### RESEARCH



# Engaging primary care patients at risk for suicide in mental health treatment: user insights to inform implementation strategy design

Courtney Benjamin Wolk<sup>1,2\*</sup>, Matteo Pieri<sup>1</sup>, Samantha E. Weiss<sup>1</sup>, Joseph Harrison<sup>1</sup>, Gabriela Kattan Khazanov<sup>1,3</sup>, Molly Candon<sup>1,2</sup>, David W. Oslin<sup>1,3</sup>, Matthew J. Press<sup>2,4</sup>, Eleanor Anderson<sup>1</sup>, Emilie Famiglio<sup>1</sup>, Alison Buttenheim<sup>2,5</sup> and Shari Jager-Hyman<sup>1,2</sup>

#### Abstract

**Background** Given that the majority of suicide decedents visit primary care in the year preceding death, primary care has been identified as a key setting in which to engage patients at risk for suicide in mental health services. The objective of this research was to identify barriers and facilitators to engagement in mental health services among primary care patients at risk for suicide to inform the development of strategies to increase engagement.

**Methods** Seventy-four semi-structured qualitative interviews were conducted with primary care patients (n = 20), primary care (n = 18) and behavioral health (n = 12) clinicians, mental health intake coordinators (n = 4), and health system and clinic leaders (n = 20). Patients who had been referred for mental health services from primary care and reported an elevated score ( $\geq 1$ ) on item 9 on the Patient Health Questionnaire at the time of referral were eligible to participate. Eligible clinicians and leaders were employed in a primary care or behavioral health setting in a single large health system with an integrated mental health program. Interviews typically lasted 30–60 min, were completed over video conference or phone, and were coded by members of the research team using a rapid qualitative analysis procedure.

**Results** Participants were primarily female (64.9%), white (70.3%) and non-Hispanic/Latine (91.9%). The most identified barriers to mental health care engagement were waitlists, capacity limits, insurance, patient characteristics, communication, collaboration, and/or difficulties surrounding travel. The most commonly cited facilitators of engagement included telehealth, integrated care models, reminders, case management support, psychoeducation, motivational enhancement, and scheduling flexibility. Concrete suggestions for improving engagement in mental health services included increasing communication between providers, streamlining referral and intake processes, providing reminders and follow ups, and advocacy for increased reimbursement for suicide risk assessment.

\*Correspondence: Courtney Benjamin Wolk courtney.wolk@pennmedicine.upenn.edu

Full list of author information is available at the end of the article



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http:// creativecommons.org/licenses/by-nc-nd/4.0/.

**Conclusions** Results underscore the myriad barriers patients at risk for suicide encounter when attempting to engage in mental health care in a primary care setting. Facilitators of engagement and suggestions for improving connections to care were also identified, which can inform the design of implementation strategies to improve engagement in mental health services among primary care patients at risk for suicide.

Trial registration ClinicalTrials.gov Identifier: NCT05021224 (Registered August 19, 2021).

Keywords Suicide, Implementation, Treatment engagement, Treatment initiation, Behavior change

#### Background

Rates of suicide have increased in recent years, especially among certain historically marginalized and minoritized populations [1]. Primary care is an important setting for engaging those at risk for suicide in care. In the year preceding death, 65% of suicide decedents visited primary care which is more than any other setting, including specialty mental health [2]. Because of this, primary care is increasingly cited as a critical setting for identifying those at risk for suicide through routine screening [3]. However, many primary care clinicians feel unprepared or uncomfortable treating suicidal patients and frequently elect to refer at-risk patients to specialty mental health services instead [4, 5]. While specialty mental health settings are better equipped to deliver intensive evidence-based suicide prevention practices like Cognitive Behavioral Therapy and Dialectical Behavior Therapy [6], many individuals at risk for suicide do not initiate mental health services following a referral from primary care [7-9]. Collaborative care, or the integration of mental health services in medical settings such as primary care, can increase access to services for individuals at risk for suicide [10] and has been associated with improvements in suicidal ideation [11, 12], but strategies for increasing engagement in evidence-based care for this population are needed.

Implementation science recognizes the value of formative evaluations and qualitative inquiry to inform the design of implementation strategies [13, 14]. Previous qualitative work and contextual inquiries have demonstrated that primary care is often the first point of contact with the health care system for individuals at risk of suicide, [15–17] and that primary care clinicians often play a critical role in providing resources and referrals for mental health care [15]. There is a clear need for primary care protocols to prevent at-risk patients from "falling through the cracks." [18] It is critical that these protocols include interventions and implementation supports designed in partnership with and centering the needs of the clinicians, patients, and leaders impacted by them.

The current qualitative study was conducted as part of a larger mixed methods study to develop strategies to increase mental health treatment engagement among primary care patients identified as at risk for suicide [19]. We conducted qualitative interviews with primary care and behavioral health clinicians, primary care patients with a documented recent history of suicidal ideation, mental health intake coordinators, and health system and clinical leaders to understand common barriers and facilitators to accessing mental health services following a positive suicide screen and subsequent referral to either in-house mental health services or external specialty mental health services. Understanding the needs and perspectives of various constituencies is a critical step toward identifying opportunities for developing and tailoring implementation strategies to most effectively meet the needs of patients and clinicians.

