HEALTH & HUMAN SCIENCES
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Center *for* Addiction Recovery Research

The Application of the Theoretical Domains Framework on Substance Use Services: A Scoping Review

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Disclosure Statement

I have no actual or potential conflict of interest to disclose for this presentation.

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Background

Studies show that it takes 17 years for research evidence to benefit patients and improve dissemination efficiency (Balas & Boren, 2000).

EBP training implementation and consultation cost ranges from $ 600 to over $14000 (Okamura et al., 2018).

Learning EBP also does not guarantee its adoption, or its implementation once ineffective interventions are removed (Wilson & Kislov, 2022).

Donors can simply ‘buy’ a set of specific health outcomes if they pay for a certain set of evidence-based interventions.

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Implementation Science

- The study of methods to systematically promote the uptake of research findings and other EBPs into routine practice (Eccles & Mittman, 2006) through deliberate and purposive personal, professional, and organizational behavioral changes (Wilson & Kislov, 2022).
- Substance abuse research has been marginally represented (McGovern et al., 2013) in Implementation Science research.

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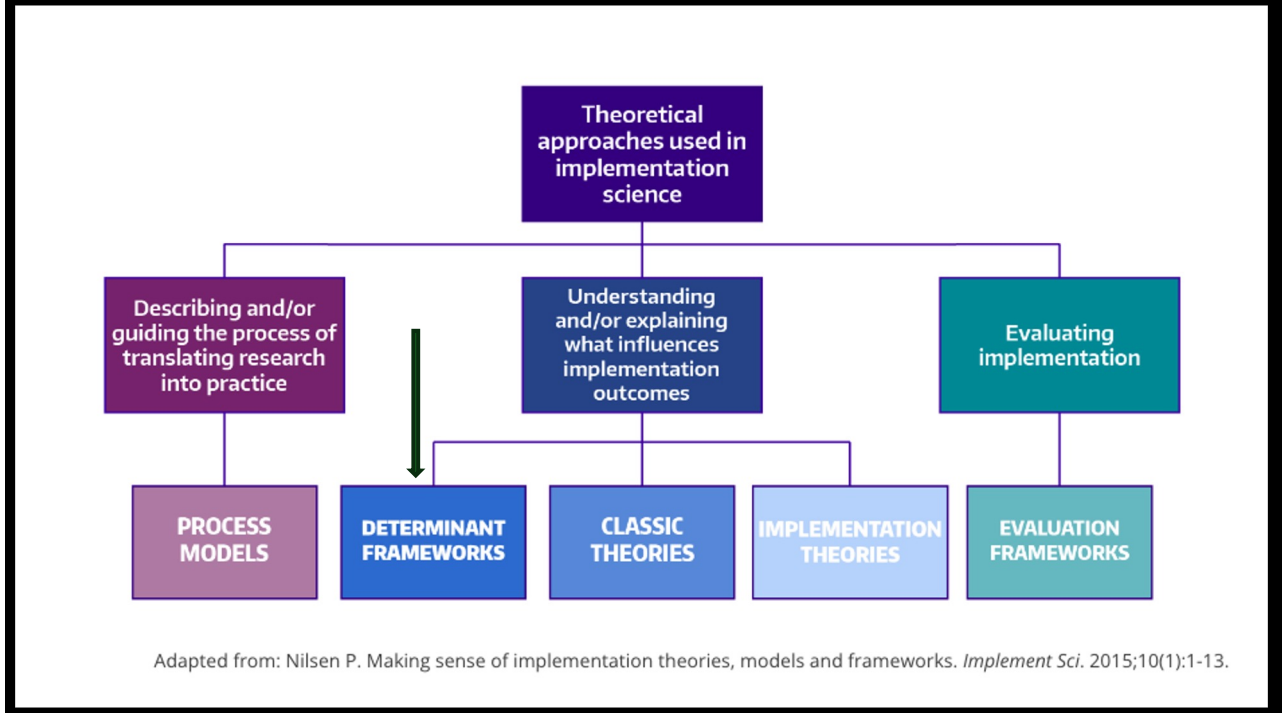
Implementation Science

- Efforts to minimize the trial-and-error approach.
- Theoretical Domains Framework (Michie et al., 2005 ; Cane et al., 2012) is a comprehensive scope simultaneously accounts for individual, environmental, and social influences on behaviors (Francis et al., 2012; Leece et al., 2019) not commonly accounted for by other frameworks.



