



Motivation, Motherhood, and Meaning: Promotion of Perinatal Behavioral Health in Underserved Communities

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INTEGRATED CARE
FOR WOMEN AND BABIES



CAMPHIRE
Colorado Ambulatory Partnership for
Health Innovation and Research Excellence

*don't stop believing
in recovery*

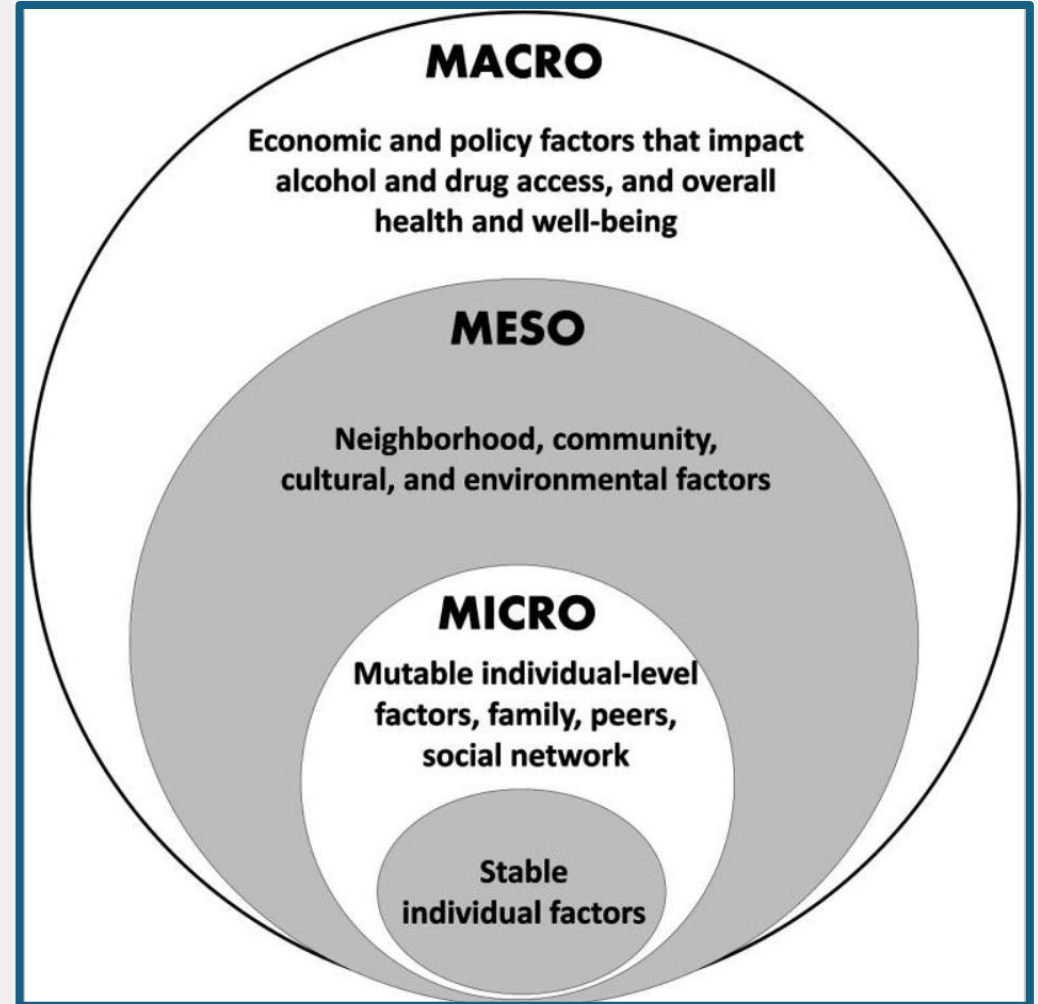
Objectives

- **Describe** how autonomy, competence, and relatedness influence perinatal behavioral health and substance-use trajectories.
- **Explain** why pregnancy and postpartum represent a unique motivational window for behavior change through a self determination theory (SDT) lens.
- **Identify** ways that structural barriers undermine psychological needs in perinatal care.
- **Evaluate** how whole person health strategies can support SDT needs and improve wellbeing among women with perinatal substance use and/or mood disorders.



Perinatal SUD – A Whole Person Health Perspective

- Equitable access to a **full continuum** of physical AND mental health care, substance use disorder (SUD) treatment, and social services that seek to **preserve and support families**^{1, 2}
- Socioecological framework - **complex interplay** between person and environment³
- Integration of Social Determinants of Health (SDoH) into prevention and treatment



Whole Person Health

“An approach that considers multiple dimensions of the patient and their context, including **biological, psychological, social,** and possibly **spiritual and ecological factors,** and addresses these in an **integrated fashion that keeps sight of the whole.**”⁴

“What matters to you?”⁴



Lived Experience of Perinatal Women with SUD

- Scoping review of pregnant/parenting women with SUD⁵

And then I'm, they're helping me find housing as well...I have TANF (temporary assistance for needy families) now. I have my food stamps. I've got WIC... it's been nice having somebody like [case manager] guiding along that path, and going, oh do you need to do this and this? And like kind of bring you back to actual life and helped me realize the things I need to get done"

*"I feel like **community support** is probably one of the best things they could have, because I, with all my other tries at sobriety, I've never felt this much support."*

*"Understand better that **we're still people**. You know that we're not bad people, we're just troubled. **We've been dealt a bad hand** maybe but not all of us are bad..."*

Motivation, Whole Person Health and SUD

Motivation is a result of the **interaction of internal and external influences**