#### Methods

This project was approved by the University of Pennsylvania Institutional Review Board. We recruited clinicians, leaders, and patients to participate in a one-time qualitative interview about barriers and facilitators patients at risk for suicide encounter related to engagement in mental health care following referral from primary care, as well as suggestions for increasing engagement. More information about the larger study these data were collected within is available via a published study protocol [19].

#### Participants

We conducted semi-structured interviews (n=74) between March 15th, 2022 and April 14th, 2023 with primary care clinicians (PCCs), behavioral health clinicians (BHCs), mental health intake coordinators (MHICs), health system and community mental health leaders and patients. Table 1 includes full details of participant demographics.

Our patient sample consisted of individuals referred from primary care practices in a single health system. All practices participated in the Collaborative Care Model [20]. The Collaborative Care team was comprised of a PCC, BHC, and psychiatric consultant that collaboratively treat common mental health concerns, utilize measurement-based care, and monitor treatment response using patient registries. In the health system's implementation of Collaborative Care, some patients are referred to behavioral health care integrated into the primary practices and other patients are referred to specialty mental health services following a triage process described

	PCC	BHC	Leader	MHIC	Patient
Characteristic	n (%)	n (%)	n (%)	n (%)	n (%)
Participants	18	12	20	4	20
Mean Age (SD)	40.3 (10.4)	32.2 (7.1)	42.2 (9.9)	47.3 (10.5)	46.5 (18.4)
Sex					
Female	12 (66.7)	9 (75)	14 (70)	4 (100)	9 (45)
Male	6 (33.3)	3 (25)	6 (30)	0 (0.0)	11 (55)
Race					
White	15 (83.3)	9 (75)	18 (90)	1 (25)	9 (45)
Black or African American	0 (0.0)	2 (16.7)	1 (5)	2 (50)	7 (35)
Asian	2 (11.1)	1 (8.3)	1 (5)	1 (25)	2 (10)
Other	1 (5.6)	0 (0.0)	0 (0.0)	0 (0.0)	2 (10)
Ethnicity					
Hispanic or Latine	2 (11.1)	0 (0.0)	0 (0.0)	0 (0.0)	3 (15)
Not Hispanic or Latine	16 (88.9)	12 (100)	20 (100)	4 (100)	16 (80)
Unknown	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5)

 Table 1
 Sociodemographic characteristics of participants (N = 74)

Note. PCC = Primary care clinician; BHC = Behavioral health clinician; MHIC = Mental health intake coordinator

elsewhere [21]. Patient inclusion criteria were: 18 years of age or older, able to communicate in English, able and willing to provide informed consent, and elevated suicidal ideation per item 9 of the Patient Health Questionnaire (PHQ-9; item score  $\geq 1$ ).<sup>1</sup> Exclusion criteria included imminent risk of suicide (i.e., current plan with the method and intent to act), acute psychosis requiring emergency services, and cognitive impairment precluding the ability to provide informed consent. We invited a random subsample of all patients referred between January 2018 and November 2022, extracted from the electronic health record.

We identified PCCs who had referred one or more patient(s) with PHQ-9 item 9 scores  $\geq 1$  for mental health services in the past three months and randomly selected from a list of 393 eligible PCCs to invite to be interviewed. We also invited all BHCs, Mental Health Intake Coordinators (MHICs), and leaders employed in relevant roles in the health system's primary care practices and/or Collaborative Care team, as well as leaders from community behavioral health organizations to which the Collaborative Care program refers. Inclusion/exclusion criteria were minimal: clinicians, leaders, and intake coordinators were required to be 18 years of age or older, able to communicate in English, able and willing to provide informed consent, and be employed in an appropriate primary care or behavioral health role.

#### Procedure

We developed semi-structured qualitative interview guides for each participant group to ensure uniform inclusion and sequencing of topics and to allow for valid comparison across interviews. Participants provided informed written or verbal consent prior to the interview. Interviewers were trained and supervised by a study principal investigator (CBW) and included a bachelor'slevel clinical research coordinator, a clinical psychology doctoral student, a postdoctoral fellow, and the study MPIs. On average, interviews lasted 30 to 60 min and were completed over video conference or by phone. Participants received a \$30 electronic gift card as a token of gratitude for their participation. Interviews were conducted until thematic saturation was achieved and/or all individuals in eligible roles had been invited, whichever came first. Interviews were audio recorded with participant permission, transcribed, and de-identified by members of the study team.

