



A qualitative exploration of the eight dimensions of wellness in opioid use disorder recovery during the postpartum period

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HIGHLIGHTS

- Needs of mothers with OUD are best met by focusing on all dimensions of wellness.
- A nonjudgmental approach to recovery is important for postpartum women with OUD.
- Supportive spaces/relationships & emotional/physical postpartum selfcare are lacking.
- Empowering mothers through employment, education & life skills may support recovery.

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ABSTRACT

Background: Recovery from opioid use disorder (OUD) during the perinatal period has unique challenges. We examined services for perinatal women with OUD using the Substance Abuse and Mental Health Services Administration (SAMHSA) eight dimensions of wellness (DoW), which reflect whole person recovery.

Methods: We enrolled professionals from the Southwestern United States who work with people with OUD during the perinatal period. Semi-structured in-depth interviews were conducted from April to December 2020. Participants were shown the DoW diagram (emotional, social, environmental, physical, financial, spiritual, occupational, intellectual) and asked to share how their clinic/agency addresses each DoW for perinatal people with OUD. Responses were transcribed and coded by two researchers using Dedoose software.

Results: Thematic analysis revealed ways professionals ($n = 11$) see how the services they provide fit into the DoW. This included: the need to provide mothers emotional support with a nonjudgmental approach, groups providing social support; guidance on nutrition, self-care, and a focus on the mother/infant dyad; assistance with employment and activities of daily living; parenting education; connecting mothers with resources and grants; providing a variety of spiritual approaches depending on the desire of the mother; and navigating the interpersonal environment as well as the physical space.

Conclusions: There are opportunities to expand the treatment and services provided to women with OUD during the perinatal period within all eight DoWs. Additional research is needed to identify effective strategies to incorporate these components into patient-centered, holistic care approaches.

1. Introduction

Over the past decade, opioid use disorder (OUD) among pregnant people has increased by over 400% (Haight et al., 2018). The standard of care for OUD is Medication for Opioid Use Disorder (MOUD), which consists of full or partial opioid agonists (e.g., buprenorphine, methadone), or opioid antagonists (e.g., naltrexone), in addition to behavioral therapy (Kampman and Jarvis, 2015). While the risk for returning to

opioid misuse during pregnancy is low (Faherty et al., 2019; Tsuda-McCaie and Kotera, 2022), this risk increases substantially postpartum (Office on Women's Health, 2016). Clinical recommendations call for prevention programming to reduce return to opioid misuse risk during the postpartum period (Opioid Use and Opioid Use Disorder in Pregnancy | ACOG, n.d.), but, to date, research has been limited (Martinez and Allen, 2020). There is a need for the development and identification of evidence-based prevention interventions specific to the

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postpartum period that will ultimately aid in long-term recovery.

Recovery is defined by the Substance Abuse and Mental Health Services Administration (SAMHSA) as the process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential (SAMHSA, n.d.). To illustrate the idea of multidimensional health, SAMHSA has developed eight dimensions of wellness (DoW): emotional, social, environmental, physical, financial, spiritual, occupational, intellectual (Fig. 1). While the DoW and definition outlined by SAMHSA may be commonly incorporated in health promotion initiatives (e.g. university wellness programs) (Bernal, 2020; *Eight Dimensions of Wellness | Campus Recreation*, n.d.; *Eight Dimensions of Wellness Overview*, n.d.; *The Eight Dimensions of Wellness*, n.d.), the literature is scant in evaluations of its use as a framework for health-related outcomes. The limited research to date has focused on the DoW primarily within mental health, highlighting that wellness is multidimensional, dynamic and complex (Cummings and Bentley, 2018; Das, 2015). For example, one study used the DoW as a part of their program to reduce future psychiatric hospitalizations of their patients. Their findings were that hospitalizations were reduced and patients that attended the program more often were at a lower risk for such hospitalizations (Abdelnoor, 2018). Additional research examining the DoW aimed to identify the barriers to seeking and continuing care for infertility treatment. The themes identified were fit within the DoW, and were considered practical (the environmental, financial, physical), and affective (emotional, social and spiritual) as treatment seeking barriers; while barriers for return to treatment were primarily affective (Whittier Olerich et al., 2019). The authors concluded that addressing the resulting themes within the DoW would better support infertility treatment. Overall, while including parts of the DoW into health and wellness care show promise, the inclusion of DoW in its entirety is notably

missing from the literature (Zechner et al., 2019). Moreover, this framework remains exploratory and has not yet been applied to substance misuse or OUD recovery, including OUD during the perinatal period which presents unique challenges to mothers. Revising, expanding, and/or developing treatment components in line with the DoW may prove beneficial for pregnant and postpartum people with OUD.