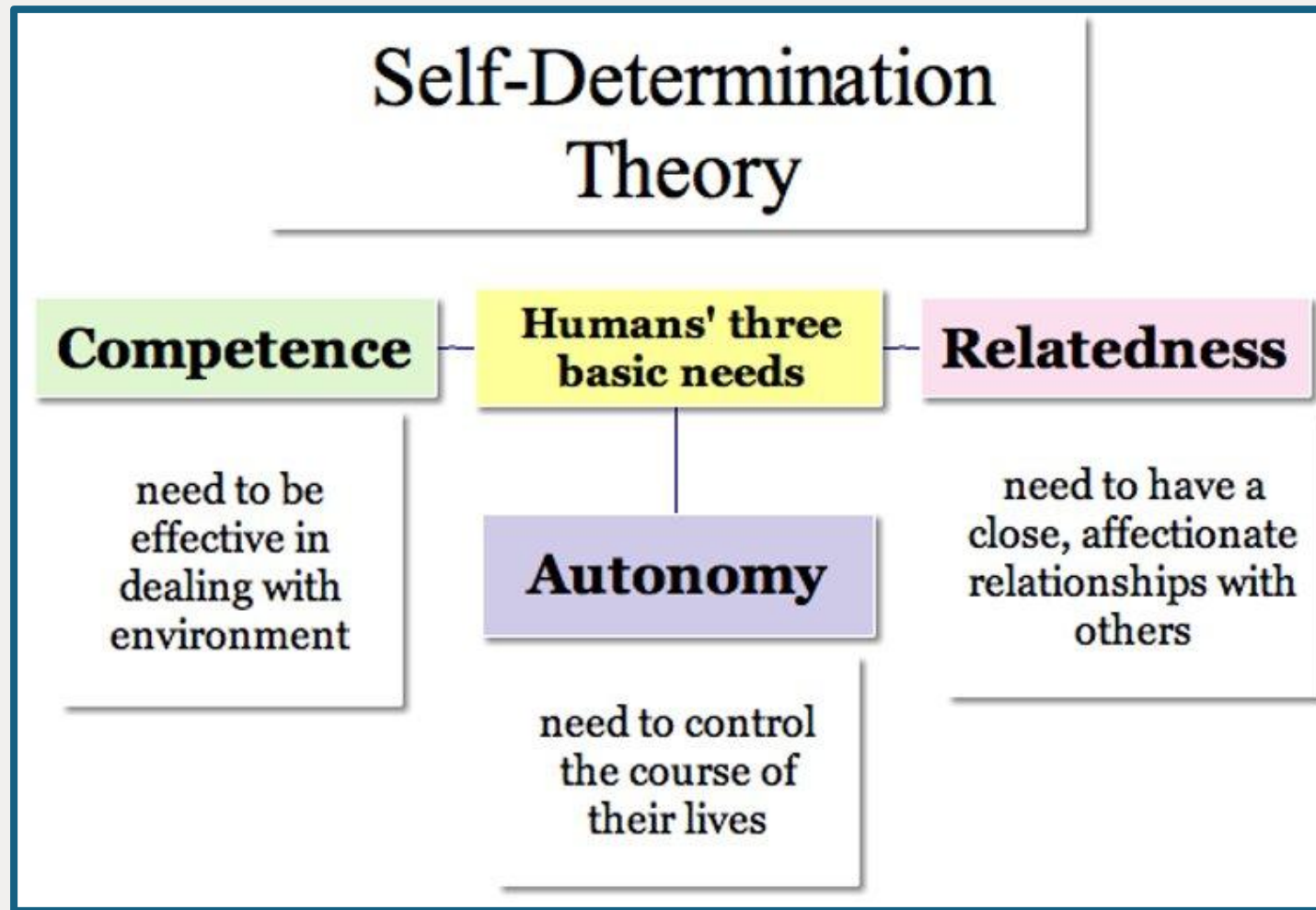
Determines whether individuals **stay connected to care** during the highest-risk period

Prevention and Treatment requires supporting **psychological drivers** of motivation

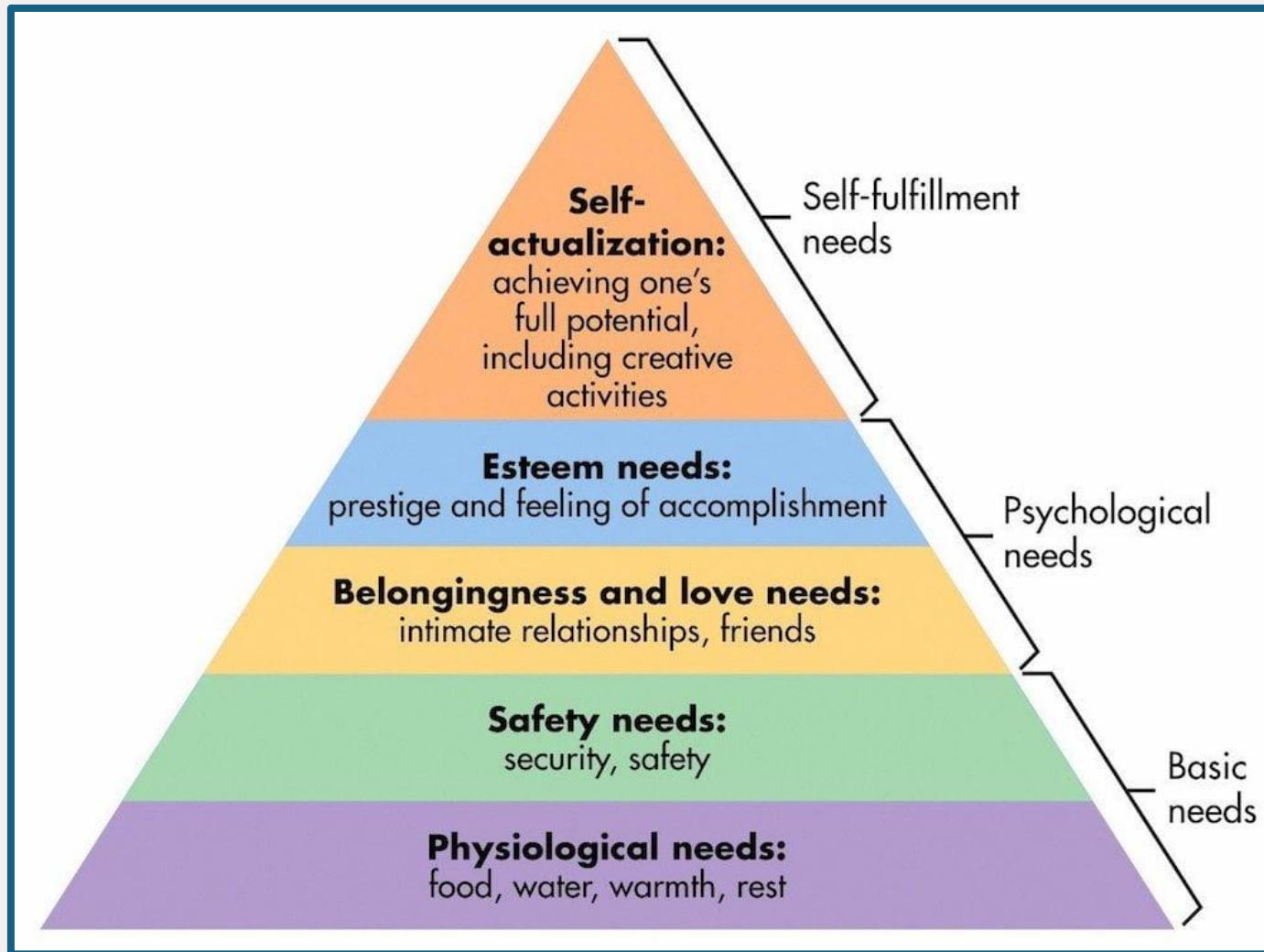
Determines whether individuals **seek care, stay in treatment, and survive**