## Data collection measures and tools *Interview guides*

The development of the semi-structured interview guides was informed by a behavioral science framework, EAST [22] which asserts that making a target behavior Easy, Attractive, Social, and Timely will increase the chances that the behavior occurs by reducing reliance on common cognitive biases and decision-making heuristics. In this case, engaging in mental health care was the target behavior. Consistent with an interpretive/constructive epistemological perspective [23], we queried participants about their general views of mental health services, perceived barriers and facilitators of treatment initiation and attendance, and perceptions of what was appealing/satisfactory and unappealing/unsatisfactory about connecting to mental health care to better understand their experiences and perspectives. We asked clinicians and leaders to reflect on if and how these perceptions differed for patients at risk for suicide relative to those not at risk. We also asked clinicians and leaders about referral and triage processes for connecting patients with unmet mental health needs to care and suggestions for improving

patient engagement or access. Additionally, we asked patients to narrate the screening, referral, and appointment processes they encountered. If they had attended a mental health visit following referral from primary care, we asked them to describe any steps implemented or supports utilized to attend; if they had not attended, we asked about what got in the way of attending. The qualitative interview guides are included as Additional File 1.

#### Data analysis

Following each interview, the interviewer completed a brief, structured summary sheet based on the interview guide to capture the primary barriers, facilitators, and suggestions noted by the interviewee. Then, interview recordings were transcribed and a second team member reviewed each transcript to ensure all summary sheets were complete and accurate and to extract exemplar verbatim quotations. The interview summary sheet is included as Additional File 2.

We used a rapid qualitative analytic approach to facilitate timely development of implementation strategies. This approach produces results consistent with traditional, in-depth analysis [24–27]. The research team transferred content from the structured summary sheets to an Excel data matrix and organized it into relevant and recurring themes. Themes included those identified a priori (e.g., barriers, facilitators, and suggestions) as well as subcodes that were generated following a close review of the summary sheet data (e.g., to delineate organizational-level and individual-level characteristics). The data matrix was created and reviewed collectively by three members of the research team and agreement about relevant themes was achieved through consensus discussion.

#### Results

Interviewees (N=74) were primary care clinicians (PCCs, n=18), behavioral health clinicians (BHCs, n=12), mental health intake coordinators (MHICs, n=4), health system and community mental health leaders (n=20), and patients (n=20). Participants were predominantly female (64.9%), white (70.3%), and non-Hispanic/Latine (91.9%). Table 1 includes full details of participant demographics. The results of qualitative interviews, organized by barriers to connecting and engaging primary care patients at risk for suicide in mental health services, facilitators, and suggestions, are summarized below. Illustrative participant quotations are provided in Table 2.

#### **Barriers**

Barriers were described as they pertained to accessing and scheduling a mental health visit (either within or outside of their primary care office) as well as to attending a mental health visit once scheduled. **Barriers to scheduling a first mental health care appointment** Across participant groups, the main access barriers cited included long waitlists for mental health services, difficulty finding in-network clinicians with availability, and patient characteristics and experiences that contributed to difficulty connecting to care.

Waitlists and Capacity Limits. Both clinicians and patients frequently cited lengthy waitlists and limited behavioral health clinician availability as the principal barriers to accessing care. Access issues were attributed both to current high demand for services and an insufficient number of clinicians to meet patient need. Several clinicians and leaders suggested that the COVID-19 pandemic was a driving factor that increased demand for mental health services.

**Insurance.** Leaders, clinicians, and patients frequently commented on insurance coverage in the U.S. as a barrier to accessing mental health care. Clinicians and patients described difficulties finding community mental health clinicians that accept specific insurance plans, especially Medicaid and Medicare.

Patient Factors: Characteristics, Stigma, and Previous Experiences with Mental Health Care. Participants identified several patient characteristics that may impact accessing mental health care, including negative prior experiences with similar services and stigma about accessing mental health care. Patient amotivation and/ or difficulty prioritizing mental health given competing demands and limited resources, and patient hesitation to discuss mental health symptoms during primary care visits, were also cited as barriers. Some clinicians noted that they perceived some patients in need as being resistant to engaging in care.

**Communication and Collaboration Breakdowns.** Clinicians identified communication breakdowns (e.g., between PCCs and BHCs within and across systems) as a major barrier to connecting patients to the most appropriate level of care. Difficulty collaborating with community mental health clinicians, crisis response centers, and emergency departments outside of the health system was described as particularly challenging from the perspective of those working in primary care.

BHCs and PCCs noted that patients rarely answer the phone or respond to messages, which can delay the referral and intake processes. This was noted to be especially problematic given current mental health staffing limitations; clinics may not have time or resources to do repeated outreach to patients, so if the patient does not answer an initial phone call or respond to a voicemail, further attempts may not be feasible.

