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Perceptions of the Implementation of Pediatric Behavioral Health Integration in 3 Community Health Centers

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Abstract

Pediatric behavioral health integration (BHI) represents a promising approach to address unmet child mental health need but little research exists to guide BHI implementation. Through in-depth interviews with 38 professionals involved in a comprehensive pediatric BHI initiative at 3 community health centers, we explored perceptions of the impact of BHI on clinical practice, and facilitators and barriers to BHI implementation. Professionals identified 2 overarching themes about the impact of BHI on clinical practice (greater interdisciplinary collaboration/communication and enhanced provider wellness); 5 themes about facilitators of BHI (staff buy-in for BHI, leadership support, staff belonging to the same team culturally and/or structurally, co-location with close physical proximity, and data-driven quality improvement); and 5 themes about barriers to BHI (inadequate clinician staffing, insufficient space, limited provider time, billing/reimbursement issues, and care coordination challenges). Future pediatric BHI efforts may consider these findings to develop strategies to promote facilitators and reduce barriers during implementation.

Keywords

behavioral health, mental health, behavioral health integration, implementation, pediatrics

Introduction

Approximately 1 in 5 children in the United States has a mental health disorder.[1-3] Moreover, half of adults with mental disorders report onset of their illness in childhood or adolescence.[4] The high prevalence of child mental health problems and their associations with morbidity and mortality across the lifespan[5,6] underscore the critical need for effective pediatric behavioral health (BH) care. Despite the benefits of BH services for preventing and treating mental disorders,[3] nearly 80% of children who need services do not receive them.[7] Minority and uninsured children are disproportionately affected, with national studies finding higher rates of unmet mental health need in these groups relative to other children.[7,8]

Integration of BH services into pediatric primary care represents a promising approach to address this unmet need and ensure timely access to high-quality, evidence-based services for children and families.[9,10] Pediatric primary care is an ideal venue for delivery of BH services due to the frequency of childhood visits; the focus on preventive, family-centered care; and the relative accessibility and acceptability of the primary care setting for children and families.[9-11] Pediatric behavioral health integration (BHI) models have included primary care provider (PCP) consultation with off-site behavioral health clinicians (BHCs; eg, via phone or web-conferencing); co-location of medical and BH services in primary care; and team-based collaborative care.[12,13] A systematic review and meta-analysis found that children receiving integrated medical BH care compared with usual care had better BH outcomes.[12] Most pediatric BHI models studied to date have focused on addressing specific issues such as depression.[12] To our knowledge, no reported models have targeted the general pediatric population across the risk continuum of BH problems within a community health center (CHC) context.

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Furthermore, few studies have examined the impact of pediatric BHI on clinical practice, and facilitators and barriers to BHI implementation in a CHC setting. Early identification of implementation factors is critical for optimizing model "fit" in real-world contexts.[14]

Transforming and Expanding Access to Mental Health Care in Urban Pediatrics for Children (TEAM UP) is an initiative to comprehensively integrate BH services into the primary care practices of 3 diverse CHCs. TEAM UP uniquely aims to improve early identification of BH problems and provide a full spectrum of preventive and treatment services to the general pediatric population through a model of integrated care informed by the Institute of Medicine's Prevention Framework.[15] As part of a formative evaluation of TEAM UP, we conducted a qualitative study with PCPs, BHCs, and other staff from 3 CHCs to explore perceptions of the impact of pediatric BHI on clinical practice, and facilitators and barriers to BHI implementation midway through the initiative. Given the limited research about pediatric BHI implementation in the CHC setting, we chose a qualitative approach to examine this topic from different perspectives and identify implementation factors that were common and divergent across professional groups and CHCs.

Methods

Context

The goal of TEAM UP is to promote positive child health and well-being by building the capacity of urban CHCs to deliver high-quality, evidence-based integrated BH care to children and families. The participating CHCs (herein CHC1, CHC2, and CHC3) care for low-income families primarily insured by Medicaid.