Shaped by **structural barriers, stigma, mental health comorbidities, and the quality of clinical relationships⁶**

Self Determination Theory⁶



Maslow's Hierarchy and Psychological Needs



Basic Psychological Needs...

- Enhance...
 - Psychological Growth and Well-being⁷
 - Adaptive Coping, Resilience, Pro-Social Behavior⁸
 - Depression, Anxiety, Stress⁹
 - Substance Use – Adherence to Treatment and Relapse⁷
 - Mediates and Moderates associations between low socioeconomic status (SES), mental health, and substance use⁸



How SDT informs SUD prevention and treatment

Provides a
personalized-medicine
lens

- Help to identify **why individuals initiate use** and **what drives progression** to misuse

Prevention

- How to **promote basic psychological needs** to prevent substance use
- **Supports autonomous motivation** to prevent escalation from recreational to harmful use (e.g., harm reduction approaches)

Treatment

- **Helps explain why people seek care**, and **how to enhance persistence, engagement, and retention**

2024 Systematic Review – SDT and SUD

N=38 articles¹⁰

- Application of SDT in non-treatment (k = 16) and treatment (k = 22) settings

SDT constructs consistently predicted both substance misuse and treatment outcomes

Across contexts, SDT helped explain:

- How lack of psychological needs resulted in initiating or escalation of substance use
- What drives treatment-seeking
- How to enhance persistence, engagement, and retention in treatment

Chan et al. Case Study¹¹

- Goal: Application of SDT to understand how one's intrinsic motivation and psychological needs are related to one's drug-taking behavior (n=103 users)
- Extrinsic motivators
 - Outside pressure and control
 - External rewards
- Intrinsic motivators
 - Role of connectedness, belonging, and social support

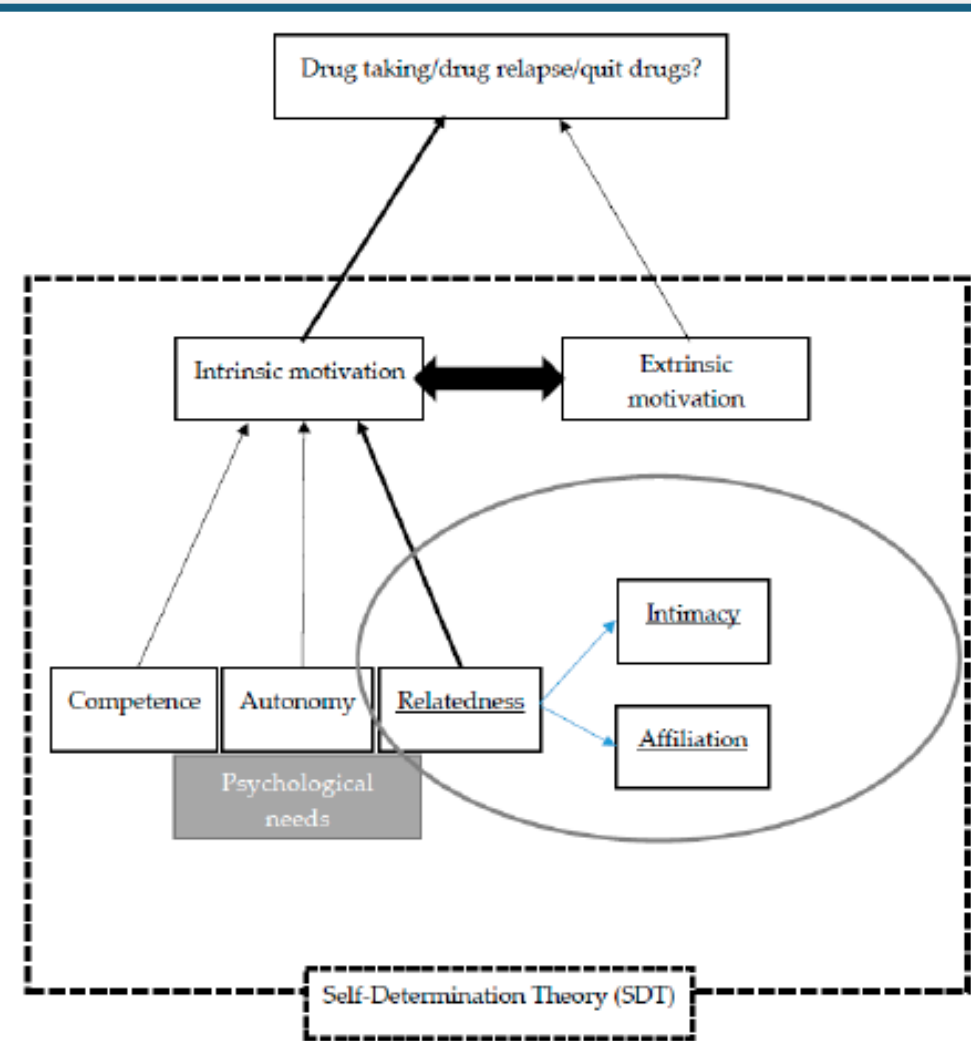


Figure 1. Theoretical framework for thematic analyses.

