General Hospital Psychiatry xxx (xxxx) xxx

Contents lists available at ScienceDirect

General Hospital Psychiatry

journal homepage: www.elsevier.com/locate/genhospsych

Letter to the editor

An observational pilot of the collaborative assessment and management of suicidality brief intervention (CAMS-BI) for adult inpatients

Level one (inpatient) psychiatry is a commonly used service delivery system for treating patients experiencing suicidal thoughts and behaviors (STB) [1]. Patients treated for STB within the level one setting may undergo risk assessment, safety monitoring, medication management, milieu therapy, and step-down treatment planning; however, the exact nature of services offered between units is extremely variable and difficult to track [1]. Some evidence suggests that this model of level one psychiatric care may increase patient risk for post-discharge STB [1,2] while patient-centered, behavioral interventions that target suicide risk are typically neglected and/or relegated to outpatient providers [3]. The Collaborative Assessment and Management of Suicidality Brief Intervention (CAMS-BI) [4] is an evidence based [5], targeted intervention that may standardize this gap in patient care, facilitate subjective distress reduction, and improve motivation to continue living [1]. Given the CAMS framework direct alignment with the assess, intervene, and monitor (AIM-SP) model within the Zero Suicide Framework and evidence of efficacy in adult level one patients [3,6], an observational pilot was conducted for CAMS-BI; see Online Supplemental Table 1.

Six attending psychiatrists across three inpatient psychiatric units and the medical surgical floor referred patients ($N = 143$; see Table 1) 18 years of age or older exhibiting non-zero risk for outpatient suicide attempt for a CAMS-BI session with a graduate student clinician at a Level 1 Trauma center in the Southeastern United States. Outcomes were measured at pre- and post-session via subjective units of distress (SUDS; 0–100) and the Living Ladder (i.e., motivation to live [0–8]) [7]. Study procedures were approved for collection by the Franciscan Missionaries of Our Lady University Institutional Review Board under expedited review procedures. A significantly greater proportion of patients reported reduced subjective distress from pre- to post-session (58.04%, $n = 83$); a smaller proportion reported no change (32.86%, $n = 47$) or an increase (9.09%, $n = 13$; $X^2 = 51.413$, $p < .001$) in subjective distress. A significant reduction in subjective distress was observed from pre ($M = 37.62$, $SD = 32.60$) to post session ($M = 25.13$, $SD = 25.87$), $t(142) = 7.489$, $p < .001$, $d = 0.626$. The average reduction in subjective distress was above 10 points ($M = 12.49$, 95% CI[9.19,15.79]; Online Supplemental Fig. 1).

A significant difference in pre-session subjective distress was observed between groups (i.e., improve, no change, worsened), $F(2,140) = 16.373$, $p < .001$; Tukey's HSD test for multiple comparison found the mean value of pre-session subjective distress to be significantly different between patients who improved and patients whose subjective distress worsened ($p < .05$, 95% CI[−41.55,-4.51]) and patients whose subjective distress did not change and patients whose subjective distress improved ($p < .001$, 95% CI[−37.34,-14.68]). No significant difference was observed between patients who reported no change and patients whose subjective distress worsened ($p = .930$, 95% CI[−22.43, 16.48]; Online Supplemental Fig. 2).

The majority of patients reported no change (63.64%, $n = 91$) in motivation to live from pre- to post-session; a significantly smaller proportion reported improvement (32.86%, $n = 47$) or worsening (3.49%, $n = 5$; $X^2 = 77.594$, $p < .001$) in motivation to live. On average, a significant increase in motivation to live was observed from pre ($M = 6.26$, $SD = 2.24$) to post-session ($M = 6.78$, $SD = 1.79$), $t(142) = 4.854$, $p < .001$, $d = 0.405$. However, the average increase in motivation to live was small, ($M = 0.52$, 95% CI[0.31, 0.73]). Results of a Wilcoxon matched pairs signed rank test confirmed the direction and significance of change in motivation to live, indicating a significant median shift in motivation to live from pre- to post-session, $Z = -4.801$, $p < .001$(Online Supplemental Fig. 1).

Results indicated a significant difference in pre-session motivation to live between groups (i.e., improve, no change, worsened), $F(2,140) = 13.915$, $p < .001$. Tukey's HSD test for multiple comparison found the mean value of motivation to live pre-session to be significantly different between patients who reported no change and those who improved ($p < .001$, 95% CI[1.04,2.78). No significant difference was observed in pre-session motivation to live between patients who reported no change and a worsening ($p = .99$, 95% CI[−2.34,2.10]), nor between those who reported improvement and a worsening in motivation to live ($p = .09$, 95% CI[−4.31,0.24]; Online Supplemental Fig. 3).