TEAM UP implementation began in June 2016 after a 6-month planning period. The CHCs entered TEAM UP with varying levels of BHI experience and different organizational structures. Each CHC received funding for clinical and administrative staff (2-3 BHCs, 2-3 community health workers, a clinical champion, a project manager, and an analyst/programmer); clinical training on common pediatric BH topics, core therapeutic components, and core skills; and implementation and evaluation support. The CHCs and an academic implementation team codeveloped and implemented a comprehensive plan for integrated care delivery designed to (1) transform CHC operational systems (eg, optimize reimbursement for integrated care; develop roles and responsibilities for team members; track process and clinical data) and (2) transform CHC clinical delivery systems (eg, implement screening and develop workflows to address child BH problems, parental depression, family material needs, and other social determinants of health; deliver evidence-based therapeutic interventions; track services referrals; and provide navigational support).

Participants and Sampling

Research staff discussed the study, including its purpose to understand facilitators and barriers to BHI implementation, with all professionals involved in TEAM UP at each CHC. All professionals provided verbal informed consent to participate in the study. Participants represented 3 professional groups: (1) PCPs: pediatricians, family medicine physicians, and nurse practitioners; (2) BHCs: psychiatrists, psychologists, and mental health clinicians; and (3) Other staff: registered nurses, community health workers, family partners, medical assistants, and project managers. Participants were given a $10 gift card for study participation.

Data Collection

In-depth, in-person, individual interviews were conducted midway through TEAM UP implementation (June 30, 2017, to August 4, 2017). Interviews assessed participants' perceptions about the impact of BHI on clinical practice; facilitators and barriers to BHI implementation; and suggestions for improvement of BHI. The timing of interviews at approximately 1 year after the beginning of implementation was chosen to facilitate the identification of factors relevant in the early stages of BHI implementation, while allowing sufficient time for participation in BHI. The guide ("Appendix A: Interview Guide") was informed by the Theoretical Domains Framework, a well-validated framework used to study factors affecting implementation of new interventions.[16-18] Interviews were conducted by 4 female research staff (1 PhD-level, 1 Master's-level, and 2 Bachelor's-level staff) with backgrounds in psychology, public health, and health services research. Interviews were conducted in private rooms at the 3 CHCS, lasted approximately 1 hour, and were audio recorded and professionally transcribed.

Participants completed a paper survey reporting demographics (age, role, and duration of employment). Participants' self-reported role was used to classify them into a professional group. Survey data were entered into a REDCap database.[19]

This study was reviewed by the Boston University Medical Campus and Boston Medical Center Institutional Review Board and categorized as exempt (H-33841). The substudy involving analysis of the interview data was then reviewed by the Boston Children's Hospital Institutional Review Board and categorized as not human subjects research (IRB-P00027739).

Data Analysis

Interview data were analyzed using modified grounded theory[20] by team members representing diverse professional backgrounds (eg, pediatrics, psychology, public health, and health services research). Transcripts were entered into Dedoose software (Version 7.0.23) for organization and coding. Three team members (HF, DSM, AS, herein "coders") began with a preliminary codebook (list of codes and code definitions) based on the interview guide and independently coded 3 to 6 transcripts, selected to represent the 3 professional groups and 3 CHCs. The coders then met to review the results, clarify code definitions, discuss coding discrepancies, and make revisions to the codebook by consensus. Next, the coders independently coded all remaining transcripts (with each transcript coded by 2 members), examined the results, and finalized the codebook and coding. Three team members (HF, MT, and MGE or DSM) then independently reviewed coded transcript sections to inductively identify emerging themes and compare these themes across professional groups and CHCs. Through a series of meetings, these team members discussed and came to consensus on the key, overarching themes.

Demographic data were summarized using frequencies for categorical variables and means and ranges for continuous variables. All analyses were conducted using Stata 13.1 (StataCorp, College Station, TX).