To address the gap in literature, we sought to understand how the DoW are currently being utilized during OUD recovery in the postpartum period. To address this goal, we completed semi-structured interviews with professionals who work with this target population. Using a qualitative approach enabled the team to describe how professionals understand and make meaning of the of DoW, and what recovery is in their work with women with OUD (Sobo, 2009). Here we provide the themes associated within each dimension and offer recommendations on how this framework can be utilized by professionals working with mothers with OUD.

2. Methods

We conducted semi-structured in-depth interviews with professionals, defined as working in a professional capacity for at least one year with perinatal women with OUD. Using purposive sampling via email, posted flyers, and word-of-mouth referrals, we recruited professionals in the state of Arizona, primarily in the urban areas of Phoenix and Tucson. We had a response rate of 73%. Professionals worked as healthcare providers in addiction medicine and/or obstetrics, or as Department of Child Safety (DCS) caseworkers. Purposive sampling was chosen due to the desire to hear from a range of professionals who work with mothers in recovery, and thus we aimed to recruit not only



Fig. 1. SAMHSA eight dimensions of wellness*

*From SAMHSA. (n.d.).

healthcare providers, but DCS caseworkers as well. State law in Arizona requires that newborns who have been substance exposed in utero be reported to DCS for possible investigation. While substance misuse is not considered child abuse per se, DCS investigates to determine if the environment is safe. DCS caseworkers therefore offer a unique perspective into support services available during the postpartum period for mothers with OUD. All professionals were invited to complete a 30-minute interview via the teleconferencing platform, Zoom for Health, between April and December 2020. Participants were shown a diagram (Fig. 1), and asked “How is your clinic or agency addressing these DoW for women that are both in early recovery from opioid use and postpartum?”

Our analysis used both inductive and deductive approaches, as we began with the DoW as an organizing framework for the interviewees and the analysts (Bradley et al., 2007). Interviews were transcribed and coded using Dedoose (Dedoose, 2021), a qualitative data analysis software application. Two authors (SM, YB) coded the data with the DoWs after achieving consensus on code definitions through repeated conversations with the team, to ensure inter-coder reliability (Bernard et al., 2016; Cornish et al., 2013). Responses to the question were coded to align only with the individual dimension that was presented and not with other codes. However, all authors discussed the coded text to identify sub-themes within the DoW-coded text. Not all professionals endorsed each DoW, but all DoW that were endorsed were included and are representative of our sample. Here, we report how participants describe these dimensions within the context of their programming.

3. Results

Professionals (n = 11) discussed the DoW and ways in which their agency provided support under each dimension (Table 1). Professionals included seven healthcare providers in obstetrics (n = 4) or MOUD (n = 3), as well as four from DCS (Table 2). All participants were female and, on average, were 42 years old with 8.5 years at their current organization and 12.5 years in the field.

3.1. Emotional

The emotional DoW was indicated as an important focus for our participants and their programs, particularly in providing a space for mothers to have emotional support with a nonjudgmental approach. Group sessions, held every day except Sundays, focus on providing that welcoming space. Within the nonjudgmental space, professionals also focused on addressing the underlying and contributing factors to substance misuse (e.g., unhappy relationships, coping skills)

“...we know that usually emotional and physical kind of go hand-in-hand. So definitely with us asking those questions, how do they deal with stress, do they have happy relationships, are there other contributing factors that are causing them to continue to use illegal substances....” C009

Additionally, participants discussed working with mothers to find other safe spaces, such as individual therapy, and/or treatment (e.g., inpatient facilities or outpatient programs).

3.2. Social

The social DoW was identified unanimously among participants as centering around "groups" providing a new means of social support. The central concept was that support groups for substance recovery or new mothers are social outlets and essential for recovery success.

"Part of that would be to get them into groups, whether that's a therapeutic group or a substance group, or just a new parent class. Something where they can kind of get a new social group and not just have the people and the triggers..." C009

Still, participants noted that some moms would prefer more "one-on-

Table 1
Definitions, themes, and quotes by dimensions of wellness.