The foregoing findings are preliminary and observational; no follow-up measurement was conducted, and no control group included, significantly limiting causal conclusions that may be drawn. Future CAMS-BI work should replicate and extend these findings using control condition (i.e., treatment as usual) and thorough, follow-up assessment. Taken in this limiting context, the results suggest CAMS-BI may be an effective tool for accomplishing subjective distress reduction and enhancing motivation to live for a significant proportion of adult level one patients in just 60-min. A significant reduction in subjective distress was observed on average, while only a half point improvement in motivation to live was observed; a one-point increase on the LL has been associated with a 31% decrease in likelihood of experiencing suicidal ideation during follow-up periods in veterans [7]. A ceiling effect was observed for both outcomes such that patients rating extreme scores pre-session were less likely to report improvements at post-session; thus, more intensive intervention for patients of high severity is warranted [8]. Single session interventions [9] like CAMS-BI may be effective tools for accomplishing clinically meaningful change for patients in the short and long-term [10]; these are scalable to level one care, other rapid service delivery systems (e.g., emergency departments, primary care), and rural localities that lack access to evidence based intervention.

https://doi.org/10.1016/j.genhosppsych.2023.09.009
Received 23 August 2023; Received in revised form 13 September 2023; Accepted 25 September 2023
Available online 27 September 2023

Table 1
Demographics.

	M (SD)
Age	34.32 (16.64)
Race/Ethnicity	
% White	61.50% ($n = 88$)
% Black/African American	34.30% ($n = 49$)
% Asian/Asian-American	2.10% ($n = 3$)
% Latino(a)(Latinx)	1.40% ($n = 2$)
% Not available	0.69% (n = 1)
Gender	
% Woman	48.30% ($n = 69$)
% Man	49.60% ($n = 71$)
% Gender diverse	2.13% (=3)
Marital Status	
% Single	68.50% ($n = 98$)
% Married	17.50% ($n = 25$)
% Divorced	8.39% ($n = 12$)
% Widowed	2.80% (n = 4)
% Not Available	2.80% (n = 4)
Lifetime Suicidal Ideation	
% Yes	88.1% ($n = 126$)
% No	11.9% ($n = 17$)
Lifetime Suicidal Planning	
% Yes	34.3% (n = 49)
% No	65.7% ($n = 94$)
Lifetime Suicidal Preparation	
% Yes	29.4% ($n = 42$)
% No	70.6% ($n = 101$)
Lifetime Suicidal Rehearsal	
% Yes	10.5% ($n = 15$)
% No	89.5% ($n = 128$)
Lifetime Suicide Attempts	
% Yes	51.0% ($n = 73$)
% No	49.0% ($n = 70$)

Declaration of Competing Interest

The data collection for this study was approved by the Franciscan Missionaries of Our Lady University Institutional Review Board (IRB) and was approved for collection under Expedited review procedures; IORG#: IORG0004976.

This work was in part supported by the Military Suicide Research Consortium (MSRC), an effort supported by the Office of the Assistant Secretary of Defense for Health Affairs under Award No. (W81XWH-16-2-0004). Opinions, interpretations, conclusions and recommendations are those of the author and are not necessarily endorsed by the MSRC or the Department of Defense.

David Jobes has research funding from NIMH and NIAAA and receives book royalties from American Psychological Association Press and Guilford Press. He is the founder and co-owner of CAMS-care, LLC (a professional training and consultation company).

Raymond Tucker receives financial compensation for training providers in the Collaborative Assessment and Management of Suicidality (CAMS) and the related Suicide Status Form (SSF) that is used in this investigation.

Data availability

The authors do not have permission to share data.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.genhosppsych.2023.09.009.

References

[1] Ward-Ciesielski EF, Rizvi SL. The potential iatrogenic effects of psychiatric hospitalization for suicidal behavior: a critical review and recommendations for research. Clin Psychol Sci Pract 2021;28:60–71.
[2] Chung D, Hadzi-Pavlovic D, Wang M, Swaraj S, Olfson M, Large M. Meta-analysis of suicide rates in the first week and the first month after psychiatric hospitalisation. BMJ Open 2019;9:e023883.
[3] Myles H, Tan SY, Large M. Zero suicide requires a radical reimagining of inpatient care. Austral New Zeal J Psychiatry 2021;55(10):935–6.
[4] Jobes DA, Gregorian MJ, Colborn VA. A stepped care approach to clinical suicide prevention. Psychol Serv 2018;15:243–50.
[5] Swift JK, Trusty WT, Penix EA. The effectiveness of the collaborative assessment and Management of Suicidality (CAMS) compared to alternative treatment conditions: a meta-analysis. Suicide Life Threat Behav 2021;51:882–96.
[6] Santel M, Neuner F, Berg M, Steuwe C, Jobes DA, Driessen M, et al. The Collaborative Assessment and Management of Suicidality compared to enhanced treatment as usual for inpatients who are suicidal: A randomized controlled trial Frontiers in Psychiatry. 2023. p. 14.
[7] Britton PC, Conner KR, Maisto SA. The living ladder: introduction and validity over 6-month follow-up of a one-item measure of readiness to continue living in suicidal patients. Suicide Life Threat Behav 2020;50:1025–40.
[8] Ryberg W, Diep LM, Landrø NI, Fosse R. Effects of the collaborative assessment and Management of Suicidality (CAMS) model: a secondary analysis of moderation and influencing factors. Arch Suicide Res 2020;24:589–608.
[9] Schleider JL, Beidas RS. Harnessing the single-session intervention approach to promote scalable implementation of evidence-based practices in healthcare. Front Health Servic 2022;2:997406.
[10] Schleider JL, Abel MR, Weisz JR. Do immediate gains predict long-term symptom change? Findings from a randomized trial of a single-session intervention for youth anxiety and depression. Child Psychiatry Hum Dev 2019;50:868–81.

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