Exploring Identity and Physical Activity in Substance Use Recovery: An Interpretative Phenomenological Analysis

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A B S T R A C T

Substance use disorders (SUD) are a significant public health challenge in the United States, with high prevalence among young adults. Physical activity (PA) and identity construction have been found to support SUD recovery and promote a new, substance-free identity. However, more research is needed to understand the links between PA and identity construction. The purpose of this research was to understand the lived experience of how people recovering from a substance use disorder perceive their identity change throughout their self-discovery journey and the role of PA in this journey. Participants were recruited from a local PA group, four 60–90-minute interviews were conducted, and interpretive phenomenological analysis on verbatim transcribed audio files was performed. Three super-ordinate themes were found: 1) Core of Being, 2) Support Connection and Belonging, and 3) Suffering. Findings are consistent with and expand prior research, both within group PA settings and in participants' journeys.

INTRODUCTION

Substance use disorders (SUD) are widely recognized as significant contributors to global and domestic public health challenges, including in the United States US; (Shen et al., 2023). Though SUD is found across all demographics (National Center for Health, 2023), young adults aged 18 to 25 had the highest prevalence of substance use disorder, followed by adults aged 26 or older and adolescents aged 12 to 17 within the US (Substance Abuse and Mental Health Services, 2019). Over 841,000 lives have been lost since 1999 because of substance use-related overdose, with opioid-related deaths increasing sixfold (CDC, 2023). In 2022, non-methadone synthetic opioids, mainly illicit fentanyl, were involved in 68% of the 107,081 drug overdose deaths (Ahmad et al., 2023). Alarming rates of substance use and substance-related overdoses have prompted exploration of new approaches to address substance use, which have included research on the intersection of physical activity (PA) (Köhlerová et al., 2024; Thomas et al., 2023) and identity construction (Priebe et al., 2020; Törrönen, 2023) as part of recovery from SUD. Understanding this intersection of PA and identity construction enables the development of more effective interventions for prevention and treatment (Priebe et al., 2020; Törrönen, 2023), including the role of group-based PA in supporting SUD recovery through identity construction (Priebe et al., 2020).

Recovery from SUD involves a process of identity construction and re-construction, where individuals replace the stigma of being a substance user with a new identity as a non-user (Chen, 2024). While identity construction involves individuals developing their self-definition through personal attributes and social roles, identity reconstruction entails creating a new identity that differs from the current one by altering certain characteristics (Huang et al., 2021). Identity reconstruction occurs as people's minds shift from a substance-use identity to a recovery identity (Dingle et al., 2015),

which is influenced by health behaviors (Priebe et al., 2020). PA may influence one's development of a "substance-free identity" (Horrell et al., 2020). This mindset shift helps people with SUD maintain a greater likelihood of abstinence (Tombor et al., 2015). While several theories have been used to explain changes in identity as related to PA (Porter et al., 2024; Reifsteck et al., 2016; Tombor et al., 2015), identity construction among substance users is poorly explored from the perspectives of people with a SUD and this represents a critical gap (Webb et al., 2022). Including perspectives from people with SUD can help in addressing the uncomfortable balance that can arise between accepting one's SUD as a chronic disease while experiencing the stigma placed on persons with SUD in society (Costello et al., 2020).

Recovery is often prompted by a 'recovery priming event,' a particular experience such as incarceration, health deterioration, or shifting relationships with significant people (DiClemente, 2018; Mackintosh & Knight, 2012; White et al., 2006). Lifestyle changes, such as PA, have been found to be beneficial to persons with SUD as they progress through recovery (Horrell et al., 2020).