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
Emotional	The ability to express feelings, adjust to emotional challenges, cope with life's stressors, and enjoy life. It includes knowing our strengths as well as what we want to get better at, and living and working on our own but letting others help us from time to time.	Creating a safe space for working through factors in their life underlying addiction	<ul style="list-style-type: none"> • “Well, let’s put it this way, that we are never judgmental...from the first moment, we tell them we’re here to help you. Please be open. The more we know, the better we can help you. And when they, “Oh, I’m an addict,” so we try to explain to them that it’s a stigma, you have to remove the stigma from yourself. You know, it happened, you’re not alone, and so you have to be proud of yourself that you came here. And we’re here to help you.” C006 • “That’s part of our process to go over with every client that we have, but especially with the substance-exposed families that we work with, we gage what other services they might need, other than the substance abuse. Because we know that usually emotional and physical kind of go hand-in-hand. So definitely with us asking those questions, how do they deal with stress, do they have happy relationships, are there other contributing factors that are causing them to continue to use illegal substances, and expose either their children in utero or other children that they might already have in the home. And that’s part of some of our referrals that we utilize too is connecting their emotional well-being and their physical to their substance use, and giving them better coping skills.” C009 • “I mean, I think the biggest thing with emotional is we truly encourage

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Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
Social	Having healthy relationships with friends, family, and the community, and having an interest in and concern for the needs of others and humankind.	Groups provide essential social support, especially for those who have not been through OUD treatment before	<p>individual therapy, even if it's just to vent about the [DCS] department and the stressors that having us involved can bring outside of anything else. And that's one thing that we really do push for as a motivation for change. As well as finding kind of community to supports. So, if they have family members and stuff like that can support them through their journey of change, even if it's transportation to go drug test, whatever it is, that we also kind of encourage that as well." C010</p> <ul style="list-style-type: none"> • "Part of that would be to get them into groups, whether that's a therapeutic group or a substance group, or just a new parent class. Something where they can kind of get a new social group and not just have the people and the triggers..." C009 • "The moms that jump on [virtual] group every single day. I was telling them yesterday "I know that this is a pain in the butt to join", and then my one mom was like "Oh, I actually look forward to it!" C003 • "Some parents say that the groups help them to hear that they're not alone in situations like this. There's other parents that have been through services before, and don't like groups anymore, so they'd rather have the individual basis. So, it just kind of depends. We do definitely allow them to join groups for services, if they're willing. And typically, it's an ongoing assessment of how you are

Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
Physical	A healthy body. Good physical health habits. Nutrition, exercise, and appropriate health care	Guidance on nutrition, self-care, and a focus on the mother/infant dyad	<p>doing in group, do you feel like you're benefiting from group, if you need more of a one-on-one basis, we can do that" C010</p> <ul style="list-style-type: none"> • "With my experience with substance use, they have to kind of get themselves in recovery first. They have to get the drugs out of their system before they can start enhancing their health and kind of improving themselves." C009 • "I mean, prenatally and postpartum and, gosh, being a parent's hard for all of that. I have a mommy that started last week an exercise group with the girls. And so she's doing a Zoom group- now there's a handful of 'em doing [yoga]- they just wanted to get in shape. And we had to have the discussion about "okay, if you're prenatal you probably shouldn't do this. If you're just 6 months postpartum- or, 6 weeks postpartum, you probably shouldn't do this"... But they wanna exercise together, and so it's really fun to see them do that. But we do talk about food and... sleep - but you know, when you have a baby, how do you do that?" C003 • "A lot of that is the day-to-day kind of assessments of how they're doing. Though if they're coming to us saying that they're not getting anything done in the day, then it's, okay, let's break down your schedule. What time are you waking up? What time are you going to work? What time are you going to services? What time

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Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
			<p>do you have visitation. And then kind of, okay, we've checked off all of the things you should be doing, now what are you not doing? When are you eating, when are you sleeping, are you able to work out or go for a walk to clear your mind. Things like that. For us in regard to physical, it then becomes kind of coping skills. What coping skills are you using to kind of regulate your day to day. So that you feel like you versus this robot that has to go through all of these services and checkmarks for the department. Especially if they're homeless too. Then it's, okay, well where are you getting your meals? Where are you sleeping at night?" C010</p> <ul style="list-style-type: none"> "...when people used to use opioids, it affects dopamine production by the brain. So, opioids kind of down regular dopamine production. Once they got stable, they need to look for some other source that brings satisfaction to their life because they have to replace that what they used to use opioid with something else. So, we usually, have kind of a conversation with them, what kind of hobby did you have or what hobby would you like to have.... And that's why we have kind of encouraged them to find some different satisfaction in their lives, to boost up that dopamine production and be happy." C006 "A lot of what we're doing is physical care for them. And,

Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
Occupational	Participating in activities that provide meaning and purpose and reflect personal values, interests, and beliefs, including employment	Employment and activities of daily living	<p>people could do a lot better at their job... When there's specific needs they have around their medication, a lot of times there's just not understanding about it, there's not training on it. When they have different pain needs there's not understanding in nursing about it. I see a lot of different things like orders for these patients too, and for some of them it's part of a plan that they're not supposed to be getting opiates for instance, where as other moms who have the same history of opioid use disorder, and in early recovery, we are giving opiates to and it's unclear why- if one's better, one's not better, I don't know. And because we don't know- part of our goal as nurses is to- the doctors put the orders in but they don't always do a good job putting the order in, and our job is have an idea of what's right and what's wrong so that when something's not right, we can question. We can say "hey, I saw she had this, she had this history so aren't we supposed to not give her this" or "she has this history so isn't she supposed to have more pain meds- "or whatever it is." C004</p> <ul style="list-style-type: none"> "Just a lot of the times they have never had a job. And it's nice to see- I have a couple moms right now... they've got employment, they've got their own apartment... telling me that they never thought they could do this on their own without a significant other or

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Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
			<p>without family. But you know, loving their job and they get so excited when they get a promotion, they'll text me, "I got a promotion." It's something that they haven't been through before. And so, we encourage them to get employment if they can. we help them if they have felonies. You know, we'll give them that list. Sometimes we'll have 30 women in a session. And it's funny because if someone says, "Well, I'm looking for a job," they'll just start saying, "Oh, so and so is hiring," you know, The other women will teach each other, "Oh hey, we're hiring, you can get a job where I am." So, that's kind of nice. At times it works out that way, like hey, you know, I got a job because she told me to come to her employment. So we really work with them on making sure they have some kind of job, so they could feel like they can do it on their own." C011</p> <ul style="list-style-type: none"> "We definitely have some moms come through that are definitely thrilled to be new moms, really embracing the whole experience. But most of our moms are just kind of like, in a survival mode. And, of course by the time we see them, they're exhausted, and they're tired, and they're sore from delivery. So, I don't see- I don't see a lot of personal satisfaction in- I would call their job, you know, being a mom." C002 "...drugs affect their executive

Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
			<p>functioning of the brain...that will be something that will really work with like- my moms will call me and say "I can't get to my doctor's appointment, I need transportation." And I'm like "when's your appointment?" And they'll be like "in an hour." ... Okay, so you need transportation in an hour? And so it just really impacts them being able to plan ahead, so that will be something that we'll do. Set a timer, a reminder in their phone, do you have that appointment- do you have transportation the day before, and helping them- I always say just helping them "get a few wins." If we can help them get a few wins then it's amazing- you give 'em one win and see how much better they get. They always surprise me. I had one mom that was homeless. I just- we got her housing, and everything fell into place. I mean, it was just- she needed housing. Yes, she was using, but her use stopped once she got housing." C003</p> <ul style="list-style-type: none"> "If they're a family that spans, a family support specialist is not going to say, oh that's the wrong way to do it, you shouldn't do that; they're going to say, hey let's look at some alternatives." C001 "We do a lot of education, but again I feel like with the timeframe we catch them in they're just exhausted. And then for the moms who are not here
Intellectual	Keep our brains active and our intellect expanding	Skill building, educational attainment, and passing on lived experiences to others	

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Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
			and present all the time, they come in, it seems like, so infrequently that we don't have a good connection as far as like "okay let's talk about this, let's do some teaching" C002
			<ul style="list-style-type: none"> "I do the self-care talks, and then postpartum depression. So sometimes that is a part of education, and I know other disciplines provide other things, like newborn care and withdrawals, and all that stuff. With social work, we do more of like the postpartum depression education... self-care, just that type of stuff..." C005 "Asking if they've completed high school, if they went to college, if they would like to either get a GED or finish their high school diploma. There's more online programs now than there ever has been before, so that's something that we also bring forward to the table is, "Hey, have you thought about getting your high school diploma? That might be a good thing for you to do to get your mind off of other things you have going on in your life. And that might be part of the recovery process is for you to get a high school diploma or get a certificate in something so you can start a career or become an [peer support] advocate for substance abuse." C009 "We have a lot of moms that once they get sober and they really start understanding addiction and, seeing the professionals work with them, I have a lot of moms that

Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
			will recognize that they have the ability to help others as well. So, they'll actually go...to get recovery support specialist training. I have quite a few moms that do that. And then they go out and, start helping others. But it's nice because, they recognize that they have the ability to do that. And so, we talk to them about having the strength and ability to do things that they didn't think they could do before." C011
Financial	Involves things such as income, debt, and savings, as well as a person's understanding of financial processes and resources	Connection to resources and grants	<ul style="list-style-type: none"> "If I hear about a job fair I'll say that. You know, but that's like things that are going on in the community. [Because of the ongoing COVID pandemic the Governor] just did the extension for rental and utility assistance, so I put that on our Facebook page and talked about it. I've given them the link, I can't do it for 'em, being on Zoom, but that would be something that, when we're open, that I see we can have a volunteer help them fill out that application... Right now, we don't do it but it's something that's so simple, I just need someone to help 'em. I mean I got on that link, and it was like six links. I don't know that I got to the right one.... I finally told them to call the number. I'm like "call the number", because I don't know where the- how far you go in, it depends on what city you're in. It was- yeah.... " C003 "We do have resources that we extend to our families. There's a