PCCs and some leaders also noted that it is especially difficult to connect patients with more serious or complex mental illness and/or those requiring highly specialized treatments (e.g., bipolar disorder, schizophrenia,

#### Table 2 Illustrative quotations from participant interviews

Domain	Theme	Participant Group(s) <sup>1</sup>	Quotation
Barriers Waitlists & capacit limits Insurance Patient factors Communication & collaboration breakdowns	Waitlists & capacity limits	PCC BHC Pt L	"When we are fully staffed, we're getting to people very quickly. But we are seriously understaffed and there's a huge need right now, so that's just not the case. We are significantly backed up in our outreach to patients to screen them, engage them, and we lose people in that wait time." (Behavioral Health Clinician)
	Insurance	PCC BHC Pt L	"I find the majority of the patients who I encounter who, you know, come from a more turbulent situ- ation, generally have less adequate insurance So, I've had very great difficulty connecting some of the most high-need patients with appropriate care. And that's a systemic issue that is very difficult for me to rectify on my end." (Behavioral Health Clinician)
	Patient factors	PCC BHC Pt L	"We have plenty of folks that are struggling with psychosis, or, um, substance use, that just-they've already been to the same two places, and they had-they say they had bad experiences. They're perceiving they had bad experiences, or they did have a bad experience, and they don't want to go back there." (Behavioral Health Clinician)
			"I just mentally am so drained, and exhausted, and frustrated where I just don't even feel like talking to anyone Sometimes, I can just shut down. When I shut down, I will not go to the appointment, I will not make the phone call or take the call because I just don'tI'm not able to physically and mentally handle it." (Patient)
			"Sometimes people are struggling with so many different problems, like [psychotherapy] doesn't feel
		PCC	as relevant as trying to work and put money on the table." (Community Mental Health Leader) "I've had patients who I've lost contact with during the course of like, following up." (Behavioral
		BHC Pt	Health Clinician) "when it's that difficult to get an appointment, and it's not life or death, I think patients will just give up on his life to a difficult to get an appointment of the set of th
		L	up on it if it's too difficult." (Patient) "But I think we sometimes lose the momentum when in that moment I have them, they're interested, they're agreeable, and then there's this step to saying, 'well, you have to call, and there might be a fee.' And I think those two things kind of deter people." (Primary Care Clinician)
		"Sometimes, you know, patients are admitted to the hospital for a suicide attempt or see their mental health provider and there's not as much communication that happens." (Primary Care Clinician)	
Facilitators	Telehealth	PCC BHC L	"It's allowed us to service a population that we may not have reached before, because they couldn't come in between nine to five." (Leader)
	Integrated care	PCC BHC Pt L	"Part of why I do this integrated care work is because I do feel like we can improve access, right? Just by simply having a human on-site when [patients are] seeing their pediatrician. Just saying [to patients], "Gosh, we have somebody here in the building, would you like to meet them?" And even if I can't meet them, having that relationship with the doctors, with the providers, to say, "Hey, I have a kid that needs care." Instead of putting in a referral– like, it's stuck in a queue somewhere." (Leader)
	Scheduling assistance and flexibility	PCC BHC Pt	"One of the things overall that works really well is the fact that we have a lot of reserve for same day and next-day appointments." (Primary Care Clinician) "I think evening– more evening hours would be helpful, now that I think about it, for availability for people. Um, weekends. I think that's a huge piece, as far as– and in an ideal world, availability."
			(Behavioral Health Clinician)
	Psychoeducation and motivational enhancement	PCC BHC Pt	"And so, I try to provide a lot of psychoeducation about how to find a good therapist, and you know- therapy is a tool, and you can- you don't have to be in therapy for the rest of your life, you can go to therapy, you can find someone who knows about the specific thing you're going through." (Behavioral Health Clinician)
			"A lot of times it is kind of just explaining where I'm coming from, why I'm asking the questions (about suicide risk), um, that is really helpful." (Leader, speaking from their clinical experience)
	Reminders and support	PCC BHC	"If I have [a patient] in a high-risk episode, then I will continue to follow up with them I call them, and say, "Have you been able to contact this person? Why or why not?" (Behavioral Health Clinician) "Having people that are kind of there every step of the way to you know, say, 'Hey, you've got an ap- pointment coming up, here's a reminder.' A week ahead, the day before, so on and so forth. Just kind of checking in, 'Do you have a plan to get there? Do you know how you're going to get there? Do you have money to get bus fare if that's how you're getting there or if you're driving? Or however you're

#### Table 2 (continued)

Domain	Theme	Participant Group(s) <sup>1</sup>	Quotation
Suggestions	Increase com- munication and collaboration between primary care and mental health	PCC BHC Pt L	"I think shared communication, or documents, or charts or something between primary care thera- pist and psychiatristso that they would easily be able to pull up the same information. I wouldn't have to like explain things over again" (Patient) "Let's say we needed to access, like, a higher level of care. Then ideally, I would love for that to be built into the system, right? So then it's kind of a warm handoff to that next level of care, they don't have to go through an intake process againwe [would] have a direct referral process to that." (Community Mental Health Leader) "It would be great to have more of a network of other providers in the city, to be able to be more in tune with different agencies." (Behavioral Health Clinician)
	Streamline referral and intake processes	PCC BHC L	"It would be really great if there was a system in place that allowed there to be some type of affilia- tion agreement where we can get those families to that next level, [to] be able to identify who those folks are in the community, um, and have kind of a more streamlined referral process." (Community Mental Health Leader)
	Reminders and Follow-Up	PCC BHC Pt	"It would be really great to have likebecause I know [the health system] does this for some things, but like sending out reminders and to be able to customize them would be pretty cool. I can say if I need to know an hour in advance that I need another reminder a half an hour in advance or some- thing like that or even a third reminder one day in advance because for me all of those reminders make the best chance that I'll actually show up at an appointment." (Patient)
	Advocacy	L	"We need to improve reimbursement rates so that we can do a better job recruiting and retaining highly trained providers to provide care." (Leader) "We are responding to a CMS request for information right now, which is specific to potentially un- derutilized Medicare services, including behavioral health integration. So, we are advocating to CMS for a few reasons. We think they need to address the reimbursement for collaborative care codes just reimburse for uncompensated costs what's very hard though is the implementation costs, the programmatic oversight, and the financial investment in the technology, just to keep collaborative care afloat It's so complicated with the service components to even meet the codes."

