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Qualitative study of factors affecting engagement with a hospital-based violence intervention programme in Indianapolis, Indiana

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ABSTRACT

Background There are few qualitative studies of firearm injury survivors and hospital-based violence intervention programme (HVIP) participants. The original study aimed to identify facilitators and barriers to survivors' utilisation of mental health services. This secondary analysis aimed to identify factors that may impact engagement with an HVIP.

Study design This study was a subanalysis of an original qualitative study that used a community-based participatory research approach to conduct semistructured interviews with English-speaking, intentional firearm injury survivors aged 13 and older within Indianapolis, Indiana between 2021 and 2022. Participants were recruited by a community organisation through a snowball sampling method. Interviews were analysed using manual thematic analysis. Themes were analysed and discussed in relation to HVIPs.

Results A total of 18 interviews were completed. The majority of participants identified as black (17/18, 94.4%). Nearly all (75%) participants were between the ages of 13 and 24 years of age at the time of their shooting. During content analysis, five themes were identified: (1) delayed readiness to change, (2) desire for independence, (3) lack of trust, (4) persistent emotional and physical effects of trauma and (5) unawareness of HVIP resources.

Conclusions This qualitative analysis of firearm injury survivor experiences provided insights for improved engagement with HVIPs. Continued pursuit of survivors for several years after their injury, improved dissemination of resources, establishing trust, and addressing persistent physical and psychological symptoms while respecting participants' desire for independence may lead to increased engagement of firearm injury survivors with HVIPs.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ There is a dearth of qualitative studies of firearm injury survivor experiences in relation to their postinjury recovery and the potential role of hospital-based violence intervention programmes (HVIPs).

WHAT THIS STUDY ADDS

⇒ This study highlighted important themes that affect firearm injury survivors' engagement with HVIPs.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Improving dissemination, incorporating long-term follow-up, establishing trust and respect for independence in HVIP design and service delivery can increase injury survivor engagement with HVIPs and help ensure programme goals are patient-centred in addition to being evidence based.

INTRODUCTION

Hospital-based violence intervention programmes (HVIPs) are an evidence-based strategy to reduce community violence.[1] These programmes engage intentional assault victims during the teachable moment when the patient is still in the hospital and often most receptive to change.[2] If a patient agrees, violence intervention specialists (VIS) or programme caseworkers provide wraparound services, help participants set specific recovery goals and provide social support, accountability and stability during the postinjury period. HVIPs have been associated with reduced violent reinjury rates among participants in short-term follow-up studies. Yet there are few comparative analyses of HVIP interventions.[3–8] In addition, little is known about the factors that affect participant engagement in HVIPs.

Survivors of firearm injury can inform the development, refinement and delivery of HVIP services by sharing their experiences.[9] Early work studying violence prevention described challenges in the implementation and evaluation of programmes that resonate today, including challenges with data collection and aligning service and evaluation.[10] Prior survey research laid the groundwork for assessing youth knowledge and attitudes about and experiences with violence, noting

a perceived lack of alternative options to violence when facing conflict and the implications for violence prevention education.[11] A seminal qualitative study of violently injured black males used their perspectives to develop a conceptual model of violent reinjury with symptoms of traumatic stress, the code of the street and lack of faith in police as early mediators which led to drug use and a disrupted sense of safety with limited options for protection. These in turn lead to acquiring weapons for protection and retaliation.[12] These studies are critical to gain a deeper understanding of the problem of recurrent violent injury and the effects on survivors in order to develop effective interventions. Similarly, consideration of HVIP participant perspectives is important to ensure programme activities are meaningful to participants in addition to being evidence based.[13] However, few studies have directly queried HVIP participants about their experiences. The available qualitative studies of HVIP participants have provided a picture of how violently injured black men experience traumatic stress and the psychological impact of retained bullets.[14–16] Additional key findings included factors valued by participants in the therapeutic relationship with their VIS or programme caseworkers, which included relatability, compassion and mutual respect.[17]

