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ORIGINAL RESEARCH | # Psychiatric Provider Perspectives on Treating Anxiety and Sleep Disturbance

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ABSTRACT > *Preliminary examinations are an important aspect of APA-accredited The use of cognitive-behavioral therapy (CBT) and anxiolytic / hypnotic drugs (benzodiazepines, nonbenzodiazepine anxiolytic / hypnotics ["Z-drugs"]) does not always align with evidence on the safety and efficacy of these treatments for anxiety and insomnia. However, the processes underlying this misalignment between empirical evidence and real-world treatment practices are not well understood. This survey assesses psychiatric providers' knowledge of and attitudes toward anxiety and insomnia treatments. Less than half of respondents endorsed CBT as a first-line treatment. Approximately 73.6% and 62.3% of respondents endorsed benzodiazepines and Z-drugs as one of the top three riskiest treatments, respectively. However, 60.4% of respondents indicated that half or more of the patients they see who are prescribed an anxiolytic / hypnotic receive the prescription for more than the recommended duration of anxiolytic / hypnotic treatment (i.e., > 4 weeks). All but one respondent (n = 52) expressed interest in pharmacological interventions to assist in deprescribing anxiolytic / hypnotic drugs, and all but four (n = 49) expressed some interest in a psychological intervention to assist in deprescribing. Increasing awareness of the risk / benefit profiles of anxiety and insomnia treatments (e.g., through practice guidelines) may better align treatment practices with empirical evidence. Furthermore, there is clear interest in the development of innovative pharmacological and psychological interventions to reduce dependence on anxiolytic / hypnotic drugs and safely treat anxiety and insomnia.*

EACH YEAR, NEARLY ONE IN FIVE U.S. ADULTS meets diagnostic criteria for an anxiety disorder, and nearly one in ten for insomnia (Kessler et al., 2005; Partinen, 2011). Treatments for anxiety symptoms and insomnia include cognitive behavioral therapy (CBT), selective serotonin reuptake inhibitors (SSRIs), and anxiolytic / hypnotic medications. CBT and SSRIs represent gold standard treatment for anxiety disorders (Olatunji et al., 2010; Vaswani et al., 2003). CBT for insomnia (CBT-I) is recommended as the first-line treatment for insomnia (Mitchell et al., 2012; van der Zweerde et al., 2019). Benzodiazepines and nonbenzodiazepine anxiolytics / hypnotics (i.e., "Z-drugs") are prescription sedative-hypnotic medications which are sometimes used to reduce anxiety, insomnia, and other symptoms

(Gunja, 2013). Benzodiazepines and Z-drugs exert their effects by modulating gamma-aminobutyric acid (GABA) receptors. Although anxiolytic / hypnotic drugs are effective in the short-term, their long-term use is associated with risk of adverse outcomes (e.g., dependence, accidents, cognitive decline; Dikeos & Soldatos, 2002; Glass et al., 2005; Guina & Merrill, 2018; Hajak et al., 2003; Kripke, 2000; Lagnaoui et al., 2002; McHugh et al., 2020; Roehrs et al., 1990; Siriwardena et al., 2008; Wu et al., 2009).

In the current work, we focus on CBT and anxiolytic / hypnotic drugs because their use seems to be at odds with empirical evidence on their efficacy and associated risks. Although CBT is a gold-standard psychotherapy for anxiety (Olatunji et al., 2010) and insomnia (Mitchell et al., 2012; van der Zweerde et al., 2019), less than 20% of patients seeking help for anxiety and 10% of those seeking help for insomnia receive CBT (Koffel et al., 2018; Weisberg et al., 2014). In contrast, more than a third of outpatient visits for anxiety and a quarter of outpatient visits for insomnia include a benzodiazepine prescription (Agarwal & Landon, 2019). While the overall rate of benzodiazepine and Z-drug prescriptions has decreased in the U.S. after peaking in 2013-2014, these medications continue to be prescribed at high rates (Olfson et al., 2026; Silvernail et al., 2026; Yang et al., 2026). Moreover, as many as 70–80% of those using benzodiazepines or Z-drugs are prescribed the drug for > 30 days, with an average prescription length of 108 days per year (Kaufmann et al., 2018; Silvernail et al., 2026; Timko et al., 2022), though these studies did not assess the frequency of use, which may influence the risk profile (Davies et al., 2022).

There is growing concern that long-term anxiolytic / hypnotic use poses risks to patients. Evidence suggests long-term anxiolytic / hypnotic use may increase patients' risk of cognitive decline, falls, accidents, and mortality (Glass et al., 2005; Kripke, 2000; Lagnaoui et al., 2002; Wu et al., 2009). Moreover, there is a risk of misuse (Hajak et al., 2003; McHugh et al., 2020), rebound anxiety and insomnia upon discontinuation (Dikeos & Soldatos, 2002; Guina & Merrill, 2018; Roehrs et al., 1990; Siriwardena et al., 2008), and even some evidence that benzodiazepines and Z-drugs can disrupt the stress response system and worsen anxiety and sleep disturbance beyond pretreatment levels (Guina & Merrill, 2018). These medications may also interfere with CBT for anxiety by impeding fear extinction (Guina & Merrill, 2018). Furthermore, research suggests that those who use benzodiazepines chronically (i.e., ≥ 120 days within a 180-day window) are at significantly greater risk of falls, hip fractures, hospitalizations, and mortality relative to those who use benzodiazepines intermittently, suggesting this is a particularly risky pattern of use (Davies et al., 2022).

