answer if they were a resident of the United States, answer if they were a native English speaker, answer an attention check, and answer on which type of device the participant was taking the survey. MTurk Workers were also asked to provide their MTurk ID during the pre-screen. Once the pre-screen was completed, participants were presented with an implied consent document (see Appendix G). After reading the document, the participant was prompted with a question asking if they want to proceed with the study. If the participant chose “I do NOT wish to participate,” the study was terminated for the participant. If the participant chose “I wish to participate,” the participant began the study.

Participants were presented with a description of the study and instructions for how to proceed. After continuing past the study description and instruction, participants were provided with one of the four fictitious text message introductions by the therapist to the client (see Appendix A). The therapist’s portion of the conversation was composed using one of four different styles:

1. Psychological jargon (technical and profession language used in psychology),
2. Jargon with layman explanations (technical language with simple explanations),
3. Layman language (simple and nontechnical),
4. Text speak (i.e. lol, txt, ur).

Participants rated the therapists using scales that were similar to those used in previous research (e.g. Atkinson & Carskaddon, 1975; Barak et al., 1982). These included the CRF-S (see Appendix B), the rating of using the therapist’s services (see Appendix C), and the other therapist ratings (see Appendix C). After reading the text message and rating the therapist, participants were given a chance to respond to the

manipulation check questions (see Appendix C), asked questions relating to mental health and stigma (see Appendix D), and given the demographics questions.

Participants rated the therapists using scales that were similar to those used in previous research (e.g. Atkinson & Carskaddon, 1975; Barak et al., 1982). These included the CRF-S (see Appendix B), the rating of using the therapist's services (see Appendix C), and the other therapist ratings (see Appendix C). After reading the text message and rating the therapist, participants were given a chance to respond to the manipulation check questions (see Appendix C), asked questions relating to mental health and stigma (see Appendix D), and given the demographics questions.

Once the participant finished the demographic questions, the participant was debriefed with a full description of the study, asked not to share anything about the task completed, and thanked for their time. The university participants were shown a message with instructions to enter a lottery to win a \$20 gift card and then redirected to their website of origin. MTurk workers were provided with a survey code and directed back to their website of origin. Compensation was administered upon completion of the study.

Analysis

The analysis of all data in the study was conducted using SPSS and jamovi. Analysis of variance was used to examine mean difference across the four conditions (jargon message, jargon with layman explanation message, layman message, and text speak message). The national (MTurk) sample and the university sample were examined separately from each other. Planned comparisons were also conducted. Attractiveness between the layman messages (layman and jargon with layman explanations) and the jargon only message was examined using a planned comparison because of the

hypothesis that therapists using layman language will be perceived higher in attractiveness than when using only jargon. Expertness was examined in two contexts: 1) jargon messages (jargon and jargon with layman explanations) compared to no jargon in message (layman and text speak) and 2) text speak message compared to the other three messages. The comparison of expertness for jargon messages to no jargon messages was planned because of the hypothesis that the conditions using jargon will have higher perceived expertness for the therapist than when not using jargon. The planned comparison of expertness between the text speak condition to the other three conditions was done because of the hypothesis that text speak was expected to be lower in expertness and use of services when compared to the other conditions.

Results

Table 1

Ratings on Attractiveness by Sample and Condition

Sample	Condition	Mean	SD	Lower Bound	Upper Bound
MTurk	Jargon	20.73	5.91	19.36	22.10
	Jargon/Layman	20.98	5.22	19.67	22.30
	Layman	22.67	4.62	21.57	23.77
	Text Speak	16.58	5.35	15.28	17.89
University	Jargon	20.04	5.79	17.75	22.33
	Jargon/Layman	19.38	6.15	16.90	21.87
	Layman	23.72	3.77	22.16	25.28
	Text Speak	15.70	5.06	13.70	17.71

Note: The means, SDs, and 95% CIs are listed from the National and University samples for attractiveness on the CRF-S

Attractiveness

The means, SDs, and CIs for the participants' ratings on attractiveness from the CRF-S were obtained (see Table 1).

