Implementation of integrated behavioral health care in a large medical center: Benefits, challenges, and recommendations

Maria C. Prom[1], **Victoria Canelos**[2], **Pedro J Fernandez**[3], **Katherine Gergen Barnett**[4], **Cindy M. Gordon**[5], **Christine A. Pace**[6], **Lauren C. Ng**[7]

[1]MD, Department of Psychiatry, Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA

[2]MD, Boston University School of Medicine, Boston, MA, USA. Now in the Department of Psychiatry, Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA

[3]MD, Department of Psychiatry, Boston Medical Center, Boston, MA. Now at UT Southwestern, Dallas, TX, USA

[4]MD, Department of Family Medicine, Boston Medical Center and Boston University School of Medicine, Boston, MA, USA

[5]LICSW, Department of Psychiatry, Boston Medical Center, Boston, MA, USA

[6]MD, MSc, Department of Medicine, Boston Medical Center and Boston University School of Medicine, Boston, MA, USA

[7]PhD, Department of Psychiatry, Boston Medical Center and Boston University, Boston, MA, USA. Now in the Department of Psychology, UCLA, Los Angeles, CA, USA

Abstract

Integrated behavioral health care (IBHC) models in primary care are positioned to address the unmet needs of traditional behavioral health models. However, research support is limited to specific populations, settings, and behavioral health conditions. Empirical evidence is lacking for

expansion to larger health systems and diverse behavioral health conditions. This study examines perspectives on IBHC implementation in a large medical center. Semi-structured interviews were conducted with 24 health providers and administrators in two primary care clinics with IBHC. Thematic analysis demonstrated that participants had an overall favorable perception of IBHC, but also perceived implementation challenges, including difficulties with access, underutilization, team dynamics, and financial and interdepartmental issues. The findings suggest that IBHC implementation barriers in existing large health systems risk diminishing potential benefits and successful adoption. These barriers can be combated by incorporating systems change strategies into implementation frameworks, with a focus on barrier prevention and detection and long-term sustainability.

Keywords

integrated behavioral health care; integrated care; implementation; challenges; change management

Introduction

In 2018, fewer than half (43.3%) of the 47.6 million adults (19.1%) with mental illness in the US received behavioral health services during the previous year.[1] Integrated behavioral health care (IBHC) within primary care settings (or "integrated care") is an increasingly supported method of addressing the unmet needs of traditional behavioral health models (i.e. specialist care models). The term "Integrated Behavioral Health Care (IBHC)" covers a range of models that vary in their implementation and participating providers- from co-location of a behavioral health provider to fully integrated collaborative care management, including roles such as behavioral health care managers, therapists, and psychiatric consultants.

IBHC is particularly positioned to address unmet patient behavioral health needs where the barrier to care is lack of access to specialized behavioral health services or patients' reluctance to accept traditional behavioral health care (due to factors such as time, location, stigma, cultural barriers, and somatic expression of distress). These behavioral health needs include both mental health and substance use disorders. IBHC is intended to enhance system efficacy, reduce healthcare fragmentation and costs, and improve access, quality of care, and consumer satisfaction.[2] It allows patients to access care in a familiar setting, and utilizes already existing relationships with primary care providers, the latter of which could potentially reduce stigma and overcome cultural barriers to accessing behavioral health care. [3–5] Additionally, IBHC is well suited to address the burden of co-morbid behavioral health conditions and chronic medical illness, as IBHC has been demonstrated to improve outcomes for both chronic medical and behavioral health conditions, as well as improve patient satisfaction with care.[6–9]

There is overwhelming evidence that supports IBHC models. It has demonstrated benefits in patient outcomes as compared to usual care, including adherence to treatment, improved satisfaction with care, quality of life, functional status, social role function, and remission and recovery of psychiatric symptoms, including in diverse patient populations.[4,6,18,19,10–17]

Additionally, evidence suggests that IBHC can improve outcomes while also being more cost-effective.[20–24]

While the research support for IBHC is strong, the published research studies have been limited to specific types of IBHC models, patient populations, and behavioral health conditions, with many focusing on depression alone in smaller structured settings.[15] Thus, as IBHC has expanded into larger existing health care systems with a more robust set of behavioral health conditions, narrowly focused research models are being put to the test in real world clinical care. Unfortunately, there is a lack of empirical research examining the process of implementation and efficacy in these settings.

As increasing numbers of healthcare systems implement IBHC to address multiple behavioral health conditions, it is essential to better understand both the barriers and facilitators for implementation. However, empirical literature examining these aspects of IBHC implementation in these real-world settings is lacking. The existing literature is limited to experiential author commentary and informal provider reports, and data gained from IBHC model research trials focused on depression. This limited literature suggests challenges including lack of physician and leadership commitment, physician and patient resistance, organizational complexity, difficulty standardizing and measuring care, lack of access to behavioral health providers, lack of resources, and difficult financial reimbursement structures.[25–26] Additionally, this primarily experience based literature also suggests potential facilitators for IBHC, including strong leadership support and buy-in, well-defined roles, primary care physician champions, engaged IBHC providers, effective team work and communication, procedures to ensure quality and adequate infrastructure, clear treatment components, and healthcare organization support.[15,27–29]

Given the lack of empirical evidence within IBHC literature in real-world settings, further insight can be gained from non-behavioral health focused models of integrated care. For instance, qualitative assessments of integrated care systems for patients with multiple chronic illnesses and complex psychosocial issues demonstrate challenges including changes in provider roles (particularly those that threaten professional identity), communication and data exchange, limited resources, policy changes, and financial and employment structures. Additionally, facilitators include effective leadership, professional attitudes, shared and well communicated values/vision and roles, education and training for new roles, integrated data systems, and successful communication.[30]

As IBHC expands into real-world clinical settings, researchers and clinicians are seeking a system of parameters to facilitate IBHC system development and the process of implementation. Some theoretical frameworks have been proposed in approaching IBHC implementation. Joseph et al[3] suggests several parameters of care delivery to take into consideration in developing and implementing an IBHC system. These parameters can influence system designs, such as depth of integration, provider roles, provider interactions, and the type of care provided. These parameters run on a continuum and include practice mission, financing considerations, administration and budget sources, space availability, record keeping, and team structure, communication, and treatment planning. Furthermore, Kodner[2] also points to the need to define and conceptualize the elements of IBHC to better

address the complexities and unknowns in the real-world. He also provides a framework for defining IBHC systems by first exploring what is meant by *integration*, including the focus, type, levels, breadth, and degree of integration. He also breaks down typical methods and tools to consider within IBHC, including funding, administration, organization, service delivery, and clinical components.[2] While these theoretical frameworks provide an important and necessary foundation for IBHC development and implementation, there is a lack of empirical research examining the utility and success of incorporating these concepts in real-world settings, particularly large long-standing health care systems.