<sup>1</sup> PCC=Primary care clinician; BHC=Behavioral health clinician; Pt=Patient; L=Leader

eating disorders) to mental health care in the community (see also Patient Factors section above). This was considered to be particularly problematic given that PCCs expressed hesitancy treating these mental health concerns in primary care given lack of specialized expertise and limited access to psychiatric consultation.

#### Barriers to attending a first mental health appointment

The most frequently noted barriers precluding patients from attending their first scheduled mental health appointment following referral from primary care included difficulties with transportation (e.g., limited access to and costs associated with public transportation, the long travel distance to some clinics, and difficulty using public transportation due to mobility concerns) as well as lack of childcare. Some clinicians also cited patient forgetfulness and amotivation as other factors affecting attendance.

#### Facilitators

**Integrated Care.** Most clinicians and some leaders emphasized that integrated behavioral health increased their patients' access to care, particularly when there is active communication between BHCs, PCCs, and MHICs.

**Telehealth.** Across patient and clinician participant groups, providing telehealth options was cited as a major

facilitator to care because telehealth was noted to lessen commonly encountered barriers related to transportation or childcare.

Scheduling Assistance and Flexibility. For connecting patients to care in the community, three-way phone calls were described as a helpful way for the primary care team to provide direct assistance to patients in calling community mental health clinicians to schedule an appointment. Many patients stated that because they worked between 9 AM and 5 PM, they appreciated flexible appointment scheduling options (e.g., evening appointments).

**Psychoeducation and Motivational Enhancement.** Some clinicians noted that it can be helpful to provide patients with psychoeducation about mental health services (e.g., how to schedule, what to expect). Some patients reported that having a PCC who was skilled in discussing mental health concerns had been helpful. Clinicians described the processes of conducing risk assessments and engaging in safety planning as sometimes facilitating or increasing patient motivation to engage in care.

**Reminders and Support.** Appointment reminders, sent electronically or by phone, were also described as an important tool in increasing patient attendance. When working with patients at risk for suicide in particular, clinicians frequently discussed the importance of regularly checking in with patients throughout the referral process

(i.e., from the time that a PCC recommends a mental health referral through the patient attending a first mental health visit) and believed that doing so was helpful in keeping patients engaged. Engaging family members or other support persons to help the patient get connected to care and attend appointments was also suggested as a helpful strategy for high-risk patient groups.

### Suggestions for improving engagement in mental health services

Interviewers elicited recommendations and suggestions about how the process for connecting patients at risk for suicide to mental health care could be improved, made easier, or made more attractive to patients.

Increase Communication between Primary Care and Mental Health. Clinicians and leaders suggested that establishing more formal affiliations or relationships with community mental health clinics in the area, increasing direct communication and care coordination across clinics, and expanding clinic resources for case management (e.g., care coordinator, nurse manager) would be helpful. Similarly, patients expressed a desire for increased care coordination between their primary care and behavioral health clinicians once care was established. Clinicians suggested it would be worthwhile for clinics to develop and maintain an up-to-date database of area mental health clinicians accepting new patients, including the insurance plans they accept and current wait time for an appointment.

Streamline Referral and Intake Processes. Primary care clinicians preferred the option of facilitating a warm handoff to a mental health clinician when risk of suicide was identified. Health system leaders suggested that options for patients to complete routine referral and intake paperwork electronically would be helpful for some, but not all, patients. Additional suggestions included developing patient-facing informational materials and videos about mental health services to clarify or demystify the process of connecting with mental health care.

Many clinicians also recommended streamlining the referral process to community care, noting that sometimes patients who need long-term mental health supports are first referred to less intensive services like Collaborative Care in the primary care office. These patients, it was noted, often need a referral to specialty care in the community given the time limited nature of Collaborative Care. Opportunities to streamline intakes, improve triaging patients to the right level of care from the outset, and increase transparency and help patients forecast out-of-pocket costs for mental health care were also desired.

Reminders and Follow-Up. Patients indicated that multiple check-ins from PCCs as they connected to mental health care following a referral would motivate them throughout each stage of the referral process (i.e., completing the intake, calling mental health clinicians in the community, and/or attending their first scheduled appointment). They also recommended the use of multiple automated reminders (either by text or phone, with the potential for customization) to increase likelihood of appointment attendance.

