Clinical Variables Associated with Successful Treatment of Depression or Anxiety in Collaborative Care

Carol Hardy
Brandn Green
Virna Little
Karl Vanderwood

Abstract

Collaborative Care, an evidence-based model, has proven effective in treating depression and anxiety in healthcare settings. However, limited attention has been paid to exploring treatment outcome differences by clinical variables and diagnosis within this model. While previous research suggests that early and frequent contacts and swift treatment access lead to positive outcomes for depression and anxiety, these aspects have not been comprehensively examined in Collaborative Care. This study investigates the impact of clinical variables on treatment completion in patients primarily diagnosed with anxiety or depression who received collaborative care treatment as a treatment program. Analysis was completed as an observational study of patients (n =2018) with behavioral health diagnoses spanning from 2016 to 2023. Classification analysis offers insights into optimal practices for implementing Collaborative Care across diverse healthcare populations from pediatric to geriatric. Identifying clinical characteristics associated with successful treatment in Collaborative Care has far-reaching implications for model adoption and enhancing patient outcomes. Across all results, patients who received more clinical support and had shorter enrollment durations showed a strong association with successful treatment completion.

Introduction

Untreated behavioral health conditions can decrease a person's quality of life and are associated with increased healthcare spending,[1, 2] and increased risk of adverse outcomes from co-morbidities,[3, 4] and premature mortality.[5, 6] Depression and anxiety disorders have well-documented links to increased cancer mortality and the risk of chronic obstructive pulmonary disease [7, 8] as well as linked to increased mortality in persons less than 60 years old.[9] While examining all treatment modalities was beyond the scope of this project, this observational study examines data from over 2000 patients who received Collaborative Care treatment from Concert Health to better understand client outcomes within one evidence-based model. The goal of the study was to identify patterns among patients that were discharged from treatment with a reduction in symptoms as compared to patients discharged without a reduction in symptoms, building upon the existing literature base for collaborative care. This observational study aims to compare successful treatment components for patients with anxiety or depression who received Collaborative Care.

The collaborative care model has been validated as an effective approach for treating adults with depression or anxiety disorders, offering improvements over traditional care models like care as usual, waitlist conditions, or medication management alone [10–17] collaborative care is noted for improving anxiety or depression symptoms over short-term periods compare to standard care practices.[10, 12, 14] Key factors contributing to improved outcomes under this model include the qualified medical professional with domain expertise, highlighting the need for a patient-centered and expert-led approach to treatment.[10, 12] Despite collaborative cares proven effectiveness the current research has yet to fully explore the mechanisms behind this success.

Extant literature displays strong evidence of the effectiveness of Collaborative Care for symptom reduction among patients with anxiety and depression. However, there remain gaps in understanding the specific patterns of client success, when compared to clients who received the same Collaborative Care treatment model but did not experience a successful discharge. To further our understanding of the efficacy of Collaborative Care, the current study examined differences in patterns of clinical service engagement and demographic characteristics to model differing clinical outcomes among a sample of Collaborative Care patients. The research separated anxiety disorder patients from depressive disorder to understand outcome differences between the diagnoses. Age was examined as the key demographic attribute, and it was organized into three groups: adults aged 18 years or older, adolescents aged 11 to 18, and children 11 and under. This categorization was based on a call for more research into the differences in outcomes between children, adolescents, and adults.[18]

Methods

Collaborative care

Patients referred to Concert Health collaborative care by a health care provider following, the identification of symptoms consistent with depression or anxiety, or based on scores obtained from screening activities using the PHQ-9 or GAD-7. The PHQ-9 and GAD-7 are validated to detect depression and anxiety, respectively.[19, 20]