As IBHC systems are adapted to real-world settings, there is a need for concurrent systematic reflection and engagement in continuous evaluation and improvement of programs. Additionally, incorporating staff and provider perspectives is essential, given the known potential for IBHC programs to struggle with factors such as interdisciplinary differences, adoption of new roles, and limitations to workforce development. With these goals in mind, the present study was designed to examine provider and administrator perspectives of a developed and evolving system of IBHC within primary care clinics at a large academic medical center to better understand and define the existing system, areas for improvement, methods for implementing change, and differences in provider and administrator perspectives.

Methods

Participants

Semi-structured interviews were conducted with 24 healthcare providers and administrators active in IBHC in Family Medicine (FM) and General Internal Medicine (GIM) outpatient clinics at an urban academic medical center. Participants included 13 primary care providers (PCPs) [4 FM and 9 GIM], 5 administrators/practice managers, 1 psychiatrist, and 5 behavioral health social workers (BHSW). Among the participants 17 were female and 7 were male. (Table 1)

Procedure

A recruitment email was sent to all IBHC team members at the institution at the time of study, the existing roles at that time included PCPs, BHSWs, psychopharmacology providers (psychiatrists and psychiatric nurse practitioners), and administrators/practice managers in the GIM and FM departments where IBHC was being implemented. At the time of study, the IBHC program did not have any further roles that may be included within some IBHC models, such as clinical pharmacists or behavioral health care managers. A second recruitment email was sent to individuals who did not respond to the first email.

Interviews took place individually either in-person or over the phone during a six-month interval in 2017. Final sample size was determined by saturation based on concurrent coding and 17% of those originally contacted were interviewed. Interviews were conducted by the senior author, a research fellow, and research assistants trained by the senior author (two master's in public health students). Interviews lasted 35–40 minutes and were conducted using a semi-structured interview guide developed by the senior author and collaborating

leaders in FM, GIM, and IBHC. The interview guide consisted of open-ended questions focusing on the current state, purpose, benefits, implications, and areas of improvement of the IBHC system within participants' respective departments (See Appendix). (E.g. "How often and in what ways are the members of the integrated care team working together?")

All participants completed informed consent prior to completing the interview, at which time it was emphasized that participation was voluntary, would not impact their employment and any identifying data would remain confidential. There was no compensation offered to participants. Interviews were audio-recorded with the permission of the participants and transcribed verbatim by the research assistants.

Data analysis

Data was loaded into NVivo12® qualitative analysis software and coded using thematic analysis.[31–33]Transcripts were independently coded by the senior author, a research fellow, and three research assistants trained in qualitative analysis by the senior author (two master's in public health students and one medical student). Coding was completed using inductive open coding and a preliminary codebook was created through coder consensus. The coders met regularly to make ongoing adjustments to the codebook to address areas of discrepancy and restructuring of coding into primary, secondary, and tertiary themes. The final codebook was reached by consensus and reviewed by the senior and primary authors. Twenty-five percent of interview transcripts were double coded to determine inter-rater reliability. The percent agreement and kappa coefficient of the primary thematic categories utilized for this study were completed using the NVivo12® coding comparison with an average 83% agreement and kappa of 0.62.

Results

Application of integrated care

Participants provided a description of the existing IBHC system at the time of the interviews. They described the key roles within the IBHC program to be of primary care providers, behavioral health social workers (BHSW), and psychiatrists and/or psychiatric nurse practitioners (the number of each type of provider varied between clinics). At times there were also rotating psychiatric residents and BHSW interns. Clinics also had a care coordinator role outside of the IBHC system who was responsible for non-behavioral health needs, such as housing or food support services.

Participants reported that behavioral health screening procedures had gone through different variations since IBHC initiation. There was variability between participants' reports of how screening was completed, such as uncertainty regarding the process and the specific screening instruments utilized. Participants reported that screening occurred at check-in and relied on medical assistants to ensure that patients completed screening questionnaires. One administrator reported that annual screening was completed for depression, anxiety, and alcohol and substance use disorders. Some participants reported that brief 1–2 question screeners, such as the PHQ-2, were completed, and medical assistants then followed up positive screens with longer screening instruments (PHQ-9 and DAST). Screening

information was provided to PCPs either on paper or through the electronic medical record (EMR). After the completion of the present study, retrospective information was gained from IBHC administrators to clarify screening instruments use at the time of the study. In reality, brief screening consisted of the PHQ-2 and single item alcohol and substance use questions. Positive screens were followed-up with medical assistant administration of the PHQ-9, AUDIT, and DAST-10, respectively.

All participants who discussed screening described several points of failure in the system, such as patients with low health literacy or non-English speakers not filling out the screening forms and medical assistants not ensuring that screening was completed. One administrator reported that only about one third of patients completed the annual screening. Participants reported that rather than detection through screening, a lot of behavioral health referrals were the result of PCP recognition during interviews, either through PCP inquiry or the patient volunteering the information.