Table 1. Participant Characteristics (N = 38).

Mean age, years (range)	41 (23-71)
Gender, n (%)	
Male	3 (8%)
Female	35 (92%)
Professional group, n (%)	
Primary care provider	11 (29%)
Behavioral health clinician	11 (29%)
Other staff	16 (42%)
Duration of employment in clinic, n (%)	
Less than 5 years	21 (55%)
5 years to <10 years	7 (18%)
10 years to <20 years	5 (13%)
20 years to <30 years	5 (13%)
Duration of employment in field, n (%)	
Less than 5 years	11 (29%)
5 years to <10 years	7 (18%)
10 years to <20 years	12 (32%)
20 years to <30 years	4 (11%)
> 30 years	4 (11%)
CHC, n (%)	
CHC1	14 (37%)
CHC2	13 (34%)
CHC3	11 (29%)

Abbreviation: CHC, community health center.

Results

Characteristics of the 38 participants are summarized in Table 1. Participants identified 2 overarching themes about the impact of BHI on clinical practice, 5 themes about facilitators of BHI implementation, and 5 themes about barriers to BHI implementation. Comparison of themes across professional groups and CHCs did not reveal any substantive differences. Thus, we present the aggregate findings.

Impact of BHI on Clinical Practice

Greater Interdisciplinary Collaboration and Communication. PCPs, BHCs, and other staff reported that BHI has allowed them to develop strong relationships with each other and work closely to serve children and families. One PCP (CHC1) said,

> I think there's this deep shared love for how important each other's role is. How much we need each other. . . . [T]o have this integrated team available has deepen[ed] that relationship and trust that we've been able to really build and learn from each other in different ways.

Participants described greater communication across disciplines, in person and via a shared electronic medical record. One BHC (CHC3) stated,

> There are more frequent huddles, more frequent conversations, a commitment to having conversation, and really trying to understand each other's perspective.

Enhanced Provider Wellness. Participants reported greater professional fulfillment from providing better patient care, both individually and organizationally, through BHI. They explained how rewarding it was to more comprehensively address the BH and psychosocial needs of children and families. They expressed pride about being able to identify more BH problems and provide timely access to BH services within their own CHCs, locations that they considered more familiar and less stigmatizing than traditional mental health agencies. One PCP (CHC3) said,

> It's really helped I think with fulfillment. Just feeling like we're taking a deeper dive into what's going on with families and can provide some support to help with that. . . . So being able to take it to the next step is really wonderful.

One staff member (CHC1) stated,

Table 2. Facilitators of Behavioral Health Integration.

Theme	Illustrative Quote
Staff buy-in for BHI	"There has been buy-in from both departments from behavioral health and pediatrics to go forward. [PCPs] had to be super flexible with us. They have played ball and they have welcomed us. That has been tremendous. . . . I think you've got people who . . . really believe integrated care should work and can work here." (BHC, CHC3)
Leadership support	"We've received support from leadership here. They're open to ideas and suggestions. Because of the leadership is why this integrated system of care has worked. The leadership is key to the success of any program or any new thing that comes to an organization." (BHC, CHC1)
Staff belonging to the same team culturally and/or structurally	"We also believed that there is a cultural piece, like in terms of what does it mean to be in an integrated department. Where behavioral health is actually part of the primary care team. . . . It is absolutely paramount in terms of what does that mean to kind of share care, and . . . how do we work with each other as colleagues, on a team now that may have been previously separate." (PCP, CHC2)
Co-location with close physical proximity	"The co-location is critical. If you can just turn your chair or go to the office right next door, permits communication obviously because of proximity, but also because you just get to know your teammates better. You know your teammates much easier to swivel your chair and ask a question and so forth." (PCP, CHC2)
Data-driven quality improvement	"Yes, so we started to look at our screening rates and we tweak the way we did the screening based on some of that data. We started to look at warm handoffs and how often they were happening and we changed some of our staffing and scheduling based on that. We have modified salaries . . . because we've been able to show that we are breaking even and doing better than that." (PCP, CHC2)

Abbreviations: BHI, behavioral health integration; BHC, behavioral health clinician; CHC, community health center; PCP, primary care provider.