Concert Health's standard of care encompasses virtual engagement methods, such as telephone or video communications. Patients have the option to select their preferred treatment modalities, which include medication management, psychotherapy, goal setting, or system monitoring. In the initial phase of care, interactions, lasting over 5 min, with a care manager typically occur multiple times per week. Clinical touchpoints are provided by the behavioral health care manager caring for the patient in the collaborative care model. Many of the patients are in the goal

setting treatment choice which necessitates multiple touchpoints weekly to review established goals and set new goals towards symptom reduction. Throughout the collaborative care episode patients are administered the PHQ-9 or GAD-7 tools to track symptoms over time and identify patients who may need treatment changes and/or psychiatric consultation. The collaborative care payment's monthly case rate allows care managers the flexibility to adopt a truly patient-centered approach, one of the core principles of collaborative care. In alignment with the collaborative care model, there is no mandated frequency for contacts; reimbursement for the month requires the cumulative activities to meet the billing criteria for the dedicated CPT codes.

Collaborative care integrates a registry for patient monitoring and incorporates a behavioral health care manager and psychiatric consultant into the primary care team. This approach is grounded in evidence, employing a measurement-based and treat-to-target strategy aimed at achieving a substantial decrease in PHQ-9 or GAD-7 scores within the initial 90 days of treatment. Consistent with the collaborative care model the treatment is focused, with patients not achieving significant symptom reduction being discussed in psychiatric consultation and being considered for treatment changes. The proactive "treat to target", measurement-based focus of collaborative care differs markedly from usual behavioral health care which often lacks consistent symptom monitoring and quantitative outcomes. This model gained significant support when the Center for Medicare and Medicaid Services (CMS) approved specific and dedicated billing codes for collaborative care in 2017.[21] This approval encouraged its adoption and supported a systemic approach to managing behavioral health populations.

Data

For this retrospective observational study, the authors analyzed differences between patients who were successfully or unsuccessfully discharged from Concert Health and compared patients with anxiety from patients with depression. Patients were considered successfully discharged from Concert Health if they reduced their PHQ-9 or GAD-7 score with a 50% or 10-point reduction in 90 days and received a score that was in remission under 10 or subclinical under 5. An unsuccessful discharge is defined as a patient that disengaged from care, declined treatment, or disengaged with a reduced survey score that did not meet outcome success criteria (Table 1). A patient that left Collaborative Care for other reasons, such as death, loss of insurance, or a change in providers was removed from the data. All individual patient data used in this study were de-identified and included a unique identifier to distinguish between individual patients. The data were obtained from the Concert Health patient dataset, which includes 34,871 inactive patients spanning the years 2016 to 2023.

The authors defined patient characteristics that were of interest based upon review of the literature and clinical practice. The analysis aimed to explore associations between the dependent variable, successful treatment completion, and the independent variables. The independent variables included age, type of practice (FQHC, Health System, or Private Outpatient Practice), change in both PHQ-9 and GAD-7 scores across the treatment window, the frequency of GAD-7 and PHQ-9 surveys completed, the number of clinical touchpoints received, and the number of days until a clinical touchpoint occurred. Demographic data was constrained to age because gender and race information was not available (Tables 2 and 3).

For the analysis, only observations with complete information on all previously mentioned patient characteristics were included. The sample was initially divided based on primary diagnosis: 948 patients were categorized into the anxiety group, and 1338 patients were identified with a primary diagnosis of depressive disorder. Subsequently, both diagnostic groups were combined, resulting in a consolidated final sample of 2018 observations.

Table 1
Definition of successful or unsuccessful treatment

Successful treatment	Unsuccessful treatment
Met treatment goals	Patient declined due to consent issue
Patient has met treatment goals with a relapse prevention plan	Non-responsive
Patient has met treatment goals without a relapse prevention plan	Disengaged from care
	Discontinued services
	Declined treatment

There are two additional success categories (healthy days—met goal, achieved 4 and healthy days—met goals, reduction of 4 or more) and two additional unsuccessful categories (Refused service and Patient disengaged from treatment with a reduced survey score). These categories are no longer used in practice, so they are not included in the table above for conciseness, though a few patients were still categorized using these four categories

