

An Exploratory Study of Singapore's Only 24-Hour Crisis Textline

CONTRIBUTORS

JOHN LAM
BUANESVARI PAARVATI
COLLIN SIM
SEYOUNG OH
NAOMI TOH

ADVISOR

PROFESSOR SATVINDER
SINGH DHALIWAL (SUSS)





SUMMARY

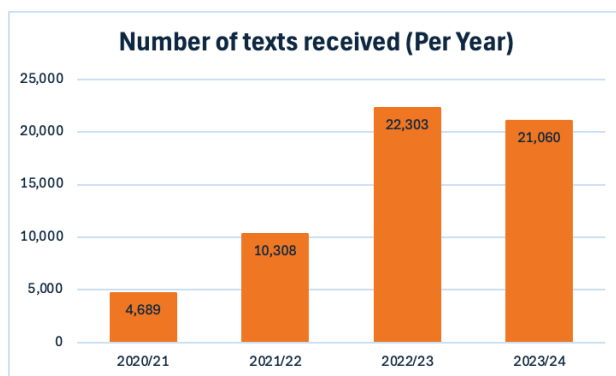
This study aims to assess service users' perceived effectiveness of CareText and explore whether missing scores could be substituted by the volunteer's assessment of the client's change in distress. The sample consisted of 17,349 chat sessions from January to December 2023. The client's self-reported change in distress per chat was within ± 2 points on a 6-point distress scale for 92% of the chats compared to the volunteer's assessment. Intercoder reliability is 82 to 90% accurate, with the perceived effectiveness of the chats being higher for volunteers and the research team, who scored 99 to 100% and 97% as effective, respectively. The study found no significant association between the perceived effectiveness of the service and the client's age, gender, or assessed suicide risk. Findings suggest that in situations where client's post-chat distress levels are unavailable, volunteers' post-chat distress assessment of clients can serve as a reliable proxy score.

Introduction

For over 50 years, Samaritans of Singapore (SOS) has strived to be an available helpline for those in crisis, thinking about suicide, or affected by suicide. Non-religious and not-for-profit, SOS offers a suite of services encompassing the continuum of care, including the prevention, intervention, and postvention of suicide. Our dedicated pool of volunteers and staff have made themselves available in person, over the phone, and most recently, by text.

In 2020, SOS conducted a dipstick survey to understand the public's perception of suicide. There was a total of 2,497 respondents and 23% were aged 20 to 29 years old. Within this age group, 1 in 3 reported that they would not consider contacting others for help when they felt emotionally overwhelmed. Common barriers to help-seeking included stigmatising beliefs around suicide, fear of embarrassment and judgement and a sense of hopelessness. Unfortunately, when help-seeking is delayed then the risk of suicide increases significantly (Koh et al, 2023; Shafie et al., 2021). Furthermore, young people may face additional barriers as existing services are not tailored to their developmental needs. 61% of survey respondents shared that they prefer text-based services which aligns with overseas research that found young service users may prefer text messaging compared to face-to-face contact (Gould et al., 2022; Haner & Pepler, 2016).

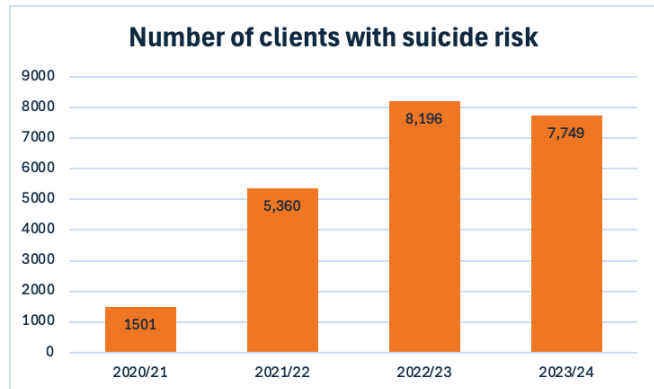
Considering young people's low help-seeking behaviours and their potential hesitation to call the hotline, SOS designed a new text messaging service called CareText, which aims to provide confidential and online support to a younger demographic (13 to 35 years old) who may not prefer the existing hotline service. The launch of CareText was also brought forward especially given the increase in calls and emails during the Circuit Breaker period in 2020. There were targeted recruitment drives at tertiary education institutions to ensure that the volunteers manning the service would be of similar age to the expected service users. On 1st July 2020, CareText was launched online and was made available from 6PM to 6AM on weekdays.



In the beginning of the service, there were originally 13 volunteers and in the first few months, they managed over 1,000 chat sessions. Today, CareText operates 24/7 and is manned by over 80 trained volunteers and staff. Since its launch, there have been over 60,000 text messages. In the last twelve months ending March 2024, the service has

received over 21,000 chats; 37% of them expressed suicidal ideation, and 73% were from clients aged 29 and below.

Individuals who are feeling distressed can access the service directly via WhatsApp on their phones. Before the chat commences, the client is asked to self-report their distress on a scale of 0 to 5. The client will then be connected to a



trained volunteer who provides emotional support and assesses suicide risk. At the end of the chat, the client is asked to self-report their distress again. At present, these pre- and post-chat distress scores are the only measures of service effectiveness.

Overseas studies have found text-based crisis lines to be perceived as effective by users, with a substantial portion reporting reductions in feelings of suicidality and distress through these mediums (Gould et al., 2022). Text-based crisis intervention services have recently gained significant attention as an effective method for reaching these individuals, particularly among younger populations (Haner & Pepler, 2016). The absence of local literature on crisis text lines, however, poses significant challenges as the potential service gaps are not apparent and the existing benchmarks are from other countries outside of the ASEAN region. Measures that may be effective in other countries might not be feasible or applicable in Singapore due to its unique socio-cultural and infrastructural context.