Most studies have not focused on a diverse, community-based sample interviewed at varying times from their injury, including paediatric and adult or male and female survivors. Moreover, qualitative studies with HVIP participants have not specifically focused on their engagement with services. Recruitment and retention have long challenged violence prevention programmes with little improvement.[18]

We have evaluated our local HVIP Prescription for Hope (RXH) at Eskenazi Health Hospital for short-term rates of violent reinjury and, recently, violent criminal convictions.[3–5] Our findings highlighted a need for a more robust evaluation of HVIP activities beyond reinjury. We extended this work in this study by interviewing firearm injury survivors from a community-based cohort to hear their experiences post firearm injury. The original study aimed to gain a more in-depth understanding of firearm injury survivors' experiences with accessing mental health services postinjury. During the initial analysis, it was noted that only some of the participants had contact with RXH. The secondary analysis aimed to identify factors that may affect engagement with HVIPs.

METHODS

Participants and setting

This study was an interpretivist secondary analysis of an original narrative qualitative study which used a community-based participatory research approach to conduct semistructured interviews with firearm injury survivors within Indianapolis, Indiana between 2021 and 2022. Members of the academic team built on prior experience working with community leaders to develop a partnership with a community violence prevention organisation (Stop the Violence Indianapolis) to conduct the interviews. The academic team trained community violence intervention workers (one black male and one black female) in qualitative interviewing and ensured institutional review board certification. This study was carried out in accordance with The Code of Ethics of the World Medical Association. Any names in this manuscript have been changed to protect anonymity. The results of the original study have been published.[19]

Participants with a history of firearm injury were recruited by the community team members through a snowball sampling method. This is a non-probability sampling method where new participants are recruited by other participants.[20] The initial participants were identified through existing connections with the community organisation. After each interview, participants were asked if they knew anyone who would want to participate. Inclusion criteria included (1) survived an intentional shooting, (2) the event occurred within Indianapolis, Indiana, (3) being at least 13 years of age at the time of their shooting and (4) English-speaking. Following the first 10 interviews, we started purposeful sampling to recruit younger and female participants to expand the diversity of perspectives. This involved asking participants who had been interviewed if they knew of anyone with potential interest in the study who met these criteria. There was no upper limit on age or time from injury. We achieved data saturation for male participants but not for female participants or those less than 18 years old. This was determined by the research team during the coding process.

Patient and public involvement

Study participants were living in the community and were not involved in the development of the interview questionnaire or the conduct of the study. However, they were actively involved in study recruitment through the snowball sampling method. In addition, the community organisation Stop the Violence Indianapolis played a critical role in engaging the initial participants in this research study.

Procedures

Academic and community team members adapted an interview instrument used in prior studies focused on community resilience to firearm injuries.[9 21] The questions were revised to ensure cultural relevance to the Indianapolis community. The interview instrument is available in online supplemental file 1. Interviews were conducted in-person in private spaces within the community, via Zoom, or within a private room at the community-based organisation's headquarters. One academic researcher and two community partners conducted all interviews. Participants were enrolled after obtaining informed consent. All adult participants were verbally consented by the interviewer prior to the interview. The youth participants' parents/guardians verbally

consented over the phone to the community partner and all youth provided verbal assent to the interviewer prior to the interview. Participants were paid a US$50 Visa gift card for their time. Interviews were digitally recorded and lasted between 20 and 90 min. Data on participant demographics and age at the time of the shooting were collected through a pre-interview survey.

Analysis

Each recorded interview was deidentified and transcribed, and then analysed independently by researchers with expertise in criminology and trauma care. The interviews were coded to answer the original research question and interpreted to address the secondary analysis.[22] The interviews were analysed using manual thematic analysis coded with a predominantly inductive and latent approach.[23] Codes were applied directly to segments of text from the interviews and were then grouped into categories; then categories were arranged into themes.[24 25] The researchers compared their categories and themes to ensure consistency. Uncategorised codes were removed from the analysis. For the purpose of this secondary analysis, the initial codes were interpreted and discussed to answer the research question 'What factors may affect firearm injury survivors' engagement with HVIPs?' The same two researchers completed the analyses independently. Categories were described as frequencies and percentages. Demographics were similarly described with frequencies and percentages. The Standards for Reporting Qualitative Research checklist was used to ensure complete reporting of study results.

