Received: 9 May 2024 | Accepted: 15 May 2024

DOI: 10.1111/add.16579

COMMENTARY

ADDICTION SSA

Contingency management needs implementation science

Khazonov et al. offer recommendations to address one of the greatest research-to-practice gaps of our time: the gap between the evidence for contingency management and patients' ability to access it. Achieving the authors' mission requires using rigorous methods of implementation science.

The gap between the evidence for contingency management (CM) and patients' ability to access it is so dire that, in Fall of 2021, the *New York Times* ran an article titled, 'This addiction treatment works. Why is it so underused?' The article elucidated the myriad of barriers that limit widespread access to CM in the United States including (but not limited to) insufficient funding, restrictive federal policies and provider attitudes/stigma. Readers of the article were left asking one of the most pressing public health questions of our time: 'How do we close the gap?'

Khazanov *et al.* [1] articulate a set of recommendations to answer this very question. Specifically, the authors recommend modifying CM protocols to align with harm reduction goals, investing in research on virtual CM delivery, incentivizing CM delivery for health providers and systems, removing obstacles to point-of-care testing, employing direct-to-consumer marketing to increase awareness of CM and adapting CM protocols to be culturally responsive. These recommendations are grounded in the authors' extensive expertise as clinical researchers, clinicians, advocates and leaders of the nation's largest CM implementation initiatives [2–4]. In addition to the authors' expert viewpoint, a major strength of the article is the consideration of levers of change at multiple levels such as the policies that influence CM, the health professionals and systems who deliver it and the intervention itself. However, the article also has a notable omission—it does not situate the authors' recommendations in the robust field of implementation science.

In lay terms, implementation science is the study of methods to equitably and intentionally bridge the gap between what we know (public health/medical knowledge) and what we do (public health/medical practice) [5]. The field of implementation science emerged in response to recognition that the typical clinical research enterprise has minimal benefits for patients; indeed, an oft-cited statistic is that it takes 17 years to translate only 14% of research into patient benefit [6]. Implementation science aims to generate translatable methods that can be used across patient populations, settings and interventions to accelerate the uptake of effective health services. In the case of CM, only a handful of teams have led large-scale implementation initiatives, leaving us limited access to expert knowledge. Fortunately, we already know a great deal about how to effectively implement behavioral interventions from the implementation science literature [7, 8].

The Implementation Research Logic Model (IRLM) [9] can help CM researchers and practitioners to think through components of a CM implementation effort, all of which are rooted in strong partner engagement. Four key components of the IRLM include: (a) the innovation—the specific CM model being implemented; (b) contextual determinants—barriers and facilitators, that is, conditions that make it harder or easier to implement CM [10]; (c) implementation strategies—specific actions taken to help organizations or health systems to implement CM [11]; and (d) implementation outcomes—specific measures of CM implementation success [12]. Khazanov *et al.* [1] focus predominantly on components (a) and (b). They consider how to optimize CM (e.g. rethinking design parameters, enabling virtual delivery and cultural adaptation) and how to remove barriers to CM (e.g. making point-of-care tests easier to obtain, making CM reimbursable and eliminating restrictions on incentives). They also suggest using direct-to-consumer marketing strategies to increase demand for CM. This latter approach is well-supported conceptually [13, 14], but unlikely to live up to its full potential unless there is sufficient supply of CM in community and clinical settings.

Taken together, Khazanov *et al.*'s [1] suggestions (summarized in their Table 1) are arguably necessary but not sufficient. To bring CM to scale, it is essential that we prioritize and invest in research on components (c) and (d). In addition to optimizing the design of CM and removing barriers, we need to learn *how* to implement CM in resource-constrained organizations and health systems. We need to design, specify and evaluate implementation strategies.

The encouraging news is that such work is underway. We now have convincing data that a multi-level implementation strategy (didactic training + performance feedback + organizational coaching) is associated with significantly higher rates and speed of CM adoption than didactic training only [15, 16]. We also know that community organizations can be feasibly engaged in the design and selection of CM implementation strategies [17]. There are also ongoing trials [18, 19] testing multi-level CM implementation strategies that include

team-based facilitation and staff-based performance bonuses (distinct from the compensate/reimburse for CM strategy recommended in the article). [1]

Kharzanov *et al*. [1] aptly conclude by asserting 'the need to make CM widely accessible'. Addressing this need is of paramount importance to curb stimulant overdose deaths and improve population health. We can more rapidly and efficiently achieve this mission if we use rigorous methods of implementation science.

KEYWORDS

contingency management, financial incentives, implementation science, overdose, reinforcement, stimulant

AUTHOR CONTRIBUTIONS

Sara J. Becker was the sole author responsible for conceptualizing, writing and editing this commentary.

ACKNOWLEDGEMENTS

I wish to acknowledge my scientific partner in all things contingency management implementation, Bryan Garner, PhD. I am also grateful to Mark McGovern, PhD, for his feedback on the commentary. Finally, I appreciate the New England ATTC team and all of the organizations, health systems and Departments of Health that have partnered on contingency management implementation initiatives over the years, without whom none of this work would be possible.

FUNDING INFORMATION

The views in this commentary were shaped by two research grants from the National Institute on Drug Abuse (R01DA046941, Multiple Principal Investigators: Becker and Garner; P50DA054072, Project Lead of Research Component 2: Becker, Principal Investigator of Center: McGovern) and one technical assistance grant from the Substance Abuse and Mental Health Services Administration, United States Department of Health and Human Services (UR1TI080209, Co-Directors: Becker and Martin). The views and opinions contained within this document do not necessarily reflect those of the National Institute on Drug Abuse or the United States Department of Health and Human Services and should not be construed as such.

DECLARATION OF INTERESTS

None.

Sara J. Becker

Center for Dissemination and Implementation Science, Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA

Correspondence

Sara J. Becker, Center for Dissemination and Implementation Science, Northwestern University Feinberg School of Medicine, 633 N. Saint Clair, Chicago, IL 60611, USA.

Email: sara.becker@northwestern.edu

ORCID

Sara J. Becker https://orcid.org/0000-0001-9271-2432

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