Emerging research suggests that clinicians' knowledge and attitudes may contribute to the disconnect between empirical evidence and clinical practice. Research investigating provider perceptions of benzodiazepine prescribing suggests general practitioners may overestimate the effectiveness of and minimize the risks associated with benzodiazepines and Z-drugs (Hoffmann, 2013; Sirdifield et al., 2013; Siriwardena et al., 2006). Qualitative evidence also suggests some practitioners view the immediate effect of treatment as highly important, which may lead to a preference for quick-

acting agents such as benzodiazepines and Z-drugs (Cook et al., 2007). Additionally, some practitioners dismiss the findings of randomized controlled trials (Barlow, 2004), the gold standard empirical method for studying the efficacy of an intervention. General practitioners vary in their attitudes and behaviors related to benzodiazepines, but many endorse a perceived absence of alternative treatment options (Sirdifield et al., 2013). Systemically, there is limited access to gold standard treatments for anxiety and sleep disturbance (Koffel et al., 2018; Mokhar et al., 2019), and lack of time may limit providers' ability to engage in discussions with patients about their individual needs (Mokhar et al., 2019). However, questions remain regarding psychiatric prescribers' attitudes and behaviors related to treatments for anxiety and insomnia.

In addition to initial prescribing, the process of deprescribing these medications presents many challenges. The vast majority of individuals who use sedative-hypnotic medications experience rebound insomnia and anxiety symptoms following discontinuation (Dell'osso & Lader, 2013; Kales et al., 1983; Roehrs et al., 1990). Rebound symptoms may be confused with relapse of the sleep or anxiety disorder (Authier et al., 2009; Reid Finlayson et al., 2022). The degree to which prescribers' perceptions about deprescribing sedative-hypnotic medications drives the mismatch between empirical evidence and real-world practice in anxiety and insomnia treatment is also unknown. In free response survey items in one study, patients reported they received minimal support from healthcare providers when attempting deprescription, and some described feeling unprepared for the myriad symptoms that occur during deprescription (Reid Finlayson et al., 2022). Providers may not feel as though they have adequate pharmacological or behavioral tools available to them to manage these effects in patients following sedative-hypnotic discontinuation. Thus, understanding the obstacles that psychiatric prescribers view as the most important to address may assist in creating targeted, cost-effective interventions to promote sedative-hypnotic deprescription.

In sum, data suggest psychiatric providers continue to routinely prescribe benzodiazepines and other hypnotics long-term for anxiety and sleep disturbance, despite evidence related to these medications and strong evidence supporting alternatives (Agarwal & Landon, 2019; Ford et al., 2014). There is insufficient information regarding how psychiatric providers make treatment decisions for patients with anxiety or sleep disturbance. The present study examines psychiatric providers' perspectives on treating anxiety and insomnia in a convenience sample of psychiatric prescribers. This study represents an initial effort to identify barriers to translating empirical findings on insomnia and anxiety treatments into practice and can be used to inform future research questions, hypotheses, and study design to aid in the long-term goal of improving treatment outcomes for individuals with anxiety or insomnia.

Methods

Participants and Procedures

Psychiatric providers with prescribing privileges who treat adult patients were eligible for participation. A total of 106 participants initiated the survey. Thir-

teen participants were excluded for not meeting inclusion criteria, and an additional 40 participants discontinued the survey prior to completion. The final sample included 53 participants who completed the full survey. Those that completed the survey did not differ from those that discontinued it in terms of their patient population (i.e., adult or both adult and pediatric), geographic region, professional credentials, specialty (i.e., substance use, anxiety, mood, sleep, psychotic, or other disorders; $p \geq .12$). Recruitment occurred electronically through local, state, and national professional psychiatry email lists and webpages (e.g., College on Problems of Drug Dependence, Society of Behavioral Sleep Medicine, state psychiatric associations). Participants were informed that return of the survey was considered their consent to participate. Participants were informed their participation was voluntary, that they could discontinue or take a break at any time, and that upon completion of the survey, they would have the opportunity to enter a drawing for prizes which occurred at the end of the data collection period (see Supplement, made available online with this issue here). These prizes included two $150 retail gift cards and eight $25 retail gift cards, amounts commensurate with the time invested to complete the study. Funding for this project was provided by discretionary funds provided to the senior author by their academic institution. Data collection occurred between July 2022 and June 2023. All procedures were approved by the Institutional Review Board.