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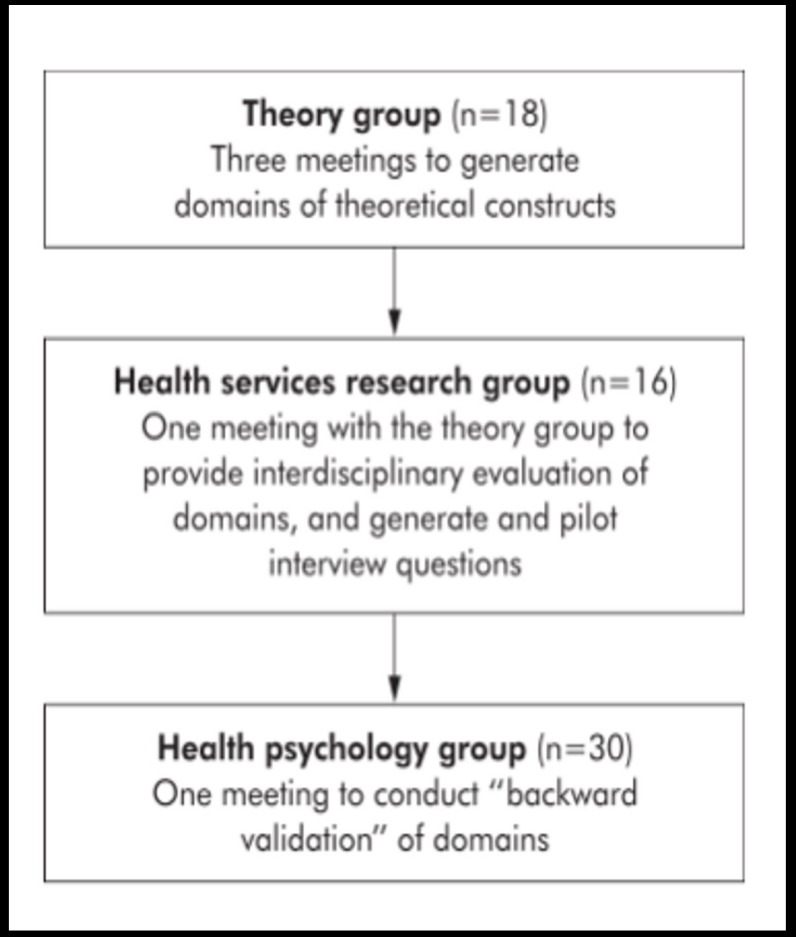
Theoretical Domains Framework



(Michie et al., 2005 ; Cane et al., 2012)

knowledge	skills	social/ professional role and identity
beliefs about capabilities	beliefs about consequences	motivation and goals
memory, attention and decision processes	environmental context and resources	social influence
emotion regulation	behavioral regulation	nature of the behavior
optimism	reinforcement	intentions

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Methods

- Search Words: “Theoretical Domains Framework” OR “TDF” AND substance use OR substance abuse OR substance dependence OR substance use disorders OR addiction OR alcohol use OR alcohol abuse OR alcohol dependence OR alcohol use disorders OR alcohol addiction OR opioid use OR opioid abuse OR opioid dependence OR opioid use disorders OR opioid addiction OR opiate use OR opiate abuse OR opiate dependence OR opiate use disorders OR opiate addiction OR heroin use OR heroin abuse OR heroin dependence OR heroin use disorders OR heroin addiction OR methadone use OR methadone abuse OR methadone dependence OR methadone use disorders OR methadone addiction OR cannabis use OR cannabis abuse OR cannabis dependence OR cannabis use disorders OR cannabis addiction OR marijuana use OR marijuana abuse OR marijuana dependence OR marijuana use disorders OR marijuana addiction OR amphetamine use OR amphetamine abuse OR amphetamine dependence OR amphetamine use disorders OR amphetamine addiction OR methamphetamine use OR methamphetamine abuse OR methamphetamine dependence OR methamphetamine use disorders OR methamphetamine addiction