RESULTS

Demographics of interviewees

A total of 18 interviews were completed. Three people who were approached declined to participate. The majority of participants identified as black (17/18, 94.4%) and one as white (1/18, 5.5%). Nearly all (75%) participants were between the ages of 13 and 24 years of age at the time of their shooting. Participants ranged between the ages of 13 and over 50 years old at the time of the interview. 89% (n=16) were male and 11% (n=2) were female. The range of time between firearm injury and the interview was 2 weeks to 46 years. Table 1 shows the participant demographic information.

Table 1 Participant demographics

Variable	Participants, No. (%) (N=18)
Sex	
Males	16 (89.0)
Females	2 (11.1)
Age group (years), time of shooting	
13–17	7 (38.9)
18–24	7 (38.9)
25–29	2 (11.1)
30–34	2 (11.1)
35–39	0 (0.00)
40–44	0 (0.00)
45–49	0 (0.00)
50 years and over	0 (0.00)
Age group (years), time of interview	
13–17	1 (5.56)
18–24	5 (27.8)
25–29	2 (11.1)
30–34	2 (11.1)
35–39	2 (11.1)
40–44	0 (0.00)
45–49	1 (5.56)
50 and over	5 (27.8)

Knowledge of HVIP and community violence prevention programmes

Six participants mentioned the HVIP RXH during their interview (n, %) (6/18, 33.3%). Four did not know the name of RXH (4/6, 66.7%). Of all the participants, nine (9/18, 50%) said they were unaware of any local violence prevention programmes or resources. Six expressed regrets about not using resources or not being offered them at the time of their injury (6/18, 33.3%). To our knowledge, no study participants were participants of RXH at the time of their interview, although it was not explicitly asked during the interviews.

Manual thematic analysis

Manual thematic analysis identified codes from the text and then generated 10 categories from these codes. The categories, their frequencies and supporting sample quotes are depicted in table 2. The resultant themes were derived from the categories and explicit as well as implicit information from the interviews placed in the context of HVIPs. The five themes included: (1) delayed readiness to change, (2) desire for independence, (3) lack of trust, (4) persistent emotional and physical effects of trauma and (5) unawareness of HVIP resources.

Figure 1 is a concept map that demonstrates the groupings of the categories within the themes.

Theme 1: delayed readiness to change

The interviews for this study revealed that there are additional windows of opportunity, or teachable moments, after violent injury survivors have had time to self-reflect.

As one older study participant admitted:

> It took me 46 years to change my mind. To change my whole life. (Participant 2)

Participants at various time points after their injury communicated a desire for change, lack of satisfaction with their current circumstances, and a willingness to receive help. These moments of vulnerability are opportune times to connect to an HVIP.

Table 2 Categories and supporting quotes

Category	Contributing participants (n, %)	Sample quote (participant)
I don't want to be controlled	8/18 (44.4)	'But by me having a brain injury, I don't think they let people with brain injuries be they payees or in control of they case or whatever you know.' (10)
'Do it on your own' mentality	12/18 (66.7)	'Cause I've been working on myself… I could be working on depression, stop getting upset so quick so I'm working on it, I'm working on it and I kinda got it under control now… I needed help but I was trying to work it out on my own, that's what I'm doing, trying to do.' (6)
Peer support	11/18 (61.1)	Now, if I was to share my story or something, I would want to be in a group atmosphere… to be able to relate to other people. Yeah, I wouldn't want to do it by myself.' (13)
Disconnect from resources	17/18 (94.4)	Q: '*So why do you think it was so easy for you to… It sounds like it was easy access, why was it so much easier for you [to access services]?* A: ''Cause I was dying.' (14)
Someone to talk to who will listen	14/18 (77.8)	'Y'all need to be on the news, man. You feel me? Because this is cool, bro. Just getting to come here and talk about this. And being able to sit down, and meet somebody who is interested in your story. And how you feel about a certain situation, and give you a chance to speak, and let out your ideas.' (15)
Anger	8/18 (44.4)	'I done had a therapist before when I was younger for anger management, and to this day, I'm still angry. So it's like, they don't really help. Even before this situation, I was still angry. So it's like… A therapist is not gonna help. It's more about, just me.' (9)
Need for mentorship	9/18 (50)	'I think it's really just reminding your sibling that your life can go two different ways, the way you want it or the way you don't want it to go. I feel like that was really all my brother really needed to hear for him to keep his head on straight.' (12)
Interpersonal conflict	13/18 (72.2)	'I was arguing with a guy I knew… Yeah, and I was drinking at the time. He shot me in both of my legs.' (1) 'Everybody dying, and getting killed and getting shot because Instagram, Instagram beef.' (17)
Self-medicating with drugs and alcohol	15/18 (83.3)	'I'm stressed every day. I got everything on my shoulders and I've been feeling like I've been ready to just break out and snap, and that's usually what I do especially if I ain't smoking no weed and stuff like that to keep me mellow…' (7)