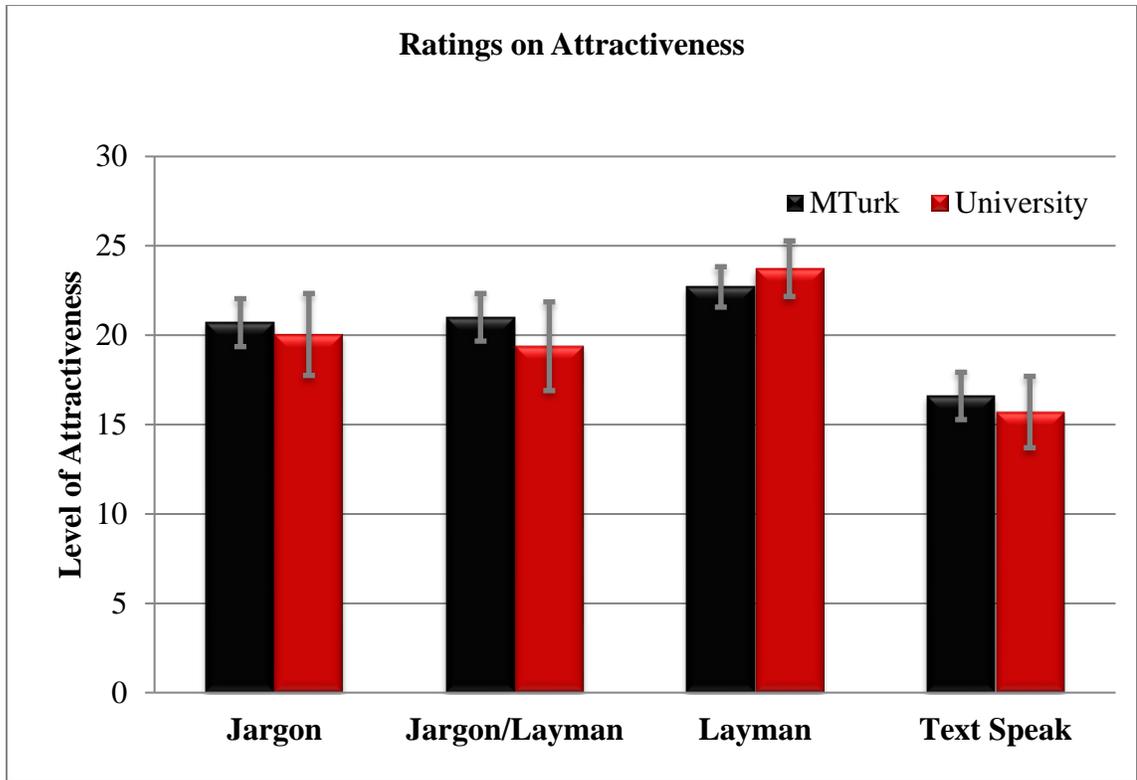


Figure 1. The participants' mean ratings with 95% confidence intervals on attractiveness for the National and University Sample

National Sample (MTurk). A significant difference for attractiveness was found across the four message conditions ($F(3, 270)=16.1, p<.001, \eta^2= 0.15$; see Figure 1). A post hoc analysis indicated that the text speak condition was significantly lower on attractiveness from the jargon ($p<.001, 95\% \text{ CI } [-6.68,-1.61]$), jargon with layman explanations ($p<.001, 95\% \text{ CI } [-6.88,-1.92]$), and the layman conditions ($p<.001, 95\% \text{ CI } [-8.38,-3.80]$). The planned comparison of attractiveness for the messages containing layman (layman and jargon with layman explanations) and the jargon-only message produced $t(206)=1.47, p=0.07$.

University Sample. A significant difference for attractiveness was found across the four message conditions ($F(3, 55.4)=14.1, p<.001, \eta^2= 0.23$; see Figure 1). A post

hoc analysis (see Figure 2) indicated that the layman condition was significantly higher in attractiveness from the jargon ($p=.04$, 95% CI [0.10,7.27]), jargon with layman explanations ($p=.02$, 95% CI [0.53, 8.14]), and the text speak ($p<.001$, 95% CI [4.74, 11.29]) conditions and that the jargon condition was significantly lower in attractiveness from the layman condition ($p=.04$, 95% CI [-7.27,-0.10]) and significantly higher in attractiveness from the text speak condition ($p=.03$, 95% CI [0.40, 8.26]). The planned comparison of the layman messages and the jargon-only message produced $t(79)=1.20$, $p=0.88$.

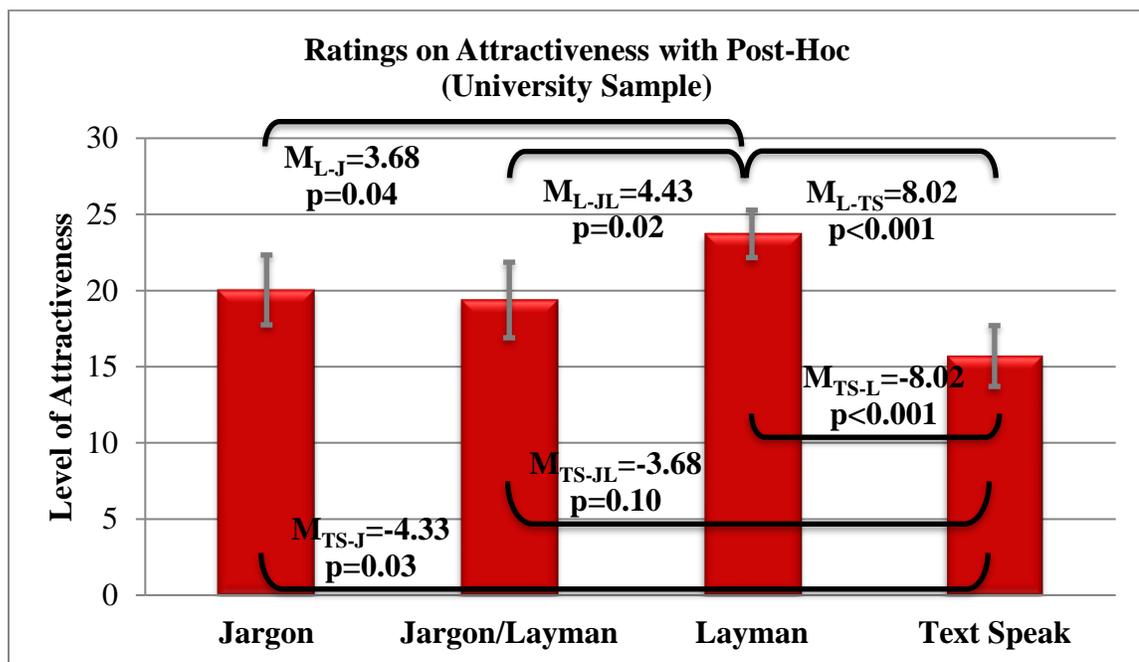


Figure 2. The mean ratings on attractiveness with Games-Howell Post-Hoc mean differences and probabilities for the University Sample

Expertness

The means, SDs, and CIs for the participants' ratings on expertness from the CRF-S were obtained (see Table 2).