PCPs were responsible for referring patients to BHSWs either through a referral request or through a "warm-handoff" by either individually locating or paging the BHSW in clinic. BHSWs would either meet patients the same day in clinic via a warm-handoff (if staff was available) or patients would be scheduled to see the BHSW at a later date. BHSWs completed an initial assessment (approximately 45 minutes) and scheduled follow-up sessions (approximately 30 minutes) for short term therapy and behavioral interventions (3–8 sessions) based on their assessment of patient need. A psychiatrist or psychiatric nurse practitioner was available variably in the clinics for 1) referral and ongoing primary psychotropic medication management, 2) a one time in-person patient assessment consultation or 3) formal or informal ("curbside") case consultation (discussion of case and no in-person assessment). Patients could also be referred to a separate traditional specialty behavioral health clinic at any point in this process (the medical center's Department of Psychiatry).

Communication with BHSWs and psychopharmacology providers occurred through variable formats, including referral request to front desk staff, paging, phone calls, EMR messaging, email, or locating BHSWs in offices or work rooms in the same clinic or neighboring clinics.

Perceived benefits of integrated care

Overall, most participants (22 of 24) expressed gratitude or appreciation of the IBHC system, particularly as compared to before IBHC was implemented. One PCP stated, "*I mean these services, by the way, are just like billions times better than we've ever had before… so I'm basically saying how grateful I am, but if one were to like hone that last 99%, you know, make it 100%.*" Perceived benefits were subdivided into secondary themes of *benefits for patients* and *benefits for providers* (Table 2). The perceived benefits of integrated care for both patients and providers were consistent among the various providers interviewed. These perceived benefits for patients included: decreased stigma, supportive messaging that behavioral health is as important as physical health, increased and quicker access to behavioral health care (including immediate attention in crises situations), decreased barriers to accessing behavioral health care (same and familiar location as medical care), increased likelihood of patient's following-up on behavioral health care referrals as

compared to the institution's separate behavioral health specialty clinic within the Department of Psychiatry due to the reduced burden placed on patients, better quality of care, better integration of behavioral and physical health, and improved behavioral and physical health and functioning. When discussing patient reactions, one BHSW stated, "*patients usually have positive feelings like, 'this is great, I have all my care in one place and like, awesome I don't have to go anywhere else.' And because like the doctor, they refer the patient to us, they do the warm hand-off, and, often times, the patient trusts their provider, so then they trust me. So, like naturally they build up a very good therapeutic relationship and just the patients knowing that I work very closely with their doctor, we work in the same clinic, that makes them feel good.*"

The perceived benefits for providers were consistently described among PCP, BHSW, and administrative participants. These included increased sense of support and being part of a team, reduced provider stress, increased PCP confidence in managing behavioral health care within their current practice, direct access to psychopharmacology experts for medication questions and recommendations, improved understanding of patients' underlying behavioral health issues through bidirectional shared information, improved care delivery, and improved access to patient behavioral health information (as compared to care at the separate behavioral health specialty clinic in which records were not accessible to all of the patient's providers). For instance, one PCP stated, "*this has really made my day-to-day life in clinic much better, meaning I feel more effective in helping my patients and I feel like I'm sharing a burden, you know, with colleagues who I can rely on and whom I think are… whom I respect.*"

Perceived challenges of integrated care

All 24 participants reported challenges related to the IBHC system, with secondary themes including: difficult interprofessional and team dynamics, difficulty communicating patient information between team members, problems locating and being aware of available IBHC providers, limited availability of IBHC providers, IBHC provider turnover/changes, limited training for all providers, delays in receiving IBHC services, limited duration of BHSW interventions, PCP underutilization of IBHC, lack of patient adherence to appointments, behavioral health stigma, need for referral to specialty care outside of IBHC system, lack of resources, interdepartmental system issues, and an inadequate system of financial reimbursement.

Several of the secondary themes were related to IBHC team dynamics and communication including high turn-over of IBHC providers which resulted in provider shortages, confusion over who was available to provide care, delays in patients being able to be seen by IBHC providers, perceived patient frustration over changing providers, and difficulty establishing good and familiar relationships among IBHC providers and PCPs. While high turnover was frequently cited as a source of these challenges, participants did not report any specific explanations for high turnover, other than noting the inherent element of large departments and primary care settings.

Another theme that arose was misunderstanding of provider and staff skill sets, training and specific roles within the system. Some participants felt that these misunderstandings led to

conflicts and poor communication among providers. There were notable discrepancies among participants regarding the perceived roles of providers within the IBHC system. For instance, among PCPs, the role of the BHSW was described in different ways. Some PCPs reported that in addition to therapy, BHSWs had a triage and referral role. Specifically, they reported that all patients with any behavioral health need could be referred to BHSWs and the BHSWs were responsible for determining level of care needed and referral to long-term specialty behavioral health care within the medical center's Department of Psychiatry or medication management with IBHC psychopharmacology providers. Other PCPs reported that it was the PCP's role to determine level of care needed, patient appropriateness for IBHC versus traditional specialist psychiatric care, and referral of patients to BHSWs for short-term therapy and/or to IBHC psychopharmacology providers vs. referral to long-term specialty behavioral health management. One PCP even reported that when appropriate, they provided patients with referral information for the patients to find a therapist outside of the medical center, for geographic convenience. Other PCPs reported that they were not sure who was supposed to be doing the triaging and referrals.