Statistical analysis

The analyses were completed using three logistic regressions to determine which patient characteristics were associated with a successful discharge from treatment. Two models were split by diagnosis and one contained both diagnoses. Before fitting models, all of the numeric variables were centered at their mean and scaled to be at one standard deviation. Findings for all independent variables are relative to an "average" patient because the baseline of comparison is the mean, or average, of the numeric variables. Referring to Table 2, an average patient was enrolled in Collaborative Care for 148 days, received 7 clinical touchpoints, had an 8-day wait time between enrollment and their first clinical touchpoint etc. the purpose of centering all the coefficients in the model is to enhance the relevance of results. Taking the average of the variables allows for the results to be interpreted against the mean, or "average" patient.

The initial model included all variables of interest, along with an interaction term between the number of days enrolled and number of clinical touchpoints. To identify the most parsimonious model that accounted for the most variance, a backwards stepwise model selection procedure was employed. The variance inflation factor of the variables included in the final model suggested that multicollinearity was not an issue. The final model included all of the aforementioned interactions, the number of days enrolled in the program, the number of GAD-7 and PHQ-9 surveys completed, the baseline scores for the PHQ-9 and GAD-7, the days until the first clinical touchpoint was completed, and the medical practice category type (i.e., private or FQHC). Odds ratios (ORs) for each variable were calculated and presented with 95% confidence intervals (CIs) (Table 4). All data analyses were completed using RStudio. An IRB was submitted to Western IRB and determined to be exempt under 45 CFR § 46.104(d)(4)

Results

The coefficients of the models, alongside their corresponding odds ratios and 95% confidence intervals, can be found in Table 4 and Supplementary Table 5. Age was not a significant predictor of the outcome and was removed by the model selection process. The final models revealed several statistically

Table 2

Summary statistics of numeric variables in the final models (n = 2018)

Model	Patient characteristic	Definition	Mean	Standard deviation
Both models	Clinical touchpoints	Phone, video, or in-person clinical sessions with a patient lasting 5+ min	7	7
	# of days enrolled	Days until first clinical touchpoint post-enrollment	148	109
Anxiety model only	# days between enrollment and first contact		8	19
	Baseline GAD-7 Score	First GAD-7 score in care	10	6
	# GAD-7 surveys completed	# Surveys completed in care	4	4
	Change from baseline to final GAD-7	Final GAD-7 score minus first GAD-7 score	-3	5
Depression model only	Baseline PHQ-9 score	First PHQ-9 score in care	11	6
	# PHQ-9 surveys completed	# Surveys completed in care	5	5
	Change from baseline to final PHQ-9	Final PHQ-9 score minus first PHQ-9 score	-4	6

The summary statistics were calculated from the observations in the final model with both anxiety and depression

Table 3

Summary statistics of categorical variables in the final models ($n = 2018$)

Variable	Category	Definition	Aggregate counts	Counts of successful discharge
Practice	FQHC	Federally qualified health center	22.35% (451)	24% (207)
	Health system	Organizations and resources delivering health care services to meet population health needs	11.3% (228)	13% (110)
	Private outpatient practice	Healthcare services provided outside hospitals by private owners, typically fee-for-service	66.35% (1339)	63% (531)

The summary statistics were calculated from the observations in the final model with both anxiety and depression

significant variables. These include the interaction between number of clinical touchpoints and number of days enrolled, the type of practice that the client was in, the time between the first touchpoint and enrollment. For the anxiety model the baseline GAD-7 and the change in GAD-7 along with the number of completed surveys were also statistically significant. In the depression model, all of the aforementioned variables, but pertaining to the PHQ-9 were significant predictors.

