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The Use of Emoticons in Text-Based Therapy

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Abstract

Background: With the globe in a critical situation, clinicians and psychologists are tapping into several mediums to provide psychological help. However, clinical therapy is still a luxury to many, which makes it important to set guidelines for the existing media. Professionals must work from a conceptual framework coupled with ethics and accuracy.

Considering the rise in mental distress among the vulnerable population, more accessible media like text-messaging and video-calling are being adopted, making psychological practice feasible even with limited resources.

Objective: This paper is an attempt to make text-based therapy more guided. One aspect of computer-based communication is the use of emoticons. It will be covering the use of this feature in a therapeutic context.

Methods: A manual literature review was conducted to conclude the effective use of emoticons in text therapy. Studies evaluating text-based psychological interventions were included.

Results: Through this study, it can be concluded that the use of emoticons might be appropriate in context to professional text-based therapy. fMRI studies were also reviewed to gain neural correlates of emoticons.

Conclusions: The premise to create an ethical therapeutic space could be generated through vigilant professionalism and empathy even if it is on a mobile screen. Although text-based therapy is a budding practice yet the future implications of this study could lead to specialized courses and professional practices. Moreover, through text-based therapy, seeking help can become more accessible.

Since this paper is a literature review, it falls far from considering the practical aspect of the presented results.

Keywords: text-based therapy, emoticons, textual treatment, emojis, text messaging

Introduction

Only a few individuals with mental illnesses have access to mental health care, but most of them have access to a cellular device. The digital revolution holds a lot of potential for improving access to quality mental health care. Little but promising research suggests the effectiveness and availability of computer-mediated communication. Digital mental health care has taken various forms. With the globe going through a pandemic, there has been a rise in psychological distress. To work around this, more convenient resources like video calling and text messaging are being used to provide help.

Text-based therapy is a rising practice that has gained notice in recent years. It refers to a text-based interaction between a therapist and an individual typically through a commercial service provider. Individuals may send text messages instead of directly speaking or visiting their therapists. Although this practice has gained followers and a lot of counselors are using this to establish better rapport to conduct effective sessions, the field as a 'practice' lacks research.

Despite the large volume of research supporting the effectiveness of face-to-face treatments, the majority of adults undergoing anxiety and depression are unable to seek psychotherapy treatment due to the barriers to accessing care (Young, Klapp, Sherbourne, & Wells, 2001; Elkin et al., 1989). Significant obstacles to mental health care can occur at various levels. It can happen at the patient level, the provider level, and the broader systemic level (Scheppers, Dongen, Dekker, Geertzen & Dekker, 2006). Other barriers to seeking psychotherapy are geographic location, shortage of practitioners, financial constraints, stigmatization, insurance, and physical impairments (Alleman, 2002; Hollon et al., 2002; Nutting et al., 2002; Young, 2005). These restraints lead to a lack of treatment access, particularly in underserved populations (Mohr et al., 2006). The unavailability of mental health professionals in low-income and middle-income countries is officially evident. It has often been raised as one of the limiting factors to the provision of even basic mental health care. The ratio of mental health professionals to population is estimated to be about 200 times greater in high-income countries than in countries with scarce resources (Sarceno, 2007). These barriers call for strategic innovation in the delivery of psychotherapy.

Although there aren't a lot of studies proving the effectiveness of text-based therapy, yet the ones that have tested its effectiveness are promising. Some data even suggest that computer-mediated treatment may even be more effective than traditional face-to-face therapy (Nelson et al., 2003). In the year 2014, Wagner, Horn, and Maercker conducted a study to investigate the depression outcomes of email-based therapy in comparison to in-person therapy. The authors identified improvement in both the groups directly after treatment, but symptom reduction was visible post-treatment only in the group that received email therapy. Another study comparing an online CBT treatment to a face-to-face CBT treatment found a significantly greater proportion of clinical changes in the online treatment as compared to the traditional CBT treatment (Kessler et al., 2009). Text therapy combined with conventional face-to-face therapy has also shown exceptional merit in diagnosing mental illnesses. It has been used as a feature to conventional therapy by playing the role of reminder, symptom tracker, or even a self-report platform (Fjeldsoe, Marshall, & Miller, 2009; Militello, Kelly, & Melnyk, 2012). In a study, 87% of participants suffering from Bulimia Nervosa adhered to self-monitoring text-based systems. They were also provided with group therapy overlooked by a clinician. The number of binge-eating and purging episodes, as well as symptoms of depression and night eating, decreased significantly (Shapiro et al., 2009). Text therapy has proven to reduce symptoms of depression and anxiety regardless of the length of the treatment (Hull, 2017).