Table 3. Coding structure of narratives of DATC participants.

Themes	Subthemes
Intrinsic motivation: Competence	Reasons for taking drugs:
	→ Lack of self-worth/confidence/meaning of life
	Reasons for quitting drugs:
→ Regain hope and purpose of life when having concrete life goals	
→ Being able to self-discipline	
Intrinsic motivation: Autonomy	Reasons for taking drugs:
	→ More willing to take drugs than quitting drugs
	Reasons for quitting drugs:
	→ More willing to quit drugs than taking drugs
→ Having understood the negative consequences of taking drugs (e.g., unattractive appearance, hamper the relationship with significant others such as family and friends)	
Intrinsic motivation: Relatedness	Reasons for taking drugs:
	→ Negative emotions (e.g., sad, upset) aroused from the poor relationships (e.g., conflict, lack of communication, generation gap, break-up) with significant others (e.g., parents, spouses)
	→ Drugs as psychological substitutes to seek relief, comfort, and satisfaction
	→ Need for affiliation (e.g., negative peer influence, influence by parents)
	Reasons for quitting drugs:
	→ Receiving care and support (i.e., intimacy) from the significant others
→ Achieving psychological/spiritual sustenance from religion and life goals	



Key Findings and Implications



Extrinsic motivation is not useful for participants and drives them to engage in deviant acts like taking drugs



Significant others as well as a **new lifestyle** with work, **clear life goals**, and **religion** motivated people to stay away from using drugs



Relatedness is Key



Support enhancement of **volition, self-efficacy, and confidence** – leads to intrinsic motivation to quit drugs

Perinatal Period as a Key Motivational Window for Prevention

- Identity transformation → internalized motivation
- Motivation during pregnancy
 - Pregnancy naturally increases **autonomous motivation**
 - Women motivated to participate in interventions to support health of their baby
- Highlights importance of trust building transparency and nonjudgmental care to reinforce health-seeking behaviors



Factors Influencing Substance Use and Recovery in the Perinatal Period¹²

Table 2. Factors Influencing Substance Use and Recovery for Women With Substance Use Disorders in the Perinatal Period.

Descriptive subthemes	Contributing studies
Overarching Synthesis Theme No. 1: External Factors	
1. Infant Care	Boeri et al, ²⁶ Carlson and Kieran, ²⁴ Cleveland and Bonugli, ²⁷ Cleveland et al, ²⁸ Cleveland et al, ²⁹ Constantine et al, ²⁵ Kuo et al, ³⁰ Martin et al, ³¹ Paris et al, ³³ and Rankin et al ³⁵
2. Stigma	Boeri et al, ²⁶ Cleveland and Bonugli, ²⁷ Cleveland et al, ²⁸ Cleveland et al, ²⁹ Kuo et al, ³⁰ Martin et al, ³¹ Morrison et al, ³² Paris et al, ³³ Paterno, ³⁴ and Shadowen et al ³⁸
3. Social Settings Involving Substance Use	Boeri et al, ²⁶ Carlson and Kieran, ²⁴ Cleveland and Bonugli, ²⁷ Cleveland et al, ²⁹ Constantine et al, ²⁵ Kuo et al, ³⁰ Paris et al, ³³ Shadowen et al, ³⁸ and Van Scoyoc et al ³⁹
Overarching Synthesis Theme No. 2: Internal Factors	
4. Internalized Stigma and Mental Health Symptoms	Carlson and Kieran, ²⁴ Cleveland and Bonugli, ²⁷ Cleveland et al, ²⁸ Constantine et al, ²⁵ Kuo et al, ³⁰ Martin et al, ³¹ Rockefeller et al, ³⁷ and Shadowen et al ³⁸
5. Addiction Concerns	Cleveland et al, ²⁹ Cleveland et al, ²⁸ Martin et al, ³¹ Morrison et al, ³² Paris et al, ³³ Renbarger et al, ³⁶ Shadowen et al, ³⁸ and Van Scoyoc et al ³⁹
6. Coping Abilities	Boeri et al, ²⁶ Carlson and Kieran, ²⁴ Cleveland et al, ²⁸ Constantine et al, ²⁵ Martin et al, ³¹ Morrison et al, ³² Paterno, ³⁴ and Shadowen et al ³⁸



SDT in the Perinatal Context



Autonomy

Importance of choice, agency, non-coercive care

Evidence: Autonomy-supportive communication improves perceptions of perinatal care climate



Competence

Skill-building, coping, relapse prevention

Evidence: Competence correlates with perinatal behavioral health outcomes



Relatedness

Peer support, relational care, community models

Evidence: Relatedness predicts perinatal engagement in care, and perinatal behavioral health outcomes

Underserved Communities and Perinatal SUD

Perinatal women with SUD are more often to:¹³

Experience homelessness

Have limited access to social needs resources

Increased exposure to stressful live events

Histories of trauma



Half of the birthing people referred to child protective services for maternal substance use have four or more ACEs¹⁴

Raises concerns about intergenerational trauma



Social Determinants of Health (SDoH)

Need to broaden the scope of care to encompass the SDoH

Minimize risk factors and promote health and wellbeing across the life course

Perinatal SUD, SDT and Underserved Women^{15,8}

Structural Barrier	Unmet SDT Need	Behavioral Impact
Stigma & judgmental care	Relatedness, Autonomy	Reduced disclosure, disengagement from care
Barriers to access	Competence, Autonomy	Delayed treatment, higher morbidity
Fear of child welfare	Autonomy	Avoidance of prenatal care
Fragmented systems	Relatedness	Loss of trust, inconsistent support
Lack of trauma-informed care	All three needs	Higher stress, relapse risk