> I am really excited to be a part of any sort of team or system that can destigmatize mental health and that can really sort of help it to be seen as part of the continuum of care and wellness. And so I take a lot of satisfaction . . . in the work that I do.

Some participants felt that BHI helped prevent burnout by enabling team members to discuss difficult cases and share patient care. One BHC (CHC2) said,

> It decreases [burnout] because you're not as isolated, and when you can process with not only with your own team, integrated behavior health team, but also the docs as well around challenging clients. . . . They have challenges with these particular clients medically and so we can compare and contrast that support.

Facilitators of BHI

Five themes about facilitators of BHI implementation with additional illustrative quotes are shown in Table 2.

Staff Buy-In for BHI. Participants highlighted the need for buy-in from staff to facilitate BHI. In particular, they described the importance of a collective commitment to BHI by staff from all levels and professional backgrounds. One BHC (CHC3) said,

> People are invested in making it work. I think everybody is excited about BH services.

A PCP (CHC2) stated,

> Having everybody on board is huge from the administration all the way down.

Another BHC (CHC2) said,

> We have a common goal of this is a good model and we feel like it's important and let's make it better as we go.

Leadership Support. Beyond staff buy-in, participants felt that leadership support for BHI was essential. They described leaders as providing support in different ways: serving as champions of BHI, keeping staff updated about BHI efforts, and soliciting staff feedback to make improvements. One staff member (CHC2) stated,

> [O]ur clinic leaders are huge champions of integration and . . . super supportive of what we do 'cause they want us to be able to do our jobs the best that we can do it.

A few BHCs and other staff, however, wanted their leaders to provide more support by offering more training opportunities, materials to conduct therapy, and time for community-based work.

Staff Belonging to the Same Team Culturally and/or Structurally. Participants from all CHCs and professional backgrounds emphasized the "culture" of staff working

together on the same team as critical to BHI. One staff member (CHC1) said,

> [E]mbracing the spirit that behavioral health is part of the team . . . and the care that we provide.

Participants described how being part of the same team fostered mutual respect for one another and helped team members feel valued for their unique expertise. Another staff member (CHC2) stated,

> [E]veryone's respected equally, which is beautiful, . . . community health workers and behavioral health people and physicians, and that culture is not in place in a lot of places and I think that's really special about [clinic name].

Co-Location With Close Physical Proximity. Participants across CHCs emphasized the importance of close physical proximity among team members (eg, sharing office or clinic space) beyond simple co-location within a building. This proximity was helpful for promoting case discussions and building relationships. One staff member (CHC1) said,

> [W]e are like smack dab in the center of pediatrics . . . so providers, nurses, [medical assistants] have immediate access to us all day, . . . we're in huddles with everyone every morning and we can talk about our days and what we're expecting.

Data-Driven Quality Improvement. Some participants identified data tracking and periodic review by providers as helpful for improving BH care. One PCP (CHC2) stated,

> You want to know if what you're doing is making a difference and you want to know about it in some objective way and that's what data does to change the way people think and practice, so that is vital.

Participants described data tracking as beneficial for monitoring provider-level and CHC-level performance in clinical care processes (eg, screening for BH problems) and assessing patient needs (eg, % of positive BH screens) to refine clinical practice and staffing. However, a few participants noted weaknesses of the data, including the questionable validity of screening data from culturally and linguistically diverse populations and the limited relevance of collected data to providers' clinical practice.

Barriers to BHI and Suggestions for Improvement

Five themes about barriers to BHI implementation with additional illustrative quotes and participants' suggestions for improvement are shown in Table 3.