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Methods

- Database: Scopus, Academic Search Complete, American Psychological Association (APA) Psych Info, Psychology and Behavioral Sciences, APA Psych Articles, Vocational and Career Collection, Soc Index, Gender Studies, Family Studies, and Health and Psychosocial Instruments
- Eligibility Criteria: used TDF to inform data collection and/or analysis; relevant to substance use services such as screening, assessment, interventions, or treatment of varied drugs including alcohol and nicotine; published from 2005; published in English
- Study Selection: 2 independent reviewers; 87.82%; Inter-rater agreement in the first round; consensus discussion for disagreements

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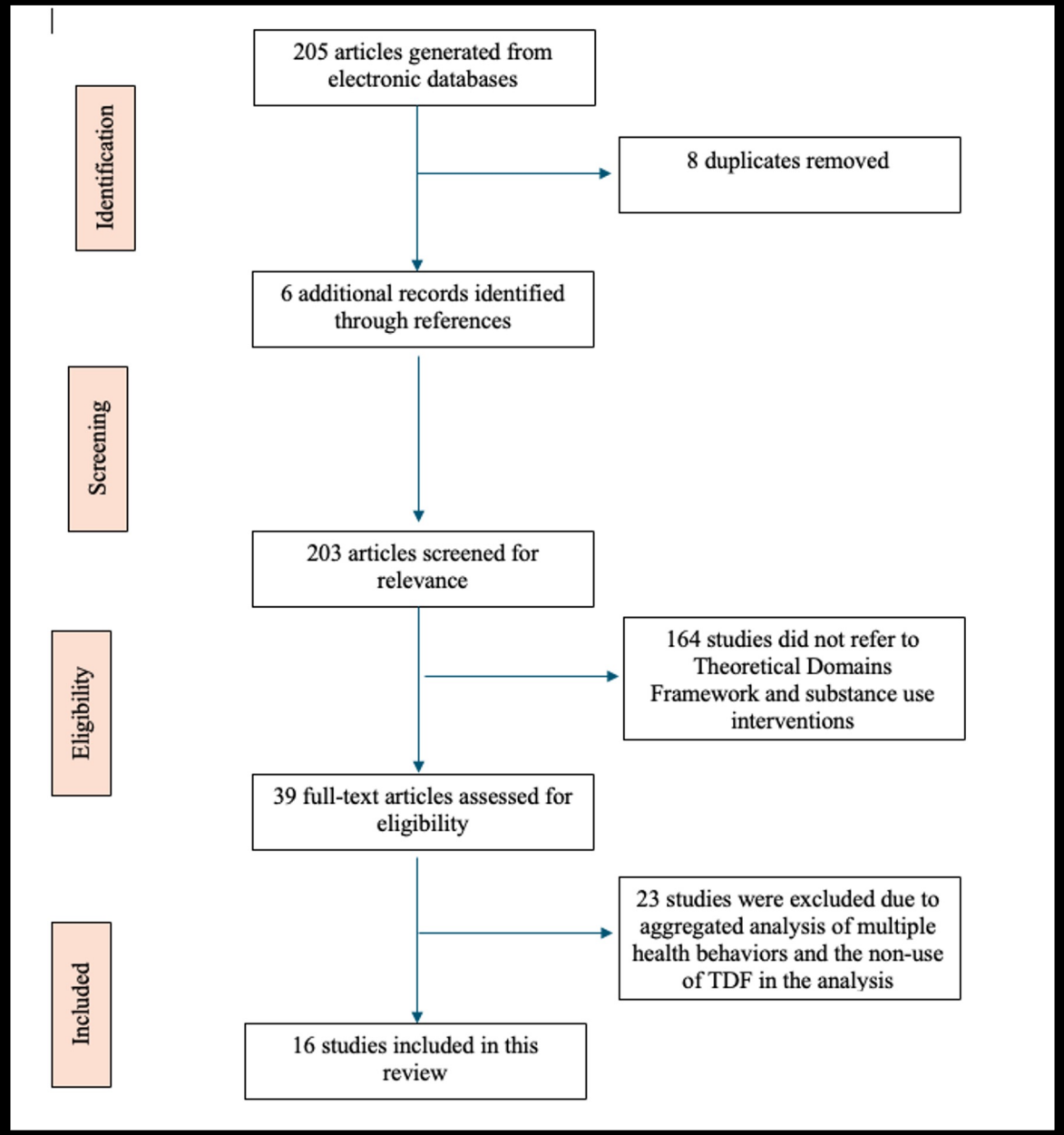
Results