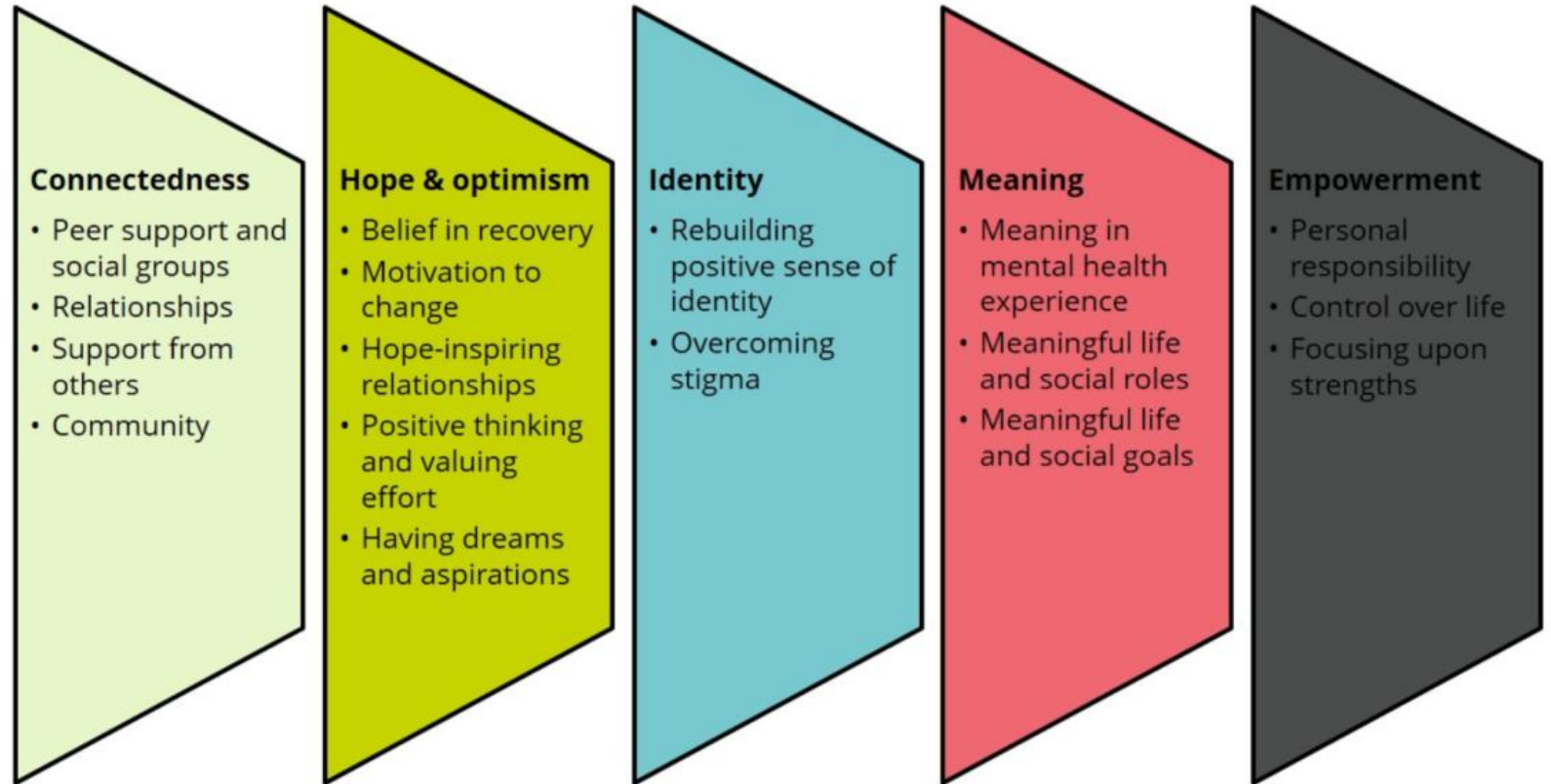
Low-SES Perinatal Women and Psychological Needs Satisfaction

- SDT research shows that **supportive contexts** can **maintain need satisfaction even under structural disadvantage**^{15, 8}
- Favorable **structural conditions** → **higher need satisfaction** → **better wellbeing**
- **Basic psychological needs function as a buffer**
- **Low SES + punitive, stigmatizing systems** → high need frustration → more distress, avoidance of care, and greater reliance on substances as coping
- **Low SES + need-supportive environments** → higher need satisfaction → more intrinsic motivation for prevention and recovery, better mental health, and lower SUD risk

SDT-focused Whole Person Health Strategies for Prevention and Treatment of SUD among Underserved Perinatal Populations

The CHIME Framework¹⁶

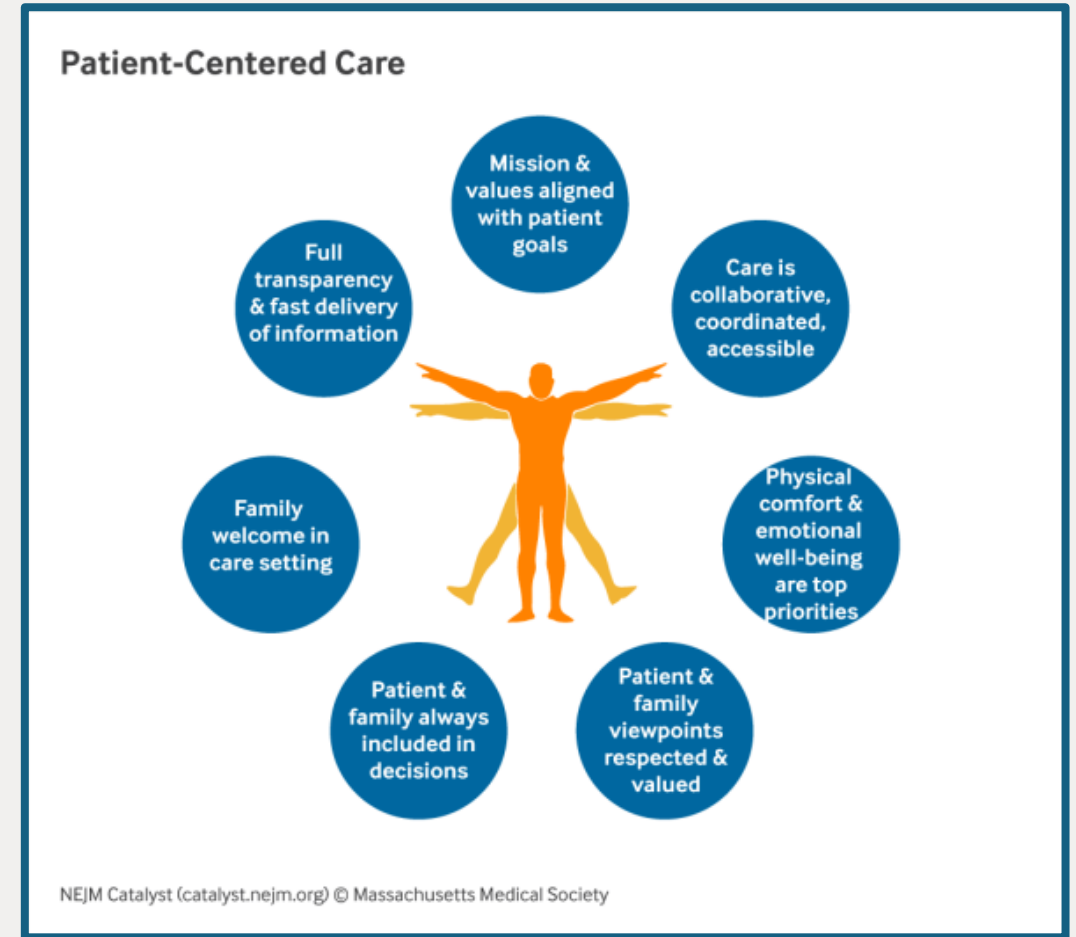
The CHIME framework for personal recovery