After accounting for all variables in the model, a few key patterns emerged. There is strong evidence (p value < 0.001) that receiving 14 clinical touchpoints, increases the odds of successful discharge by two and a half times for patients with a depressive disorder (Odds Ratio: 2.6, 95% confidence interval 1.8–3.5). For a patient with anxiety, 14 clinical touchpoints can increase the odds of symptom reduction by 3.5 times (odds ratio 3.5, 95% confidence interval 2.3–5.5). 14 is calculated by taking the mean number of clinical touchpoints (7) and adding one standard deviation of clinical touchpoints (also 7). For both the anxiety and depression models, there is strong evidence ($p < 0.001$) that completing more GAD-7 or PHQ-9 surveys than the average can increase the odds of leaving care successfully. Additionally, there is strong evidence ($p < 0.001$) that for patients enrolled in care for longer than average, the odds of successfully completing treatment will decrease. Similarly, there is strong evidence ($p < 0.001$) that receiving more clinical touchpoints and being enrolled for more days than the average will decrease the odds of successful discharge from treatment by about 20% for both anxiety and depressive disorders. An above average baseline GAD-7 or PHQ-9 score statistically significantly ($p < 0.001$) decreases the odds of a successful discharge by about 70%. Unsurprisingly, for patients with anxiety and depression that continued to score higher on the GAD-7 or PHQ-9 than the average patient the odds of successfully completing treatment were significantly smaller.

In the supplementary analysis (Supplementary Table 5), a model with both diagnoses together supports the aforementioned results. After performing backwards stepwise regression, the final model did not contain an interaction between number of clinical touchpoints received and diagnosis category. This indicates that the differences between diagnoses may be accounted for by other interactions included in the model.

Discussion

The analysis of the Concert Health Patient successful treatment dataset highlighted factors that statistically significantly change the odds of successful treatment, as compared to patients that did not successfully discharge from treatment. Using the combination of independent variables that best

Table 4

Patients successfully completing treatment

Variable	Odds ratio anxiety	95% confidence interval anxiety	Odds ratio depression	95% confidence interval depression
Intercept	0.3290	0.209–0.510***	0.6830	0.492–0.946*
Clinical touchpoints	3.5191	2.283–5.508***	2.5080	1.814–3.484***
Health system	4.0244	1.643–9.985**	1.8602	1.138–3.052*
Private outpatient practice	1.4790	0.930–2.373	0.6797	0.467–0.988*
# of days enrolled	0.5646	0.411–0.763***	0.6163	0.467–0.802***
Time between first touchpoint and enrollment	1.1918	1.022–1.390*	N/A	N/A
Clinical touchpoints × days enrolled	0.7401	0.623–0.866***	0.8097	0.724–0.910***
Baseline GAD-7 score	0.2858	0.215–0.374***	N/A	N/A
Change from baseline to final GAD-7	0.2448	0.185–0.318***	N/A	N/A
Change from baseline to final PHQ-9	N/A	N/A	0.1945	0.152–0.246***
# GAD-7 surveys completed	3.4027	2.258–5.231***	N/A	N/A
# PHQ-9 surveys completed	N/A	N/A	3.1209	2.138–4.655***
	N/A	N/A	0.3106	0.248–0.386***

*An N/A indicates that the variable was not included in the final model. All patients with incomplete information were removed from data. FQHC is contained in the reference level (intercept). Statistical significance levels: *** < .001, ** < .01, * < .05

explain successful treatment can help current healthcare providers facilitate treatment that can lead to successful discharge from treatment.

The logistic regression identified factors that are associated with a patient's successful discharge from the Concert Health, including number of clinical touchpoints a patient receives, number of days enrolled in the Collaborative Care model, the baseline PHQ-9or GAD-7 scores, the change in a patient's GAD-7or PHQ-9 scores between baseline and final screening, and the number of PHQ-9 or GAD-7 surveys filled out by a patient. In comparing the model with patients with anxiety disorder and the model for patients with only depressive disorder, the biggest difference was the magnitude of the effect for clinical touchpoints. For patients with anxiety, the model estimated that receiving an above average amount of clinical touchpoints was associated with a 3.5 time increase in the odds of a successful discharge. In contrast, for patients with a depression diagnosis, an above average amount of clinical touchpoints was linked to a 2.5 increase in the odds of a successful discharge. This indicates, that while clinical touchpoints are beneficial for both diagnoses, they may be more beneficial for anxiety diagnoses. The current literature also indicates that increased treatment sessions lead to improvements in depression and anxiety symptoms.[22]