PA has been found to support people with SUD both mentally and physically (Cabral et al., 2024; Patterson et al., 2022; Theodorakis et al., 2024). Recovery and abstinence are promoted by PA in multiple and complex ways (Giménez-Meseguer et al., 2020; Horrell et al., 2020), and PA is an important adjunct or supplement to SUD treatment (Patterson et al., 2022). Research has shown that PA supports SUD recovery and the identity construction to a new recovery or "non-using" identity (Horrell et al., 2020; Priebe et al., 2020). Collective identity is frequently used to explain a person's identification within a substance-using group that shares characteristics and awareness of belonging to a group (Dingle et al., 2015). Therefore, engaging in a PA group has the potential to support a new, substance-free identity through positive and substance-free reinforcement (Horrell et al., 2020; Priebe et al., 2020). However, there is limited research into the links between PA and identity construction among persons in recovery from SUD (Mayoh et al., 2020). Such research may enhance PA interventions for persons with SUDs. Therefore, the purpose of this study was to understand how people recovering from an SUD

perceive their identity and the role of PA in their recovery.

METHODS
Study Design
Interpretative Phenomenological Analysis (IPA) was chosen as the qualitative research method for this study, as it supports delving deeply into participant interviews, enabling in-depth exploration of their lived experiences (Smith et al., 2021). This approach facilitated an examination of how individuals in SUD recovery made sense of their identity while engaging in a PA program. The semi-structured interviews also allowed us to gather 1) contextual information as needed (Smith et al., 2021), 2) rich data from an individual's lived experiences (Smith et al., 2021), and 3) explore how participants make sense of their personal and social worlds (Smith et al., 2021; Smith & Osborn, 2008). IPA has also been previously used in analyzing participants' experiences, feelings, thoughts, and expressions (of which identity is composed) throughout their lives (Smith et al., 2021).

Participants
Eligibility criteria were based on three factors: 1) be 18 years of age or older, 2) self-identify as recovering from a SUD, and 3) be actively participating in the local PA group. The researchers worked with the PA group organizer to present and pass out flyers about the study after PA sessions and posted flyers on their social media. Four people from a Northeast Ohio PA group for persons recovering from SUD participated in this study. These four participants were all White, with two being females and two being males, and a mean age of 37. A small sample size is recommended for IPA as it allows the researchers to focus on the convergence and divergence in the data (Smith et al., 2021). The use of small samples within IPA is also common practice as the use of large datasets could lead to overlooking subtle nuances in meaning within the data (Alase, 2017).

Data Collection
This study received Institutional Review Board approval from [blinded for review]. Flyers were distributed at the end of PA sessions in 3 locations when the group members gathered to meet. Interested participants contacted the researchers who then screened for eligibility (see participants section above) and scheduled an interview at a

location deemed comfortable by both interviewee and interviewer. Interviewers followed a semi-structured interview guide that was developed based on a review of the literature. The interview guide included answering participants' questions before beginning and obtaining written informed consent for both the interview and audio recording. All participants agreed to be audio recorded and interviews began with an initial open-ended question about the participant's experiences with SUD followed by questions exploring various aspects of the participant's SUD recovery, including experiences with PA and the PA group, and their perspectives on themselves (Dingle et al., 2015; Mackintosh & Knight, 2012). During the interview, an active listener and recursive conversational approach were taken to promote rapport and trust, aiding rich data collection (Smith et al., 2021). Interviews lasted about 60 minutes and participants received a $20 gift card at the end of the interview.

Data Analysis

Data analysis was conducted by the first two authors and overseen by the third. All audio files were transcribed verbatim, de-identified, and formatted as recommended by Smith et al (Smith et al., 2021). The researchers were guided by the "steps of analysis" described by Smith et al. (2009) and supported by Chatfield's (Chatfield, 2017) method of data processing and Saldana's (Saldaña, 2021) coding definition and process. As such, data analysis was conducted using six steps (see Table 1, with sources), where the first five steps were completed using Microsoft Word and the sixth step using NVivo Software (QSR, 2014). Below are the six steps:

1. Read and reread: This step immersed the researchers into the original data and involved listening to the interviews, transcribing them, and writing initial observations (Smith et al., 2021).