Leamy et al. 2011

1. Autonomy-Supported Care Models ¹⁷

- Non-punitive, trauma-informed, shared decision-making in perinatal SUD care
 - Reduces fear, increases trust and engagement
- Emphasizes choice, non-controlling feedback, and clear rationales
 - Motivational Interviewing
- Autonomy-supportive environments associated with:
 - Lower levels of substance use
 - Greater internalization of health-promoting behaviors



Example: Community-based Doula Recovery Programs

- **Philadelphia Department of Public Health Community Doula Support Program (CDSP)¹⁸**
 - Continuous Doula care through 12-months postpartum
 - Lactation Education and NICU support
 - Advocacy and support at all medical appointments
 - Monthly Supplies
 - Referrals
- **University of Colorado Recovery Coach Doula Program¹⁹**
 - Doula care + peer recovery coaching
 - Doulas are people with lived experience of SUD provide:
 - Emotional and physical support, advocacy, help identifying goals and building recovery plans, Connection to community resources
- Advocacy Improves Clinical Care
- Reduced Stigma & Improved Trust



2. Collaborative, Community-based Recovery Models

- Perinatal SUD collaborative care combines medications, social services, and non-judgmental, sustained support²⁰
- **Example: Substance Use Navigator (SUN) Program**²¹
 - A community-based, cross-sector perinatal SUD collaborative care model in North Carolina
 - Integrates healthcare, public health, and social services, including child welfare, housing, and family support
 - Uses a trauma-informed, multidisciplinary team
 - Provides rapid access to perinatal SUD treatment
- **Outcomes**
 - 94% treatment adherence among participants
 - 87% of infants born at term overall
 - 100% term births among those who enrolled in the first trimester
 - Non-judgmental, sustained support as critical to recovery



3. Peer Support Programs

- Supportive relationships buffer stress, enhance coping, and promote psychological safety
- Community-based peer support improves²¹
 - Validation
 - Self-acceptance
 - Coping skills
 - Social connection
- Integrated SUD + maternal support groups sustain care engagement, accountability, and a sense of community²²
- Perceived relatedness to treatment providers is significant predictor of sustained abstinence and continued engagement in care²²



Example: Project NURTURE²⁴

- Integrated program for perinatal women with SUD
- Provides maternity care, peer support, SUD treatment, and social-service coordination in one setting
- **Structure:**
 - Weekly peer-support group co-led by an addiction counselor and social worker
 - Ob-Gyn physician onsite to provide prenatal/postpartum care and manage SUD medications
 - Paid peer mentor with lived experience offers ongoing support
 - No fixed curriculum
 - Flexible attendance
- **Outcomes:**
 - Reduced child maltreatment
 - Lower rates of foster-care placement for infants
 - Increased prenatal care engagement
 - Addresses major barriers to care for underserved perinatal populations

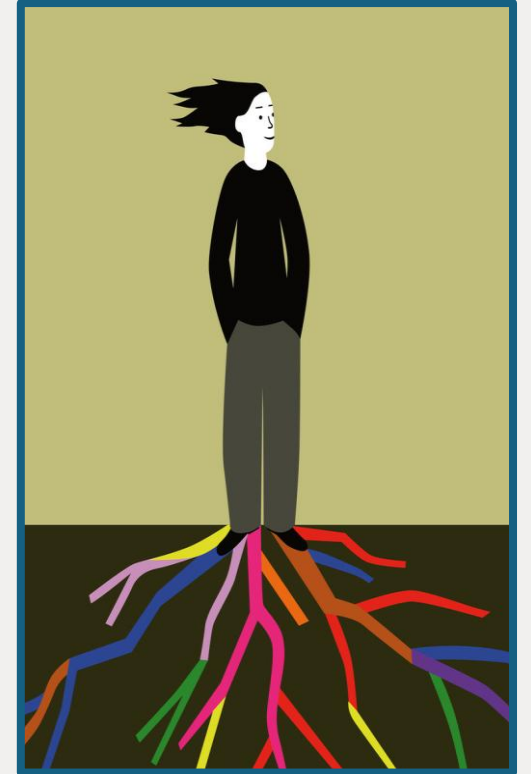


4. Didactic and Family Centered Interventions

- Programs that promote parental well-being: reflective parenting, emotion regulation, and mother–child bonding ^{25,26}
 - Directly influence competence and relatedness
 - Attachment-oriented approaches
 - Recognize the dual impact of SUD and maternal mental health symptoms on parenting practices and child health and development
- **Example:** Building Resilience through Intervention: Growing Healthier Together (BRIGHT)²⁷
 - Child-Parent Psychotherapy and attachment-informed parenting interventions
 - Mother-child dyadic techniques to improve maternal reflective functioning, mother-child attachment, and child social-emotional development, and to reduce child maltreatment
- Cultivates intrinsic motivation – focus on health of child

