Factors Related to Perceived Helpfulness in Supporting Highly Distressed Individuals through an Online Support Chat

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ABSTRACT

The purpose of the study was to examine the contribution made by dimensions of session-impact factors (depth and smoothness), end-of-session factors of client’s mood (positivity and emotional arousal), and several textual variables (use of positive and negative emotional words; helper’s and client’s writing lengths) to perceived helpfulness of emotional support conversations carried on by trained, paraprofessional helpers through an Internet chat with highly distressed individuals. Two studies were conducted at an Israeli, exclusively online emotional support service for suicidal and highly distressed people who have undergone various negative experiences (SAHAR). Study 1 compared 40 chat conversations deliberately indicated by clients as having been helpful at the termination stage of session with 40 other conversations, using expert judgments of session-impact factors, as well as objective word counts for textual variables. Study 2 examined correlations between helpers’ evaluation of the sessions’ helpfulness to clients in 60 (other) chat support conversations and session-impact factors and textual variables. The findings of Study 1 showed that all four impact factors significantly differentiated between helpful and other conversations, while textual variables did not. In Study 2, the results showed that all four session-impact factors positively correlated with session helpfulness, yielding multiple $R = 0.54$, as well as the length of helper’s and client’s writing. The implications of these studies are similar to offline counseling sessions: deep, smooth conversations that yield positive responses and arouse clients’ emotions in online support are more helpful than shallow, bumping conversations that leave clients emotionally indifferent. Longer writing, by both helpers and clients, seems to be an important factor, as well.

INTRODUCTION

The Internet has been exploited to provide psychological services since the beginning of the innovation that came to be called the World-Wide Web. A variety of such online services have been developed and offered to the public. Among them one can find support groups, psychological testing and assessment, psychological advice, clinical supervision, and counseling and therapy. Internet-based or -supported therapy has flourished in recent years, yielding various conceptual approaches, intervention procedures, and communication modes, such as therapist-client communication through email, chat, or webcam; autonomous therapeutic programs via websites, with or without human support; group therapy through forums or chat rooms; blogs in which clients register personal
journals of daily experiences, monitored by a therapist; the use of numerous online reading resources as part of the therapeutic intervention. Although research evaluating the outcome of such procedures has been extensively conducted in recent years, usually revealing positive results, process research—especially in regard to the interaction and relationship between therapist and patient in the virtual environment—is generally lacking.

Process research in counseling and psychotherapy relates to overt and covert thoughts, feelings, and behaviors of both patient and therapist during a therapeutic session. Process variables are distinguished from outcome variables primarily because the former do not refer to or focus on the effects or efficacy of certain therapeutic procedures. Process variables are also distinguished from input variables, which involve characteristics of the patients, therapists, and settings. Process variables also differ from variables and occurrences that take place outside of therapy sessions. According to Orlinsky et al., six aspects characterize process variables: therapeutic contact, therapeutic operations, therapeutic bond, self-relatedness, in-session impacts, and temporal patterns. Surprisingly—despite the unique nature of therapy conducted through the Internet—process research in this specific area is almost non-existent. Moreover, although process variables in online counseling have been extensively referred to as important to study and to examine closely, these calls and proposals have hardly been answered mainly because of the unique characteristics of the complicated virtual environment.