2. Initial noting: This involved free textual analysis through exploratory memos and coding the transcripts for meaning units using Microsoft Word comments (Chatfield, 2017; Saldaña, 2021). These codes were in the form of descriptive, linguistic, and conceptual commenting. The descriptive codes consisted of impressions from the interview, summaries of what was going on in the interview, and questions/thoughts elicited from the interview.

Linguistic codes included specific words the participant said (e.g., in vivo), how words were said, and impressions of how the participant said certain words (Smith et al., 2021).

3. Develop emergent themes: All codes from Step 2 were copied and pasted into a new Microsoft Word document and categorized by grouping similar comments, topics, etc. These categories informed the developed themes.

4. Find connections across themes: Conceptual comments were written above each category about the essence of that section within the context of the participant's identity within use, recovery, and PA. The researcher answered questions that arose during the descriptive commenting. This step allowed the researcher to interpret and find the meaning of the participant's lived experiences of the phenomena. Overarching themes were then developed (Smith et al., 2021).

5. Repeat steps 1-4 for each transcript: Each transcript was analyzed separately. Putting aside coding from previous transcripts was important to respect convergences and divergences within each transcript (Smith & Osborn, 2004). As part of this step, the researchers discussed and compared codes and themes that they generated for each of the transcripts to come to a consensus (Sargeant, 2012).

6. Look for patterns across all cases: Overarching themes developed in step 4 were entered into NVivo 12 for cross-participant thematic analysis. Superordinate and sub-themes were developed based on themes with the most references and were present in all four interviews (Smith et al., 2021).

The first two authors then conducted an audit of each other's analysis to compare coding and ensure that identified themes were grounded in participants' lived experiences (Smith et al., 2021). These themes were then discussed and consensus was obtained for the coding and themes.

RESULTS AND DISCUSSION

The final sample consisted of 4 participants (4 White; 2 females, 2 males, mean age 37. Findings demonstrated that people recovering from a SUD may perceive their identity change through a process that begins with reconnecting with the Core

of Being (super-ordinate theme 1). This process often happens through building Support Connections and Belonging (super-ordinate theme 2) with people in the PA group. Participants then overcame Suffering (super-ordinate theme 3), which had been interwoven into both their Core of Being and Support Connections and Belonging. These themes and corresponding subthemes are listed in Table 1.

Table 1. Superordinate and sub-themes.

Super-ordinate Theme	Sub-themes
Core of Being	"I'm different"
	Values
Support Connections and Belonging	Lifestyle changes
	Relationships
Suffering	Victim
	Self-preservation
	Toxic relationships

This study explored the profound impact of individuals' experiences on their SUD healing and how engagement in PA and lifestyle changes create a transformative space for healing. In line with prior research, transitioning from a SUD involves moving from an identity embedded in using substances to one embracing recovery and health (Dingle et al., 2015). This process is further strengthened when people recovering from SUD engage in PA groups (Patterson et al., 2022; Priebe et al., 2020), and a shift in their social identity occurs (Buckingham et al., 2013; Dingle et al., 2015). The purpose of this research was to understand how people recovering from an SUD perceive their identity during recovery and the role of PA in this process. Three superordinate themes were developed that described this lived experience 1) Core of Being 2) Support Connections and Belonging, and 3) Suffering.

Core of Being

All participants referred to recovery as a journey of reconnecting with self, the core of their being. This theme reflects the participants' shared experience of reclaiming their true selves, which they felt had been overshadowed. They believed that their true self had been present throughout their illness, remaining unchanged, though it became more apparent as their recovery progressed. For example, Participant A indicated that during their drug use, their Core of Being was overshadowed and not a priority. The drug took control, and their personal qualities took a backseat. Despite having a SUD, they still maintained a sense of respectability and managed to accomplish tasks. However, their

actions were contingent on having drugs for the day, with the drugs taking precedence.