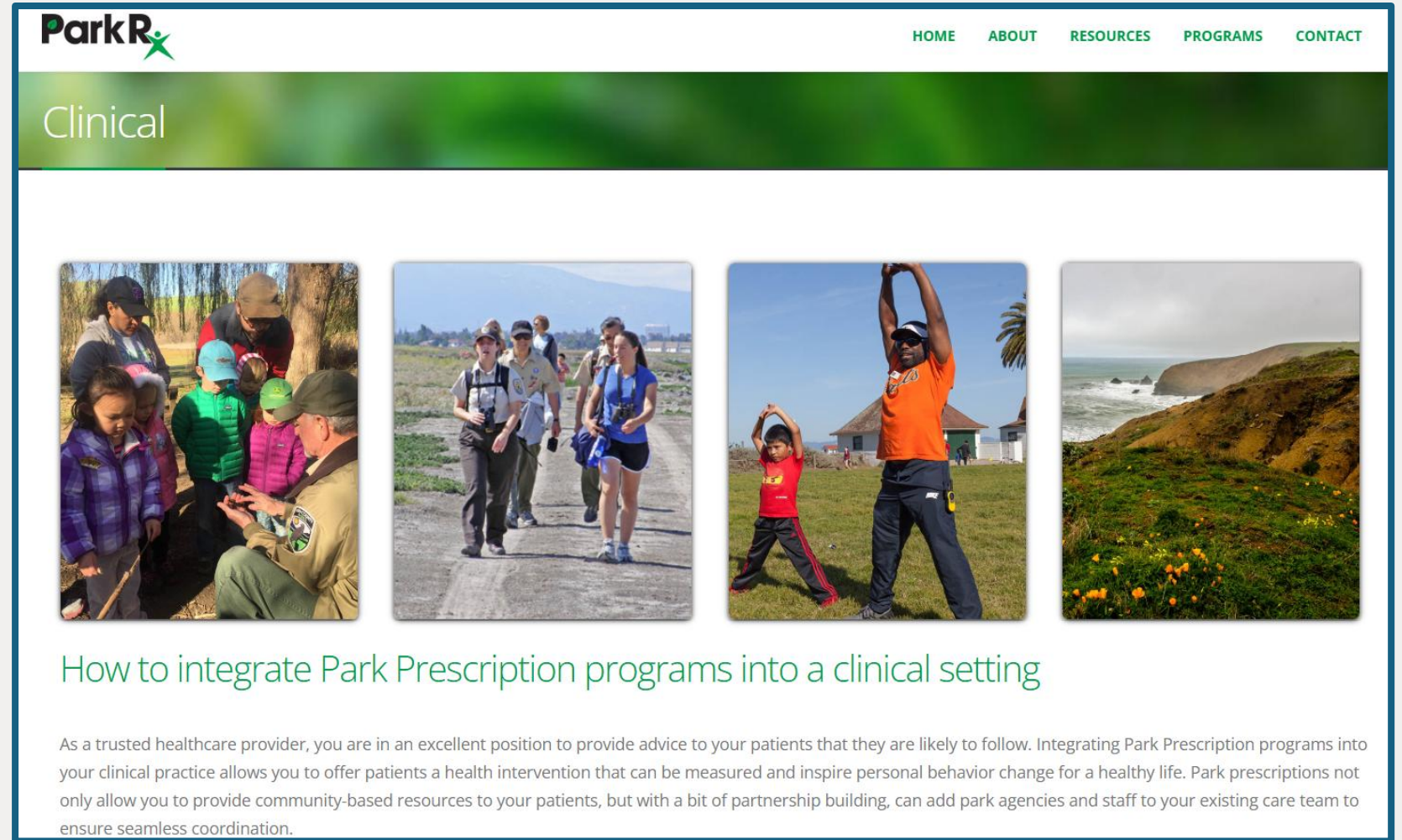
5. Non-Pharmacological, Strengths-based Interventions

- Prevention strategies that target whole person health; can also be used as adjuncts to conventional SUD treatment
- **Example: Nature-based Therapeutic Approaches (NBIs)²⁸**
 - A review of 14 systematic/meta-analytic reviews
 - Improved mental health, reduced distress, enhanced wellbeing, decreased SUD
- **Systematic Review of NBIs and SUD = 21 articles²⁹**
 - NBIs resulted in:
 - Stress reduction & emotion regulation
 - Reduced cravings and reactivity
 - Increased self-efficacy and agency
 - Meaning, identity, and future orientation
 - Social connection and group cohesion
 - Safe, non-stigmatizing therapeutic environments



Nature Prescriptions and Perinatal SUD

- Park Rx America
 - Health care or social service provider
 - Writes prescription of patients to spend time in nature
 - Prevention or Treatment focus
 - Complimentary to other interventions



ParkRx HOME ABOUT RESOURCES PROGRAMS CONTACT

Clinical

How to integrate Park Prescription programs into a clinical setting

As a trusted healthcare provider, you are in an excellent position to provide advice to your patients that they are likely to follow. Integrating Park Prescription programs into your clinical practice allows you to offer patients a health intervention that can be measured and inspire personal behavior change for a healthy life. Park prescriptions not only allow you to provide community-based resources to your patients, but with a bit of partnership building, can add park agencies and staff to your existing care team to ensure seamless coordination.

NBIs and Basic Psychological Needs

- Autonomy
 - Self-paced exploration, sensory choice, co-designed programs
 - NBIs allow participants to choose activities, pace, and level of challenge - supports a sense of self-direction and ownership over goals
- Competence
 - Emotional regulation, mastery experiences, nature-based coping skills
 - Mastery experiences such as completing hikes, learning outdoor skills, or caring for plants build self-efficacy - offers non-drug sources of accomplishment and “natural highs”
- Relatedness
 - Group-based NBIs, mother-infant bonding, social cohesion
 - Group-based NBIs (forest bathing, group hikes, community gardening) foster peer connection, shared challenge, and mutual support, which can counter isolation and stigma

I started realizing I didn't need substances to feel something real.”