Inadequate BHC Staffing. Participants from all CHCs and professional backgrounds described insufficient availability of BHCs for clinical consultation and warm handoffs due to inadequate numbers of BHCs and/or scheduling constraints (eg, BHCs scheduled in appointments and not available for real-time care). A few participants identified the need for more BHCs who were multilingual or available during evenings and weekends. Participants from one CHC highlighted high staff turnover, partly attributable to burnout, as a contributor to inadequate BHC staffing.

Insufficient Space. Participants commonly reported a lack of dedicated space for BHC work. BHCs commented on how this lack of space often affected the quality of their care because they had limited time to meet with families in medical examination rooms. Furthermore, BHCs felt that examination rooms were inappropriate venues for engaging children and families in therapeutic interventions because they were "sterile" and inadequately equipped with BH supplies. One BHC (CHC1) said,

> [I]f we're moving from exam room to exam room there's not gonna be a sand tray table on each exam room or a doll house. . . . [I]t's not always appropriate and or possible to be as creative as would be necessary to pull it off.

Participants highlighted how the lack of space for BHCs to meet with families often impeded clinic workflow when BHCs occupied examination rooms for extended periods of time.

Limited Provider Time. Participants described having limited time for various activities such as direct patient care (eg, appointment times too short to address BH issues), documentation of BH activities (eg, entering screening data results into the electronic medical record), case discussion, care coordination, and community-based work in homes and schools (for community health workers). Participants desired more protected time or clinical support for these activities, most of which were not typically reimbursed by payers.

Billing/Reimbursement Issues. Participants underscored the challenges of billing for certain integrated services, such as brief preventive encounters, parent-child dyadic work, and community-based or home-based interventions. One PCP (CHC1) said,

> [W]e're not totally clear what insurers will pay for a child under 3, what diagnoses would get rejected. Can they bill the mom and the baby as 2 separate things and get paid for

Table 3. Barriers to Behavioral Health Integration and Suggestions for Improvement.

Barriers		
Theme	Illustrative Quote	Suggestions for Improvement
Inadequate BHC staffing	"The challenge will always be having enough [BHCs] . . . to see everybody that needs to receive services." (Other staff, CHC2)	Increase number of BHCs or modify BHC scheduling to ensure availability for on-demand care
	"[I]t's been a lot harder to find the [BHCs] . . . because they're busy. They've been pulled to go see patients for regular therapy on a different floor. They're booked with appointments . . . [T]he regular consultation and pulling in for patients in real time isn't happening as much as it used to." (PCP, CHC3)	Evaluate and address potential causes for provider turnover, including burnout (eg, provide resources for self-care and opportunities for debriefing stressful cases)
Insufficient space	"Doing this integrated model in the primary care setting can be a little difficult in an exam room where you don't have a space to be engaging both the parent and the child together. . . . [Y]ou have 30 minutes but there's also a clinic going on, the [medical assistants] need the room for the next people who have been waiting for an hour, little things like that can put a wrench in . . . " (BHC, CHC2)	Provide dedicated space for BHCs and community health workers
Limited provider time	"Time is a constraint. We have been able to screen more . . . but just acting on it and taking time out is a challenge." (PCP, CHC3)	Increase length of patient visits to allow time for addressing BH needs
	"It would be nice if we had more time to meet [with the BHCs and community health workers]. The problem is clinical demands and our schedules are so heavy that it's really hard. . . . [T]hey're scheduled with patients, I'm scheduled with patients, and I feel like we're not meeting as much as we should." (PCP, CHC3)	Protect providers' time for case discussion
		Reallocate select care coordination and documentation activities from clinical to nonclinical staff
Billing/ reimbursement issues	"[T]he billing system . . . is not congruent with integration. . . . It is a big barrier. Right now . . . what we are doing is trial and error. Okay, let's try this code to see if they pay us and if . . . they never paid us we cannot use that one. But you lose a lot of money and it's very frustrating. . . . That definitely takes some amount of your mental time and actually your work time doing that." (BHC, CHC1)	Obtain feedback from payers and refine billing practices accordingly to maximize reimbursement for integrated activities
Care coordination challenges	"I think for some in primary care, it's the first time they ever worked with a social worker or a community health worker, and so I think it takes a while to get to know everything from roles and responsibilities to how should I relate to this person." (Other staff, CHC3)	Provide education and training about providers' roles and responsibilities across the care team
	"Another challenge that I'm sure everyone experiences, you know, having to work with . . . community-based therapists, how do we work with school-based therapists, how does that fit and not fit in the integrated model?" (PCP, CHC2)	Create a designated role within the integrated care team for care coordination with outside agencies (eg, schools and early intervention programs)