Considering the need for psychological intervention in India, it makes all the more sense to use any available resources to provide mental health care. In an exploratory study, it was observed that SMS text-messaging was feasible and acceptable for the promotion of mental health in young women living in urban slums in Bangalore, India (Chandra, 2014).

Social human interactions are mostly based on emotional affects. This information comes from various sources such as body movements (Stekelenburg & de Gelder, 2004; Van Heijnsbergen et al., 2002). This is because effective information is as important to understand others during a communication (Pessoa, 2009). This subject has caused a crucial body of research to focus on the emotional influence on cognition. It has been observed, for instance, that human faces are processed by integrating their emotional valence (Krombholz et al., 2007; Lynn and Salisbury, 2008; Hinojosa et al., 2015), and the emotional context (Righart & de Gelder, 2008; Diéguez-Risco et al., 2015).

In the past few decades, digital interaction has been experimented and updated to make communication as natural as possible. It has developed to become more abundant and inclusive. Technology can not only be used to provide therapy but also for supporting clinical care, educating health workers, facilitating the diagnosis, and detection of mental disorders. It can also be used to promote treatment adherence and online self-help programs (Naslund, 2017). Clinicians often don't find counseling through social media appropriate because of the lack of professionalism it brings. And so, it becomes all the more important to realize the resource and moderate it to access its absolute potential.

Facial expressions are an abundant source of non-verbal cues in face-to-face communication. They provide cues as resources to express and interpret verbal messages, which may affect the cognitive and emotional processing. Contrary to face-to-face communication, computer-mediated-communication, particularly text-based communication is limited to the use of symbols and texts. To overcome the lack of paralinguistic cues to convey emotional meaning, the experience of texting brings with it many features. Sharing voice notes, images, videos, emoticons, setting background etc. Considering the exponential advances in communication technology, there seems no end. What does this mean for professionals providing text-based therapy? Conventional face-to-face therapy has a set of dos and don'ts in terms of treating patients. Similarly, this growing practice needs research-backed dos and don'ts.

This study is an attempt to explore one such available feature of texting- emoticons, in a therapeutic context.

The lack of non-verbal cues has been considered as a factor that could hinder comprehension during text-based interactions (Kiesler et al., 1984). One feature that has extensively been used to demonstrate emotional intentions on this channel is emoticons. They are considered to be a non-linguistic tool to comprehend messages successfully (Zhou et al., 2004; Hancock et al., 2007). Emoticons are graphical representations of emotions, events and objects. More commonly termed emojis, it is defined as "an iconic, visual representation of an idea, entity, feeling, status or event, that is used alongside or instead of words in digital messaging and social media" (Evans, 2015). It has been observed that interpreting the meaning in text-based messages is often affected by the emoticons, which even facilitates the use of sarcasm in communication through the creation of vagueness by manipulating the emotional valence (Derks et al., 2008). This issue is important to be considered because textual language is often characterized by ambiguity and it requires paralinguistic information for accurate comprehension (Cornejo et al., 2007, 2009; Gibbs and Colston, 2012). This, in fact, is more difficult in online channels. It was

concluded in a study that text messages with happy emoticons were perceived more positively than text messages presented with sad emoticons (Aldunate et al., 2018). Research results like these can be used to make text-based therapy more effective. In this study, similar existing research conclusions on emoticons will be used to reason their applicable use in a therapeutic context.

Methods

Research studies were chosen that evaluated digital technology interventions. These interventions were specific to the following mental illnesses-

Schizophrenia, bipolar disorder, depression, including depressive symptoms and major depressive disorders, substance misuse, anxiety disorders, post-traumatic disorders.