Several clinicians stated that a follow-up message (e.g., through the electronic health record messaging system or by phone) from the primary care office to the patient following a mental health referral would be useful in inquiring if the patient had been successful in connecting to care and offering assistance.

Advocacy. Leaders discussed the need to advocate for increased reimbursement for clinicians when they must engage in suicide risk assessment and interventions because of the added time needed to properly conduct these activities, and for greater coverage of care management activities to support patients at risk for suicide.

#### Discussion

The present study sought to better understand barriers and facilitators encountered by patients at risk for suicide during the period between a referral for mental health services and actual engagement in those services, incorporating the perspectives of primary care and behavioral health clinicians, primary care patients with a documented recent history of suicidal ideation, mental health intake coordinators, and health system and clinical leaders. The voices of these multiple constituencies are rarely solicited in a single study in the engagement or primary care literature, despite how important these multiple perspectives may be in identifying opportunities to increase engagement in mental health care for those at risk for suicide. While perspectives across constituencies were largely convergent, leaders and clinicians were more likely to discuss advocacy/policy and collaboration between primary care and behavioral health, respectively, and to attribute at least some patients as not engaging in mental health care because of resistance or amotivation. Patients more often noted logistical barriers and difficulties finding mental health care in the community, even when offered referral support from the Collaborative Care team.

The most common barriers to mental health care engagement cited by our participants pertained to waitlists, capacity limits, insurance, patient characteristics, communication, collaboration, and difficulties surrounding travel. Overall, these themes highlight the difficulties patients encounter connecting with care and attending visits once connected. In short, patients have trouble finding clinicians with availability who take their insurance and offer appointments that are convenient to attend, experience the mental health and primary care systems as siloed, and need more support and/or resources to receive care. Scaling up Collaborative Care has the potential to mitigate many of these challenges.

Telehealth, integrated care, reminders, case management support, psychoeducation, motivational enhancement, and scheduling flexibility were all identified as facilitators of engagement by our study participants. Participants also provided concrete suggestions for improving connection to mental health services and increasing treatment engagement, including improving communication between primary care and mental health clinicians, streamlining referral and intake processes, providing reminders and follow ups, and advocacy for increased reimbursement for suicide risk assessment. These results are consistent with literature that demonstrates that strategies such as reminder calls and texts, motivational and informational interventions, and case management have small to moderate effects at improving engagement in care [28]. However, even when these strategies are implemented, 40% of patients do not initiate treatment. This suggests that while these strategies can be helpful, they are not sufficient for many patients [28].

Behavior science frameworks, such as EAST, provide guidance for reducing identified barriers and implementing suggestions [22]. Two principles from the EAST framework may be particularly relevant based on our results. First, there is a clear need to reduce the 'hassle factor' of connecting with and attending mental health visits. Strategies for reducing the effort required to schedule and attend mental health visits following referral are needed, particularly for high-risk populations. Second, it will be important for clinicians and programs to simplify messages about referrals and provide guidance to patients about navigating the mental health system. Making messages clear may increase the probability that patients will respond in the desired way. It also will be important to identify how a complex goal, like engaging in mental health care, can be broken down into simpler, easier actions.

The study is strengthened by the inclusion of perspectives from multiple constituencies and the sufficient sample size. Several limitations should also be noted. First, we recruited participants from a single large, wellresourced health system. Some of the recommendations that emerged from participant interviews may be challenging to implement elsewhere, particularly in contexts with fewer resources. Second, we determined suicide risk using item 9 of the PHQ-9, an imperfect assessment of suicide risk [29]. Third, we relied on clinician, leader, and patient perceptions and recollections about experiences with referrals and connections to care; future studies that also utilize observational paradigms to understand patient journeys would be valuable. Fourth, we did not Page 8 of 10

query patients about their current treatment status at the time of their interview, as the focus was on initiation of treatment following referral. Patients' current treatment experiences could have biased responses. Finally, while rapid analysis procedures have important strengths, most notably facilitating quick integration of research findings into clinical practice, this approach may lack some of the depth of a more traditional qualitative coding approach.

#### Conclusions

Qualitative interviews with 74 primary care clinicians, behavioral health clinicians, mental health intake coordinators, health system and community mental health leaders, and patients highlighted the many barriers to engaging in mental health care that patients at risk for suicide encounter. We also identified important facilitators of engagement and suggestions for improving connections to care. This formative data can be used to inform the development of implementation strategies to help those at risk for suicide receive mental health care; given that engagement in mental health care is associated with reduced suicide risk, such work has the potential to save lives.

This work underscores the need to make it easier for patients at risk for suicide to connect with mental health care and attend mental health visits once scheduled. Our team is currently integrating these qualitative results with quantitative data and piloting implementation strategies to facilitate treatment engagement. This has the potential to bridge the gap between referrals from primary care and engagement with mental health services, which is critical because individuals are less likely to die by suicide if they engage in services [30]. Policy and reimbursement changes, such as enhanced reimbursement rates for managing complex patients in primary care through models like Collaborative Care and for implementing evidencebased suicide prevention practices (e.g., the Stanley-Brown Safety Planning Intervention [31]) are needed.