Nonetheless, a few studies have investigated process aspects of online therapy. A study that focused on what the client and counselor experience during online counseling interactions was conducted by Lewis et al. Investigating counseling sessions provided on the Internet via videoconferencing, they used a case-study and qualitative methodology to examine the process. Several themes emerged from the clients’ experiences: online is more comfortable than face-to-face counseling, it elicits unexpected depth of emotions, it causes immersion in the counseling process, and it produces a personal feeling of empowerment. The counselor’s themes included accepting cybercounseling as a different experience, increased focus on the cybercounseling process, and a need to modify and refine one’s general counseling skills. Cook and Doyle compared the therapeutic working alliance as experienced by clients in online therapy to traditional, face-to-face therapy. Their findings showed that the composite score for alliance was higher for the online than for the face-to-face sample, hence strengthening the argument that constructive therapeutic relationships can be established online. A third study, by Escoffery et al., provided information on the process of online therapy offered by a website-based (non-human) intervention to induce smoking cessation. Data was collected by both survey questionnaires and personal interviews with clients in this program. The data collected provided important information in regard to satisfaction with various parts of the program, adherence to instructions and procedures, motivation for and involvement in the program, and more. Other studies have referred to important process variables in online group therapy (as opposed to online support and self-help groups), and theorized about the dynamics of these groups in the unique virtual setting. Empirical process research, however, seems to be lacking for this group intervention mode.

The purpose of the present research was to advance our knowledge of the online therapeutic process. More specifically, we aimed at two process aspects, to which Orlinsky et al. referred as in-session impacts and therapeutic contact. Generally, we hypothesized that process characteristics of online support conversations (i.e., depth and smoothness) and their clients’ mood at the end of these conversations (i.e., positivity and arousal), as well as emotional ventilation (expressed in client’s text), would be related to perceived helpfulness of these sessions. Our study was conducted in an Israel, exclusively online emotional support service for suicidal and severely distressed people who have undergone various negative experiences (SAHAR). Personal emotional support sessions in this setting are provided free by extensively trained and continuously supervised volunteers (i.e., helpers) through instant messaging software (ICQ), as well as a server-based chat program. Clients are individuals in a wide age range who have experienced various problems, whether sexual offense, eating disorders, failure in school or in work, disappointed love, death of someone close, domestic violence, depression, loneliness and social anxiety, runaway adolescents, divorcing people, and more. Support sessions last 45 min on average, and all transcripts of support conversations are archived.

The online support through SAHAR is provided to referrals who remain anonymous. In addition, it is considered highly important to respect a client’s sense of privacy, and therefore the service avoids administrative and other forms of a research instrument to fill out. This avoidance is considered
critical, also, in order to prevent clients’ feelings of being tested or the object of experimentation. Accordingly, data from referrals is not collected, necessitating the use of other research methods, such as content analysis and online ethnography.\textsuperscript{26} For the present research, we combined content analysis and a consensual qualitative approach,\textsuperscript{27} as well as word count and verbal expressions,\textsuperscript{28} to enable testing hypotheses. Because of possible flaws in external validity, however, we conducted two independent studies defining the criterion variable (perceived session helpfulness) from different perspectives and by way of nonsystematic replication, as presented below in Study 1 and Study 2.

\textbf{STUDY 1}

The purpose of this study was to examine process factors that differentiate between online support sessions considered particularly helpful and other sessions. However, as mentioned, because emotional support through SAHAR is provided to anonymous clients, making follow-up and testing impossible and/or unacceptable in principle, the criterion for “particularly helpful” sessions for this research was client-initiated, voluntarily and freely expressed statements at the end of a session in regard to the help they have received. Sessions in which no such expressions were indicated were defined as “regular.” Although the lack of such latter expressions did not mean that a session was not helpful, such a gross criterion, if indeed found differential in terms of its correlates, would actually strengthen the findings. Thus, Study 1 compared sessions of clients who voluntarily mentioned the helpfulness of the sessions to those whose clients did not do so.

\textbf{Methods}

\textit{Participants.} Forty clients who had deliberately made positive expressions in regard to the helpfulness of support sessions they received, and which were provided by four different helpers (10 conversations by each helper), were randomly selected from a pool of archived conversations held during the year prior to the time the research took place. The expressions of helpfulness included statements written by clients at the ending part of the chat conversations, such as: “Thank you for the conversation, you’ve helped me a lot”; “I feel much relief now”; and “I feel much better now, thanks to this conversation.” This group of clients was defined as having participated in “particularly helpful” sessions. Forty other clients, who did not mention anything in regard to the helpfulness of the conversation, were also randomly selected. This group was defined as “regular.” For both groups, only sessions that lasted at least 45 minutes were included. The distribution of male and female clients was about even in both groups. Clients in both groups were ages 15–50.