Table 2

Ratings on Expertness by Sample and Condition

Sample	Condition	Mean	SD	Lower Bound	Upper Bound
MTurk	Jargon	23.61	3.89	22.71	24.51
	Jargon/Layman	23.41	3.68	22.49	24.34
	Layman	23.26	4.29	22.23	24.28
	Text Speak	11.67	6.33	10.15	13.19
University	Jargon	23.37	5.12	21.35	25.39
	Jargon/Layman	23.12	4.56	21.24	25.00
	Layman	22.85	4.87	20.88	24.81
	Text Speak	9.08	4.27	7.35	10.80

Note: The means, SDs, and 95% CIs are listed from the National and University samples for expertness on the CRF-S

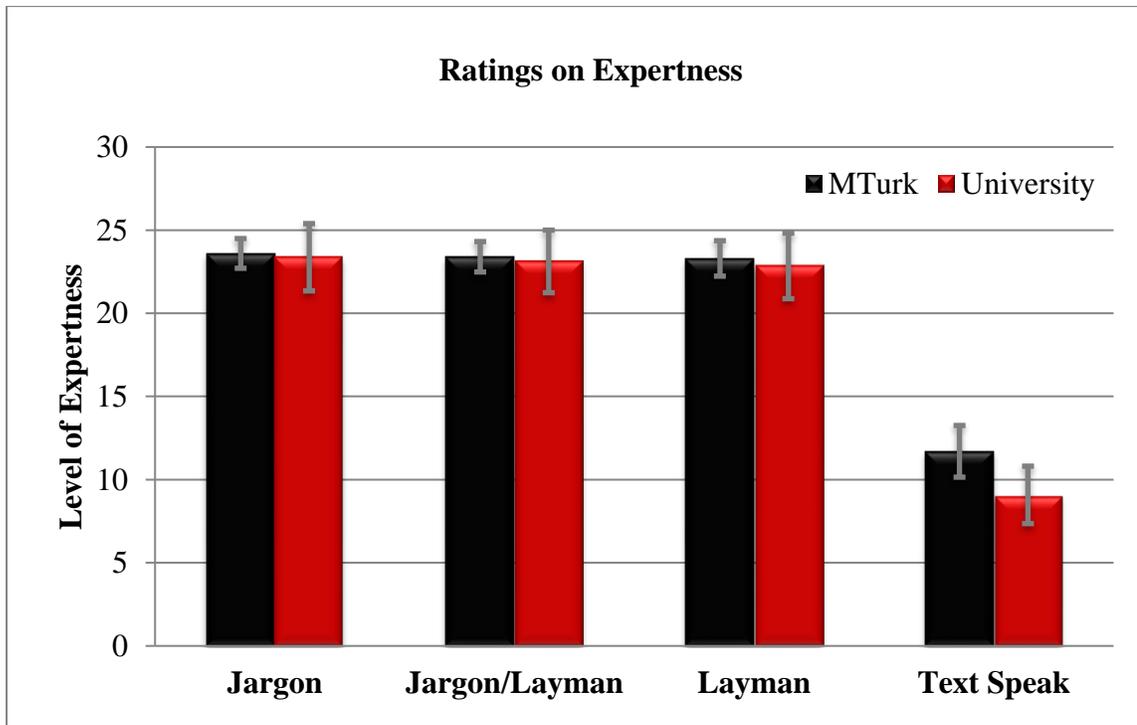


Figure 3. The participants' mean ratings with 95% confidence intervals on expertness for the National and University Sample

National Sample. A significant difference for expertness was found across the four message conditions ($F(3, 149)=70.0, p<.001, \eta^2= 0.55$; see Figure 3). The text speak condition was indicated in a post hoc analysis to have a significantly lower expertness mean from the three other conditions (vs. Jargon: $p<.001, 95\% \text{ CI } [-14.25,-9.63]$; vs. Jargon/Layman: $p<.001, 95\% \text{ CI } [-14.07,-9.42]$; vs. Layman: $p<.001, 95\% \text{ CI } [-13.98, -9.20]$). The planned comparison of jargon messages (jargon and jargon with layman explanation) and the non-jargon messages (layman and text speak) produced $t(275)=10.65, p<.001$. A $t(275)=-18.04 (p<.001)$ was obtained from the planned comparison examining the text speak message and the other three messages.

University Sample. A significant difference for expertness was found across the four message conditions ($F(3, 100)=57.5, p<.001, \eta^2= 0.63$; see Figure 3). The text speak condition was indicated in a post hoc analysis to have a significantly lower expertness mean from the three other text message conditions (vs. Jargon: $p<.001, 95\% \text{ CI } [-17.68, -10.90]$; vs. Jargon/Layman: $p<.001, 95\% \text{ CI } [-17.50, -10.59]$; vs. Layman: $p<.001, 95\% \text{ CI } [-17.19, -10.35]$). The planned comparison of jargon messages (jargon and jargon with layman explanation) and the non-jargon messages (layman and text speak) produced $t(103)=7.86, p<.001$. A $t(103)=-13.12, p<.001$, was obtained from the planned comparison examining the text speak message and the other three messages.

Participant's Use of Therapist

The means, SDs, and CIs for the participants' ratings on using the therapist's services were obtained (see Table 3).

National Sample. A significant difference for the participant's likelihood of using the services of the therapist was found across the four message conditions

($F(3,151)=39.9, p<.001, \eta^2= 0.28$; see Figure 4). A post hoc analysis indicated that the text speak condition had a significantly lower use of services mean when compared to the three other conditions (vs. Jargon: $p<.001, 95\% \text{ CI } [-3.60,-1.99]$; vs. Jargon/Layman: $p<.001, 95\% \text{ CI } [-3.39, -1.65]$; vs. Layman: $p<.001, 95\% \text{ CI } [-3.53,-2.01]$).

