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Letter to the Editor

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Letter to the Editor

Cognitive behavioral therapy for insomnia works: but do we have product-market fit?

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Dear Editor,

We know that Cognitive Behavioral Therapy for Insomnia (CBT-I) works. There is robust level 1 evidence demonstrating that CBT-I is an effective treatment for insomnia [1–3]. In the business world, this means that we have problem-solution fit. Problem-solution fit indicates that a specific customer problem (i.e. insomnia) can be solved by a particular solution (i.e. CBT-I), showing that the solution has business potential [4]. In their recent perspective piece published in *SLEEP*, Manber, Simpson, and Gumport [5] summarize the data nicely demonstrating that CBT-I is good problem-solution fit for chronic insomnia. However, they emphasize the need to increase the impact and reach of CBT-I by improving adherence and accessibility (e.g., with cognitive therapy and digital CBT-I), because this effective treatment is not getting to the people who need it. Major barriers to CBT-I dissemination exist, including limited CBT-I practitioners, high costs of treatment, and low patient adherence. However, another major limiting factor is that we, as a sleep field, have not done a great job of promoting CBT-I to the community. In essence, CBT-I has a marketing problem. Without community recognition and interest in CBT-I, there will not be strong market demand. So, whilst the suggestions outlined by Manber, Simpson, and Gumport [5] are important and essential for broadening the reach and impact of CBT-I, they do not go far enough to make CBT-I the communities' solution of choice for insomnia treatment.

To vastly increase the awareness and reach of CBT-I, we need to go beyond problem-solution fit and query whether CBT-I has product-market fit. Product-market fit is the degree to which a product satisfies a strong market demand [4, 6]. Achieving product-market fit means that people are willing to pay for what you are selling because your product solves their problem and is more attractive than other alternatives. In other words, you have a unique product that people desperately want. Is our product (i.e. CBT-I) really what the market is demanding to improve their sleep? We know that CBT-I can solve an insomnia problem, but do people desperately want it? Do they know it is the best solution for insomnia? Are they willing to pay for it? If so, which groups/demographics and why? Is it more attractive than other options, such as taking a pill or buying a new sleep tech device that claims to calm your brain waves? If someone with insomnia were to dream up their perfect solution for insomnia, would it look like CBT-I? Probably not. This lack of product-market fit is likely contributing to the low reach and impact of CBT-I.

Behavioral economics offers unique insights into consumer behavior that may allow us to improve CBT-I's product-market fit. If we can increase product-market fit, we can dramatically increase the reach and impact of CBT-I. Currently, our field has operated from a "build and they will come" mentality [7]. We have created this excellent insomnia treatment that works; everybody should want to do CBT-I! However, consumers (i.e. people experiencing insomnia) do not always make decisions solely based on reason. Instead, behavioral economics views consumers as human decision-makers who do not always do their research or act in line with their long-term best interests [8]. Behavioral economics understands that people have limits on their attention and memory resources. Behavioral economics, therefore, advocates for designing better systems to facilitate the uptake of health behaviors and using simple interventions that promote adaptive decision-making [8].

Applying behavioral economics principles at both the healthcare system and intervention level could improve uptake of CBT-I. For example, we could redesign the healthcare system in such a way that referrals to CBT-I become the natural path for people to take when experiencing insomnia. CBT-I would become the default solution and people would need to make an active decision to take an alternative path (like getting a prescription for sleeping medications). For example, the inappropriate prescribing of antibiotics has been reduced by utilizing behavioral economics strategies like accountable justifications (having clinicians explicitly justify their actions) and peer comparisons (showing how

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individuals score in comparison with their colleagues by ranking them) [9]. We could apply these strategies to dissuade healthcare providers from prescribing sleep medications and instead make referrals to CBT-I. Exciting work like this is happening in Australia by the Sleep Health Foundation and Australasian Sleep Association to shift primary care providers' prescribing habits from sleep medications to CBT-I principles/referrals. Additionally, we could also redesign CBT-I for the consumer to make it simpler and more user–friendly to promote more adaptive choices. That way, CBT-I would become the desired solution for insomnia treatment and one that people desperately want to try. This may look like simplifying and outlining CBT-I principles in such a way that outlines the irrationality of aspirational sleep behaviors that perpetuate insomnia (e.g. spending too long in bed wishing for sleep), and highlighting the logic of matching time in bed to time actually sleeping. There are a range of behavioral economics strategies outlined by Stevens (2015) [8] that we could test and apply to CBT-I to help increase our reach to the community.

Leveraging implementation science research will also help us to move beyond standard efficacy trials to improve the dissemination of CBT-I. As highlighted by Dhaliwal and Gehrman [7], grounding CBT-I research in implementation science and evaluation frameworks such as RE-AIM (which measures the reach, effectiveness, adoption, implementation, and maintenance of a healthcare intervention in the real world) will help us make this transition. For example, our group recently used the RE-AIM framework to measure the impact of a behavioral sleep medicine training program for graduate psychology students in Australia [10]. Whilst our intervention was highly effective at improving trainee psychologists' CBT-I knowledge and perceived skills, our 12-month maintenance data revealed that students were hesitant to implement more advanced CBT-I strategies like sleep restriction therapy. Implementation science frameworks allow us to move beyond individual effectiveness data to explore how we can design a system that supports the ongoing implementation and maintenance of CBT-I by healthcare providers.

Implementation science also supports the development of lower-intensity interventions to reach more people. It is important to note that CBT-I was designed for those with insomnia disorder; however, insomnia disorder is at the "tip of the iceberg" in terms of the prevalence of insomnia symptoms or sleep problems experienced in the community. Many more people experience less severe insomnia symptoms or fall into the more inadequate or disturbed sleep category (i.e. the bulk of the iceberg). These individuals may not resonate with the term insomnia, and their sleep problems may not seem bad enough to warrant the cost or commitment of 4–8 CBT-I sessions. In other words, our product does not currently fit these markets. To improve the reach of CBT-I to the broader community, we need to think about what parts of CBT-I are relevant to these different groups and how we can communicate the benefits of CBT-I more effectively with them. Redesigning CBT-I into a simpler, less effective intervention but with greater community reach could make a bigger public health impact [7].

In summary, there is no doubt that CBT-I works. We are huge advocates of CBT-I and are working extensively to increase CBT-I dissemination through education and advocacy. However, we need to acknowledge that CBT-I, at least in its current form, is an effective but not necessarily sufficient solution for all forms of insomnia or people experiencing sleeping difficulties. Inadequate sleep is not only a health issue, but a biopsychosocial, economic, and multi-faceted issue that requires an innovative multidisciplinary approach. To increase the reach and impact of insomnia treatment, we need to collaborate with the fields of business, marketing, behavioral economics, and implementation science to refine our solution. We also need to keep innovating and developing new insomnia treatments that meet a wide range of people's needs. We need to ask ourselves as a sleep community, "How can we make CBT-I the solution of choice for insomnia and achieve product-market fit?."

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