Abbreviations: BHC, behavioral health clinician; CHC, community health center; PCP, primary care provider.

> both of them if they're doing it in the room in a dyadic way? We just don't know.

Some participants described how reimbursement issues limited the scope of their activities. One staff (CHC1) said,

> Our clinicians . . . they're not in-home therapists that can bill in the home . . . [but] they often want to be out in the community. . . . So, I think certainly the financial constraints . . . have really driven us to work within the walls of the health center. In an ideal world, we'd be where families need us to be.

Many expressed concern about the financial sustainability of BHI efforts in general and the community health worker role (a grant-funded position) specifically.

> I think the sustainability is on everybody's mind, . . . trying to make sure that we continue to improve the reimbursement for providing these services so the project does have the capacity to do a little bit more. (PCP, CHC3)

Care Coordination Challenges. Participants reported challenges coordinating care internally with other CHC staff and externally with community-based organizations. A few participants noted that staff did not always understand team members' roles and responsibilities, which at times hindered effective communication, collaboration, and clinical workflow. Participants also described difficulty working with external agencies (eg, schools, early intervention programs, and in-home therapy providers) around care coordination and services navigation for shared patients.

Discussion

Despite the emergence of pediatric BHI as a promising strategy to improve access to child BH services, little research exists to guide BHI implementation.[21,22] Yet, understanding factors affecting implementation of new interventions is critical for achieving desired clinical outcomes.[23] Thus, we assessed the impact of BHI on clinical practice and identified facilitators and barriers to BHI implementation from the perspective of a multidisciplinary group of professionals involved in a comprehensive pediatric BHI initiative at 3 CHCs.

Consistent with findings in the adult BHI literature,[24-27] we identified operational barriers to BHI including lack of staffing, space, and time for integrated activities. These factors, described by King et al as the "colder" elements of organizational structure, processes, and technologies, have been shown to influence uptake of pediatric BH services and are commonly targeted by implementation efforts.[28] Moreover, difficulty billing for integrated activities and concerns about the financial sustainability of BHI were reported in our study. These issues reflect broader challenges associated with traditional payment systems that require in-person visits for diagnosable BH disorders and do not typically support brief preventive encounters or phone-based care management common in BHI.[27,29] The rise of accountable care organizations, which focus on reducing costs, improving quality of care, and optimizing health outcomes through coordinated care, offers promising opportunities for financing of BHI.

In contrast to these barriers, our study highlights the importance of culture, a "warmer" element of organizational context,[28] in promoting BHI implementation. Culture refers to the shared values and norms that influence behavior within an organization.[28,30] Within the context of pediatric BHI, cultural attributes include prioritization of BH care as a primary organizational goal and support for changes that promote BH care.[28] In a prior study, primary care practices with more positive organizational cultures at baseline had greater implementation of BHI activities.[28] It is possible that certain facilitators identified in our study (eg, staff buy-in, leadership support, staff belonging to the same team) serve to strengthen cultural attributes surrounding BH care. Our findings, in conjunction with existing work,[28] suggest that targeting organizational culture (alongside structure, processes, and technologies) should be a key priority in the early stages of BHI implementation. Glisson et al have demonstrated that interventions can modify organizational culture and climate in community mental health programs and lead to improvements in youth outcomes.[31] King et al propose several strategies for enhancing organizational culture, including: (1) conducting a formal assessment of practice context for mental health implementation; (2) using data feedback and dialogue to identify strengths and areas for improvement; and (3) providing opportunities for all-staff engagement in organization change.[28]