BHSWs consistently reported that their role was often misperceived. They reported that triage was not a part of their role and that their primary responsibility was supposed to be to provide short-term therapy and only provide referral to longer-term therapy if the patient had an ongoing need once they reached the IBHC short-term therapy session limit. BHSWs also reported that their role also included assisting in crises situations. BHSWs consistently made statements such as, "*I think there's just confusion among like, who are we, what do we do, and who do we report to.*" (Table 2)

Furthermore, PCP participants expressed challenges with contacting and locating IBHC providers because of a lack of knowledge about who the IBHC providers were, how to contact them, and where they were located. The latter of which was reported, in part, due to IBHC providers not having a consistent/permanent geographic home within the clinic. For example, there were difficulties with IBHC providers having shared responsibilities between multiple primary care clinics and, therefore, being physically located in neighboring clinics. IBHC providers were also noted to not be available in the moment (due to being in session with patients, staff shortages, or schedule differences). This was challenging for initial consults, curbsides, and long-term communication among providers. Provider communication was also reported to be challenging due to a lack of a clear system for communication. For instance, there was variability among participants as to how the EMR was being used to communicate patient information, such that some PCPs reported that there was no systematic method and others reported that they utilized specific templates to communicate information. There were also issues noted that PCPs were unable to access behavioral health notes due to electronic medical record privacy protection for behavioral health related visits. One IBHC provider noted *"another challenge which is system-wide is that we cannot view psychiatry team notes, so our team has to basically double document in the EMR to create a second note the PCP can read, and I think that's onerous… and that really really hinders like collaboration and coordination as well as recognition of the behavioral health team's work."* Another communication issue reported by PCPs was the lack of a formal feedback loop for information about patients referred to IBHC. They

reported it was challenging to understand if patients had engaged or followed-up with IBHC and how they were progressing.

Behavioral health providers and PCPs also expressed frustrations with the IBHC program's limit on the number of sessions that the IBHC providers could offer each patient before they would have to be referred to a separate behavioral health specialty clinic for ongoing behavioral health care or if their care was felt too complex to be managed in the IBHC program. PCPs expressed frustration that their patients were less likely to follow-up with the separate specialty clinic and felt their behavioral health needs would then go unaddressed. BHSWs providers expressed a desire for longer-term therapeutic engagements with patients. BHSWs also reported inadequate training in brief and short-term therapeutic interventions. Some PCPs expressed a desire for more IBHC related training to utilize the IBHC system more effectively, others expressed that they had missed IBHC related trainings due to their schedules and still others noted that frequent IBHC system changes made it difficult to keep up with current IBHC practices. Additionally, some PCPs reported a desire for training in behavioral health diagnosis and treatment, including brief behavioral interventions and psychopharmacology for more unfamiliar medications, such as antipsychotics.

Participants also perceived difficulties related to patients' non-adherence to IBHC appointments. Participants reported various perceptions of why patient's missed appointments, including wait time to get an appointment, lack of availability of staff for a warm-handoff or brief in-person introduction, and lack of availability of IBHC appointments concurrent with patients' PCP appts. For instance, participants reported that at times when BHSWs were understaffed, appointment wait times increased from 1–2 weeks to up to 6 weeks. Others related this to the stigma of seeing IBHC behavioral health providers, although a greater number of providers felt overall stigma was decreased compared to traditional specialty care. Some participants expressed that they felt the IBHC system was underutilized due to distrust in the system, uncertainty of who to contact, and frustration with system functioning. One PCP reported that they decided not to utilize the system stating, "*So, mostly there's been, mostly this has not been a success for me, so mostly I don't use their services.*" Despite these perceived challenges with patient and provider utilization, more than three-quarters of participants felt that, overall, IBHC increased patient access to and engagement in behavioral health care.

Lastly, challenges were reported regarding larger systems issues, including interdepartmental challenges, such as lack of integrated administration leading to difficulties making system changes and confusion among providers and lack of understanding and IBHC team leadership recognition. For instance, BHSWs were employed by the Department of Psychiatry, but were physically located in GIM and FM practices. Thereby, participants noted they were not always sure who to go to when issues arose and changes were difficult to implement. Additionally, participants reported challenges with lack of resources, including a limited number of IBHC providers, lack of time for patient care and documentation, lack of space for additional IBHC providers, and lack of administrative support staff to support IBHC implementation (e.g. scheduling patient visits, behavioral health screening, and tracking patient follow-up with IBHC referrals). Finally, a few participants reported limitations to the financial reimbursement system, such reporting that

some services were not billable to insurance, and, therefore, additional financial support was necessary to support IBHC team salaries.

Discussion

As IBHC models are adopted and implemented in large health care systems, research supported models are being put to the test in ever changing real-world settings. This study addresses the need for empirical research to evaluate and support the success of real-world implementation of IBHC models. The findings provide a deeper understanding of both the benefits and challenges encountered in IBHC implementation in large existing health care systems through the perspectives of providers and administrators. These findings importantly raise the concern that while IBHC has been positively perceived by providers, the implementation challenges within these systems may risk diminishing the benefits that have been demonstrated in controlled research settings, particularly due to difficulties with local buy-in and provider adoption. It is essential to develop strategies to address these implementation barriers in large real-world health care settings to ensure the efficacy of IBHC programs. The present findings provide valuable insights into potential strategies for improving IBHC success.

In addressing the challenges and barriers to IBHC implementation, it is essential to also highlight the benefits. Gaining a clearer understanding of benefits perceived by providers may be an important element to enhance provider buy-in and adoption. Participants perceived that patients benefited through decreased stigma, increased access to behavioral health care, improved quality of care, and improved behavioral and physical health, which is consistent with prior research.[4,6,10,12–15,17,18] The findings also provide new insights into several areas that providers perceived as beneficial for themselves, a less explored area in the current literature. These include increased sense of support, reduced stress, increased confidence in managing behavioral health conditions, and better understanding of patients' behavioral health issues.

In terms of the perceived challenges of IBHC implementation, the findings provide empirical support for the existing primarily experiential literature and are consistent with previous studies within non-behavioral health focused integrated care systems (i.e. complex chronic illness management). The findings also provide new insights into the challenges within real-world large health care systems, including poor patient adherence to appointments, underutilization by providers, frequent staff/provider turnover leading to delays in care, and provider difficulty in defining the system within known IBHC models. The latter of which is an important aspect that may reflect the challenge of attempting to fit precise IBHC models into existing large systems. It is no coincidence that the perceived implementation challenges are ways in which IBHC models directly challenge long-standing traditional healthcare systems. This includes workflow, provider and staff roles and training, electronic medical record designs, provider relationships and communication, referral systems, distribution of resources, financial structures, departmental/leadership systems, and infrastructure, including even physical workspace designs. These challenges can lead to frustration and poor provider, staff, and patient engagement in the IBHC system, including providers who choose not to utilize the system. This can create a reinforced cycle of

provider burn-out and staff turnover leading to delays in care and further lack of provider and patient engagement. This cycle threatens the potential success of IBHC implementation and, ultimately, efficacy. As such, it is pertinent that the adaptation and implementation of IBHC systems in real-world settings utilize systematic methods to proactively prevent and address implementation challenges when they inevitably arise.