The logistic regressions suggest that a higher baseline GAD-7 and/or PHQ-9 score is negatively associated with a positive treatment outcome. In this study, successful treatment can be achieved by a four-point decrease in GAD-7 or PHQ-9, so a higher baseline score gives a patient more room to improve and thus successfully discharge from treatment. This demonstrates that the effect sizes found in the model may be a conservative estimate because of how successful discharge is defined. In the literature, there is no clear consensus on the direction of association.[23, 24] This lack of consensus may be due to a lack of agreement on how to measure improvement in symptoms or response to treatment across the field.

The study's results show a significant association between early interventions and treatment success. The model demonstrated that an above average enrollment time, the odds of successful treatment discharge decreased. These findings corroborate existing literature that suggest better post-treatment outcomes when early symptomatic improvement occurs.[23, 25, 26]

Patients who completed more PHQ-9 or GAD-7 surveys are also linked to successful treatment. Upon receiving a new care plan, patients complete a survey. So, a flexible treatment plan may help patients discharge successfully. A previous study of clinical variables (not in the Collaborative Care model) suggested that a higher mean number of antidepressant switches during treatment is not a favorable strategy for achieving remission.[23]

Limitations

The observational nature of this study limits causal interpretations, and the findings pertain only to patients in the analyzed dataset. Due to the unavailability of demographic characteristics, the final model could not consider these factors, potentially resulting in spurious relationships between successful treatment and the independent variables. Additionally, the dearth of demographic knowledge made it impractical to find a control group. Further research is required to identify and/or verify clinical variables in the Collaborative Care setting that enhance successful treatment discharge.

Implications for Behavioral Health

This study has broad implications for the field. Collaborative Care is rapidly being adopted nationally to help meet the countries behavioral health needs and is gaining traction as states continue to adopt the specific codes onto Medicaid fee schedules. This study helps to inform the implementation and operational considerations for organizations adopting or implementing Collaborative Care.

Understanding the value of imminent response to a referral, regardless in person or remote, has huge implications for both patient engagement and treatment outcomes.

The study further demonstrates the need to adopt Collaborative Care with fidelity, utilizing the PHQ-9 and GAD-7 to consistently monitor symptoms, guide proactive treatment changes, and facilitate outcomes. Well-trained care managers who understand the core principles of Collaborative Care and use the tools to guide conversations and set goals with patients are not only using the tools more frequently but also ensuring better engagement and outcomes for the patients they are treating.

The finding from this study that calls out the difference in improvement in FQHC/RHC sites may largely be due to the prevalence of social determinants in these populations, which we know can generate higher scores.[27] Understanding the complexity and multiple needs of these underserved populations and communities will help guide organizations to consider additional supports for patients in their Collaborative Care services to optimize outcomes. A potential future direction for research would involve further examination of the impact of social determinants on reported scores, length of treatment, disengagement rates, and outcomes.

Data Availability The data that support the findings of this study are available from Concert Health, but restrictions apply to the availability of these data, due to the sensitive nature of the research topic. The data are, however, available from the authors upon reasonable request and with the permission of Concert Health.

Declarations

Conflict of Interest At the time of writing, Virna Little was employed by Concert Health. Carol Hardy, Brandn Green, and Karl Vanderwood were employed by JG Research and Evaluation and conducted all data analysis. JG Research and Evaluation has a contractual agreement with Concert Health to conduct comprehensive assessments of clinical records for the purpose of quality improvement and evaluation.