\textit{Instruments and measures.} The evaluation of session-impact factors was based on Stiles’\textsuperscript{29–32} four-factor session impact model: this model evaluates a session process according to two factors—(a) \textit{Depth} (vs. shallowness) of the client-therapist conversation and (b) \textit{Smoothness} (vs. bumpiness) of the conversation—and two post-session (or end-of-session) factors—(a) \textit{Arousal} (vs. indifference) level of the client and (b) \textit{Positivity} (vs. hopelessness) of a client’s attitudes and feelings. Unlike Stiles’ method, which employs rating scales administered to clients, the current study used five expert judges, who were given the printed session transcripts and asked to rate the four factors in each session on seven-point scales, according to detailed definitions and examples provided them. The judges were professional therapists who held at least an M.A. degree in clinical psychology or counseling. After first being trained in rating sessions (on session transcripts not included in the study), they discussed their ratings. Following several rounds of ratings and discussions, they rated six conversations, for which Kendall’s coefficient of concordance ($W$) was computed. These Kendall $W$’s were as follows: 0.87 (depth), 0.84 (smoothness), 0.88 (arousal), and 0.88 (positivity). These coefficients indicated that the judges achieved high and sufficient level of agreement to allow using their ratings for the study. The actual scores used for data analyses of these scores were the mean ratings provided by the five judges.

\textit{Textual parameters.} Several textual variables were examined in order to test their relationship to the helpfulness of a session. These variables included number of words used by client that expressed positive emotions (e.g., happy, pleased, glad, calm), number of words used by client that expressed negative emotions (e.g., sad, depressed, anxious, stressed), total number of emotional words (positive plus negative expressions), total number of words written in a conversation by client, total number of words written in a conversation by helper, total number of words used in the session (client’s plus helper’s), and the ratio be-
tween client’s and helper’s number of words. The count of words was conducted by two independent raters, who achieved nearly perfect consensus. In cases of differences between them, a third tally was made to determine the correct numbers.

Procedure. After the random sampling of the 80 transcripts of the chat support sessions, 40 from each group, they were printed and given to the five judges for independent evaluations of the session-impact factors. However, the specific statements, always appearing last in the conversation, by which clients in the “particularly helpful” group indicated their positive views of the conversation, were deleted before printing in order to eliminate rating bias. The 80 transcripts were given to and rated by the judges in random order. That is, the judges were completely blind to a client’s belonging to one group or the other. The textual measures were tallied independently by the two raters. They, too, were given the transcripts in random order and were blind to the clients’ group affiliation.

Results
In the first stage, we checked whether or not differences between the two groups were a function of differences among the four helpers whose sessions were included in the study. A MANOVA that was conducted revealed insignificant results \((F = 1.47; df = 12, 193; p > 0.05)\), and therefore the data was collapsed across helpers.

Table 1 shows the means and the standard deviations of the four session-impact factors by group. It can be seen that all four factors significantly differentiated between sessions whose clients expressed helpfulness and those that clients did not. Sessions for which clients indicated appreciation and thankfulness were found to be deeper and smoother, and the clients in such sessions rated themselves more aroused and positive at the end of the session.

Table 2 reports the results of the analyses of the textual measures. As the table shows, none of the seven variables compared revealed significant differences. That is, in contrast to our expectations, the linguistic parameters employed to differentiate between online support sessions defined as “particularly helpful” and other sessions did not produce any meaningful differences in terms of emotional words used by referrals and length of writing.