As previously reviewed here, a limited quantity of literature provides a theoretical framework for addressing the challenges of IBHC adaptation in real-world settings. For instance, the recommendations of Joseph et al[3] and Kodner.[2] This literature reflects the crucial need for healthcare centers to define and conceptualize key elements of IBHC early in the process of adaptation and implementation, such as defining the practice mission, team structure, communication, treatment planning, space availability, record keeping, and financial matters. This approach can reduce barriers to initial implementation and support systematically addressing difficulties that arise using the institution's pre-defined parameters and goals.

Nonetheless, despite proactively addressing these elements, barriers will remain in translating these concepts into traditional systems of care, particularly in established, large and often siloed healthcare systems. That is, IBHC leaders can carefully define, plan and adapt an IBHC model to their system, such as changes to electronic medical records and office space, clinical training for BHSWs and PCPs, hiring providers, and adjustment of financial structures. However, the present findings suggest a different challenge that cannot be ignored. That challenge is sustained institutional, administrative, provider, and staff acceptance and adoption of change. Implementation of system-wide changes, such as IBHC, requires that institutions, administrators, providers, and staff make significant shifts from their long-standing clinical practice and workflow, routines and behaviors that often date back to early in their training.

The importance of acceptance and adoption of system-wide change is essential to IBHC implementation. IBHC leaders must approach the implementation of IBHC through the lens of systems change and utilize existing change-based strategies, such as change management, to support successful adoption of IBHC models. Change management has repeatedly been suggested as an important tool to support healthcare change and there is evidence for its success in advancing the implementation of healthcare changes in areas outside of IBHC, including in areas such as patient-centered medical home development.[34–40] While it has not been explicitly adapted into IBHC models, some elements of change management have made their way into IBHC implementation guidelines from community focused organizations, such as the Substance Abuse and Mental Health Services Administration (SAMHSA).[41] Kotter's model of change management, for instance, has been applied to healthcare organization changes and includes eight steps: establishing a sense of urgency, forming a powerful guiding coalition, creating a vision, communicating the vision, empowering others to act on the vision, planning for and creating short-term wins, consolidating improvements and producing still more change, and institutionalizing new approaches.[42]

Change management models provide an additional framework to address the barriers of IBHC implementation that are not fully addressed in existing IBHC adaptation approaches, such as shared values, professional attitudes, well-defined and communicated vision/goals and roles, provider champions, effective/strong leadership, successful communication, and healthcare organization support.[15,27,28,30] To overcome IBHC implementation barriers in real world settings, IBHC adaptation frameworks should include the following change management based strategies: recruitment of practice stakeholders, recruitment of provider and staff champions, early engagement of administrators, providers, and staff with a focus on buy-in, clearly communicated shared values, mission, and goals, and ongoing long-term engagement of providers and staff focused on feedback and reduction of perceived barriers and challenges (Table 3). A change management approach necessitates the development of strong and collaborative provider relationships, an area that the present findings suggest is a critical barrier in systems with historically siloed behavioral health care and primary medical care systems. The implementation of IBHC necessitates placing a priority on team building, role and discipline definition, and communication, not only among providers and staff, but also at the level of interdepartmental administration and the greater institution.

Furthermore, the long-term sustainability of change management practices should not be overlooked in the bid for lasting institutional and provider buy-in. In a retrospective discussion with IBHC administration at the institution of study, it was reported that they had incorporated systems change schemes in their implementation strategies, such as stakeholder buy-in and early engagement of administrators and leaders. However, these findings suggest that over the longer-term, implementation challenges were pervasive despite these efforts. Maintaining a long-term focus on strategies for sustainable adoption is essential for large systems with high staff volumes, frequent staff turnover, and numerous concurrent practice changes.

Finally, empirical assessment must be incorporated into the IBHC implementation framework. This will not only support detecting and overcoming implementation barriers unique to each individual system, but it will also provide a foundation for motivating change among providers, administrators, and the institution. Qualitative assessment is particularly important in this process to gain administrative, provider and staff perspectives and increase their engagement in the process. This should include exit interviews for departing staff, as the present findings indicate a high rate of IBHC provider turnover but lacks data from departed providers to indicate why. Additionally, empirical assessment of the financial barriers and cost-effectiveness of IBHC in real-world settings are necessary to inform system and policy changes related to finances and billing in order to ensure long-term sustainability.

Limitations

There are important limitations to consider in interpreting the present findings. The generalizability of data may be limited by participant self-selection bias, smaller sample size, and uneven distribution of this sample, with a female majority and a larger number of PCPs than other providers. However, this sample was distributed similarly to overall provider role distribution within the clinics, and although the overall sample size was small, it was determined through reaching theoretical saturation of the data. Additionally, given

that this was a qualitative study, the findings represent narrative participant perspectives only, and not quantitative or outcome measures. However, the advantage of qualitative data outweighs such limitations, particularly given the ability to gain a broad and deep understanding of IBHC implementation that quantitative data may lack and provide a foundation for further study in an area of limited existing empirical research. Additionally, qualitative methods better fit with the goal of the study to evaluate the process of implementation, rather than specific IBHC system outcomes. Finally, this study included provider perspectives only and does not include patient perspectives, an area that will be important to evaluate in future studies.