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Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
			<p>couple of jobs programs that our clients can utilize. And again, that is part of our assessment, to ask about do you have employment, do you have resources? If you don't, here's a list of places where you can go to try and find employment, go back to school, or whatever their financial needs are at the time." C009</p> <ul style="list-style-type: none"> "We have like housing subsidies that we can help with if that's the last barrier for the parents. If they've maintained their sobriety, we can help them with housing as long as they've gone out themselves to try to get help. So, if they've exhausted family members, churches, things like that and try to get help themselves, through all of that we can then help them with a housing subsidy to get them to a house. But they need to have a plan afterwards how they're going to maintain. So, we do have through behavioral health agencies, do typically have like employment specialists that can help them get jobs, or fix their resumes, or whatever it is to kind of help them seek their kind of financial wellness." C010 "We will work on life skills with them. I have them do a complete budget. And so they can kind of look at what they're spending things on, if they're going to be able to afford a certain place. Because I have a lot of clients that will get newly sober, and they'll be like,

Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
			<p>oh, I'm going to get this really expensive apartment- they have no clue what it is to function out in society without being an addict... a lot of times my moms will have felonies. So, it's hard for them to get a job. So, I have a whole packet of places in Tucson that will hire felons.... I know the recovery support specialist will sit down with them and if they're nervous about going for an interview or something they'll work with them. Just kind of getting them prepared like you don't have to live in a mansion, you know. So doing the budget and getting them employment is, you know, we work on that. That's something DCS doesn't require employment, we require a legal source of income. But it has to be sufficient enough to support the client and their child... So, you know, we're not asking them to be millionaires, but they- a lot of times because they come from addiction, they just don't know how to handle money. So, we work on that with them. And if need be, the department will- we offer like a lot of times they have trouble coming up with a deposit for an apartment, or housing, so the department will help with the deposit. As long as they have income, and can keep making it we'll help them with that." C011</p> <ul style="list-style-type: none"> "Which doesn't necessarily identify
Spirituality	A broad concept that represents	Providing a variety of	

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Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
	one's personal beliefs and values and involves having meaning, purpose, and a sense of balance and peace	spiritual approaches depending on the desire of the mother	<p>as God; it can be whatever they want it to be." C001</p> <ul style="list-style-type: none"> "We don't judge them based on their beliefs or anything like that, so we try to from the get-go understand where they're coming from in regards to a spiritual sense—what they believe in, what they look to in regards to inspiration, things like that, and kind of use that as motivational tools to kind of help them through this. So, I'm not someone that's going to sit with them and read the Bible with them or provide them passages or anything like that. But if they do utilize the Bible and things like that, then it's like well, in regards to self-care, can you give 30 min of focusing on your spiritual beliefs to your day. So, maybe starting your morning with a reading that you can kind of get into the mindset of today's going to be positive, we're going to move forward." C010 "I do ask all of my clients if they do have any religious preferences or if they do attend any type of spiritual meetings, if they go to church, or whatever worship looks like for them.... I know that spirituality is very sensitive for some people, so I tread very lightly when I ask that question, but if it is a support to the women that I'm speaking to, then I definitely try to bring that into conversation to make them feel a little bit better about what we're talking about and get their mind off of just the bad

Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
			<p>questions that I'm asking." C009</p> <ul style="list-style-type: none"> "I don't bring in any specific religion, just cuz I don't wanna push 'em away. But not saying that moms won't bring up, you know, "I pray on it". But it's not something that I really push on them. If they bring it up and they're open... they'll be like "what church do you go to?" and I tell em. You know, I'm like, "this is what I do", and you know, we talk about healthy relationships and I'm like "where do you get those?" Cuz they're like "how do you meet friends?" and I'm like "well right now, you meet em here" and I'm thinking about- I'm like "I have my friends at work" and I'm like "so you need to get a job". "I have my friends at church", so you need to go to church. You know, but all of these things are putting them out there and putting them at more risk to trust somebody, and be at that risk of being judged. It's hard, yeah." C003 "That's the big [thing] we talk about... we nail that home quite a bit.... if you can't change the environment, nothing's going to change. We're not asking them to move cities. But you know the people that you need to stay away from, the environments that you need to stay away from. What you can and cannot have in your home. Having a healthy home environment for your kids... we're always talking about
Environmental	Being able to be safe and feel safe	Physical space and interpersonal environment	