Beyond identifying implementation factors, this study addresses the paucity of research about the benefits of pediatric BHI for providers.[21] Similar to prior work,[32] participants described strong feelings of professional fulfillment from providing better care to children and families through BHI. Some participants noted that collaborating and sharing patient care with integrated team members helped prevent burnout from managing complex BH and psychosocial issues. These findings are notable because efforts to enhance provider wellness, a factor that is associated with better health care system performance and quality of care,[33] have focused on increasing professional fulfillment and preventing burnout.[34] Thus, our results suggest positive effects of BHI that extend beyond improved clinical outcomes for children[12] and involve provider well-being.

This study has several strengths. First, the qualitative approach allowed us to gain insight about the perceived successes and challenges of pediatric BHI in the CHC setting, as experienced by key stakeholders, and complements findings from existing quantitative studies examining clinical outcomes in children.[12] Second, our sample included staff from 3 CHCs with different patient populations, prior experiences with BHI, and organizational structures. This enabled us to identify and compare factors affecting BHI implementation across contexts. By interviewing staff from diverse backgrounds, we were able to evaluate BHI implementation from a range of professional perspectives. Third, we developed the interview guide based on a well-validated theoretical

framework that has been used extensively to examine implementation of new interventions.[16-18]

Our study has limitations. First, this qualitative study provides in-depth information about pediatric BHI implementation from a specific group of stakeholders but was not designed to be generalizable. Participants were mostly female professionals from 3 CHCs that received funding to implement a comprehensive pediatric BHI model within a single state. Professionals involved in implementing different pediatric BHI models in other contexts and jurisdictions may have different perspectives. Second, we did not quantitatively assess the relative impact of the identified facilitators and barriers on BHI implementation. To further enrich our understanding of pediatric BHI implementation, future research should examine BHI implementation in other settings, explore perceptions of additional stakeholder groups (eg, children, families, health care systems, and payers), and use quantitative methods to compare and prioritize implementation factors.

In summary, this study describes professionals' perceptions of the impact of pediatric BHI on clinical practice and identifies key factors that can affect BHI implementation. Our results highlight the potential benefits of BHI for providers (eg, greater professional fulfillment, reduced clinical burnout) and the need for strategies to strengthen organizational culture in the early stages of BHI implementation. Primary care practices may consider these findings to develop strategies for pediatric BHI implementation.

Appendix A

Interview Guide.

Our purpose today is to hear your thoughts on how you think pediatric behavioral health integration has been progressing over the last year and a half at [clinic name], including what has changed, what has been working, and what challenges you think the clinic has faced/ will face.