Implications for Behavioral Health

This study provides an examination of perceived administrator and provider benefits and challenges in the implementation of IBHC into a large real-world healthcare system. The present findings provide an empirical foundation of the benefits and challenges encountered in IBHC implementation in real-world settings and raise concern that these challenges risk diminishing the potential benefits of IBHC, including through poor provider buy-in and adoption. Detecting and addressing the challenges of IBHC implementation in real-world settings is essential to successfully adapt narrowly focused research models to these systems. These barriers must be addressed systematically early and continuously in the implementation process to prevent any reduction in the known benefits and efficacy of IBHC programs. These barriers can be addressed by integrating a systems change approach into IBHC implementation. The integration of change management strategies focusing on institutional, administrative, provider, and staff buy-in and adoption can support sustainable IBHC implementation. Ongoing research should focus on further defining and evaluating the framework for successful IBHC implementation in large real-world settings, such that IBHC models can be more easily adapted to local values and goals in a sustainable and effective manner.

Acknowledgements

Appendix

Qualitative Semi-Structured Interview Guide

1. What is integrated care in your setting?

   - How does it look? How is it done?

   - How do we know it is occurring?

   - In your mind, what does "integration" mean?

   - What are the specific services patients are receiving in integrated care?

- Walk me through the details of the process of how a patient is referred to, treated by, and discharged from integrated care in your setting.

2. What is the purpose of integrated care?

- Why do it?

- Why do you think it was started?

- What benefits of integrated care have you observed? How is it useful?

- What downsides of integrated care have you observed? In what ways is it unhelpful?

3. How has integrated care changed the way you or your team provides patient care?

- Have these changes improved your care? Why or why not?

- In what ways are patients receiving more or less mental health care because of integrated care?

- In what ways, if at all, has integrated care changed the process through which patients receive mental health care?

- In what ways are patients who otherwise would not receive mental health care getting it? Why or why not?

4. Who are the patients who receive integrated care?

- What characteristics of patients make them appropriate for integrated care? What types of problems or diagnoses are appropriate for integrated care?

- What patient characteristics make them inappropriate for integrated care? What types of problems/ diagnoses are inappropriate for integrated care?

- What are the provider red flags for emergencies?

5. In what ways, if at all, are patients benefiting from integrated care?

- In what ways is integrated care meeting the needs of your patients?

- In what ways is it not meeting their needs?

- How, if at all, has integrated care impacted your patients' mental or physical health or wellbeing?

- How has integrated care impacted the way your patients think and feel about their medical care here at **[institution]**?

- How, if at all, has integrated care impacted patient access to or connection to services?

6. How is integrated care working in your setting?

- In what ways does the model you described fit or not fit within your clinic's resources and structure (e.g., time, space, training, etc.)?

- What could be changed that would help the integrated care program fit the needs of your clinic?

- How much is the service used? What would increase the amount the service is used?

7. How do you fit in integrated care in your setting?

- Describe your role? What are your responsibilities?

- In what ways do you have or not have the training or knowledge you need to fulfill your role? What additional training would be helpful?

- In what ways do you feel confident, or not confident, in your role with integrated care?

- What pressures do you feel that integrated care has added to your job? What pressures has integrated care relieved?

8. In what ways, if at all, is integrated care working as a "team approach"?

- Who are the other members of the integrated care team where you work? What roles and responsibilities do they have on the team?

- How often and in what ways are the members of the integrated care team working together?

- What could improve the ways that team members work together?

- What is the relationship like between the primary care providers and the integrated providers?

- In what ways do other members of your team have or not have the knowledge or training they need to fulfill their roles on the team?

9. How should we measure or evaluate integrated care?

- What type of outcomes should be collected about integrated care?

- How do you think integrated care is impacting health services, patient outcomes finances, etc.?

- Are there any important factors about how integrated care is or is not working that you think we are missing?

10. How can we improve the integrated care here at [institution]?

- What would make integrated care in your clinic more effective and useful?

- What would be an ideal integrated care model for your clinic?

- If you could change one specific thing about how integrated care is working, what would it be?

> **11.** What do you want to know about integrated care at [institution]? Is there anything else we should ask that we haven't asked already?

References

1. Substance Abuse and Mental Health Services Administration. Key Substance Use and Mental Health Indicators in the United States: Results From the 2018 National Survey on Drug Use and Health. HHS Publ No PEP19–5068, NSDUH Ser H-54, Rockville, MD: Center for Behavioral Health Statistics and Quality, 2019

2. Kodner DL. All together now: a conceptual exploration of integrated care. Healthcare Quarterly. 2009;13 Spec No:6–15. [PubMed: 20057243]

3. Joseph R, Kester R, O'Brien C, et al. The evolving practice of psychiatry in the era of integrated care. Psychosomatics. 2017;58(5):466–473. [PubMed: 28606419]

4. Vera M, Perez-Pedrogo C, Huertas SE, et al. Collaborative care for depressed patients with chronic medical Conditions: A randomized trial in Puerto Rico. Psychiatric Services. 2014;61(2):144–150.

5. Kaltman S, Hurtado De Mendoza A, Gonzales FA, et al. Preferences for trauma-related mental health services among Latina immigrants from Central America, South America, and Mexico. Psychological Trauma Theory, Research, Practice, and Policy. 2014;6(1):83–91.

6. Katon WJ, Lin EHB, Von Korff M, et al. Collaborative Care for Patients with Depression and Chronic Illnesses. New England Journal of Medicine. 2010;363(27):2611–2620.

7. Chwastiak LA, Jackson SL, Russo J, et al. A collaborative care team to integrate behavioral health care and treatment of poorly-controlled type 2 diabetes in an urban safety net primary care clinic. General Hospital Psychiatry. 2017;44:10–15. [PubMed: 28041570]

8. Katon WJ. Epidemiology and treatment of depression in patients with chronic medical illness. Dialogues in Clinical Neuroscience. 2011;13(1):7–23. [PubMed: 21485743]

9. Uga A, Kulkarni S, Heeramun V, et al. Evaluation of a model of integrated care for patients with chronic medical and psychiatric illness. Psychosomatics. 2017;58(4):437–440. [PubMed: 28427766]

10. Archer J, Bower P, Gilbody S, et al. Collaborative care for depression and anxiety problems. Cochrane Database Systematic Reviews. 2012; (10): CD0065.