When you're sitting there getting high and shoving needles in your arm, every day those [personal] qualities go out the window. You don't even think about them. 'Cause at that point the drug takes over and you just basically live for the drug. So, those qualities were still there, but they were [not] forefront. The drug was first and then I would do my quality, or I would keep my personal qualities afterward. I mean, I was still, even as a drug addict, I was still respectable. I still did things and got things done, but to get things done and do things, I had to make sure I had my drugs for the day. And if I had my drugs for the day, I acted just like any other person. But the drugs came first instead. Now, whatever I must do, is what I have to do. I don't have to use drugs to do that. (Participant A)

The transition into recovery, for the participants, was not simply about quitting substance use; it was about rediscovering the self that existed before addiction. This indicates that recovery is not just cessation, but a reconnection with deeper values that had been overshadowed. Participants' Core of Being, which existed whether or not they were using substances, was rooted in a competing dyad of feeling like "I'm different" and their value system. Another participant described this feeling by saying, "I struggle a lot with a lot of things that … normal people, whose [life] comes pretty easy to them [don't struggle with]." Furthermore, all participants shared that the Core of Being included in their value system comprised

family, humanitarianism, work, and being a role model. For example, Participant D indicated that their value system was built on work and the act of helping others is integral to their recovery. They believed that the service element of their work was the foundation of their transformation. By focusing on helping others and getting outside of themselves, they have been able to overcome personal challenges.

A lot of what I do in my work has been part of my life recovery. So, it's just helping other people, [it] is really the foundation. I think that the service element is so… that should blossom into a career. Which is awesome. Getting outside of myself. So, if I was sitting outside my home thinking, well it's not fair. I would never have made it. So, it's just getting outside myself. Letting all the garbage be used for good. I needed that to happen for sure. (Participant D)

Finally, the PA group provided an affirming environment for the identity journey to occur. This is illustrated by Participant A who stated that the PA group had been beneficial to them in multiple ways due to its affirming environment. They mentioned that it has positively impacted their body, emotions, and spirituality. Specifically, they highlighted the emotional aspect, stating that being part of the PA group has contributed to feeling good about themselves.

It's [PA group] helped me. It's helped my body, physically, emotionally, and spiritually, and the emotional part is, I feel good about myself. (Participant A)

This theme of Core of Being emphasizes the importance of the core qualities of who they are, their value system, and their sense of being different. The central focus of their sense of self is rooted in humanitarianism, which can be expressed when supported by an affirming environment. Importantly, an affirming environment supports connection and belonging.

Participants' Core of Being remained consistent throughout their illness progression and recovery process, indicating that their sense of self was unaltered by their SUD experiences. This stability aligns with research on the sense of self among individuals with SUDs (Pickard, 2021; Reed, 2014) and supports strength-based approaches to SUD treatment and recovery, which emphasize the importance of core internal values in maintaining a consistent self-identity (Young, 2016).

In summary, the Core of Being theme emphasizes the importance of reconnecting with one's core identity, which is facilitated by an affirming and supportive environment. This theme supports the concept that recovery is a process of returning to a person's authentic self, rather than simply a break from substance use.

Support Connection and Belonging

Participants' Support Connection and Belonging were critical to healing in their recovery process. The importance of social connections in the recovery journey cannot be understated. Their sense of self was defined by their need to be connected to others and have a sense of belonging. For this to occur and promote recovery, they first made numerous lifestyle changes including becoming involved in the PA group, not isolating, and living in the now. For example, Participant B expressed their excitement and sense of safety in discovering a group specifically for individuals in recovery or with mental health issues. They highlighted the importance of being in an environment where others share similar experiences and challenges. This sense of belonging and support connection with fellow individuals in recovery created an understanding atmosphere that contributed to their feelings of safety.

I was really excited to learn that there was a group that was just for people in recovery, or mental health issues and stuff because when you're in recovery, you just feel safer when you're in an environment where it's like other people in recovery. (Participant B)

An important part of the change process was moving from ruminating about the past and building a life of living in the now. For example, participant D emphasized the importance of embracing living in the now, accepting both positive and negative aspects of life, and staying true to oneself. They recognized that personal growth occurs through experiences and trials, reflecting a mindset of learning and development in the face of life's challenges.