1. In your opinion, what are the defining or most important features of behavioral health integration? How would you explain or define behavioral health integration and its key components?
2. What impact has behavioral health integration had on your day-to-day practice?
   a. Probe, if needed: That is, in what ways does it affect your day to day work here at [clinic name]?
3. How has your day-to-day practice changed, if at all, as a result of [clinic name]'s implementation of behavioral health integration efforts? How has your work with behavioral health providers changed[a]?
   a. What has contributed to this change [or lack of change]?
   b. How has behavioral health integration affected your relationships with other providers and staff here?
   c. How has it affected your communication with behavioral health providers and other staff[a]?
   d. What do you think should be done to improve the quality of working relationships and communication?
4. *For primary care providers*: What, if any, behavioral health problems (such as anxiety and depression) do you diagnose and treat?
   a. How comfortable are you with doing so?
   b. How comfortable are you prescribing psychiatric medication?
   c. How comfortable are you talking about behavioral health topics with children and their families? Do other factors such as age or the topic make you more or less comfortable?
   d. How has your involvement in the Team Up Initiative affected your level of comfort with any of these activities? Level of knowledge?
5. *For primary care providers and behavioral health clinicians*: Where do you see assessing for and treating pediatric behavioral health problems belonging within the scope of the pediatric primary care providers' job?
   a. Ideally, where should your role as a primary care provider end and the behavioral health clinician's begin[a]? That is, what should be the parameters of your role within the context of pediatric behavioral health integration?
   b. Ideally, what would your role be in an integrated model and how close is that to the way that you are practicing now?
6. How has integration affected your sense of professional fulfillment?
   a. How has it affected feelings of burnout?
   b. What emotional supports (ways to enhance resilience, focus, and energy) are in place for providers involved in integration services?
   c. What ways do you feel [clinic name] can improve primary care providers'[a] sense of professional fulfillment and emotional well-being?
7. How have elements of [clinic name]'s structure (eg, staffing, physical space, equipment, technology, financing) changed as a result of behavioral health integration?
   a. What structural supports are still needed?

(continued)

Appendix A. (continued)

8. What challenges do you think [clinic name] is/has been encountering in its efforts to fully integrate behavioral health into pediatric primary care?
   a. Why do you think that your CHC has faced those barriers?
   b. How might these barriers be overcome?
9. What factors have been most successful in moving pediatric behavioral health integration forward here at [clinic name]? What has [clinic name] been doing right in your opinion?
   a. To what degree have you seen or utilized the monthly reports in your CHC's meetings? In what ways has it been helpful?
10. What are your opinions on the level of support your clinic has received from your CHC (and clinic's) leadership throughout implementation?
11. What about behavioral health integration and the Team Up Initiative has differed from your initial expectations?
12. How many sessions of the Learning Collaborative have you attended?
13. How has your participation in the Learning Collaborative affected your clinical practice?
   a. What has been the most useful aspect of the Learning Collaborative for you?
   b. What aspects of the Learning Collaborative content have been challenging to incorporate into your clinical practice?
14. What do you feel is missing from the Learning Collaborative that will improve its applicability to your clinical practice? (eg, maybe there are topics/content that you think should be added, etc)
15. How would you describe your experiences working with culturally and racially diverse backgrounds?
   a. Can you tell me in what ways working with diverse communities has informed your practice if any?
   b. Examples of challenges or ways in which you would like to further grow?
16. In what ways do sociocultural issues and/or issues of discrimination or cultural barriers to care come up in in your interaction with patients?
   a. In what ways do these experiences of discrimination or barriers to care impact your integrated team's ability to help patients and families?
   b. Can you describe some ways, if any, that you try to address these issues during your care of patients and their families?
   c. Other ways that you invite patients and families to share these experiences with you or your team?
17. Do you have any other thoughts about anything we did or did not cover today that you'd like to add?

Abbreviation: TEAM UP, Transforming and Expanding Access to Mental Health Care in Urban Pediatrics for Children; CHC, community health center.
[a]The wording of these questions varied slightly by professional group to assess the specific perspectives of each group.

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Author Contributions

HF led and participated in data analysis, drafted the initial manuscript, and reviewed and revised the manuscript for important intellectual content. MT participated in data analysis, drafted portions of the initial manuscript, and reviewed and revised the manuscript for important intellectual content. DSM coordinated data collection, participated in data analysis, and reviewed and revised the manuscript for important intellectual content. AM drafted portions of the initial manuscript and reviewed and revised the manuscript for important intellectual content. MGE participated in data analysis and reviewed and revised the manuscript for important intellectual content. AS collected data, participated in data analysis, and reviewed and revised the manuscript for important intellectual content. MHBM conceptualized and designed the study, supervised data collection and data analysis, and reviewed and revised the manuscript for important intellectual content. All authors approved the final manuscript as submitted and agreed to be accountable for all aspects of the work.

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