11. Katon W, Robinson P, Korff M Von, et al. A multifaceted intervention to improve treatment of depression in primary care. Archives of General Psychiatry. 1996;53:924–932. [PubMed: 8857869]

12. 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. American Journal of Preventive Medicine. 2012;42(5):525–538. [PubMed: 22516495]

13. Woltmann E, Grogan-Kaylor A, Perron B, et al. Comparative effectiveness of collaborative chronic care models for mental health conditions across primary, specialty, and behavioral health care settings: Systematic review and meta-analysis. American Journal of Psychiatry. 2012;169(8):790–804.

14. Butler M, Kane RL, McAlpine D, et al. Does integrated care improve treatment for depression? A systematic review. Journal of Ambulatory Care Management. 2011;34(2):113–125.

15. Miller CJ, Grogan-Kaylor A, Perron BE, et al. Collaborative chronic care models for mental health conditions: Cumulative meta-analysis and metaregression to guide future research and implementation. Medical Care. 2013;51(10):922–930. [PubMed: 23938600]

16. Ell K, Katon W, Xie B, et al. Collaborative care management of major depression among low-income, predominantly hispanic subjects with diabetes: A randomized controlled trial. Diabetes Care. 2010;33(4):706–713. [PubMed: 20097780]

17. Hedrick S, Chaney E, Felker B, et al. Effectiveness of collaborative care depression treatment in Veterans' Affairs primary care. Journal of General Internal Medicine. 2003;18(1):9–16. [PubMed: 12534758]

18. Grypma L, Haverkamp R, Little S, et al. Taking an evidence-based model of depression care from research to practice: Making lemonade out of depression. General Hospital Psychiatry. 2006;28(2):101–107. [PubMed: 16516059]

19. Sighinolfi C, Nespeca C, Menchetti M, et al. Collaborative care for depression in European countries: A systematic review and meta-analysis. Journal of Psychosomatic Research. 2014;77(4):247–263. [PubMed: 25201482]

20. Unutzer J, Katon WJ, Fan M-Y, et al. Long-term cost effects of collaborative care for late-life depression. American Journal of Managed Care. 2008;14(2):95–100.

21. Katon W, Russo J, Lin E, et al. Cost-effectiveness of a multicondition collaborative care intervention: A randomized controlled trial. Archives of General Psychiatry. 2012;69(5):506–514. [PubMed: 22566583]

22. Desmedt M, Vertriest S, Hellings J, et al. Economic impact of integrated care models for patients with chronic diseases: A systematic review. Value in Health. 2016;19(6):892–902. [PubMed: 27712719]

23. Reiss-Brenna B, Briot P, Savitz L, et al. Cost and quality impact of Intermountain's mental health integration program. Journal of Healthcare Management. 2010;55(2):1–18.

24. Jacob V, Chattopadhyay SK, Sipe TA, et al. Economics of collaborative care for management of depressive disorders: A community guide systematic review. American Journal of Preventive Medicine. 2012;42(5):539–549. [PubMed: 22516496]

25. Solberg LI, Crain AL, Jaeckels N, et al. The DIAMOND initiative: Implementing collaborative care for depression in 75 primary care clinics. Implementation Science. 2013;8(135).

26. Whitebird RR, Solberg LI, Margolis KL, et al. Barriers to improving primary care of depression: Perspectives of medical group leaders. Qualitative Health Research. 2013;23(6):805–814. [PubMed: 23515301]

27. Whitebird RR, Solberg LI, Jaeckels NA, et al. Effective implementation of collaborative care for depression: What is needed? American Journal of Managed Care. 2014;20(9):699–707.

28. Beach SR, Walker J, Celano CM, et al. Implementing collaborative care programs for psychiatric disorders in medical settings: A practical guide. General Hospital Psychiatry. 2015;37(6):522–527. [PubMed: 26190822]

29. Miller CJ, Sullivan JL, Kim B, et al. Assessing collaborative care in mental health teams: Qualitative analysis to guide future implementation. Administration and Policy in Mental Health and Mental Health Services Research. 2019;46(2):154–166. [PubMed: 30353419]

30. Ling T, Brereton L, Conklin A, et al. Barriers and facilitators to integrating care: experiences from the English Integrated Care Pilots. International Journal of Integrated Care. 2016;12(5):1–12.

31. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006;3(2):77–101.

32. Boyatzis R Transforming Qualitative Information: Thematic Analysis and Code Development. Thousand Oaks, CA: Sage Publications, 1998.

33. Nvivo. Nvivo 12 for Windows. NVivo Qual data Anal Software; QSR Int Pty Ltd. 2018.

34. Antwi M, Kale M. Change Management in Healthcare Literature Review. Kingston, Ontario: The Moneison Centre; 2014.

35. Kuhlman J, Moorhead D, Kerpchar J, et al. Clinical transformation through change management case study: Chest pain in the emergency department. EClinicalMedicine. 2019;10:78–83. [PubMed: 31193895]

36. Campbell RJ. Change management in health care. The Health Care Manager. 2008;27(1):23–39. [PubMed: 18510142]

37. Carman AL, Vanderpool RC, Stradtman LR, et al. A change-management approach to closing care gaps in a federally qualified health center: A rural Kentucky case study. Preventing Chronic Disease. 2019;16:1–6.

38. van Rossum L, Aij KH, Simons FE, et al. Lean healthcare from a change management perspective: The role of leadership and workforce flexibility in an operating theatre. Journal of Health Organisation and Management. 2016;30(3):475–493.

39. Dickson G, Lindstrom R, Black C, et al. Evidence-Informed Change Management in Canadian Healthcare Organizations. Ottawa, Ontario: Canadian Health Services Research Foundation; 2012.