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Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
			<p>people, places, and things, and changing environment. I mean, they probably get tired of us." C011</p> <ul style="list-style-type: none"> • "The biggie is getting them out of unhealthy relationships. My moms that have relapsed have started hanging around unhealthy people. Bad influences! You know, if they do that, where they think that they're healthy and all of a sudden they're not, it's just putting yourself in not a good situation." C003 • "For me- I try to stress, especially to the women, that if it's their significant other that's pushing them to continue to use, or contributing to their use, getting them out of that environment and showing them that there is positivity out there and there are positive places. There's places for them to live a clean and sober lifestyle. And women that are going to support them in that recovery process. And you know, just showing them that other people have been where you are now, and you have the opportunity to start looking forward. Most women say it's environmental, their substance use is usual- I would say it's an 80% chance that they tell me it's my environment" C009 • "We always need to know how safe the environment they're currently in, if they need any help. We have some resources even for halfway houses... we definitely try to see what kind of help they need that we could provide. I

Table 1 (continued)

Dimension	SAHMSA Definition *	Identified Theme	Participant Quotes
			<p>truly believe that sometimes for them that our clinic... is the only connection from with the outside world they have.... we're located in the huge medical plaza. It's like any medical clinic. It doesn't look like methadone clinic from the outside. So when people come in, they just say, oh wow, I like it. So, it was my approach to make them very comfortable, [with a] little bit of a different environment." C006</p>

*Defined by SAMHSA⁸.

Table 2 Professional characteristics.

Participant	Professional role
C001	mental health counselor and facilitator for postpartum depression support groups
C002	neonatal nurse practitioner working with infants with neonatal abstinence syndrome
C003	neonatal nurse practitioner and director of an outpatient patient facility providing care for substance exposed infants and treatment for mothers
C004	registered nurse working on the prenatal and postpartum floors
C005	pediatric social worker working in the neonatal intensive care unit and obstetric floors of a hospital
C006	provider at an MOUD outpatient treatment facility
C009	an investigator at DCS who responds to cases directly from the hospital
C010	a DCS specialist who works with women to reunify with their children
C011	a DCS specialist working in the Family Drug Court Unit with women who have had their children removed due to substance use
C012	a DCS specialist who works with women while managing their open dependency cases
C015	Fellow in maternal and fetal medicine who runs a high-risk pregnancy clinic for perinatal care

DCS, Department of Child Safety; MOUD, medication for opioid use disorder.

one" interaction and try to make this accommodation.

3.3. Physical

The physical DoW centered on nutrition, self-care, mother/infant dyad, and pain management. Some talked about a specific role in their organization that covered this topic- known as a family support specialist. While most participants touched on this dimension, it was also noted that the priority was to engage in a recovery program.

"With my experience with substance use, they have to kind of get themselves in recovery first. They have to get the drugs out of their system before they can start enhancing their health and kind of improving themselves." C009

Once baby is born, the focus shifts to mother's self-care (e.g., exercise, sleep, nutrition) and navigating that as mothers of infants. The focus on self-care is compounded with recognizing what it takes to care for a newborn, not only as new parents, but as a person in recovery.

Participants articulated ways that these physical needs can be managed for both mothers and their child(ren) using coping skills. Once in a stable place with treatment, recovery includes looking at other ways to find enjoyment. This could be getting back in touch with a previous interest, defining or redefining who they are. Lastly, there is a need for health professionals to understand individualized pain management for this population, and the different needs that may be required.

3.4. Occupational

The occupational DoW included elements that fell under employment and activities of daily living (both as a parent and in life generally). First, professionals discussed helping mothers navigate finding employment (e.g., through employment resources or specialists, peer-to-peer recommendations). Participants also noted the importance of helping mothers feel like they can "do it on their own".

"Just a lot of the times they have never had a job. And it's nice to see I have a couple moms right now...they've got employment, they've got their own apartment...telling me that they never thought they could do this on their own without a significant other or without family." C011

Outside of paid employment, participants talked about helping mothers embrace their "job" as a mother. Similarly, participants discussed helping mothers "get a few wins," and targeting areas tangential to employment, like planning and executive functioning. The skill-building described also falls under the intellectual dimension.

3.5. Intellectual

The intellectual DoW included a desire to provide parenting education that is skill building, rather than pejorative. It is also acknowledged that, depending on when interaction occurs, it can be difficult to provide education and skills to new mothers due to postpartum-specific challenges. Participants talked about assessing where parents are in terms of their education, if they want to continue (e.g., getting their GED), next steps of a career path, and being supportive in this process. Emphasis is placed on mothers' future stability, but also as a part of recovery. For some, part of educational attainment includes being encouraged to use their lived experience to work with others as peer support.