Interventions involved the use of mobile phones, online, or other digital technology, which included smartphones, internet-delivered programs, text-messaging, telepsychiatry, and mobile applications.

Only specific interventions that could target adolescents and young adults were included.

Studies that analyzed brain activities and neural correlates of text-based emoticons were also included. These studies were reviewed and conclusions were drawn to suit the therapeutic context. All the conclusions drawn, require practical studies for further consideration.

Results

For a lot of professionals, residing in text-based therapy sounds like a huge ethical stretch. The conventional face-to-face therapy or counseling sessions has its proof of effectiveness. The traditional practice of psychotherapy, with the professional across the patient, has gradually evolved. Although these two people come together to discuss personal experiences, yet there has always been a sense of professionalism between them. Considering the COVID-19 pandemic situation that swept the globe, the call for mental health care is at its new peak. The unavailability of face-to-face interaction between clinicians and their clients is alarming. This situation calls for an immediate alternative. As mentioned earlier, professionals are switching to computer-mediated communication to connect with their clients either through video conferences or through texting servers. Considering the scope of this study, professionals do not feel comfortable taking therapeutic sessions over text-based servers, which makes sense. They find their interfaces impersonal and unprofessional. Popular servers like WhatsApp, Instagram are used for personal interaction. A patient connected with a therapist in their personal space or vice versa is ethically questionable. To make text-based therapy work, a therapist needs to set ground rules. More often emailing platforms are used for text-based therapy to maintain a professional setting that has its consequences. For instance, emailing often becomes monotonous and doesn't have the personal touch. The closest that technology can come to professional and personal is by a strictly regulated use of servers like Whatsapp and Instagram. To optimize these platforms it is important to set certain constraints to a client-therapist interaction.

This paper spans to cover the appropriate use of emoticons in a chat server in a therapeutic context. The use of pictures or graphics to share emotional status sounds far from professional. The use of facial expressions has been an important aspect of social communication. In a digital interface, emoticons provide these non-verbal cues. These emoticons act as paralingual cues while communicating through computers. Additionally, emoticons comprise of a valuable resource for language comprehension by

providing expressivity to text messages (Aldunate& Gonzalez-Ibanez, 2017). Emoticons are considered to be a humanized tool for emotional expressiveness that provides natural cues only present in face-to-face and voice-to-voice communication. They provide enjoyment (Huang et al., 2008) and they also make the text-messages more comprehensive (Walther & D'Addario, 2001). The use of emoticons provides a more accurate understanding of emotions, affects, attitudes, and intentions during text-based communication (Lo, 2008).

In a study, it was observed that emoticon-based feedback systems in patients' rooms significantly increased the usage of hand-rub dispensers, in comparison to other situations (Guabe, 2018). In this study, before using an alcohol-based hand-rub dispenser, a frowny face was displayed, indicating that hand hygiene should be performed. If the dispenser was then used, this picture changed to a happy-face to positively reinforce the behavior. The behavior of using the hand dispenser for hygiene significantly improved in the rooms with emoticons as compared to other tested situations (Guabe, 2018). This study suggests that the use of emoticons can be appropriately used to positively reinforce the behavior. Practitioners during text-therapy sessions can timely use emotionally happy emoticons to positively reinforce a certain behavior. For example, the client was able to journal their routine as discussed with the therapist. As the client shares their achievement, the therapist could encourage the behavior by sending a positive text with a happy emoticon. It is important to note that the use of emoticons should be very limited. Just like the therapist engages in minimal sharing of personal views and judgments, the use of emoticons needs to be as limited.

Emoticons have been proven to create a social presence in text-based communication which often seems to be cold without any emotional cues. To give an example, a study shows that emoticons are more often used in socio-emotional settings than in task-oriented (Derks et al., 2008). The use of emoticons can even change the setting of a particular conversation. A study concluded that messages sent with emoticons produced higher arousal, reduced frowning, and enhanced smiling as compared to texts sent without emojis (Thompson, 2016). In another study (Filik et al., 2015), it was concluded that emoticons are more expressive than punctuation marks. There has been a recent conversation among young adults that often perceive the use of punctuation marks while texting as rude.