Survey Instrument

The present study used a 43-item electronic survey developed by the investigators that required 20–30 minutes to complete. In addition to the first author, items were reviewed by five individuals versed in clinical practice and / or pharmacology for face validity prior to survey implementation. Item reviewers included the following credentials: 2 practicing MDs, 3 PhDs in psychology, and 1 unlicensed psychology resident. The survey was distributed and completed through REDCap, a secure, web-based data capture system (Harris et al., 2019). The first two items assessed inclusion criteria. If the respondent did not meet the inclusion criteria, the survey was terminated. If the respondent met the inclusion criteria, they were permitted to complete the remainder of the survey, which assessed prescribers' beliefs about first-line and riskiest treatments for anxiety and sleep disorders, risks associated with benzodiazepines and Z-drugs, prescribing practices for benzodiazepines and Z-drugs including how often taper plans are used and how often medications are prescribed for more than 4 weeks, and factors that influence decisions to taper a patient off a benzodiazepine or Z-drug, as well as beliefs about how difficult such tapering is. We also asked prescribers about interest in medications or psychotherapeutic interventions to assist with deprescribing and what challenges in deprescribing such treatments should address. Finally, we asked about sources consulted in making decisions in treating anxiety disorders and insomnia. Questions included multiple choice, checkbox, and slider scale items, as appropriate. The full survey can be found in the Supplement.

Due to the poor completion rate among survey initiators during the first recruitment phase (i.e., 46.8%; 29 of the first 62 eligible participants), several changes were made to the survey to reduce the burden on subsequent

participants. Following the approved changes to the survey design, the completion rate increased to 70.6% among subsequent eligible survey initiators. The overall completion rate among eligible survey initiators was 57.0%. The revisions to the survey involved changing the response style of several items from a slider to a Likert scale and from ranked choice (i.e., participants ranked each option on a given quality) to checkbox (i.e., multiple choice questions where the participant can choose multiple answers) to allow for faster item completion. For example, in Version 1, item 12 asked "In your judgment, how would you rank the following treatments for anxiety disorders from most to least effective (i.e., 1 is most effective; 11 is least effective)?" In Version 2, item 12 read "In your judgment, which of the following treatments are most effective for anxiety disorders? Select up to 3." Further information on each version of the survey is included in the Supplement. All changes were approved by our Institutional Review Board. To combine the results of the two versions of the survey, responses that used the slider were converted to the appropriate Likert scale response. Additionally, the top three ranked choices from ranked choice items in Version 1 of the survey were considered selected in the same way as the three checked boxes were selected in Version 2 of the survey. All results include data combined from Version 1 and 2 of the survey.

Data Analyses

Survey results were analyzed in SPSS (Version 29.0). Analyses included descriptive statistics and independent samples t-tests, as appropriate. Because the focus of the present study is to provide a preliminary characterization of provider prescribing behaviors and perceptions about treatments for insomnia and anxiety to inform future research, the analyses relied primarily on descriptive statistics. However, exploratory comparisons between groups of providers can be found in the Supplementary Material. All available data were used for each analysis. Unless otherwise specified, each analysis included the full final sample (N = 53).

Results

Participant characteristics are presented in Table 1. In brief, the vast majority of respondents were physicians, and nearly 40% of participants had more than 20 years of experience. Most survey participants reported that at least 20% or more of their patients have an anxiety disorder and / or insomnia. As shown in Figure 1, the top three most frequently endorsed first-line treatments for anxiety disorders were SSRIs (n = 37 endorsed, 69.8%), CBT (n = 22 endorsed, 41.5%), and SNRIs (n = 19 endorsed, 35.8%). The top three most frequently endorsed first-line treatments for insomnia were CBT (n = 26 endorsed, 49.1%), other (n = 16 endorsed, 30.2%), and hydroxyzine (n = 15 endorsed, 28.3%). Those who responded with "other" were prompted to specify which other treatment(s) they consider to be first line for treating insomnia. Responses included trazodone (n = 6), melatonin (n = 3), mirtazapine (n = 3), gabapentin (n = 1), diphenhydramine (n = 1), and sleep hygiene education (n = 1). Benzodiazepines (n = 7 endorsed; 13.2%) and Z-drugs (n = 11 endorsed; 20.8%) were endorsed as a first-line treatment for insomnia by a notable minority of respondents.

Table 1.
Participant Characteristics

	n (%)
Patient Population	
Adult	44 (83.0)
Both Adult & Pediatric	9 (17.0)
U.S. Region	
Northeast	18 (34.0)
Midwest	12 (22.6)
South	10 (18.9)
West	13 (24.5)
Professional Credential	
MD or DO	46 (86.8)
PhD	1 (1.9)
MD/PhD or related	4 (7.5)
Nursing	2 (3.8)
Specialty(ies)	
Substance Use Disorders	25 (47.2)
Anxiety Disorders	39 (73.6)
Mood Disorders	37 (69.8)
Sleep Disorders	20 (37.7)
Psychotic Disorders	30 (56.6)
Other	13 (24.5)
Years of Experience	
0–5 Years	4 (7.5)
6–10 Years	13 (24.5)
11–15 Years	10 (18.9)
16–20 Years	4 (7.5)
> 20 Years	21 (39.6)
Monthly Patients	
< 25	7 (13.2)
24–49	9 (17.0)
50–99	14 (26.4)
100–149	11 (20.8)
150+	12 (22.6)
Percent of Patients with an Anxiety Disorder	
< 10%	2 (3.8)
10–19%	2 (3.8)
20–29%	16 (30.2)
30–49%	16 (30.2)
50%+	17 (32.1)
Percent of Patients with Insomnia	
< 10%	4 (7.5)
10–19%	7 (13.2)
20–29%	12 (22.6)
30–49%	14 (26.4)
50%+	16 (30.2)