I kind of try to live life on life's terms. Good's going to happen today and bad is going to happen today. So, I don't really need to jump in either of the puddles. I can just kind of be who I am, but I

think that with experience, with time, and I think with trials we grow. (Participant D)

Living in the now is not the only component of lifestyle changes, these changes also need to be prioritized. Participant A emphasized the importance of prioritizing their lifestyle changes when they asserted their commitment to their recovery program, by making it clear to others that this is their new life.

I made it clear that I'm doing a recovery program, staying clean, and this is my new life. This is what I'm doing. I made it clear to everybody and anybody. If anybody can't accept that or doesn't want to encourage that… I don't want any of those people around me. (Participant A)

These lifestyle changes were reliant on supportive relationships, facilitated by the PA group, and promoted an improved quality of life and sense of self, affirmation, and accountability, which supported their transition from seeing themselves as substance user to non-users. For example, Participant D emphasized that engaging in PA has brought about transformative changes for them and others. It challenged their perception of wellness and connected them with supportive relationships within the community. Attending PA sessions provided a valuable opportunity for meaningful conversations with a friend.

Just the completion of [PA] and it's just changed us. And I've watched other people that I've sent [to the PA group], that are moving and lifting their feet off the ground, that I never thought would do anything like that. So, it's really looking at wellness differently in my opinion. And connecting people into the community. So, I go often because my friend [name] goes and it's the only time we have to just really talk. (Participant D)

These lifestyle changes that support connection and belonging underscore the significance of engaging in a supportive PA group and making lifestyle changes. These lifestyle changes foster a sense of safety, belonging, and transformative personal growth. Safety, belonging, and growth are critical to the healing process that is needed to address the suffering the participants described.

This theme of Support, Connection, and Belonging is consistent with other literature, which suggests that a sense of community, connections, and relationships (positive and negative) along with

lifestyle changes play an important role in identity construction resulting from the recovery process (Bahl et al., 2019). Social inclusion afforded by PA is critical to recovery and is supported by Fischetti et al. (Fischetti et al., 2020). It is through the process of social inclusion that social identity can be formed (Hu & Cheung, 2024). Social identity is at the heart of a person's sense of belonging and connection and is a pathway in and out of SUD (Dingle et al., 2015). A sense of communion and agency, generated through relationships, is critical to the promotion of recovery (Rowlands et al., 2019), and afforded by engagement in PA groups. Other studies have also found that social support and the establishment of new trusting relationships within PA groups support recovery (Horrell et al., 2020; Linke & Ussher, 2015), overall well-being, and identity discovery (Linke & Ussher, 2015). The increase in social capital relationship resources (O'Sullivan et al., 2019) as a component of recovery capital (lifestyle resources for maintaining recovery) promotes participants' health (Davies et al., 2015).

It is important to note that the term 'recovery' may not be universally embraced by individuals with SUD, as previous research has shown its dynamic nature. While the SUD label can facilitate bonding within a group or increase recovery capital, this process often involves a transition away from the label as recovery progresses (Kelly et al., 2018). In part, this movement away from the label of "recovery" is part of the identity change process that includes moving away from internalized stigma and the "addict identity" to a new identity, a process that is facilitated by changes in social identity as individuals engage in social interactions. More frequent interactions and a higher percentage of individuals in one's social circle who are committed to recovery contribute to increased social connectedness. This is due to the presence of social norms within the group that encourage support and discourage ongoing substance use (Best et al., 2016). Part of this identity change process is linked to these social interactions, is the ability of the individuals to establish themselves in the social order and to find their voice (Webb et al., 2022). Therefore, the PA environment may provide greater facilitation of this transformational bonding within a group and changes in identity.

Suffering

Participants' Core of Being and connection/belonging were negatively and positively interconnected with their experience of Suffering. Where substance use was an outlet to escape from suffering due to traumatic experiences or to preserve some sense of normality. For example, Participant A indicated that their substance use would not have shifted to 'hard drugs' if it had not been due to an accident that resulted them in being given addictive painkillers. Their initial use was to mask the pain, however, over time it shifted to taking them to feel high.