Discussion
The findings of Study 1 clearly show that—despite the roughness of the criterion used to determine perceived session helpfulness—sessions that were assessed as deeper in discussing a client’s problems and emotional state, smoother in the course and development of the conversation, and session in which the client ended up more aroused and more positive in attitude tended to be appreciated. However, contrary to our expectations, textual parameters that characterized the session did not differentiate between sessions that were indicated as helpful and sessions that were not indicated as such. In other words, it seems that the qualitative measures of a session, in terms of its content, are more important in determining its perceived helpfulness than are quantitative measures. This finding is consistent with previous research of session variables that cause therapeutic sessions to be more impressive for clients; at the same time, it is inconsistent with previous findings regarding the importance of expressing emotions through words in writing. As the textual variables examined here revealed no relationship with the expressed helpfulness of support sessions, as defined in this study, it may be speculated that different rules operate in online synchronous chat—unlike in other modes of writing in human interactions. Moreover, the difference between the nature of the present results in regard to textual variables and previous research concerning online interactions might mean that, in contrast to asynchronous communication, in which writing is less spontaneous and immediate, emotions in synchronous communication are communicated differently, such as through emoticons, the speed and tempo of writing, and general impressions made by expressions (e.g., metaphors) that are not counted as emotional words.

### Table 1. Means and Standard Deviations of Four Session Process Factors by Group

<table>
<thead>
<tr>
<th>Factor</th>
<th>Helpful ((n = 40))</th>
<th>Other ((n = 40))</th>
<th>(t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth</td>
<td>5.53</td>
<td>4.94</td>
<td>3.21**</td>
</tr>
<tr>
<td>SD</td>
<td>0.59</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Smoothness</td>
<td>5.64</td>
<td>4.83</td>
<td>3.79**</td>
</tr>
<tr>
<td>SD</td>
<td>0.62</td>
<td>1.20</td>
<td></td>
</tr>
<tr>
<td>Arousal</td>
<td>5.21</td>
<td>4.83</td>
<td>2.67**</td>
</tr>
<tr>
<td>SD</td>
<td>0.59</td>
<td>0.68</td>
<td></td>
</tr>
<tr>
<td>Positivity</td>
<td>4.98</td>
<td>4.29</td>
<td>3.28**</td>
</tr>
<tr>
<td>SD</td>
<td>0.91</td>
<td>0.97</td>
<td></td>
</tr>
</tbody>
</table>

**\(p < 0.01\).
STUDY 2

The purpose of Study 2 was similar to Study 1; namely, to examine variables that contributed to the perceived helpfulness of online emotional support sessions. Unlike Study 1, however, Study 2 sought to correlate the session-impact factors (depth, smoothness, arousal, and positivity) and the textual characteristics of the session with helpers’ evaluations of the degree of help they provided to referrals.

Methods

Participants. Sixty clients who referred to SAHAR for personal emotional support (10 clients of six different helpers) were randomly selected; none of these clients had participated in Study 1. Male and female clients were equally distributed, and the sample was distributed along a wide age range (13–55 years).

Instruments and measures. The Session Helpfulness Rating Scale consisted of a nine-point rating scale filled out by each helper immediately after a support session had finished. The helpers were asked to answer the question, “In my best judgment, the degree of contribution of the conversation to the client was,” and to select an answer in the range from (1) no contribution whatsoever to (9) extremely highly significant contribution. Each other number on the scale was accompanied by an appropriate, respective descriptive sentence. For the 60 ratings included in Study 2, the mean was 6.23 and the standard deviation was 1.61. A one-way ANOVA revealed no significant difference among the six helpers in the degree of helpfulness that they rated their support sessions (F = 1.91; df = 5, 54; p > 0.05).

Session-impact factors and textual parameters were measured in the same way as in Study 1.

Results

Pearson correlations were calculated between each of the session-impact factors and the helpers’ ratings of session helpfulness. The correlations are presented in Table 3. As can be seen, all four correlations of depth, smoothness, arousal, and positivity with perceived helpfulness were found to be significant. Multiple regression analysis revealed a multiple correlation of $R = 0.54$. Depth and positivity were found to have the highest weights.