Table 3

Ratings on Use of Therapist's Services by Sample and Condition

Sample	Condition	Mean	SD	Lower Bound	Upper Bound
MTurk	Jargon	4.88	1.95	4.43	5.33
	Jargon/Layman	4.61	2.08	4.09	5.13
	Layman	4.86	1.72	4.45	5.27
	Text Speak	2.09	1.75	1.67	2.51
University	Jargon	3.71	1.68	3.06	4.36
	Jargon/Layman	3.77	1.93	2.99	4.55
	Layman	4.46	2.10	3.61	5.31
	Text Speak	1.37	0.69	1.10	1.64

Note: The means, SDs, and 95% CIs are listed from the National and University samples for the use of therapist's services

University Sample. A significant difference for the participant's likelihood of using the services of the therapist was found across the four message conditions ($F(3, 50.4)=35.3, p<.001, \eta^2= 0.33$; see Figure 4). A post hoc analysis indicated that the text speak condition had a significantly lower use of services mean when compared to the three other conditions (vs. Jargon: $p<.001, 95\% \text{ CI } [-3.47, -1.42]$; vs. Jargon/Layman: $p<.001, 95\% \text{ CI } [-3.48, -1.31]$; vs. Layman: $p<.001, 95\% \text{ CI } [-4.27, -1.91]$).

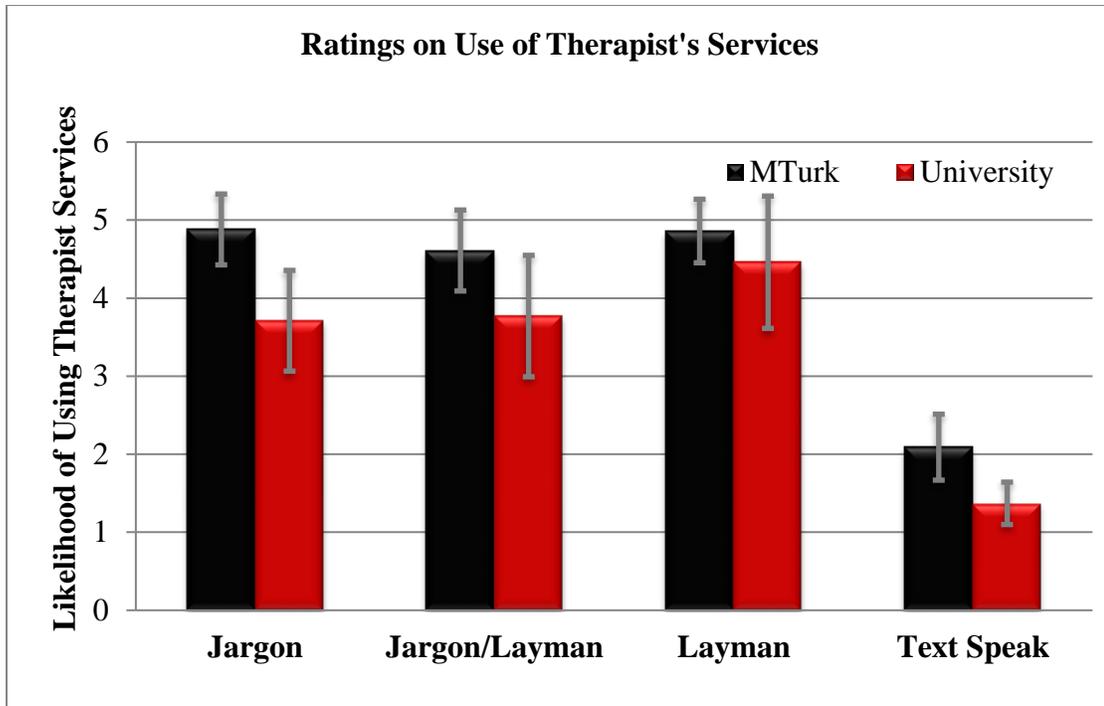


Figure 4. The participants' mean ratings with 95% confidence intervals on likelihood to use the services of the therapist for the National and University Sample

Trustworthiness

A hypothesis was not made for trustworthiness, but an exploratory analysis was conducted because the CRF-S measured it. The means, SDs, and CIs for the participants' ratings on using the therapist's services were obtained (see Table 4).

National Sample. An analysis of variance was conducted on the trustworthiness component of the CRF-S. A significant difference was found across the means of the four conditions ($F(3,148)=37.2, p<.001, \eta^2= 0.35$; see Figure 5) with a post hoc indicating that the text speak message condition was significantly different from the three other conditions (vs. Jargon: $p<.001, 95\% \text{ CI } [-9.65, -5.25]$; vs. Jargon/Layman: $p<.001, 95\% \text{ CI } [-9.28, -4.83]$; vs. Layman: $p<.001, 95\% \text{ CI } [-10.26, -6.05]$).

Table 4

Ratings on Trustworthiness by Sample and Condition

Sample	Condition	Mean	SD	Lower Bound	Upper Bound
MTurk	Jargon	22.51	4.36	21.47	23.54
	Jargon/Layman	22.11	4.23	21.05	23.18
	Layman	23.21	3.81	22.31	24.12
	Text Speak	15.06	5.54	13.73	16.39
University	Jargon	21.68	4.60	19.89	23.46
	Jargon/Layman	21.27	4.88	19.30	23.24
	Layman	23.28	4.46	21.44	25.12
	Text Speak	13.22	4.54	11.43	15.02

Note: The means, SDs, and 95% CIs are listed from the National and University samples for trustworthiness on the CRF-S