But my whole thing about this situation of being shot and not killed is that in certain situations I felt like I shoulda went because I'm not no better than I was before I got shot. You would think that something would change to make me either better or more conscious with my decisions. (Participant 8)

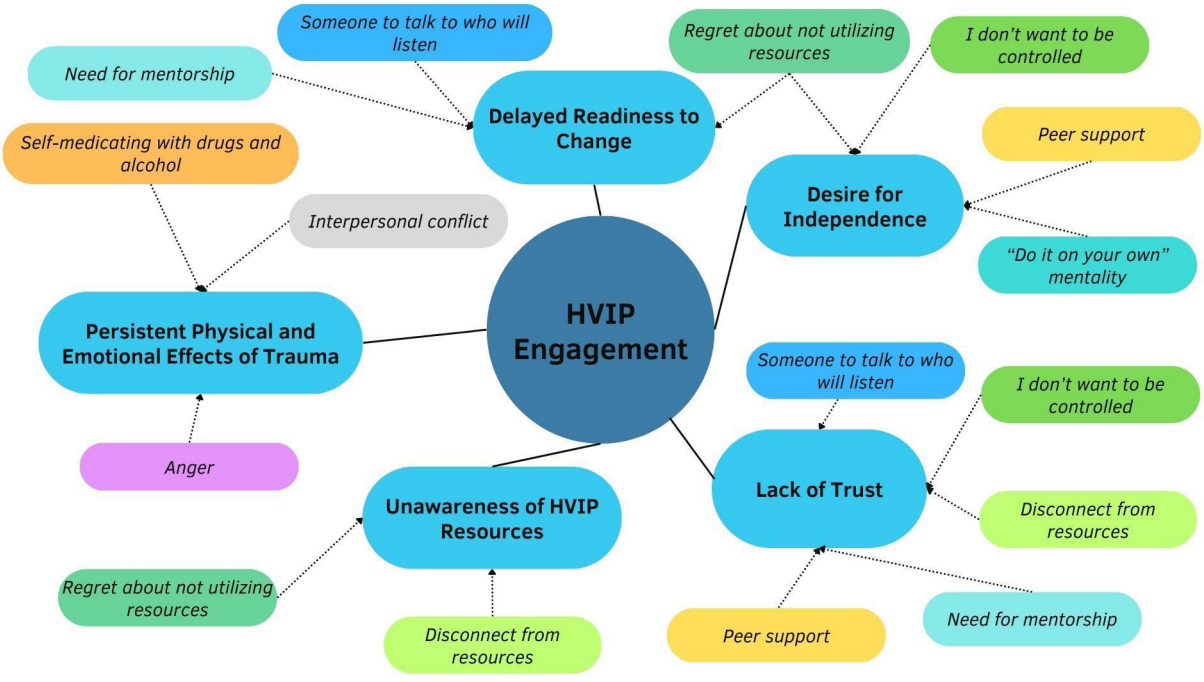

Figure 1 Concept map of categories and themes. HVIP, hospital-based violence intervention programme.