"We have a lot of moms that once they get sober and they really start understanding addiction and, seeing the professionals work with them, [they] will recognize that they have the ability to help others as well. So, they'll actually go...to get recovery support specialist training. I have quite a few moms that do that. ..." C011

3.6. Financial

The financial DoW was described in terms of assessing income needs, grants, and connecting mothers with resources. Professionals noted that despite this being a need, there are generally no direct forms of financial support for mothers. While financial assistance was not possible, professionals focused on providing community resources. Yet the referral is not always a straightforward process, and often takes hands-on help, as the resources available can be difficult to access. Yet, when more direct financial assistance is possible, it is contingent on a mother's ability to stay within a recovery program and/or life skillset (e.g., budgeting). There may be housing subsidies available, but only under specific conditions.

"We have housing subsidies if that's the last barrier for the parents. If they've maintained their sobriety, we can help them with housing as long as they've gone out themselves to try to get help. So, if they've

exhausted family members, churches.... But they need to have a plan afterwards how they're going to maintain." C010

3.7. Spiritual

The spiritual DoW showed variety in approach. Participants talked about traditional, organized religion with spiritual support that is dedicated to encouraging this population (e.g., hospital chaplains, recovery groups offered at churches), social reintegration of mindfulness practices, followed by general spirituality defined in different ways. Like therapy, participants identified spirituality as a potential source of support if an individual is part of a belief system. Mothers are encouraged to incorporate this as it works for them.

"We try to from the get-go understand where they're coming from in regards to a spiritual sense—what they believe in, what they look to in regards to inspiration, things like that, and kind of use that as motivational tools to kind of help them through this." C010

It can be a sensitive topic, and while mothers may bring it up themselves, some participants mentioned that talking about spirituality can be a positive deterrent from other heavy conversations in the recovery process.

3.8. Environmental

The environmental DoW included navigating the interpersonal environment or those who are around you, as well as physical space that mothers in recovery occupy. Participants described this as helping those in a recovery program identify what a "healthy" environment looks like. Many participants emphasized "healthy" relationships and described helping mothers facilitate an interpersonal environment that is supportive of this.

"I try to stress that if it's their significant other that's pushing them to continue to use, or contributing to their use, getting them out of that environment and showing them that there is positivity out there and there are positive places. There's places for them to live a clean and sober lifestyle." C009

In addition, professionals emphasized physical space. This largely focused on ensuring that their clients have a safe and welcoming space that supports their recovery (from the hospital and clinics to when they are at home), and to facilitate getting a safe space and equipment if needed (e.g., a place for baby to sleep, a car seat).

4. Discussion

Women who are in recovery from OUD are at high risk for an OUD recurrence postpartum, leading to negative outcomes for both mother and infant (Nawaz et al., 2022; Schiff et al., 2018). We analyzed a sample of professionals' perspectives on how their agencies' programs address the DoW and recovery for postpartum mothers with OUD. Our participants endorsed ways of operationalizing the DoW, with many activities addressing multiple dimensions. Participants described creating an emotionally supportive space where mothers can interact without the stigma of being a "drug user." They also highlighted the importance of emotional and physical postpartum self-care, and empowering mothers to care for themselves and others, including their newborns, through employment, education, and skill building. Acknowledging that mothers' relationships may increase the risk of substance misuse, participants shared methods of encouraging new "healthy" relationships, including exploring faith communities and support groups. These results are the first to map the DoW to the experience of recovery, in particular the recovery of postpartum mothers with OUD, and highlight opportunities for developing additional support within each of the DoW. While we explore the lived-experience and

perspectives of mothers with OUD in a separate analysis (results forthcoming), the responses provided here by our sample of participants provide critical insight into treatment attitudes and procedures propagated by professionals in supporting mothers within the DoW framework.

Understanding the application of DoW gives insight into the service gaps, facilitators, and barriers to recovery that postpartum women face; offering insight into ways that recovery professionals can meet the needs of mothers by focusing on individual DoW, and the DoW as a whole. Our participants acknowledged the need to address the financial domain in particular but feeling a limited ability to do so. As our results illustrate, programs emphasize mothers taking responsibility for supporting themselves and their recovery. While our participants articulated their methods of skill-building, self-advocacy, and empowerment for mothers so they might gain paid employment, they lamented the lack of financial support for mothers who may be struggling in recovery. Also highlighted was the importance of the social domain, noting the importance of supporting mothers in severing harmful relationships and developing healthy relationships. This perspective is reflected in our results, yet as one participant noted, the MOUD clinic may be “their only connection to the outside world.” The results of our qualitative analysis indicate opportunities for enhancing financial support for mothers who need it and programming that facilitates the skills to build healthy relationships. Indeed, utilization of contingency management may be particularly advantageous to this population (Akerman et al., 2015; Peles et al., 2017; Tuten et al., 2012).