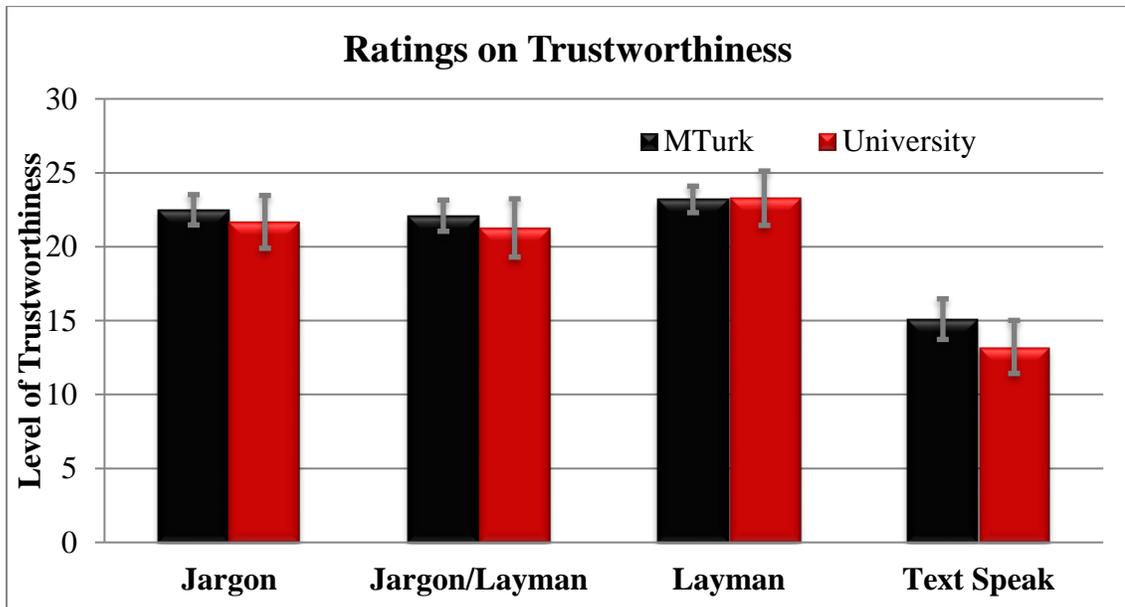


Figure 5. The participants' mean ratings with 95% confidence intervals on trustworthiness for the National and University Sample

University Sample. Trustworthiness was also examined using analysis of variance for the university sample and a significant difference for trustworthiness was found across the four message conditions ($F(3,102)=25.3, p<.001, \eta^2= 0.43$; see Figure

5). A post hoc analysis indicated that the text speak message condition was significantly different from the jargon ($p < .001$, 95% CI [-11.71, -5.20]), jargon with layman ($p < .001$, 95% CI [-11.37, -4.73]), and layman ($p < .001$, 95% CI [-13.41, -6.71]) conditions.

Discussion

With advances in technology and its use in psychological interventions, understanding the language used in technology-based interventions, like text messages, has become critical. Most research to date has focused on the language of clients, and has typically overlooked the language of the therapist conducting the intervention. Previous research has indicated that the language of the therapist in face-to-face (FtF) interventions affects the therapist's perception by individuals. Atkinson and Carskaddon (1975) and Barak et al. (1982) indicated that a therapist's language in FtF interventions influences an individual's perception of the therapists. Jargon usage increases a therapist's perceived expertness and layman language usage increases the therapist's perceived attractiveness (i.e. likability). But, the effects of a therapist's language in computer-mediated communication (CMC) have yet to fully be explored. The purpose of this study was to examine how the use of jargon, jargon with layman explanations, layman, and text speak influenced the perception of a therapist in CMC.

Attractiveness

The attractiveness results indicated that there was no significant difference between the use of jargon, jargon with layman explanations, and layman language for the national (MTurk) sample. The university sample did have significantly higher ratings of attractiveness in the layman condition compared to the jargon and jargon with layman conditions. Both samples had rated the text speak condition significantly lower on attractiveness compared to the jargon and layman condition. The text speak condition

was rated lower in attractiveness when compared to the jargon with layman explanations condition only be the national sample.

An individual's perception of attractiveness appears to be influenced by the use of text speak and layman language. A college student's perception of therapist's attractiveness seems to increase when the therapist uses layman language. The use of text speak appears to decrease the perceived attractiveness of the therapist for a college population and the general population.

Expertness

The expertness results indicated that no significant difference existed among the means of the jargon, jargon with layman explanations, and layman conditions for both samples. The text speak condition was found to be significantly lower in expertness compared to the other three conditions. These findings indicate that the perceived expertness of the therapist appears to diminish if the therapist uses text speak.

Participant's Use of Therapist

The ratings from the participants' use of the therapist's services suggested that no significant difference existed among the jargon, jargon with layman explanations, and layman conditions for both samples. The use of services was found to be significantly lower for participants in the text speak condition from both samples. The use of text speak by the therapist appears to decrease the likelihood that an individual will seek out the therapist for services.

Trustworthiness

Though a hypothesis was not made regarding trustworthiness, the results were examined for exploratory means. No significant difference was found for trustworthiness when comparing the jargon, jargon with layman explanations, and layman conditions for

both samples. Trustworthiness was found to be significantly lower for the text speak condition when compared to the other three conditions for both samples. Based on these results, it can be inferred that the use of text speak appears to diminish the perceived trustworthiness of the therapist, but further research needs to explore the influence of text speak on trustworthiness.

Text Speak

The results of the text speak condition on attractiveness, expertness, trustworthiness, and the likelihood the participant would use the services of the therapist are the most noteworthy. In the national sample, using text speak reduced the attractiveness, expertness, and the likelihood the participant would use the services of the therapist. The analysis of the university sample produced similar results to the national sample, with the exception of the text speak condition not being significantly different from the jargon with layman explanations condition. An exploratory examination of trustworthiness indicated that the perception of trustworthiness was significantly reduced in the text speak condition when compared to the jargon, jargon with layman explanations, and layman only conditions. These findings indicate that the use of text speak appears to diminish the overall perception of a therapist.