“When I felt stressed before, I'd use. Now I go outside instead.”

The environment gives me hope - I feel like I'm rebuilding myself.” I'm stronger than I thought”

“Out here, you realize you're not the only one messed up. Everyone's carrying something, and that makes it easier to stay clean.”

Psychological needs fulfillment and perinatal well-being among low-SES individuals: a mixed methods investigation

Alison F. Gammons, Charlotte V. Farewell , Chelsea Walker-Mao, Emma Ubriaco & Jenn A. Leiferman

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- MORE Study (481 low-SES perinatal women)
- Prospective mixed methods cohort study
- 23 low-SES pregnant individuals completed surveys and interviews³⁰
- Interviewed to identify multi-level resources that supported their well-being
- Heat map of resources associated with basic psychological needs by well-being tertile

	Low well-being (n=6)	Average well-being (n=11)	High well-being (n=6)
Autonomy			
Mindfulness ^p			
Excitement ^p			
Intended pregnancy ^p			
Competence			
Perinatal-related knowledge ^p			
Relatedness			
Emotional support ^s			
Informational support ^s			
Friend support ^s			
Social capital: Bridging ^c			
Social capital: Bonding ^s			
Connection to outdoors/nature ^c			
^p Psychological-level resource			
^s Social-level resource			
^c Community-level resource			



Implications for Prevention and Treatment of Underserved Perinatal Women with SUD: Whole Person Health Models

Autonomy-Supportive Care Models

- Community-based Recovery Doula Programs

Collaborative Community-Based Models

- SUN Program

Peer Support Models

- Project REACH

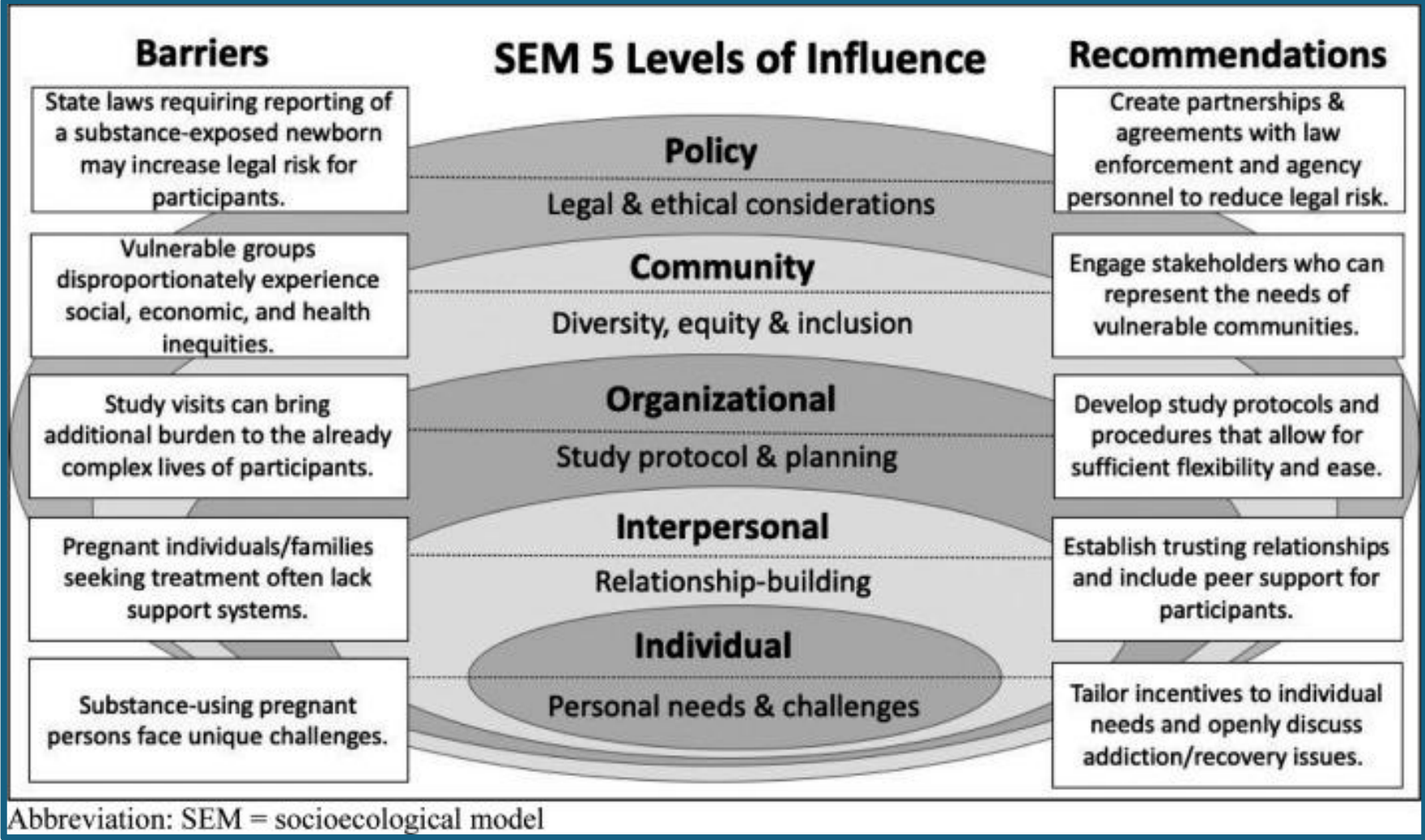
Family-Centered Interventions

- Project BRIGHT

Non-Pharmacological, Strengths-based Interventions

- Park Rx, Forest Bathing and Forest Therapy

Research Recommendations – Underserved Perinatal Populations³¹



Conclusions



Motivation is a critical indicator of SUD and consists of both internal and external influences



SDT provides a powerful framework for **understanding and improving** perinatal behavioral health among underserved communities



A Whole Person Health lens is needed to develop strategies that promote basic psychological needs



Integrating SDT-focused prevention and treatment strategies into perinatal care can **reduce disparities and improve behavioral health outcomes**





Thank you!

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