I would have never started hard drugs had it not been for the fall I took…. It would all be 18 to 20 feet. Yeah. If I didn't land in the basement exit. But I landed on concrete stairs from that high and I screwed myself up pretty bad. They shot me up with Dilodid. They sent me on my way, or the prescription of Percocet and they only gave me 10 at that time. After the 10 ran out, he immediately took me from the Percocet fives that I was on to 120 Perc tens and was giving me Perc tens every three hours or something like that, every four hours. So, at that point, I was, instead of just taking care of the pain, it actually was getting me high and I'm like, "Ooh, this feels good." And that's where the whole opiate use started. (Participant A).

The use of substances as an act of self-preservation is exhibited in many of the participants who were involved in toxic relationships, that drive their suffering. For Participant D, who found themselves stuck in a cycle of abuse within a relationship, substance use was initiated by their partner to assist them in getting through everything that needed to be done in their life.

I met a guy and we really hit it off and things moved really fast. And uh, he ended up being really abusive physically, mentally, emotionally, any way you can think of. Uh, but it was, it's like the typical way that abuse works. It's a cycle. And I got stuck in it and I was with him for, for three years… He suggested that I start to do cocaine, to have the energy to get, you know, stay up later to get stuff done. (Participant D).

For Participant C, suffering was both a sticking point in driving their substance use and their transition out of substance use. They described this connection by saying,

[My AA sponsor] had asked me these 5 questions and the ones that got really tough were the ones I said, no I don't want to talk about it. So, I took an hour of reflection and I went to a park and just kind of walked around. And all that. I started to look back over the things that I had done for recovery before and I noticed that, do you want to stay sick or do you want to help? So, he is a very strict sponsor, by the book. So, he said if you have anything to talk about, call me back. So, I counted down the last 5 minutes and as soon as my hour was up I called him up and said, hey, listen do you remember the questions you asked me? And I relayed different stuff that was probably the most destructive behavior that I had. And they were very very personal. But it was time for me to leave that to the side and I finally I told another human being, the exact nature of my alcoholism. (Participant C)

Underlying all the participants' suffering was their trauma, in the form of abuse in childhood or adulthood. These trauma experiences intersected with them being victims of toxic relationships, relying on self-preservation, and their use of substances and the development of their SUD. For example, Participant D shared about their being a victim and suffering due to past traumatic experiences of abuse and sexual assault by a stranger, that they kept to themselves and struggled to cope, leading to suicide attempts and substance use. Additionally, they experienced abuse from their parents in response to their substance use.

I was roughly 12 years old…I ended up getting sexually assaulted by a stranger. I really didn't know how to deal with that situation, and I didn't want to tell anybody because I didn't want my parents to be hurt by that, by that knowledge. So, I just kept it to myself and attempted suicide. Shortly after that, as it wasn't successful, and I didn't tell anybody about that either. The timeline of my life is kind of not very clear to me. My memory is really, really bad and I don't know all that happened… I did some drugs and stuff. But I blacked out and don't remember anything until the paramedics brought me home and they said that I almost had a hole in my throat because of the amount of alcohol that I consumed, and then my mom was like kicking me. (Participant D)

This suffering and its relationship with trauma and abuse require a process of healing that is achieved during the recovery process.

Engaging in PA and lifestyle changes created a space for healing, and PA group involvement itself was because of their suffering experiences caused by their SUD. For example, Participant A described the healing impact of PA with the group on their recovery.