References

1. Wickwire EM, Tom SE, Scharf SM, et al. Untreated insomnia increases all-cause health care utilization and costs among Medicare beneficiaries. Sleep. 2019;42(4):zsz007. https://doi.org/10.1093/sleep/zsz007. Accessed 28 February, 2024.

2. Kroenke K, Spitzer RL, Williams JBW, et al. Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. Ann Intern Med. 2007;146(5):317-325.https://doi.org/10.7326/0003-4819-146-5-200703060-00004. Accessed 15 December, 2023.

3. Lichtman JH, Bigger JT Jr, Blumenthal JA, et al. Depression and coronary heart disease: recommendations for screening, referral, and treatment: a science advisory from the American Heart Association Prevention Committee of the Council on Cardiovascular Nursing; American Heart Association Council on Clinical Cardiology; American Heart Association Council on Epidemiology and Prevention; American Heart Association Interdisciplinary Council on Quality of Care and Outcomes Research; endorsed by the American Psychiatric Association. Circulation. 2008;118(17):1768-1775. https://doi.org/10.1161/CIRCULATIONAHA.108.190769. Accessed 28 February, 2024.

4. Katon WJ. Epidemiology and treatment of depression in patients with chronic medical illness. Dialogues Clin Neurosci. 2011;13(1):7-23. https://doi.org/10.31887/DCNS.2011.13.1/wkaton. Accessed 28 February, 2024.

5. Gathright EC, Goldstein CM, Josephson RA, et al. Depression increases the risk of mortality in patients with heart failure: a meta-analysis. J Psychosom Res. 2017;94:82-89. https://doi.org/10.1016/j.jpsychores.2017.01.010. Accessed 15 December, 2023.

6. Ensinck KTJL, Schuurman AG, van den Akker M, et al. Is there an increased risk of dying after depression? Am J Epidemiol. 2002;156(11):1043-1048. https://doi.org/10.1093/aje/kwf148. Accessed 15 December, 2023.

7. Wang YH, Li JQ, Shi JF, et al. Depression and anxiety in relation to cancer incidence and mortality: A systematic review and meta-analysis of cohort studies. *Molecular Psychiatry*. 2020;25:1487-1499. https://doi.org/10.1038/s41380-019-0595-x. Accessed 15 December, 2023.

8. Zareifopoulos N, Bellou A, Spiropoulou A, et al. Prevalence, contribution to disease burden and management of comorbid depression and anxiety in chronic obstructive pulmonary disease: a narrative review. *COPD: Journal of Chronic Obstructive Pulmonary Disease*. 2019;16(5-6):406-417. https://doi.org/10.1080/15412555.2019.1679102. Accessed 15 December, 2023.

9. Oude Voshaar RC, Aprahamian I, Borges MK, et al. Excess mortality in depressive and anxiety disorders: the lifelines cohort study. *European Psychiatry*. 2021;64(1):e54. https://doi.org/10.1192/j.eurpsy.2021.2229. Accessed 28 February, 2024.

10. Roy-Byrne P, Craske MG, Sullivan G, et al. Delivery of evidence-based treatment for multiple anxiety disorders in primary care: a randomized controlled trial. *JAMA*. 2010;303(19):1921-1928. https://doi.org/10.1001/jama.2010.608. Accessed 15 December, 2023.

11. Reist C, Petiwala I, Latimer J, et al. Collaborative mental health care: A narrative review. Medicine. 2022;101(52):e32554. https://doi.org/10.1097/MD.0000000000032554. Accessed 28 February, 2024.

12. Coventry PA, Hudson JL, Kontopantelis E, et al. Characteristics of effective collaborative care for treatment of depression: a systematic review and meta-regression of 74 randomised controlled trials. *PLoS ONE*. 2014;9(9):e108114. https://doi.org/10.1371/journal.pone.0108114. Accessed 15 December, 2023.