To give another context to the use of emoticons, this paper covers the neural correlates of their use. Most of the studies involving the exploration of brain activity while using or viewing emoticons try comparing the areas that get activated while looking at emoticons to the areas activated while looking at facial expressions. Initial fMRI studies indicated that isolated emoticons do not activate the corresponding brain regions that are involved in the processing of facial expressions. However, they activate the same areas involved in emotional discrimination- the right inferior frontal gyrus (Yuasa et al., 2006). Yuasa et al. (2011) investigated that emoticons are associated with non-verbal processing and that the brain areas involved in verbal and non-verbal information processing are more active when texts are followed by emoticons than when they are not. To specify, they found that although the right fusiform gyrus, which is involved in analyzing facial expressions, was not activated when texts with emoticons were presented, the right inferior frontal gyrus was activated. These results show that emotional discrimination based on emoticon perception is similar to other non-verbal cues like facial expressions or voice modulation.

The results of another study showed that text-based emoticons are processed in the face-specific areas-OFA and FFA. This implied that the text-based emoticons are processed like the facial-expressions processed in the brain (K. W. Kim et al., 2016). Through these studies and their conclusions, it can well be established that the use of emoticons can make the text-based therapeutic experience more comprehensive and enriching.

Professional practitioners and counselors go through intensive training to work on their subliminal cues as a therapist. Considering this in a digital interface, the use of emoticons does require regulations and appropriate context.

Negativity bias is the tendency in people to highlight the negative aspects of everything. Considering this existing bias, a study (Aldunate et al., 2018) detected what part of the information is considered in cases of incongruent messages. Their results indicated that emoticons did not necessarily guide the disambiguation process on text-based conversations. Specifically, they observed that the incongruent messages with positive emoticons with negative text and negative emoticons with positive text are selected more frequently to come from a person who's in a negative state of mood. This is one of the most important things that need to be taken care of. For a therapist practicing text-based therapy, it is important to keep the use of incongruent messages in check.

An argument that has prevailed in text-based conversation is the use of irony. Brown & Levinson (1987) argued that one of the functions of irony is to reduce threat. People often resort to using irony to convey disappointment. For instance, saying "Good job!" to a person who failed at delivering properly is irony. In this case, the use of irony makes the disappointment clear yet toned down. Interpreting irony can often be more difficult than interpreting literal language. Thus, practitioners need to utilize paralingual cues to make the conversation comprehensible. Irony is encountered as frequently in speech as in writing (Hancock, 2004). But the irony in writing is often misread and misinterpreted due to lack of cues. According to the tinge hypothesis (Dews Winner, 1995), irony weakens emotional impact. In context to this, a study was conducted on the effect of emoticons when used with ironical texts. Facial EEG data of this study showed that the use of emoticons to convey criticism was taken more positively than literal text sent without emoticons (Thompson, 2016). Through this study, we can evidently conclude that the use of irony by a therapist needs to be regulated. Appropriate use of emoticons can make the portrayal of disappointment more subtle.

It is important to note that more research in the field of the use of emoticons is required. Further use of the mentioned conclusions can help define certain regulations to practicing text-based therapy.

Conclusions

Text-therapy is a fast-growing practice that has explicit requirements. The aim of this paper to create ethical regulations for text-based therapy. Although it covers only features of it, yet there are other features provided by text servers that need to be moderated. Can a therapist share graphical media with their clients? Would the background image to the chat interface of the client affect their behavior towards the counselor? Can the counselor use voice notes for better communication? All of these questions need to be asked to create text-therapy ethically inclusive.

Although with this study we tap into a new outlook of therapy, it does have certain limitations. All of the results are drawn conclusions and require practical proof. An elaborate collaboration with clinicians and counselors can help gain the effective applicability of these drawn conclusions. Not to mention, text therapy in itself needs advancement and research to be considered as a practice.

This paper calls for a professional look into therapeutic practices that are beyond their conventional form. More research in this field can create a separate field of study and practice. The next step to this study is to collaborate with trained clinicians and apply these conclusions in a therapeutic context.

We are a part of an ever-evolving society that is adapting to its situation. The spike in mental distress is alarming and needs immediate and accessible resources. Keeping this into consideration, digitalizing therapy seems like a viable option.

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