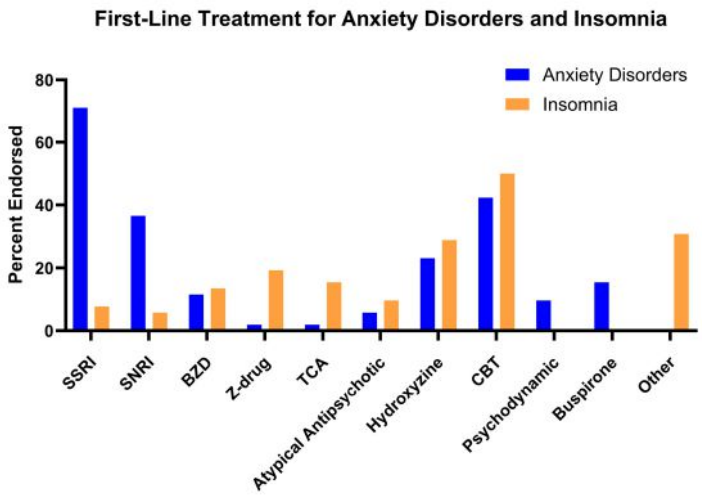

Figure 1. Participant-reported first-line treatments.

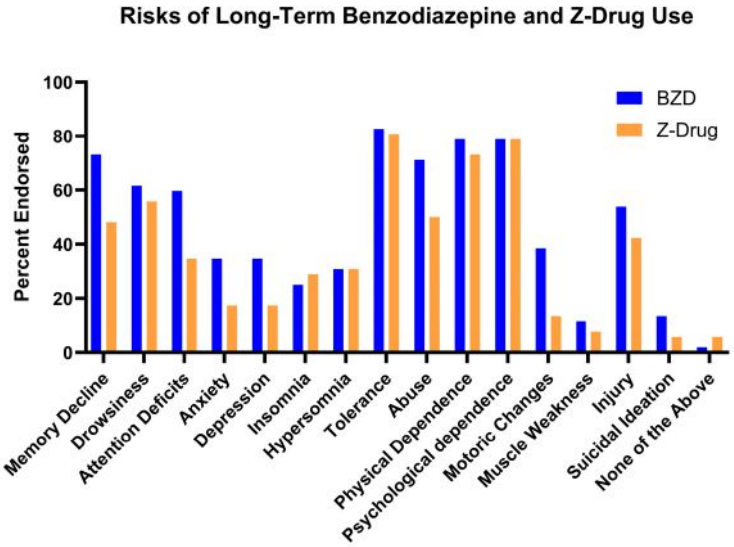

Figure 2. Participant-reported medication risks.

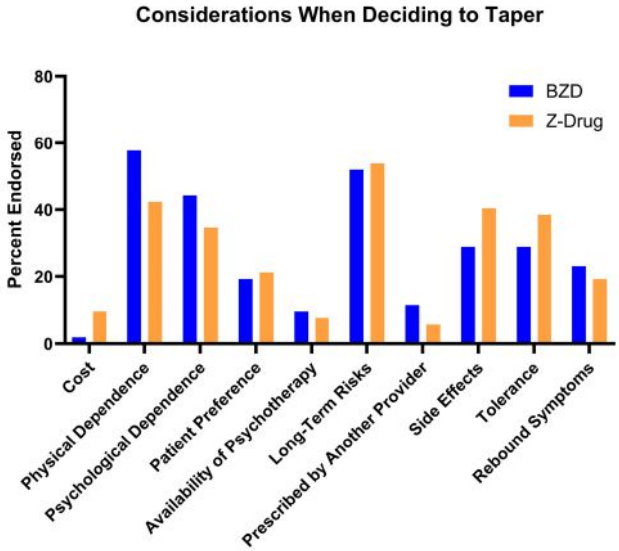

Figure 3. Participant-reported deprescribing considerations.

Thirty-nine participants (73.6%) endorsed benzodiazepines as one of the top three riskiest treatments; 33 participants (62.3%) endorsed Z-drugs as one of the top 3 riskiest treatments. Two participants (3.8%) endorsed CBT as one of the top 3 riskiest treatments on the list.

As shown in Figure 2, the most frequently endorsed risks of long-term benzodiazepine use were (in order) tolerance (*n* = 43 endorsed, 81.1%), physical dependence (*n* = 41 endorsed, 77.4%), psychological dependence (*n* = 41 endorsed, 77.4%), memory decline (*n* = 39 endorsed, 73.6%), and abuse (*n* = 37 endorsed, 69.8%). One respondent indicated that they did not consider any of these concerns as potential risks of long-term benzodiazepine use. The most frequently endorsed risks of long-term Z-drug use were (in order) tolerance (*n* = 42 endorsed, 79.2%), psychological dependence (*n* = 42 endorsed, 79.2%), physical dependence (*n* = 38 endorsed, 71.7%), drowsiness (*n* = 29 endorsed, 54.7%), and abuse (*n* = 26 endorsed, 49.1%). Three respondents (5.7%) indicated that they did not consider any of these concerns as potential risks of long-term Z-drug use.