#### Abbreviations

BHC	Behavioral health clinician
EAST	Easy, Attractive, Social, and Timely
MHIC	Mental health intake coordinator
PCC	Primary care clinician
PHQ-9	Patient Health Questionnaire – 9 item

#### Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12875-024-02616-w.

Supplementary Material 1: Interview guides

Supplementary Material 2: Summary sheet

#### Acknowledgements

We are grateful to our clinical and operational partners in the Penn Integrated Care program for their ongoing partnership, and the patients who collaborated in this research.

#### Author contributions

CBW, SJH, and MC designed the study. CBW and SJH developed the grant application upon which this manuscript is based. CBW, MP, and SW drafted the manuscript. JH, GKK, DWO, MJP, EA, EF, AB, and SJH all critically revised the manuscript for important intellectual content and gave final approval of the version submitted for publication.

#### Funding

This study is funded by the National Institute of Mental Health (R21MH123851; MPIs Courtney Benjamin Wolk and Shari Jager-Hyman).

#### Data availability

The quantitative datasets generated from this study are available in the NIMH Data Archive, NIMH Data Archive - NDA (nih.gov). Deidentified qualitative data are available from the corresponding author upon reasonable request.

#### Declarations

#### Ethics approval and consent to participate

This research was approved by the University of Pennsylvania Institutional Review Board (protocol number 844601). All participants provided informed consent prior to engagement in research activities. All research activities were carried out in accordance with relevant guidelines and regulations or Declaration of Helsinki.

#### **Consent for publication**

Not applicable.

#### **Competing interests**

The authors declare no competing interests.

#### Author details

<sup>1</sup>Department of Psychiatry, Perelman School of Medicine, University of Pennsylvania, 3535 Market Street, Philadelphia, PA, USA

<sup>2</sup>Leonard Davis Institute of Health Economics, University of Pennsylvania, Philadelphia, PA, USA

<sup>3</sup>Cpl Michael J Crescenz VA Medical Center, Philadelphia, PA, USA
<sup>4</sup>Department of Medicine, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

<sup>5</sup>Department of Family and Community Health, University of Pennsylvania School of Nursing, Philadelphia, PA, USA

#### Received: 20 March 2024 / Accepted: 3 October 2024 Published online: 16 October 2024

#### References

- Suicide Data and Statistics. Centers for Disease Control and Prevention. 2023. https://www.cdc.gov/suicide/suicide-data-statistics.html#print
- Ahmedani BK, Simon GE, Stewart C, Beck A, Waitzfelder BE, Rossom R, et al. Health care contacts in the year before suicide death. J Gen Intern Med. 2014;29(6):870–7.
- Hogan MF, Grumet JG. Suicide prevention: an emerging priority for health care. Health Aff. 2016;35(6):1084–90.
- Davis M, Siegel J, Becker-Haimes EM, Jager-Hyman S, Beidas RS, Young JF, et al. Identifying common and unique barriers and facilitators to implementing evidence-based practices for suicide prevention across primary care and specialty mental health settings. Archives Suicide Res. 2023;27(2):192–214.
- Raue PDPJ, Ghesquiere PDAR, Bruce PD. Suicide risk in primary care: identification and management in older adults. Curr Psychiatry Rep. 2014;16(9):466.
- Mann MDJJ, Michel MACA, Auerbach, PhD RP. Improving suicide prevention through evidenced-based strategies: a systematic review. 2021;178(7):611–24.
- Bartels SJ, Coakley EH, Zubritsky C, Ware JH, Miles KM, Areán PA, et al. Improving access to geriatric mental health services: a randomized trial comparing

treatment engagement with integrated versus enhanced referral care for depression, anxiety, and at-risk alcohol use. AJP. 2004;161(8):1455–62.