First Author	Year	Country	Population and Sample size	Study Aim	Data Gathering Methods
Bar-Zeev, Y.	2019	Australia	General Practitioners (n = 19)	Explore the perceptions and attitudes of General Practitioners consulting with pregnant women who smoke, and enablers to better manage smoking in pregnancy.	Interview
Begum, S.	2019	United Kingdom	Khat Users (n = 10) Health Care Practitioners (n = 3)	Identify the key barriers and facilitators of quitting khat from the user's perspective and health care professionals.	Interview
Clinton-McHarg, T.	2022	Australia	Staff of community managed organization (n = 190)	Identify potential barriers to providing elements of preventive care to address health risk behaviors in people with mental health conditions.	Survey
Doherty, E.	2020	Australia	Managers of antenatal services (n = 8) Antenatal clinicians (n = 33)	Assess barriers to the implementation of guidelines for addressing maternal alcohol consumption among clinicians and managers.	Survey

First Author	Year	Country	Population and Sample size	Study Aim	Data Gathering Methods
Fagan, M. J.	2021	Canada	Patients in residential treatment center (*n* = 15)	Explore the acceptability and use of exercise for individuals receiving addiction treatment in a residential facility	Interview
Fontaine, G.	2024	Canada	Clients (*n* = 15) Peer workers, Prevention officers, Street workers or Program coordinators (*n* = 12)	Explore the barriers and enablers to point-of-care Hepatitis-C Virus testing in a needle and syringe program.	Interview
Herbec, A.	2018	United Kingdom	Smokers and Ex-Smokers who used Nicotine Replacement Therapy (*n* = 16)	Understand suboptimal use of nicotine replacement therapy	Interview
Knowles, N.	2024	United Kingdom	Midwives (*n* = 7)	Identify factors influencing midwives' conversations about smoking, and referral to specialist smoking cessation services.	Interview

First Author	Year	Country	Population and Sample size	Study Aim	Data Gathering Methods
Longman, J.	2018	Australia	Maternity service mangers, obstetricians, midwives (*n* = 27)	Explore the enablers and barriers to implementation of the Australian antenatal smoking cessation guidelines.	Interview
Nolan, J.	2023	United Kingdom	Secondary School Teachers (*n* = 10)	Identify the barriers and enablers to teacher delivery of the alcohol prevention program in secondary schools.	Interview
Oluwoye, O.	2021	United States of America	Mental Health Providers in Coordinated Specialty Care (*n* = 24)	Identify barriers and facilitators in addressing substance use within the practice context of coordinated specialty care programs for first episode psychosis.	Focus Group Discussion
Passey, M. E.	2020	Australia	Midwives (*n* = 150)	Examine the association between midwives' self-reported barriers and enablers for smoking cessation program.	Survey

First Author	Year	Country	Population and Sample size	Study Aim	Data Gathering Methods
Rosário, F.	2022	Portugal	Nurses and Doctors (*n* = 164)	Compare differences between intervention & control groups concerning perceived barriers of alcohol screening and brief intervention to implementation among staff of primary health care practices.	Survey
Schoenfeld, E.	2022	United States of America	Emergency Department Clinician (*n* = 25)	Exploration of barriers and facilitators to the utilization of buprenorphine for treatment of emergency department patients with Opioid Use Disorders	Interview
Smith, L.	2021	United Kingdom	Midwives (*n* = 842)	Determine midwives' knowledge of the guidelines for pregnancy alcohol assessment and advice.; and to identify potential barriers and enablers.	Survey
Wearn, A.,	2021	United Kingdom	Health Professionals (*n* = 10)	Identify factors which influenced healthcare professionals' implementation behavior of smoking cessation project	Interview

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Theoretical Domains Framework

- The most cited barriers and facilitators are knowledge (*n* = 10, 63%), environmental context and resources (*n* = 10, 63%), social influences (*n* = 9, 56%), and social and professional identity (*n* = 8, 50%).
- Beliefs about consequences (*n* = 7, 44%) and skills (*n* = 4, 25%) are simultaneously identified as both barriers and facilitators.
- Behavioral regulations (*n* = 2, 13%) are only noted as a barrier.
- Motivation and goals (*n* = 4, 25%) center on facilitators.
- All domains, except intentions, were explored.