Building on this, the next step is to explore how these findings translate to Singapore's context given the predominantly Asian collectivistic nature, which influences how individuals prioritise others over personal needs and may possibly hinder help-seeking behaviours (Huang, 2024). The stigma surrounding mental health further complicates this as it discourages individuals from seeking support (Shafie et al., 2021). Additionally, certain demographics, such as the elderly, may lack the digital literacy needed to effectively use services like CareText (Ngiam et al., 2022). Language may pose another as CareText is primarily conducted in English. The Census of Population 2020 found that only 48.3% of Singaporeans aged 5 and above reported English as their most frequently spoken language at home. Given these varying factors, this study was conceptualised to measure the perceived effectiveness of the service and to highlight how the service may be innovated to better serve the service users.

Study Objective

The study aims to assess the extent of the perceived effectiveness of CareText by its service users. Additionally, a secondary aim was to establish if missing scores could be substituted by the volunteer’s assessment of the client’s change in distress.

Data Collection and Methodology

Sample	No. of Chat Sessions	Pre-Chat Score from Client	Post-Chat Score from Client	Post-Chat Score from Volunteer
Sample A	17,349	Present (100%)	Present (13%)	Present (100%)
Sample B	2,187	Present (100%)	Present (100%)	Present (100%)
Sample C	459	Present (100%)	Present (100%)	Present (100%)

The sample consisted of 17,349 anonymised and de-identified chat sessions (sample A) from January to December 2023. The length of chat was not an exclusion factor, meaning chats with fewer than five messages were included in the sample. The average length of the chat was not determined.

Only 13% (n=2,187, sample B) of the clients completed the post-chat survey meaning 87% of total chats do not have a post-chat score from the client. However, all chats have a secondary paired score as the assigned volunteer submits their own assessment of the client’s distress at the end of the chat. Additional information such as gender (male, female, non-binary), age group, and assessed suicide risk of the client are accounted for.

To assess the feasibility of substituting missing data with volunteer’s assessment, a random sample of 459 anonymised and de-identified chats was extracted from the 2,187 chats. This random sample of 459 chats (sample C) have three sets of scores—the pre-chat score from the client, the post-chat score from the client, and the post-chat score from the volunteer (based on their interpretation of the client’s change in distress). These chats were then rated by the research team as ‘better’, ‘same’ or ‘worse’ to denote the perceived change in the client’s distress.

Using cross-tabulation and descriptive analysis, the change in distress (post-chat distress – pre-chat distress score = change in distress) was compared between the client’s self-reported change, the volunteer’s perceived change and the research team’s perceived change. The volunteer’s perception and the research team’s perception were compared to assess inter-coder reliability.

The change in distress was categorised as effective if there was positive change (decrease in distress) or no change (distress remained the same). Ineffective chats were when there was negative change (increase in distress due to chat).

Results

The client's self-reported change in distress per chat was within ± 2 points on a 6-point distress scale for 92% of the chats in comparison to the volunteer's assessment. At least 82% of the chats were categorised as effective according to the change in distress of the self-reported scores. The perceived effectiveness of the chats was higher for volunteers and the research team who scored 99 to 100% and 97% as effective, respectively.

Impact of client demographics on perceived effectiveness

No significant association was found between perceived effectiveness and each of the demographic variables individually. However, further analysis using a multivariable model is necessary to assess the influence of the interaction between the client's demographic variables (e.g., age x gender) on the perceived effectiveness of the CareText service.

Validity of volunteer scores as proxy scores

Furthermore, our findings suggest that in situations where client's post-chat distress levels are unavailable, volunteers' post-chat distress assessment of clients can serve as a reliable proxy score. This indicates that the volunteers can accurately gauge the emotional state of the clients during the chat. Their assessments' reliability underscores the importance of incorporating these evaluations into the overall approach.

Discussion

This is the first evaluation of the effectiveness of CareText. The findings of this study highlight the effectiveness of CareText as perceived by its users and underscore the reliability of volunteer assessments in situations where client-reported data is unavailable. The high concordance between different sets of distress scores validates the use of volunteer assessments as proxy measures. This ensures the service's effectiveness can still be gauged accurately even with incomplete client data. These high effectiveness ratings across all assessors demonstrate a consistent perception of the service's impact.

Limitations

Given that the distress scale is not standardised in its definition or framework there may be different interpretations by clients of their self-perceived distress which may lead to inconsistent reports of distress across clients. Furthermore, the frequency of CareText

utilisation per client was not controlled. Therefore, the confounding influence of a service user's increased familiarity with the service and decreased distress scores was not accounted for. Furthermore, the self-reported scale is relative to each user's perspective. For example, a client might report a reduction in distress from 4 to 2 on their scale, but the volunteer might perceive it as "same" because they expected a more significant emotional change. This discrepancy creates inconsistency in assessing the effectiveness of the intervention and complicates the comparison between client self-reports and external evaluations. Similar discrepancies have been observed in pain perception studies, where physicians often underestimate patients' self-reported pain levels in emergency settings (Alotaibi et al., 2022). Lastly, the results of this study cannot be generalised as the sample extracted was limited to one year of the service and there is not enough demographic information to state that the sample is representative.

Implications

SOS intends to continue researching the impact of Caretext to better understand its service users and to identify opportunities for improvement. For example, further analysis of the association between perceived effectiveness and age may reveal that younger service users require tailored interventions suitable for their age.

Conclusion

This study concludes that CareText is perceived as moderately effective (88 to 90%) by service users in managing and reducing client distress. The reliability of volunteer-assessed post-chat distress was demonstrated in the instances of incomplete client feedback. CareText's ability to provide timely support and maintain or reduce distress levels in clients is crucial for its role in suicide prevention and crisis intervention.

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