Additionally, 60.4% (*n* = 32 of 53) of respondents indicated that half or more of the patients they see who are prescribed a benzodiazepine or Z-drug (by the respondent or another provider) receive the prescription for more than four weeks.

Of the participants who prescribe benzodiazepines (*n* = 50), 60.0% (*n* = 30) indicated they "Often" or "Always" include a taper plan when initiating benzodiazepine treatment with a patient. Of the participants who prescribe Z-drugs (*n* = 44), only 38.6% (*n* = 17) indicated they "Often" or "Always" include a taper plan when initiating Z-Drug treatment[1].

When deciding whether to taper a patient off a benzodiazepine or Z-drug, risk of physical dependence (*n* = 30 endorsed, 56.6%) and long-term risks (*n* = 28 endorsed, 52.8%) were the most endorsed factors considered, followed by risk of psychological dependence (*n* = 24 endorsed, 45.3%) (Figure 3). Respondents consider it more difficult to taper a patient off benzodiazepines (*M* = 68.7, SD = 27.0) than Z-drugs (*M* = 54.3, *SD* = 27.7, *N* = 50), *t*(49) = 4.72, *p* < .001, with a medium effect size, *d* = .67, 95% CI [.36, .97].

Given these perceived challenges in deprescribing, it was somewhat surprising that only 60.0% of respondents who prescribe a benzodiazepine and 38.6% of those who prescribe a Z-drug reported "Often" or "Always" including a taper plan when initiating treatment with a patient.

If a medication were available to assist in benzodiazepine deprescription, all but one respondent indicated they would be interested in using it with their patients. If such a drug were developed, respondents indicated the most important factors to address are retaining the therapeutic effect (*n* =

[1] Three respondents indicated they do not prescribe any benzodiazepines, and 6 respondents indicated they do not prescribe Z-drugs.

39 endorsed, 73.6%) and preventing physical dependence (*n* = 39 endorsed, 73.6%) and withdrawal (*n* = 30 endorsed, 56.6%). If a psychological treatment were available to assist in benzodiazepine deprescription, 92.5% (*n* = 49) of respondents indicated they would be at least somewhat interested in using it with their patients. Respondents indicated the most important factors for a psychological treatment to address are reducing symptoms the medication was originally prescribed to treat (*n* = 45 endorsed, 84.9%), building coping skills (*n* = 28 endorsed, 52.8%), and reducing withdrawal symptoms (*n* = 28 endorsed, 52.8%).

There was no consensus regarding which source(s) to consult when making a treatment decision, but journal article / other research finding (*n* = 15 endorsed, 32.1%) and APA Guidelines (*n* = 15 endorsed, 28.3%) were the most commonly endorsed.

Discussion

This survey study explored psychiatric prescribers' knowledge of and behaviors related to treatment for anxiety disorders and insomnia. Many providers reported beliefs about evidence-based practice and the risks posed by some treatment options that did not fully align with empirical evidence. We also found that most respondents frequently see patients who have been prescribed benzodiazepines or Z-drugs for more than 4 weeks and consider it moderately difficult to taper a patient off these drugs. Most respondents indicated they would be interested in a pharmacological or psychological treatment to assist in the deprescription of benzodiazepines or Z-drugs. Together, these findings suggest that (a) the empirical evidence regarding the relative efficacy and risks of treatments for anxiety disorders and insomnia has not fully permeated psychiatric practice and (b) many providers use benzodiazepines or Z-drugs for long-term (> 4 weeks) treatment of anxiety and insomnia and perceive barriers to tapering after that point.

The survey revealed a knowledge gap regarding the relative risks and benefits of anxiety and insomnia treatments. Less than half of respondents endorsed CBT as a first-line treatment for these conditions. CBT and SSRIs are the only gold standard treatments for anxiety disorders, and CBT-I is the only recommended first-line treatment for insomnia (Mitchell et al., 2012; Olatunji et al., 2010; van der Zweerde et al., 2019; Vaswani et al., 2003). CBT supports patients in changing how they think and behave to reduce symptoms (Sudak et al., 2015). It is considered safer than pharmacological treatments for these conditions (Rios et al., 2019; Wang et al., 2017).

In contrast to CBT, there is ample evidence that benzodiazepine and Z-drug use is associated with risk of serious adverse effects, including psychomotor impairment, accidents, falls, physical dependence, and cognitive impairment, even at therapeutic doses (Glass et al., 2005; Guina & Merrill, 2018; Kripke, 2000; Lagnaoui et al., 2002; Wu et al., 2009). Risk of adverse effects increases with long-term treatment (Guina & Merrill, 2018). Long-term treatment can also lead to rebound anxiety and sleep disturbance; thus the benefits often do not outweigh the risks associated with long-term use of these medications (Guina & Merrill, 2018). In the present study, the percentage of respondents who endorsed benzodiazepines and Z-drugs as one of the top three riskiest treatments was 73.6% and 62.3%, respectively. These

findings suggest that most, but not all, providers recognize the potential harm associated with benzodiazepine and Z-drug prescriptions. When asked about the specific potential risks posed by long-term benzodiazepine or Z-drug use, most respondents endorsed tolerance and physical or psychological dependence. On a promising note, very few respondents indicated that they viewed none of the items as possible risks. Increasing awareness of specific potential risks of these medications, such as through warning labels, clearer clinical practice guidelines, or automated reminders of the drugs' risks when a provider prescribes the medication might enhance alignment of prescribing practices with recommendations in the literature.