Implications

The results of this study can be used to help develop guidelines for language usage in CMC-based interventions. Within the university sample, perceived attractiveness was higher when the therapist used layman language. Thus, using layman language with college students should be encouraged because it increases perceived likability and sociability of a therapist. Though the national sample did not produce the

same results regarding the perception of attractiveness between the jargon, jargon with layman, and the layman conditions, avoiding text speak appears to be a good general rule based on the overall pattern of results.

Limitations

An important limitation to this study was the sample of college students and MTurk workers. Just as with most studies, college students may not be truly representative of the general population. As indicated by the lack of diversity in ethnicity/race and gender, a college student sample is not representative of the general population. Though the addition of MTurk workers helps to increase the generalizability of the study, it is possible that those who work for MTurk may also not be a true representation of the general population. Hitlin (2016) reported that MTurk workers differ from the general population in level of education and age. To generalize the findings of this study, the assumption must be made that the university student sample and MTurk workers who participated were similar enough to other college students and other CMC users.

The possibility of the sample not being representative of the population may hinder the ability to generalize to the greater population. The external validity of the study may be weakened by the assumed similarities of the university students in the study, MTurk workers in the study, and the general population.

Concerns with Mechanical Turk Data. Recently, concerns have arisen about the quality of data obtained from MTurk (Dreyfuss, 2018; Stokel-Walker, 2018). Some have reported concerns that MTurk workers are using bots to complete surveys on MTurk. These stories are currently supported by anecdotal evidence and not empirical

evidence, but must be taken seriously when collecting data through MTurk. To help insure that data used was completed by a human, certain safeguards were set in place throughout the survey. These safeguards (see Appendix F) included a captcha, an attention check question that provided the participant with a passage to read with specific instructions of how to answer the question in the passage, and a question that asks the participant to fill in a text box with what type of device the participant was taking the survey. It should also be noted that previous research (e.g. Buhrmester, Kwang, & Gosling, 2011) indicated that the reliability of MTurk data was similar to that of data collected in more traditional ways.

Conflicting Results. The conflicting results of the two samples and previous research (e.g. Atkinson & Carskaddon, 1975; Barak et al., 1982) may be attributed to a few factors. The lack of a significant difference in expertness between the jargon conditions and layman condition does not necessarily indicate a conflict with Atkinson and Carskaddon (1975) or Barak and colleagues (1982). The current study used a different medium (text message compared to video) to provide participants with the differences in language. It is possible that a difference exists in hearing jargon or layman compared to reading it.

Though the university sample had findings consistent with previous research (e.g. Barak et al., 1982) regarding attractiveness, the national sample did not indicate a significant difference between the use of jargon and layman on attractiveness. It is possible that those who use MTurk may be different regarding how they perceive likability and sociability.

The national sample and the university sample also had conflicting results regarding the text speak condition and attractiveness. The national sample participants in the text speak condition rated the attractiveness of the therapist significantly lower than the other three conditions, but the university sample text speak condition participants only rated the therapist lower in attractiveness when compared to the jargon condition and the layman conditions, but not the jargon with layman explanations. It is possible that the length of the jargon with layman condition contributed to non-significant difference when compared to the text message condition (it was longer than the other conditions, see Appendix A) or the smaller size of the university sample may play a role in the non-significant difference. A larger sample of university students may find a significant increase for attractiveness in the jargon with layman condition when compared to the text speak condition.

It is possible that the difference between the national sample and the university sample stem from a difference in age distribution in the samples (see Figure 6). The university sample had a smaller range compared to the national sample. The university sample also had a lower mean age, with the majority of university participants being under 20 years old. This difference in distributions made it difficult to compare and control for age between the two samples.