Our participants were asked about each DoW one at a time, yet our findings reveal overlap within the DoW. We saw this specifically with the intersection of the Social, Environment, and Physical DoWs. Participants spoke of the need for mothers to have supportive people and environments. Additionally, nonjudgmental approaches surfaced as a subtheme throughout. These have implications for how to approach recovery; it is at the same time each of the DoW, but also about how it all fits together. While our analysis is the first to apply the DoW to the recovery needs of women with OUD, our findings are consistent with the themes revealed in the literature investigating the lived experience of this population and in other contexts. Specifically, our themes under the Social (e.g., support system) and Emotional (e.g., stigma or nonjudgmental approach) DoWs are in line with other qualitative findings from providers that promote and impact postpartum recovery (Martin et al., 2022). Use of the DoW in mental health programs revealed physical, followed by the social dimension as the most frequently cited in a review of the literature (Zechner et al., 2019). Lastly, an infertility treatment program identified themes that map to the DoW framework such as geographic distance, concern of health risks, the emotional toll of treatment, attitudes of its effectiveness, relationships, and social support as barriers and facilitators to care (Whittier Olerich et al., 2019). Our study adds to the literature by going beyond what treatment professionals are typically focused on for this population (e.g., type of drug used, MOUD dose increases), and focuses on whole person recovery within the DoW framework. Current treatment recommendations for mothers with OUD fall under the Physical DoW (MOUD as the standard of care) but fall short of the definition of recovery by SAMHSA. While it is recognized that MOUD is a vital part of the recovery process, especially within the high-risk postpartum period, there are other pieces to recovery that treatment recommendations may not cover adequately.

4.1. Strengths and weaknesses

A strength of this analysis is our purposive sampling method to include a range of professionals who interact with the target population. This is representative of different areas of the recovery process (e.g., professionals who work in the hospital when mother gives birth, outpatient MOUD, department of child services), and therefore is reflective of the lived experience of mothers and the many different time points of interaction with professionals in government and non-

government organizations. Despite our sampling method, our recruitment period coincided with the beginning of the COVID-19 pandemic, which impacted our final sample size. An additional limitation of this data is that it is from the perspective of professionals alone and does not include how women with OUD in recovery would see how these DoW are being addressed (or not). While considered a limitation, the major themes from our findings are consistent with other literature that focuses on the perspectives of professionals (Reese et al., 2021; Syvertsen et al., 2021). Understanding how professionals feel that their agency or role falls under these categories is essential to making recommendations in what may be needed to address these DoW. Finally, the perspectives from our sample are coming from a single state within the US; thus, limiting generalizability. It is likely that the DoWs are applied differently within different healthcare systems; even within a single state, as there can be a range of healthcare systems and different experiences in each.

4.2. Implications and future directions

Many observations from this study highlight the numerous challenges that mothers in recovery face as they are caring for themselves, their recovery (from childbirth as well as managing OUD), and a new infant. We report elsewhere the fragmented approach to recovery (results forthcoming), within an already fragmented healthcare system. There can be limited opportunities for patient-centered holistic care, and while resources may exist for each DoW, the burden falls on women (who are already overwhelmed in both their recovery and being a new mother) to connect those dots. Not all participants endorsed each DoW as a focus for their agency. While depending on their professional role, this may be understandable, it also highlights the gaps within the fractured and siloed system of recovery that women are facing. Recovery, as defined by SAMHSA, includes each DoW, yet if agencies only focus on some of the DoWs, they are falling short. Understanding how professions see DoW in their work is important in how the DoWs are being operationalized. This has significant applied implications as the DoWs may or may not be used as SAMHSA intends. Using the qualitative perspectives from our participants to translate this into the existing infrastructure may lead to a system to adequately address recovery.

Conclusion

Our results indicate that SAMSHA's DoW are somewhat addressed in OUD care during the perinatal period; however, it also provides insight into the service gaps, facilitators, and barriers to recovery that postpartum women face. Revealing the themes associated with the DoW allows for exploring the development of adjunctive behavioral treatment for perinatal OUD, in a pursuit to develop interventions to address these unmet needs and support long-term OUD recovery.

Declaration of Competing Interest

No conflicts declared.

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