Despite awareness of risks associated with long-term use and general recommendations that benzodiazepines should only be prescribed for 4 weeks or fewer in most circumstances (Kennedy & O'Riordan, 2019), 60.4% of respondents reported that half or more of the patients they see who are prescribed a benzodiazepine or Z-drug receive the prescription for more than 4 weeks. This finding warrants further interrogation to identify the mechanisms underlying the extended prescription durations. Hospital physicians and general practitioners report insufficient training in engaging patients in discussions related to benzodiazepine or Z-drug deprescription (Shapoval et al., 2025). Psychiatric prescribers may also hesitate to initiate such conversations with patients for similar reasons. Moreover, shared decision-making is an important aspect of evidence-based deprescription, and some patients may be reluctant to deprescription (Jansen et al., 2016; Reeve et al., 2014; Scott et al., 2015; Weir et al., 2023). Failed deprescription attempts may also contribute to extended prescription durations. Indeed, on average, respondents rated tapering a patient off a benzodiazepine or Z-drug as moderately difficult. There is substantial variability in the success of deprescription attempts, but the presence of nonpharmacological support improves outcomes (Soni et al., 2023). Thus, limited access to CBT for anxiety or insomnia could contribute to the rate of long-term pharmacological treatment and impede deprescription (Alonso et al., 2018; Thomas et al., 2016). Future research into provider perspectives should ask providers about decisions to initiate benzodiazepine or Z-drug prescriptions, barriers to initiating deprescription discussions with patients, perceptions of patient willingness to attempt deprescription, and patient deprescription attempts separately for a more nuanced investigation into the drivers of prolonged prescription durations. Furthermore, since many patients attempting benzodiazepine tapering report being unaware that these medications were indicated for short-term use only, future research should investigate the patient-provider relationship to identify and address communication gaps (Reid Finlayson et al., 2022).

Given these perceived challenges in deprescribing, it was somewhat surprising that only 60.0% of respondents who prescribe a benzodiazepine and 38.6% of those who prescribe a Z-drug reported "Often" or "Always" including a taper plan when initiating treatment with a patient. Having a taper plan in place that the patient and provider have agreed upon may be useful in preventing the long-term use of these medications. Respondents endorsed long-term risks and physical and psychological dependence as the most important factors to consider when deciding whether to taper a patient off a benzodiazepine or Z-drug. Drawing providers' attention to these potential ad-

verse effects at initiation could encourage the provider to develop a tapering plan early. Furthermore, our findings could suggest future research directions, such as exploring patient and provider barriers to using taper plans when initiating benzodiazepine or Z-drug treatment, methods for promoting prescriber efficacy in utilizing tapering plans, processes for tracking treatment progress and side effects, and barriers to tapering plan implementation (e.g., infrequent follow-ups, limited access to behavioral interventions, patient hesitancy).

Another important point of consideration is that most research, including the present study, has focused on the overall benzodiazepine or Z-drug treatment duration, while overlooking the dosing pattern (i.e., scheduled versus as-needed). Although most existing guidelines recommend only short-term use of these drugs (typically defined as either < 4 weeks or < 12 weeks), they lack clear guidance regarding dosing patterns, likely reflecting the dearth of research on this topic (Brandt et al., 2024). Indeed, there have been calls for systematic investigation of how various patterns of use (e.g., long-term daily compared to long-term intermittent) differ in terms of clinical efficacy and safety profiles, but to date, most clinical trials have studied scheduled dosing regimens rather than true "as-needed" use, creating a significant gap in the literature (Krieger, 2025; Westra & Stewart, 2002). Preliminary research suggests intermittent use is associated with reduced risk of accidents and falls compared to chronic use (Davies et al., 2022). Additionally, it is possible that intermittent use may reduce the risk of physical dependence compared to daily use, but this question has not been examined in clinical trials, and there is evidence that some symptoms of withdrawal (e.g., rebound insomnia) can occur after brief and intermittent use for some benzodiazepines (Brunner et al., 2025; Kales et al., 1991). Future research is needed to clarify the safety and efficacy of long-term intermittent use and explore how providers decide dosing patterns for different patients.

Comprehensive clinical practice guidelines can be important drivers of evidence-based practice (Vachhrajani et al., 2009), particularly as provider demands grow. Accessible clinical practice guidelines could draw prescribers' attention to benzodiazepine and Z-drug related risks and inform clinicians of the benefits of gold standard treatments (i.e., CBT-I, CBT or SSRIs for anxiety disorders). If a patient's symptoms do not respond to first-line treatments, or if first-line treatments are unavailable, guidelines can describe best practices for alternative treatments, including short-term benzodiazepine or Z-drug treatment, and provide recommendations on deprescribing strategies. While long-term use is generally discouraged, there are exceptions, such as for the treatment of sleep disorders involving abnormal movements (Schenck & Mahowald, 1996). Current guidelines offer little advice on safely prescribing benzodiazepines and Z-drugs long-term, likely due to the lack of empirical evidence in this area (Brandt et al., 2024; Schutte-Rodin et al., 2008). There are calls for a re-examination of the practice guidelines for benzodiazepine and Z-drug prescribing to better address clinical needs (Neutel et al., 2012; Szuhany & Simon, 2022). Once comprehensive, systematically updated clinical guidelines are established, they must be made easily available. In our survey, there was no consensus regarding which source(s) to consult when making a treatment decision; thus,

the information should be available through multiple sources to reach the widest audience of psychiatric prescribers.