40. Nutting PA, Miller WL, Crabtree BF, et al. Initial lessons from the first national demonstration project on practice transformation to a patient-centered medical home. Annals of Family Medicine. 2009;7(3):254–260. [PubMed: 19433844]

41. Hoge MA, Morris JA, Laraia M, et al. Core Competencies for Integrated Behavioral Health and Primary Care. Washington, DC: SAMHSA-HRSA Center for Integrated Health Solutions; 2014.

42. Kotter JP. Leading change: Why transformation efforts fail. Harvard Business Review. 1995;No.73:59–67.

Table 1

Characteristics of study participants

Characteristics	N = 24	
	n	*%*
Gender		
Female	17	70.8
Male	7	29.2
Role		
Administrators/practice managers	5	20.8
Behavioral Health Social Workers	5	20.8
Primary Care Provider- Family Medicine	4	16.7
Primary Care Provider- General Internal Medicine	9	37.5
Psychiatrist	1	4.2

Table 2

Primary themes, sub-themes and illustrative quotes

Application of Integrated Care (24) [*]
"I would say that the large part of what our social workers do is the cognitive behavioral therapy, I think that's a key component of their skill set… our psychiatrists are much more based on medication therapy, and all our behavioral health team do short-term treatment. They don't do long-term treatment."
Perceived Benefits of Integrated Care
Perceived benefits for patients (21)
"I think it's decreased the stigma attached to mental health, the fact that it's embedded in where they get their care for their body, makes them, you know, get that it's actually part of their health care and it's not something separate."
Perceived benefits for providers (20)
"Relieving the stress from us as providers actually making us feel more confident in managing the patients"
Perceived Challenges of Integrated Care
Difficult interprofessional and team dynamics (12)
"I think, again, it's because they weren't all trained to work together, and they have really different skill sets and they're still trying to figure out what each other's skill set is, and how they can continue to kind of lean into each other, respectively."
Difficulty communicating patient information between team members (8)
"I have a fairly big panel of patients, so to remember who I've referred and who I haven't referred—the feedback loop would help with that… being a little more explicit or sort of deliberate about that."
Problems locating and being aware of available IBHC providers (11)
"They keep moving the social workers, which is part of the other problem, actually, so like because we have space issues in clinic in general, like the social workers used to sit in one place, and then they moved them to somewhere else and then they moved them to somewhere else, and so, I actually don't know where they sit right now."
Limited availability of IBHC providers (17)
"I think the only limitation is that there is not enough availability. Umm, and that, again, is a victim of its own success... we are lucky to have two social workers and now we have another… but it's still not enough… they are not able to see people as frequently as maybe they would need to be and maybe as soon as they would need to be seen."
IBHC provider turnover/changes (14)
"I think you build up a nice rapport with [IBHC providers] and then if there's staff turnover, then you have to kind of do that again. Umm, you get a sense of, like I get a sense as the PCP of whether they're worried about the person or not… and then you kind of have to relearn that with new staff."
Limited training for all providers (17)
"People coming out of social work school have other skill sets that they're receiving. I don't think they're as well tailored to the short interventions that we have in the clinical setting. They're still so used to having 45 minutes to an hour with each patient or each client."
Delays in receiving IBHC services (8)
"I know their goal is… actually, I can't remember their goal now… I think it was like less than a week or two weeks or something to get patients in who didn't get a warm handoff. Umm, but, you know, if they have fewer social workers, that's going to go up."
Limited duration of BHSW interventions (7)
"It's sort of a downside, it's limited in terms of the number of visits, but I kind of get that, if you're going to have, maintain access, then you can't fill up everyone's slots with longer term therapy."
PCP Underutilization (8)
"I think [IBHC] is not being fully utilized to its capacity. Um, and I think part of that is through clinician variability… I think some clinicians are just so used to taking care of everything for a patient that they are remiss to kind of let things go. And then I think for patients they don't always trust another person enough to show up."
Lack of patient adherence to appointments (15)
"There's a lot of dropout. I mean, patients will often not show up and even if they do show up once, they won't keep showing up."
Mental Health Stigma (6)

"And asking them what contributes to them maybe not coming, and so forth, and I think some of those things, some of them are concrete, but some of them are actually the stigma related stuff, like mental health stigma."
Need for referral to specialty care outside of IBHC system (8)
"I think the bigger issue is keeping patients with more significant mental illness we can't offer integrated care services. They get referred to the Department of Psychiatry, so those patients may need a lot of close follow-up, but between both primary care and psychiatry, but we are not aware or have communication with the psychiatrist of what is going on for those patients."
Lack of resources (19)
"We need more resources, at least in primary care, we need more resources. We don't have enough space in our clinic, we don't have enough administrative staff to help coordinate these things, umm, it's just something I have gotten used to. Umm, I wish we had more administrative support to help deal with the coordinative care issues with patients, but we don't."
Interdepartmental system issues (10)
"The way that we're [BHSWs] set up in the internal medicine clinic is very… kind of strange… somebody asked us today, 'who do you report to?' and we were like, 'like 4 or 5 people,' because we have our boss in psychiatry, we have the medical director over in the integrated program, we have the psychiatrist in the integrated program, and we have the program manager, or the practice manager who works with the program."
Inadequate system of financial reimbursement (5)
"So, the downside of the system is, well, I guess they're four-fold. There's kind of the larger picture which is financial support. Because a lot of the work we do aren't necessarily paid by insurance or billable. So, you always need funding to keep- increased funding- to help meet the salary demands of the workforce."

*
(X)= Indicates total number of participants (out of 24) whose interviews were coded within the theme

Table 3

Change management-based strategies to support IBHC implementation

Change management-based strategies for IBHC implementation
Recruitment of practice stakeholders
Recruitment of provider and staff champions
Early engagement of administrators, providers, and staff with a focus on buy-in
Clearly communicated shared values, mission, and goals
Development of collaborative relationships and team building
Ongoing long-term engagement of providers and staff focused on feedback and reduction of perceived barriers and challenges