I should [seek additional healthcare for my injury], but I don't do it, so… [because I'm] hardheaded. (Participant 5)

I don't do it [physical and occupational therapy] no more. But I think I need to. I don't know, I just quit going. (Participant 10)

This supports the need for relentless pursuit of firearm injury survivors, and for HVIP workers to be available to them during their moment of readiness, which is often after their initial hospitalisation. One participant described this well:

…one thing I feel like she [VIS] did right is she would make them personal visits to the house, just because she knew that there was an inkling of a chance that I might want it. (Participant 14)

Theme 2: desire for independence

Several participants described a desire for independence in various aspects of their lives, including in their healthcare, psychological recovery and finances.

I'm 21, I'm tired… I don't wanna keep having someone to be responsible for me. (Participant 10)

Well after I got well and everything I was on my own, I was supporting myself. I still have support from my family whenever I need it. I don't ask for it now because I've been doing everything on my own. (Participant 6)

…It was just about me really putting my mind to get my own self healthy [while in the hospital]. I wasn't really relying on the doctors as much, 'cause I really wanted to do it on my own… (Participant 9)

These quotes demonstrate participants' desire to feel self-sufficient and not overly reliant on anyone or anything, including physicians and medications.

Theme 3: lack of trust

Most participants described a shrinking of their social circle after their injury. Those in contact with RXH valued the ability to develop trust with their VIS.

But her [VIS] coming to the house, sitting down with me, talking me through the situation, like talking to me about it, she was kind of like my caregiver. She'd sit there with me for a little bit, read with me and just do stuff with me. It was about… It was that resource right there that really helped the most and really helped me to keep my mind on getting better. (Participant 9)

[I trusted her] Because she looked to like me. Same down to earth, from New Jersey, just the same way. She had a heart for it, you feel me? (Participant 13)

Participants also noted the length of time it takes to establish a strong trusting relationship.

Mr. B, that's my dude. [laughter] I call him all the time, I can call him, I call him before anything really…I've known Mr. B since fourth grade…He's my mentor, father figure. My daddy is still in my life but like he there too. (Participant 17)

Hope Services? For about two years, on and off, like I said, it took me a while to open up to her [VIS]. (Participant 12)

Theme 4: persistent emotional and physical effects of trauma

Multiple participants described living in a state of chronic stress. For most, this injury was not their first traumatic event. They described emotional and behavioural changes including isolation, detachment, decreased trust, anger issues and inability to express themselves resulting from chronic exposure to trauma.[26]

I'm cool some days. Most days I'm okay, but I can say I'm angrier now than I've ever been. (Participant 16)

Honestly, I wouldn't say I really needed anything at the time, I felt like I just wanted to get away from everybody. (Participant 12)

I used to have to make traumatic things happen just so I could feel that feeling…. That, I'm normal. 'Cause I'm usually feeling normal when I'm feeling these dumb-ass feelings. (Participant 8)

Black participants also described a cultural context to their suppressed and repressed emotions.

And growing up in a Black home, it's you can't voice your opinion. You can't voice how you feel. So they hold onto their anger. They hold on to what frustrates them. And that's what makes them grow up to be bitter, angry. You know, if they get hurt, if they get anything happens to them in a Black home, it's hard to explain. It's hard to express yourself, especially Black men. They can't cry. They can't show emotion, all that they can show is anger. (Participant 11)

It was common for participants to cope with substances, particularly alcohol and marijuana.

Whatever just doing a lot of partying or whatever, just to kind of like hide whatever was going on in my life. (Participant 13)

Theme 5: unawareness of HVIP resources

Even participants who had contact with RXH could not recall the HVIP's name. However, they remembered the names of their VIS', and the programme's affiliation with Eskenazi Hospital.

Nobody but Chris…I think he worked for… I think he work with Eskenazi. He work with Eskenazi. (Participant 17)

Yeah, the hospital, Eskenazi, they gave us… I forgot what the program called, but they gave us a therapist, or whatever, for me to talk to and he'd be able to give us resources. (Participant 9)

Violence prevention programmes in the community were not well known or recognised.