Although the survey revealed a knowledge gap regarding first-line treatments for anxiety and insomnia and the relative risks of various treatments, respondents overwhelmingly expressed interest in pharmacological and psychological interventions to assist in deprescribing benzodiazepines and Z-drugs. Respondents indicated that the most important considerations for pharmacological treatments to assist in deprescribing are retention of the therapeutic effect (e.g., anxiolysis) and prevention of dependence and withdrawal symptoms. Different $GABA_A$ receptor subtypes are differentially associated with certain benzodiazepine-related effects (Reynolds et al., 2012). Preclinical research has found that $\alpha 2$ and $\alpha 3$ subunit containing $GABA_A$ receptors may play a larger role in the reinforcing effects of benzodiazepines than other receptor subtypes (Reynolds et al., 2012). These findings may guide the development of new benzodiazepines that target other receptor subtypes (e.g., $\alpha 2$, $\alpha 3$, $\alpha 5$), which may reduce dependence while retaining anxiolytic effects, although clinical research is needed to determine whether the preclinical findings translate to humans.

Respondents identified key factors for a psychological deprescribing intervention to address, including reducing the symptoms the medication was prescribed to treat, building coping skills, and reducing withdrawal symptoms. Psychological interventions have shown success in promoting deprescription from benzodiazepines and Z-drugs when paired with gradual tapering (Soni et al., 2023). If replicated, our findings can guide the refinement of psychological deprescribing interventions to address these crucial factors. Effectively addressing the concerns raised by psychiatric prescribers may lead to increased uptake of these interventions, which can facilitate aligning clinical practice with available empirical evidence.

The present results should be considered in light of the project's limitations. First, these preliminary analyses relied on a small, convenience sample of psychiatric prescribers, precluding robust, nuanced statistical comparisons and limiting generalizability. Notably, most respondents identified as an MD / DO. Though not surprising given prescribing policies, we were unable to determine if treatment practices and beliefs differed by credentials. Additionally, because recruitment occurred through professional email lists and web pages, which may have disproportionately reached prescribers in administrative or research roles compared to general community psychiatric prescribers, it is possible that the sample is not representative of the overall population of psychiatric prescribers. Furthermore, to minimize participant burden, providers were not asked detailed information about prescriptions, such as whether the medications were prescribed on an "as needed" or a scheduled basis and how such decisions were reached. Future research should investigate these prescribing decisions. Similarly, the present study did not examine whether decisions regarding benzodiazepine and Z-drug tapering differ when the prescription is initiated by the psychiatric provider compared to another prescriber. Additionally, we used a self-report measure we developed to explore psychiatric prescribers' self-reported knowledge, attitudes, and behaviors related to treatments for anxiety and insomnia. This measure has not been validated. It was designed to capture de-

scriptive information across multiple domains, rather than a single latent construct. Future research should investigate how closely this measure reflects real-world practice across larger, representative samples. In addition to replication, a critical next step is to conduct process analyses to better characterize providers' treatment decisions in context. These analyses could provide key information related to (a) under what contexts providers recommend pharmacological versus behavioral interventions, (b) how treatment progress and changes to the treatment plan are tracked, (c) how patients are using these medications (e.g., how frequently and in what contexts) and how providers use such information, and (d) factors implicated in the development and implementation of taper plans for patients receiving pharmacological interventions. Process analyses that incorporate procedural information and qualitative interviews can highlight key barriers and facilitators of intervention implementation for sleep and anxiety disorders.

Our preliminary results suggest that information on evidence-based treatments for anxiety and insomnia is not translating into real-world psychiatric practice. This study provides initial insights into psychiatric prescriber attitudes and decision-making to bridge the gap between empirical findings and practice. Clinical practice guidelines could enhance treatment quality by clearly conveying which treatments are considered first-line and outlining strategies for treatment-resistant symptoms without resorting to long-term benzodiazepine or Z-drug use. Training on sedative-hypnotic prescriptions and their alternatives should emphasize psychoeducation on the impacts of withdrawal to mitigate risk of continued use of these medications as a tool for managing withdrawal and rebound insomnia and anxiety symptoms. Such training may be foundational in the development of deprescribing and tapering plans.