I feel so good after the run. It's truly, almost like a drug high. I feel so good after the run. I do. I get that runner's high that it feels like I just did some heroin, but without the… You don't want to be like… You can do some heroin and then you start nodding off and stuff like that. It's [running] not that. It just has that euphoric feeling that I just did something that made me feel really good. And I enjoy it. (Participant A)

The suffering theme aligns with existing literature regarding turning points in the lives of individuals with SUDs (Marvin & Buckingham, 2024; Patton & Best, 2024), highlighting the prevalence of trauma and childhood abuse among people with SUD in comparison to the general population (Prangnell et al., 2020; Zhang et al., 2020). This violence is often perpetrated by someone close to them, is a typical outcome within toxic relationships, and is more prevalent when substance use is present (Sabri et al., 2019; Skinner et al., 2021). While attending a PA group may not eradicate suffering or identity of being a victim, it does improve health (Rosenbaum et al., 2015), alleviate some suffering, and promote an improved quality of life (Giménez-Meseguer et al., 2020); (Linke & Ussher, 2015). Embracing an active lifestyle through PA groups could, therefore, 1) be used as a constructive source of coping, as suggested by the participants and the literature (Abrantes et al., 2017; Lee & Park, 2018), and 2) support identity construction and SUD recovery.

This study provides additional evidence for the importance of trauma-informed recovery as a critical component of recovery interventions (Sabri et al., 2019; Simonton et al., 2018). This approach supports people with SUDs to engage with recovery and requires critical work on self-identity to overcome the overwhelming sense of alienation, from self and others (Fisher, 2017), through the establishment of safe and healthy relationships and spaces (Bailey et al., 2019). PA groups have been found to provide such places, where healing from psychological and social suffering can occur through reintegration (Jindani & Khalsa, 2015).

Finally, while PA is beneficial to recovery from SUDs and suffering (being a victim, self-preservation, and toxic relationships) (Rosenbaum et al., 2015), practitioners and researchers should consider PA preferences, which vary according to gender, substances used, location, and group versus individual (Simonton et al., 2018). These preferences are also affected by the type of trauma experienced (Lee & Park, 2018; Smith-Marek et al., 2018).

These findings from the participants' experiences shed light on the complex interplay between suffering, trauma, and self-discovery.

Strengths and Limitations

IPA methodology permits comprehensive data collection and analysis of each participant, however, with only four participants, some aspects of identity formation may have been missed that other persons with SUD not present in this study may experience. Additionally, this study was limited to participants from only one PA group and may not be able to be generalized to other PA groups. Despite these limitations, this study is among the first to explore identity construction in SUD individuals within a PA group.

Public Health Implications

Identity is complex, especially for those with SUD. This IPA analysis of four interviews with persons in SUD recovery participating in a PA group found that elements of the individual identities stay constant (e.g., values at the 'Core of Being') but other elements of identity change (e.g., social identity) with groups and engagement. These findings offer insight into identity construction and changes, influencing factors, and intervention development opportunities. For example, participating in PA groups during SUD recovery aids in rediscovering personal identity (e.g., values at the 'Core of Being') and encourages transformations in identity and social identity, ultimately leading to positive outcomes. These groups provide a supportive environment for connection, belonging, and healing from trauma and suffering. Therefore, incorporating PA groups as a part of SUD treatment and recovery interventions can be beneficial. SUD treatment should also recognize the impact of trauma on self-identity, and the development of a victim identity, and that establishing safe spaces for healing is crucial in supporting individuals with SUD. These spaces

promote the ability to reconnect with their self-concept outside of the trauma, and identity as it relates to others (e.g., social identity). Overall, PA groups are likely to contribute to improved recovery, well-being, and quality of life in individuals with SUD.

CONCLUSION

In our study, we utilized semi-structured interviews and IPA to explore how individuals in SUD recovery perceive their identity and the role of PA in this process. Our results reveal that individuals in recovery from substance use disorders undergo an identity transformation through three key mechanisms: 1) rediscovering their core self, 2) forming connections and a sense of belonging within PA groups, and 3) overcoming personal suffering. Although participants' self-perceptions may not undergo drastic shifts from substance use to sobriety, there are discernible changes influenced by their adoption of a PA group identity, which aids in their recovery journey. These findings offer valuable insights for researchers and public health experts, emphasizing the importance of involving individuals with lived experiences to enhance theories, treatment strategies, and policies aimed at fostering SUD recovery through identity change facilitated by PA groups.

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