13. Thota AB, Sipe TA, Byard GJ, et al. Collaborative care to improve the management of depressive disorders: a community guide systematic review and meta-analysis. *Am J Prev Med*. 2012;42(5):525-538. https://doi.org/10.1016/j.amepre.2012.01.019. Accessed 15 December, 2023.

14. Muntingh AD, van der Feltz-Cornelis C, van Marwijk HW, et al.. Collaborative care for anxiety disorders in primary care: a systematic review and meta-analysis. *BMC Family Practice*. 2016;17:62. https://doi.org/10.1186/s12875-016-0466-3. Accessed 28 February, 2024.

15. Archer J, Bower P, Gilbody S, et al. Collaborative care for depression and anxiety problems. *Cochrane Database of Systematic Reviews*. 2012;Issue 10. https://doi.org/10.1002/14651858.CD006525.pub2. Accessed 15 December, 2023.

16. Bower P, Gilbody S, Richards D, et al. Collaborative care for depression in primary care: Making sense of a complex intervention: systematic review and meta-regression. *The British Journal of Psychiatry*. 2006;189(6):484-493. https://doi.org/10.1192/bjp.bp.106.023655. Accessed 28 February, 2024.

17. Bowen DJ, Powers DM, Russo J, et al. Implementing collaborative care to reduce depression for rural native american/alaska native people. *BMC Health Services Research*. 2020;20(1):34. https://doi.org/10.1186/s12913-019-4875-6. Accessed 28 February, 2024.

18. Abela JRZ, Hankin BL. *Handbook of Depression in Children and Adolescents*. New York, NY: The Guilford Press; 2008. https://doi.org/10.1086/597634. Accessed 15 December, 2023.

19. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med. 2001;16(9):606-613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x. Accessed 15 December, 2023.

20. Spitzer RL, Kroenke K, Williams JB, et al. A brief measure for assessing generalized anxiety disorder: the GAD-7. Arch Intern Med. 2006;166(10):1092-1097. https://doi.org/10.1001/archinte.166.10.1092. Accessed 15 December, 2023.

21. APA CoCM and Gen BHI FAQs. Washington, DC: American Psychiatric Association. Available at https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/ Professional-Topics/Integrated-Care/APA-CoCM-and-Gen-BHI-FAQs.pdf, 2024. Accessed 28 February, 2024.

22. Forde F, Frame M, Hanlon P, et al. Optimum number of sessions for depression and anxiety. *Nursing Times*. 2005;101(43):36-40. Available at Accessed 28 February, 2024.

23. Riedel M, Möller H-J, Obermeier M, et al. Clinical predictors of response and remission in inpatients with depressive syndromes. *Journal of Affective Disorders*. 2011;133(1):137-149. https://doi.org/10.1016/j.jad.2011.04.007. Accessed 15 December, 2023.

24. Hirschfeld RM, Russell JM, Delgado PL, et al. Predictors of response to acute treatment of chronic and double depression with sertraline or imipramine. *Journal of Clinical Psychiatry*. 1998;59(12):669-675. https://doi.org/10.4088/jcp.v59n1205. Accessed 15 December, 2023. Accessed 28 February, 2024.

25. Beard J, Delgadillo J. Early response to psychological therapy as a predictor of depression and anxiety treatment outcomes: a systematic review and meta-analysis. *Depress Anxiety*. 2019;36:866-878. https://doi.org/10.1002/da.22931. Accessed 28 February, 2024.

26. Petersen JJ, Hartig J, Paulitsch MA, et al. Classes of depression symptom trajectories in patients with major depression receiving a collaborative care intervention. *PLoS One*. 2018;13(9):e0202245. https://doi.org/10.1371/journal.pone.0202245. Accessed 15 December, 2023.

27. Little V, White C. Collaborative care as an effective intervention for primary care patients at risk for suicide. *Journal of Health Care for the Poor and Underserved*. 2022;33(3):x-xii. https://doi.org/10.1353/hpu.2022.0098. Accessed 15 December, 2023.