Pearson correlations were also computed between the textual parameters and the session helpfulness ratings. Table 4 shows these correlation coefficients. The number of emotional words—positive, negative, and total—was not found to be correlated with perceived helpfulness. Length of

<table>
<thead>
<tr>
<th>Variable</th>
<th>Helpful (n = 40)</th>
<th>Other (n = 40)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of negative emotional words</td>
<td>M 5.10</td>
<td>4.05</td>
<td>1.24</td>
</tr>
<tr>
<td></td>
<td>SD 3.90</td>
<td>3.70</td>
<td></td>
</tr>
<tr>
<td>Number of positive emotional words</td>
<td>M 1.83</td>
<td>1.80</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>SD 1.72</td>
<td>1.40</td>
<td></td>
</tr>
<tr>
<td>Total emotional words</td>
<td>M 6.93</td>
<td>5.85</td>
<td>1.06</td>
</tr>
<tr>
<td></td>
<td>SD 4.83</td>
<td>4.25</td>
<td></td>
</tr>
<tr>
<td>Number of words, client</td>
<td>M 635.33</td>
<td>656.23</td>
<td>−0.27</td>
</tr>
<tr>
<td></td>
<td>SD 325.74</td>
<td>354.62</td>
<td></td>
</tr>
<tr>
<td>Number of words, helper</td>
<td>M 365.03</td>
<td>387.55</td>
<td>−0.51</td>
</tr>
<tr>
<td></td>
<td>SD 182.61</td>
<td>209.58</td>
<td></td>
</tr>
<tr>
<td>Total number of words</td>
<td>M 1000.35</td>
<td>1043.78</td>
<td>−0.41</td>
</tr>
<tr>
<td></td>
<td>SD 426.30</td>
<td>507.57</td>
<td></td>
</tr>
<tr>
<td>Client/helper text</td>
<td>M 1.74</td>
<td>1.69</td>
<td>0.18</td>
</tr>
<tr>
<td></td>
<td>SD 1.37</td>
<td>1.16</td>
<td></td>
</tr>
</tbody>
</table>
chatting (number of typed words), however, for both client and helper, positively correlated with helper’s ratings of perceived helpfulness ($p < 0.01$ for all).

**Discussion**

Consistent with the findings of Study 1, the findings of Study 2 reveal, too, that the level of depth and smoothness of the support conversation and the degree of arousal and positivity elicited in the client at session’s end are associated with session perceived helpfulness. This consistent finding is of much importance, since the criterion used for session helpfulness in the two studies was entirely different from each other.

Interestingly, and inconsistent with Study 1, the amount of writing produced by both helper and client was found to be associated with perceived session helpfulness. This could be interpreted as emanating from the fact that the criterion used in Study 2 for session helpfulness was based on helpers’ own perceptions and evaluations of the help they had provided to referrals, as opposed to Study 1, in which the criterion was based on referrals’ volunteered statements relating to helpfulness. That is, helpers might have held the common belief that the degree of a client’s ventilation is associated with that individual’s feelings of relief, as well as the belief that they help more if they say more.

**CONCLUSION**

The results of the two studies clearly showed that in-session impacts of depth (in contrast to shallowness and redundancy) and smoothness (in contrast to bumpiness and cumbersomeness) of a chat support conversation and the attitudes it induces in clients in terms of arousal (in contrast to indifference and impassivity) and positivity (in contrast to negativity and uncertainty) were related to perceived session helpfulness. Although the criteria used in defining helpfulness was entirely different in the two independent studies, the results that refer to these factors remain consistent—a fact that strengthens the nature of the findings. These results are consistent with those based on research of face-to-face counseling and therapy despite the meaningful differences in providing help in these two modalities.