This is my first time even knowing this was around. I drive past this place all the time and never… I've just seen the sign that says something about it, "Stop guns… " And I'm like, "It has been here this whole time? (Participant 18)

I think they should let theirself be known who they are so people can get help when they need it. (Participant 3)

Some expressed frustration at this lack of visibility and perceived lack of effective engagement with the community.

> I say they don't do shit. Somebody get killed and then they come the next day or two days later and march around the neighborhood about it… The motherfucker who shot somebody is probably sitting right there watching your dumb ass walk up and down the street with signs…That ain't stopping no violence. Little Junior or whoever, man, he owes them money. So if he ain't created his money he gotta go. (Participant 7)

DISCUSSION

Qualitative analysis of semistructured interviews of community-dwelling firearm injury survivors in Indianapolis resulted in five themes that may impact engagement of firearm injury survivors with HVIPs: (1) delayed readiness to change, (2) desire for independence, (3) lack of trust, (4) persistent emotional and physical effects of trauma and (5) unawareness of HVIP resources.

HVIP literature stresses the importance of the teachable moment near the time of injury as the optimal time to engage violent injury survivors.[2] These interviews, however, revealed multiple teachable moments well after that time; in some cases during the months and even years post hospital discharge. For many survivors of firearm injury, behavioural change is needed to decrease their risk of reinjury and to recover mentally from the sequelae of trauma.[27] Behavioural change is challenging. For health-related behaviour change, a teachable moment can be created through a clinician–patient interaction.[28] In the context of physical trauma, this interaction is a hospital encounter for violent injury. McBride *et al* described the three key elements of a teachable moment that led to smoking cessation: (1) The event increased perception of personal risk, (2) The event elicited a strong emotional response and (3) The event redefined the patient's self-concept or social role.[29] A firearm injury usually satisfies one or more of those three elements, and all three were noted in the participants' interview responses. Despite this, many participants described readiness to change or feelings of regret long after their hospital discharge. This supports the need for relentless pursuit of survivors by HVIP staff to connect survivors with needed services.[30] These moments often present themselves long after typical programmes have stopped attempting to make contact with survivors. Therefore, HVIPs should use optimal strategies for engagement and retention, and expand the definition of the teachable moment.

For effective interactions between survivors and HVIPs, trust must be established. The presence of the VIS/caseworkers in the hospital helps to establish an initial rapport. Prior work demonstrated that moderate to high doses (3 to >6 hours per week) of caseworker interaction in the first 3 months after injury were associated with an increased likelihood of successfully completing the HVIP, and with reduction of violent reinjury.[27] Trust is closely associated with the perceived credibility of the messenger.[31–33] Participants were quick to point out when they felt figures of authority or healthcare workers were being disingenuous. To address this barrier, empathetic engagement is a teachable skill that has been used across healthcare settings and medical education.[34–36] For caseworkers, interview participants valued availability, genuinely caring, ability to relate and time spent invested in the relationship. This is consistent with a prior study that described the characteristics HVIP participants most valued.[17] Firearm injury survivors must often overcome learnt patterns of internalised and repressed anxiety, depression and post-traumatic stress symptoms.[37] Consistent with previous studies, interview participants expressed symptoms of restlessness, chronic pain and avoidance (wanting to get away or hide).[38] Many of the interviewees shared experiences consistent with childhood trauma or repetitive trauma. Such cumulative stress can have a lasting impact on the mind as well as the body, causing emotional and neurobiological dysregulation.[37] PTSD, depression, substance use disorders and other behavioural health consequences of violent injury can be debilitating but they are treatable.[39] Addressing mental health needs within an HVIP is a critical factor associated with successful programme completion.[27] However, addressing mental health needs is increasingly recognised as a weak area of evaluation and treatment in trauma centres and HVIPs.[40–43] The barriers to help-seeking for psychological distress described in other studies including lack of perceived benefit, fear of stigma and preference for existing social network support[19 44] may also apply to HVIP participation. HVIP staff must be equipped to recognise and handle these barriers while respecting survivor's choices and autonomy.