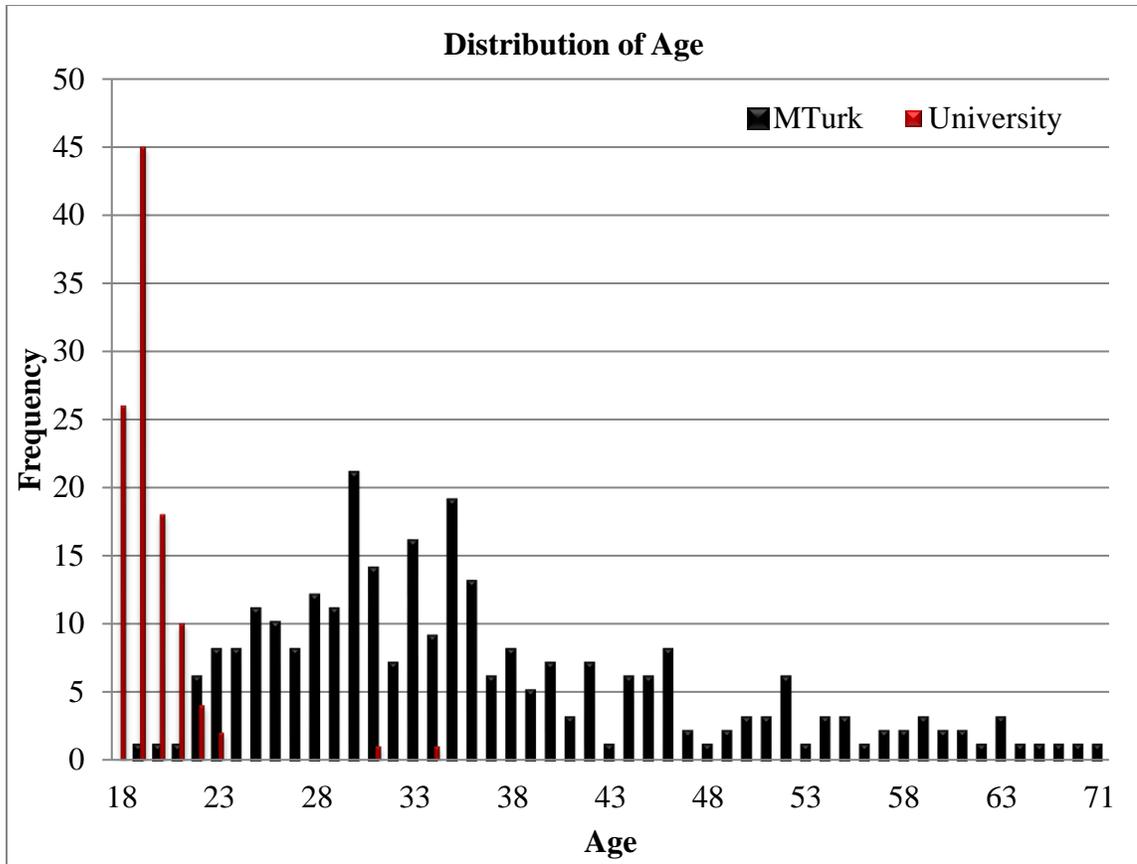


Figure 6. The distribution of age for the National and University Sample

Planned Comparisons. The planned comparison examining the effect of jargon use on expertness indicated that using jargon increases perceived expertness, but that finding is misleading because it is primarily due to the reduced perceived expertness associated with the text message condition included in the non-jargon conditions (see Figure 3). The layman condition is only significantly different from the text message condition and is not significantly different from the jargon messages in regards to expertness.

Future Research

Based on the outcomes of this study, future research would want to examine different populations, a comparison of mediums, different forms of CMC-based

interventions, and trustworthiness. Because of the mixed results in the samples between the jargon condition and the layman condition, future research should examine if differences exist between a college population and non-college population. There is the possibility that the use of a text message intervention influences the perception of the language in the messages. Future research should then examine if a difference exists between reading a text message and reading a transcript from a FtF intervention. The examination of different forms of CMC-based interventions would also be advisable for future research. Online chat and email may be perceived differently than a text message. The perception of trustworthiness is also something that needs to be further explored because previous research has not been found to examine the influence of language on the perception of trustworthiness in CMC.

Conclusion

With text messaging becoming the most popular way to communicate for people (Pew Research Center, 2015; Smith, 2015), therapists need to understand how to better communicate with clients. Though no exact statement can be made about jargon or layman regarding expertise, the use of layman language with college students can help to increase the perceived attractiveness (e.g. likability and sociability) of a therapist. Taken together these findings suggest that the use of text speak has a significant negative influence on individuals seeking services from a therapist and the perception of the therapist as a whole (attractiveness, expertness, and trustworthiness). Therapists should avoid the use of text speak in messages with clients. Avoiding text speak may be a way to help create stronger effective communication and therapeutic relationship.

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Appendix A

Therapist Text Messages

Jargon:

Hi Jamie, my name is Dr. Smith. I hope you are having a good day. I'm the clinical psychologist you met during your intake at the counseling center. Because of your interest in using computer-mediated communication as how you would like counseling, we scheduled this first session. During your intake, you had expressed discomfort with your social anxiety/phobia. To address your social anxiety, we'll approach this from a cognitive-behavioral view. We'll use systematic desensitization to help reduce your anxiety. How's that sound to you?

Jargon/Lay Explanations:

Hi Jamie, my name is Dr. Smith. I hope you are having a good day. I'm the clinical psychologist, or therapist, you met during your intake, or our first in-person meeting, at the counseling center. Because of your interest in using computer-mediated communication (such as text and email) as how you would like counseling, we scheduled this first session. During your intake, you had expressed discomfort with your social anxiety/phobia, or fear of being judged in social situations. To address your social anxiety, we'll approach this from a cognitive-behavioral view, which focuses on your behaviors, emotions, and thoughts. We'll use systematic desensitization (slowly expose you to social situations) to help reduce your anxiety and fear. How's that sound to you?

Layman:

Hi Jamie, my name is Dr. Smith. I hope you are having a good day. I'm the therapist you met during your first in-person meeting at the counseling center. Because of your interest

in using text and email as how you would like counseling, we scheduled this first session. During our in-person meeting, you had expressed discomfort with your fear of being judged in social situations. To address your fear, we'll approach this from a view that focuses on your behaviors, emotions, and thoughts. We'll slowly expose you to social situations to help reduce your fear. How's that sound to you?

Text Speak:

Hi Jamie, my name is Dr. Smith. I hope u r having a good day. I'm the therapist u met during ur first in-person meeting @ the counseling center. Cuz of ur interest in using txt n email as how u wud like counseling, we scheduled this first session. During our in-person meeting, u had expressed discomfort with ur fear of being judged in social situations. 2 address ur fear, we'll approach this from a view that focuses on ur behaviors, emotions, and thoughts. We'll slowly expose u to social situations 2 help reduce ur fear. Howz that sound 2 u?

Appendix B

Counselor Rating Form-Short Version

(Corrigan & Schmidt, 1983)

On the following pages, each characteristic is followed by a seven-point scale that ranges from “not very” to “very”. Though all of the following characteristics we ask you to rate are desirable, therapists may differ in their strengths. We are interested in knowing how you view these differences.