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Theoretical Domains Framework

Knowledge (*n* = 10, 63%), skills (*n* = 4, 25%), social and professional identity (*n* = 8, 50%), and beliefs on capabilities (*n* = 7, 44%) center on intrapersonal responses .

Optimism (*n* = 2, 13%) and memory, attention, and decision process (*n* = 3, 19%)are highly influenced by the perception of clients and institutions.

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Facilitators of EBP Implementation

Social/professional roles and identity	• Providers acknowledge the importance of their work and remain highly committed to the field.
Social influences	• Supportive colleagues, active collaboration, and the presence of advocates.
Knowledge	• Providers' comprehensive knowledge of the harms caused by substances and the benefits of stopping them

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Facilitators of EBP Implementation

Beliefs about consequences	• Ability to reduce harm and confidence in their programs
Reinforcement	• Tangible rewards at the launch of a new intervention promote staff buy-in. • Feedback and learning clients' outcomes
Environmental context and resources	• Utilization of technology • Strategies that are responsive to the recipients' needs, such as classroom delivery, accessible testing, and integrated services

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Barriers to EBP Implementation

Environmental context and resources

- Time constraint is the most cited reason for not implementing EBPs
- Conflicting priorities
- System issues such as billing, cost, and non-automated processes

Social influences

- Normalized use of substances makes for a difficult conversation.
- Stigma from health care providers and the community, especially for women, is also a salient theme.

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Barriers to EBP Implementation

Knowledge

- Unfamiliarity with emerging concepts, procedures, or processes.

Belief about capabilities

- Highly influenced by external factors such as clients' motivation and previous attempts to quit.

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Barriers & Facilitators

Social influences

- Rapport builds trust and facilitates conversation, but at the same time, makes it more challenging to raise the issue of substance use.

Belief about capabilities

- Providers are wary of delivering messages of cessation of use, which might offend the clients. Acceptance of cutting down is a way to maintain a good relationship.

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Barriers & Facilitators

Professional identity

- Service provisions are hindered by a lack of role clarity despite commitments to take action.

Optimism

- Struggle upon seeing harmful consequences despite the efforts invested.

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Discussion

Access to evidence-based practices in substance use prevention and treatment programs remains to be challenged despite systematic efforts towards dissemination.

TDF provides inclusive, substantial coverage (Francis et al., 2012) that responds to the need for a theory-driven method for health behavior change interventions (Davis et al., 2015).

TDF in addiction studies is mostly used as a basis for understanding healthcare practitioners' behaviors in implementing smoking cessation programs and/or interventions involving maternal health care .

Discussion

TDF's comprehensive approach covers themes such as stigma (Begum et al., 2019; Fontaine et al., 2024; Schoenfeld et al., 2022; negative emotions and perceptions (Dyson et al., 2011; Lynch et al., 2022), and even religion (Begum et al., 2019) that are not captured by other frameworks (Chan et al., 2021).

Discussion

The extensive scope of TDF makes it difficult to address all domains (Dyson et al., 2011).

To achieve the goal of TDF to promote behavior change theories, there is a further need for guidelines in its operationalization (Mosavianpour et al., 2016).

Recurring themes are assigned in different domains, *i.e.,* time constraints in resources and attention and decision processing.

Social influences also lack clarity in viewpoint, wherein health care practitioners are responding from both their and the client's perspectives.

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Limitations

The search term Theoretical Domains Framework was first used in 2009 (Francis et al., 2009), which might have excluded some papers.

Small sample sizes

Five countries as research locales

Unstandardized measurements

Things to Consider

- Most studies focus on barriers, and there is little information on the facilitators.
- Studies are limited to primary healthcare settings with a focus on legal substances and not addiction-specific facilities.
- There are instances wherein the implementation of EBP in high-income countries did not produce the target result in LMIC (Yamey & Feachem, 2011).
- The lack of diversity in research settings fails to account for cultural models, which explain between 25 and 50% of the variance in health-related practices (Borg, 2014).

Thank you!

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