- Cohan MDHL, Waxmonsky MDJG, Fogel MD, MPH BN, Pradhan MBBS, MPH S, Sekhar MD, MSc DL. Treatment engagement following a positive mental health screening questionnaire. Am J Preventative Med. 2022;63(1):111–6.
- Fu E, Carroll AJ, Rosenthal LJ, Rado J, Burnett-Zeigler I, Jordan N, et al. Implementation barriers and experiences of eligible patients who failed to enroll in collaborative care for depression and anxiety. J Gen Intern Med. 2023;38(2):366–74.
- Wittink MN, Levandowski BA, Funderburk JS, Chelenza M, Wood JR, Pigeon WR. Team-based suicide prevention: lessons learned from early adopters of collaborative care. J Interprof Care. 2020;34(3):400–6.
- Grigoroglou C, van der Feltz-Cornelis C, Hodkinson A, Coventry PA, Zghebi SS, Kontopantelis E, et al. Effectiveness of collaborative care in reducing suicidal ideation: an individual participant data meta-analysis. Gen Hosp Psychiatry. 2021;71:27–35. https://doi.org/10.1016/j.genhosppsych.2021.04.004.
- Alexopoulos GS, Reynolds CF, Bruce ML, Katz IR, Raue PJ, Mulsant BH, Oslin DW, Ten Have T. Reducing suicidal ideation and depression in older primary care patients: 24-month outcomes of the PROSPECT study. Am J Psychiatry. 2009;166(8):882–90. https://doi.org/10.1176/appi.ajp.2009.08121779.
- Stetler CB, Legro MW, Wallace CM, Bowman C, Guihan M, Hagedorn H, et al. The role of formative evaluation in implementation research and the QUERI experience. J Gen Intern Med. 2006;21(Suppl 2):S1–8.
- Elwy AR, Wasan AD, Gillman AG, Johnston KL, Dodds N, McFarland C, et al. Using formative evaluation methods to improve clinical implementation efforts: description and an example. Psychiatry Res. 2020;283:112532.
- Bellairs-Walsh I, Perry Y, Krysinska K, Byrne SJ, Boland A, Michail M, et al. Best practice when working with suicidal behaviour and self-harm in primary care: a qualitative exploration of young people's perspectives. BMJ Open. 2020;10(10):e038855.
- Cordeiro K, Foroughe M, Mastorakos T. Primary mental health care in the family health team setting: tracking patient care from referral to outcome. Can J Community Mental Health. 2015;34(3):51–65. https://doi.org/10.7870/ cjcmh-2015-021.
- Wärdig RE, Hultsjö S, Lind M, Klavebäck I. Nurses' experiences of suicide prevention in primary health care (PHC): a qualitative interview study. Issues Ment Health Nurs. 2022;43(10):903–12.
- Dueweke AR, Bridges AJ. Suicide interventions in primary care: a selective review of the evidence. APA PsycNet. 2018;36(3):289–302.
- Khazanov GK, Jager-Hyman S, Harrison J, Candon M, Buttenheim A, Pieri MF, et al. Leveraging behavioral economics and implementation science to engage patients at risk for suicide in mental health treatment: a pilot study protocol. Pilot Feasibility Stud. 2022;8(1):181.
- Archer J, Bower P, Gilbody S, Lovell K, Richards D, Gask L, Dickens C, Coventry P. Collaborative care for depression and anxiety problems. Cochrane Database Syst Reviews. 2012;10. https://doi.org/10.1002/14651858.CD006525. pub2.
- Wolk CB, Last BS, Livesey C, Oquendo MA, Press MJ, Mandell DS, Ingram E, Futterer AC, Kinkler GP, Oslin DW. Addressing common challenges in the implementation of collaborative care for mental health: the Penn Integrated Care Program. Annals Family Med. 2021;19(2):148. https://doi.org/10.1370/ afm.2651.
- 22. Service O, Hallsworth M, Halpern D, Algate F, Gallagher R, Nguyen S. *EAST:* four simple ways to apply behavioral insights. 2014. https://www.bi.team/ publications/east-four-simple-ways-to-apply-behavioural-insights/
- 23. Merriam SB. Qualitative research: a guide to design and implementation. Wiley; 2009.
- Nevedal AL, Reardon CM, Opra Widerquist MA, Jackson GL, Cutrona SL, White BS, et al. Rapid versus traditional qualitative analysis using the Consolidated Framework for Implementation Research (CFIR). Implement Sci. 2021;16(1):67.
- Taylor B, Henshall C, Kenyon S, Litchfield I, Greenfield S. Can rapid approaches to qualitative analysis deliver timely, valid findings to clinical leaders? A mixed methods study comparing rapid and thematic analysis. BMJ Open. 2018;8(10):e019993. https://doi.org/10.1136/bmjopen-2017-019993.
- Gale RC, Wu J, Erhardt T, Bounthavong M, Reardon CM, Damschroder LJ, et al. Comparison of rapid vs in-depth qualitative analytic methods from a process evaluation of academic detailing in the Veterans Health Administration. Implement Sci. 2019;14(1):11.
- 27. Hamilton AB, Finley EP. Qualitative methods in implementation research: an introduction. Psychiatry Res. 2019;280:112516.

- Na PJ, Yaramala SR, Kim JA, Kim H, Goes FS, Zandi PP, Vande Voort JL, Sutor B, Croarkin P, Bobo WV. The PHQ-9 item 9 based screening for suicide risk: a validation study of the Patient Health Questionnaire (PHQ) – 9 item 9 with the Columbia suicide severity rating scale (C-SSRS). J Affect Disord. 2018;232:34– 40. https://doi.org/10.1016/j.jad.2018.02.045.
- 30. Erlangsen A, Lind BD, Stuart EA, Qin P, Stenager E, Larsen KJ, et al. Short-term and long-term effects of psychosocial therapy for people after deliberate

self-harm: a register-based, nationwide multicentre study using propensity score matching. Lancet Psychiatry. 2015;2(1):49–58.

31. Stanley B, Brown GK. Safety Planning intervention: a brief intervention to mitigate suicide risk. Cogn Behav Pract. 2012;19(2):265264.

#### **Publisher's note**

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.