The theme of desired independence reflected a hesitancy to ask for help as well as a need for self-determination. According to self-determination theory, three things are needed for personal well-being: competence (perceived ability for self-care), relatedness (feeling of belonging) and autonomy (feeling of empowerment).[45] HVIPs are well suited to assist participants with these often over-looked factors in individuals with chronic trauma.[45] An emphasis on increased self-awareness, emotional regulation and self-efficacy can help HVIP participants achieve their goals.[46]

Based on the interviews, relatively few of the study participants were connected to RXH. This was a surprising finding since RXH has been in the community for 14 years and is the only HVIP in Indiana. Based on the participants' lack of knowledge of any local violence prevention programmes, ineffective dissemination and branding could be a significant factor. Leveraging the affiliation with the local hospital system may be an effective strategy for improved dissemination of HVIP services. The standard academic approach of 'posters, presentations and papers' is unlikely to successfully reach the community for violence prevention work.[47] Studies of healthcare brand equity have shown that establishing a platform for consumer and healthcare organisation interactions increases perceived

value of the care provided.[48] This suggests that social media has significant potential to expand reach and achieve effective dissemination of healthcare information, including HVIP services.[49 50] Storytelling—such as via social media platforms—can amplify effective dissemination by using a credible messenger to tell an emotionally compelling story.[51] This story resonates with the target audience (eg, firearm injury survivors) and incites action (eg, engaging with an HVIP).[52]

Future directions

Future work for RXH will include developing and evaluating strategies for recruitment and retention such as behavioural nudges[53] and social media campaigns. Additional qualitative research will be critical to determine the acceptability of HVIP interventions and the components participants value most. Future studies will also focus on female and non-English-speaking participants to address the knowledge gap in their perspectives.

Strengths and limitations

This study has several limitations. The participant sample is from a single city which may result in limited generalisability of the findings. Most participants had been injured within 1–5 years of their interviews and so the overall results do not reflect long-term follow-up. Non-English-speaking patients were excluded, and subsequently, this patient population's experiences are not reflected in these results. However, the majority of firearm injury survivors in Indianapolis are English-speaking black males.[54] Finally, intercoder reliability or thematic proximity was not formally analysed.[24]

Despite these limitations, this qualitative study adds depth of knowledge of the experiences of community-dwelling firearm injury survivors that can improve HVIP engagement and identify opportunities for intervention development. These results can also help improve recruitment and retention strategies.

Conclusions

This qualitative analysis of firearm injury survivor experiences provided several insights into factors that may affect their engagement with HVIPs. Effective branding can increase dissemination of HVIP resources. Continued pursuit of survivors for several years after their injury, establishing trust, and addressing persistent psychological and physical symptoms while respecting participants' desire for self-determination may increase engagement of firearm injury survivors with HVIPs.

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Contributors LAM and DO accept full responsibility for the work and/or the conduct of the study, had access to the data, and controlled the decision to publish. LAM designed the study and oversaw data collection. DO performed the data analysis which was compared to LAM's analysis for theme consistency. DO interpreted the results. DO wrote the initial manuscript. LAM, ZWA, RJM, BQB, MB, BRM and CJS contributed critical revisions to the final manuscript. RJM and CJS provided expertise as trauma surgeons with long-standing ties to the community. BQB provided expertise in HVIP programming, ZWA provided expertise in psychiatry and psychology. MB provided expertise in implementation science. All authors have read and approved the final version of the manuscript.

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Competing interests MB serves as a chief Scientific Officer and co-Founder of BlueAgilis; and the Chief Health Officer of DigiCare Realized. He has equity interest in Blue Agilis; DigiCare Realized; Preferred Population Health Management and MyShift (previously known as RestUp). He serves as an advisory board member for Acadia Pharmaceuticals; Eisai; Biogen and Genentech. These conflicts have been reviewed by Indiana University and has been appropriately managed to maintain objectivity. The remaining authors declare no competing interests.

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Patient consent for publication Consent obtained directly from patient(s).

Ethics approval This study involves human participants and IRB approval for this study was obtained through Indiana University IRB. #11431. Participants gave informed consent to participate in the study before taking part.

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