- 1. SINCERE**

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very
- 2. SKILLFUL**

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very
- 3. HONEST**

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very
- 4. EXPERT**

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very
- 5. LIKABLE**

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very
- 6. SOCIABLE**

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very
- 7. WARM**

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very
- 8. TRUSTWORTHY**

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very
- 9. EXPERIENCED**

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very

10. RELIABLE

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very

11. PREPARED

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very

12. FRIENDLY

not very _____ : _____ : _____ : _____ : _____ : _____ : _____ very

Appendix C

Miscellaneous Therapist Ratings and Manipulation Checks

1. How relatable do you find the therapist on a seven-point scale from “not very relatable” to “very relatable”?

not very _____:_____:_____:_____:_____:_____:_____ very

2. How likely do you think the client will continue counseling with the therapist on a seven-point scale from “not very likely” to “very likely”?

not very _____:_____:_____:_____:_____:_____:_____ very

3. How likely would you be to see this therapist for counseling on a seven-point scale from “not very likely” to “very likely”?

not very _____:_____:_____:_____:_____:_____:_____ very

Did you find anything strange about the study? If so, please indicate what you found strange in the box below.

In the box below, please indicate if anything about the messages may have influenced your rating of the therapist in the conversation.

We would now like you to rate the message you read based on how strongly you felt it used jargon, layman language, and text speak.

Jargon is technical language (e.g., bone fracture) that is associated with a profession.

Layman is simple and nontechnical language (e.g., broken bone) used in place of jargon.

Text speak is language often associated with text messages and email (e.g., LOL).

On a scale from 0 to 10, please rate the strength of jargon usage in this message.

(0 – no jargon, 10 – all jargon)

On a scale from 0 to 10, please rate the strength of layman usage in this message.

(0 – no layman, 10 – all layman)

On a scale from 0 to 10, please rate the strength of text speak usage in this message.

(0 – no text speak, 10 – all text speak)

Appendix D

Mental Health and Stigma

Is there anything about yourself that may have influenced your ratings of the therapist?

Please answer the following questions to the best of your abilities. Your answers to the following questions will NOT have an effect on receiving compensation for this survey.

There are no wrong answers and your responses are anonymous.

Have you ever been diagnosed with a mental health disorder?

Yes

No

What have you been diagnosed with? (Type NA if does not apply)

Have you ever received mental health services/treatment (e.g. counseling, therapy)?

Yes

No

How have you received services/treatment?

In person

Online

Text message

Other

Have not received services

What type of services/treatment have you receive? (e.g. CBT, medication, psychodynamic) (Type NA if does not apply)

Please rate how strongly you agree or disagree with each statement

People will see a person in a less favorable way if they come to know that he/she has seen a psychologist

1 Strongly agree

2

3 Agree or Disagree Equally

4

5 Strongly Agree

It would make me feel inferior to ask a therapist for help

1 Strongly agree

2

3 Agree or Disagree Equally

4

5 Strongly Agree

Appendix E
Demographic Questions

What is your age?

What is your gender?

Male

Female

Transgender Female

Transgender Male

Gender Variant/Non-Conforming

Not Listed

Prefer Not to Answer

Is English your primary language?

Yes

No

What is your highest level of completed education?

No schooling completed

Nursery school to 8th grade

Some high school, no diploma

High school graduate, diploma or the equivalent (for example: GED)

Some college credit, no degree

Trade/technical/vocational training

Associate degree

Bachelor's degree

Master's degree

Professional degree (i.e. DDS, JD, MD, ...)

Doctorate degree (i.e. Phd, PsyD, EdD, ...)

Ethnicity Origin (or Race):

American Indian or Native American or Native Alaskan

Asian

Black or African American

Hispanic or Latina/o

Native Hawaiian or Other Pacific Islander

White

Other

Appendix F

Pre-screening Questionnaire

The following is a screening survey to see if you qualify for participation in this study.



Please type the letters and/or numbers from above. This is case sensitive.

Are you a resident of the United States?

Are you a native English speaker?

When determining a gift for a loved one, you must take into consideration four things.

The first is if your loved one will enjoy the gift. The second is if the gift will be useful to your loved one. The third is that you must select disagree as the answer to this question.

The fourth thing that must be considered is the cost of the gift. You must always make sure that the gift you get for a loved one is not just something you enjoy.

How well do you agree or disagree with this statement?

Strongly agree

Agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Disagree

Strongly agree

What type of device are you taking this survey on?

Appendix G

Implied Consent Form



IMPLIED CONSENT

Project Title: Communication Styles in a Text Message-Based Therapy Session

Investigator: Robert E. Twidwell, Psychological Sciences.
robert.twidwell848@topper.wku.edu

You are being asked to participate in a project conducted through Western Kentucky University. The University requires that you give your agreement to participate in this project.

You must be 18 years old or older to participate in this research study.

The investigator will explain to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may ask any questions you have to help you understand the project. A basic explanation of the project is written below. Please read this explanation and discuss with the researcher any questions you may have. You should keep a copy of this form for your records.

1. **Nature and Purpose of the Project:** The nature and purpose of this project is to investigate an individual's view of a therapist during a text message-based session.
2. **Explanation of Procedures:** All participants will be asked to read a therapist's introductory text message to a client. After reading the conversation, participants will be asked to rate the therapist on scales related to expertise, likeability, relatability, and trustworthiness. After rating the therapists, participants will complete a demographic questionnaire.
3. **Discomfort and Risks:** The possible risks or discomfort include minimal eyestrain equivalent to what might occur from approximately 15 minutes' work on a computer or reading and writing on paper.
4. **Benefits:** Participants may become further informed as to how the use of certain communication influences an individual's view of a therapist.
5. **Confidentiality:** No name or account information will be associated with the response data. The data will be kept on a machine that requires a password or in a limited-access room.
6. **Refusal/Withdrawal:** Refusal to participate in this study will have no effect on any future services you may be entitled to from the University. Anyone who agrees to participate in this study is free to withdraw from the study at any time with no penalty.

You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

Your continued cooperation with the following research implies your consent.

THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT
THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY
THE WESTERN KENTUCKY UNIVERSITY INSTITUTIONAL REVIEW BOARD
Robin Pyles, Human Protections Administrator
TELEPHONE: (270) 745-3360