This major finding means that despite the fact that support has been provided online (versus traditional face-to-face interaction), in which physical appearance and non-verbal communication are absent and the two interacting partners are anonymous, the same process variables are related to perceived helpfulness as in face-to-face support. Thus, the content of the conversation, through which the impact factors were assessed, can indeed produce depth and smoothness of conversation, as well as arousal and positivity in the client, to enhance feelings of session helpfulness. This assertion is consistent with previous arguments that textual interaction in online therapy can be as good as in-person therapy if maintained and pursued well by a therapist. In contrast to common criticism that online therapeutic conversations might be shallow, superficial, and distant, the current results show that this does not have to be the case: competent counselors can indeed use online chat effectively and apparently can achieve therapeutic goals, at least as far as impressions of helpfulness are concerned.

One implication of these results—consistent with previous arguments and voiced calls—is that not
only can therapeutic interactions be made online, but that a therapist must be specifically trained for it. Because traditional therapists were commonly trained to deliver therapy in face-to-face interactions, they are not necessarily acquainted with specific forms of emphases and intonations and other means of meta-communication that should and can be delivered online. The use of emoticons, punctuation marks, tempo of writing, and special textual expressions and acronyms must be learned and practiced to communicate messages online that in a face-to-face relationship are regularly and intuitively delivered through non-verbal cues. Moreover, the findings of the present research also support the notion that counselors who maintain better counseling process skills are better able to help their clients. Process skills are necessary to maintain quality counseling interaction, but their implementation in the virtual environment necessitates special additional competencies. Thus, it seems that both general as well as specific competencies are needed to provide high-quality online therapy.

Contrary to our expectations, the linguistic parameters of the conversation showed only partial associations with perceived helpfulness. These variables did not differentiate between the two groups of clients in Study 1; in Study 2, however, the number of words used (that is, length of chat) by both client and helper correlated with helpers’ ratings of perceived helpfulness, whereas the number of emotional words per se did not. It seems rather obvious that helpers felt that the chat was more helpful for the clients when they and their referrals invested more time conversing. If this is the actually the case—that is, longer support-chat conversations are more effective in providing relief—it is a subject for future research focusing on outcome (rather than process) questions. It seems reasonable to assume that processes related to establishing online relationships, as well as to achieving cognitive insights, which are considered necessary conditions for helpful online counseling, take time; in terms of a text-based therapeutic relationship, this “time” means quantity of writing. In regard to the generally null findings related to emotional words—contrary to arguments that have been made in regard to the psychology of writing—we might speculate that the use of emotional expressions, rather than words, including unique expressions of online communication, as relevant variables might perhaps produce more significant results. That is, people frequently use metaphors, idioms, and phrases to express certain emotions (for example: “I was sky high,” “I flew off the handle,” “I’m pining away”); therefore, a simple word count might not reflect a valid measure. A change of definition from using emotional words to using emotional expressions, as well as emoticons or other online symbols that indicate emotions, could prove more beneficial in examining emotions in online, text-based therapy. The lack of significant correlations between emotional words and perceived session helpfulness might also reflect the general inconsistent findings in regard to the relationship between emotional ventilation and feeling of relief. At this stage of current knowledge, we do not know whether verbal expressions in online chat function in a similar way as in offline situations, and more research is needed to address these issues. This gap in knowledge apparently reflects and exemplifies difficulties typical of research in an area that is only in its diapers, insofar as research. It should be noted that despite that fact that our findings are quite consistent—using two methodologies, over two independent samples—the results and conclusions should be taken cautiously until further research is conducted to allow more valid generalizations.

Our study has several important implications for the provision of online mental help. First, similar to offline therapeutic sessions, deeper conversations, which strive to reveal and unwind less superficial and more personally significant information, are related to feelings of help. Furthermore, smoother, flowing, and streaming online chat conversations, in which misunderstandings resulting from invisibility and the lack of full synchronicity are minimal, contribute to feelings of helpfulness. Second, also similar to findings in traditional therapeutic sessions, promoting arousal on the part of a client and influencing positive attitudes induce feelings of help, too. Third, it seems that the length of a session makes a difference, at least as assessed by counselors. That is, online, text-based relationships are complicated to establish, but are considered essential for producing change; hence, counselors or helpers should aspire to a contact length sufficient to benefit their clients.

REFERENCES


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