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OP-ED | # "Speculation," A Historically Sullied Word in Clinical Scientific Research

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ABSTRACT > *This article addresses the appropriate use of speculation in scientific research. A brief history of the concept of speculation is reviewed along with its long-standing controversy among researchers. The article offers insight into the acceptable outlets for integrating speculation as a primer for empirical investigation in research studies along with paving the way for testable, falsifiable hypothesis. It also proposes speculation as a means to stimulate innovative thinking.*

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AT SOME POINT IN THEIR CAREERS, most mental health practitioners who generate interest for study based on information obtained from clinical experiences encounter the urge to inject speculation into clinical psychological research. Exploration of innovative thought is part of the engagement and joy of the craft. The term "clinical scientific research" typically encompasses investigations that range from treatment to diagnosis, prognosis, and prevention. According to some authors, mental health practitioners rarely find articles in professional journals based on this research useful due to a lack of credibility (Ioannidis, 2005; 2016). John Ioannidis (2005), for example, identified systemic biases in research that render misleading results, often citing speculation as the culprit. These authors defined such biases as "a combination of various designs, data, analysis, and presentation factors that tend to produce research findings when they should not be produced" (p. 697). Some of the scientific research literature has gone as far to report a crisis in replicability and credibility of research, calling for an effort to improve psychological science (Nagy et al. (2025). Thus, it is worth exploring the role that speculation has played in traditional empirical research and how clinicians and practitioners could employ speculation to stimulate innovative thinking that could lead to testable, falsifiable hypotheses and new research results that practitioners and clinicians would be likely to find useful.

History and Concept of Speculation

Speculating about the implication of research data has traditionally been excluded as a part of the scientific thinking process. While not completely ignored, the concept of speculation often treads on thin ice due to its obvious lack of evidence. Consequently, unadulterated speculation has long been discouraged in all but the simplest forms of empirical writings, namely suggestions for future research.

Despite the opposition to speculation, because every hypothesis is to some degree speculative in that it promotes an idea of some future outcome, speculation can be said to serve as an early part of the scientific process. The hypothesis is later tested via a set of experiments or

observations—the focal point being the scientific method utilized in conducting the experiments and recording the corresponding results. These results are followed by conclusions based on the human interpretation of the results, which should be well supported by data as opposed to unrealistic fantasy. As humans are imperfect, researchers must strive to interpret the data as objectively as possible. However, this is no easy task. Because of the critical importance of the interpretation, reviewers and editors of contemporary scientific and clinical research journals carry the heavy burden of deciding whether the conclusion reported by an author is actually justified by the results—the reputation of the research and author is in their hands. Flake and Fried (2020) define the concept of questionable measurement practices as "decisions researchers make that raise doubt about the validity of the measures used in a study, and ultimately the study's final conclusions" (p. 458).

Consequently, the discussion section of many professional papers which, at one time permitted speculation, has evolved over the years to a conglomeration of only the most obvious and supported conclusions along with stated biases and limitations of the study. Typically, when contributors attempt to include any ideas that may arise from speculation alone, ideas not well supported by the research data, it is usually suggested that it be eliminated. This raises the question as to the particular role of free speculation about the meaning and implications derived from data.

Empiricism is defined by the Oxford dictionary as the theory that all knowledge is derived from sense-experience (Oxford, 2023). Stimulated by the rise of experimental science, empiricism developed in the 17th and 18th centuries, expounded in particular by John Locke, George Berkeley, and David Hume (Oxford, 2023). Karl Popper (1963) later proposed that science should only generate bold hypotheses that are falsifiable. The formation of hypotheses based on empirically-grounded theories serves as an important mechanism for challenging existing paradigms and testing their applicability to new contexts.

Arguably, the antecedent of empiricism is a perception of the senses or "speculation" based on observation. If we were to consider the concept that speculation is what leads to further thought or motive for developing rigorous scientific investigation, it begs the questions of whether we should give credence to speculation being, in part, the genesis of empirical study. Every hypothesis is somehow speculative in that it consists of an idea about some future outcome in the scientific process. Therefore, the importance of speculation is the generation of new knowledge, theories, or the flow of a creative process.

Yet, the term "speculation" often elicits a furrowed brow from many in the scientific community and is often treated like a "dirty word." Even when speculation has been recognized in the past as critical for successful science, it has been characterized in narrowly epistemological terms. Furthermore, these accounts provide little guidance for what makes speculation productive or unproductive in research (Currie, 2023). An interesting example involves "the seizures beget seizures theory" that relates to the pathophysiology of epilepsy first introduced by the British neurologist, William R. Gowers (Gowers & Schlesinger, 1885). Gowers, who treated thousands of patients with epilepsy during the 19th century, observed their neurological ac-

tivity and speculated in his book that seizures could impact the structural and functional properties of the brain circuits in ways that contribute to epilepsy progression and the future occurrence of seizures. While this theory was purely speculative on Gowers' part and did not involve the fundamental tenets of modern day case-based research (Edwards, Dattilio & Bromley, 2004; Fishman, Messer, Edwards & Dattilio, 2017), this theory continued to be cited and relied on for decades in the professional medical literature regarding the pathophysiology of epilepsy, Ben-Ari, Y (2006). However, Gowers' theory has recently been challenged by modern medical researchers who believe that, while seizure activity can negatively impact brain structure and function, the "seizures beget seizures theory" should be used only with extreme caution. This is primarily due to the fact that this theory has not been empirically tested, and was originally based on pure speculation (Jiruska, et al., 2023). Hence, there is a fine balance between conclusions firmly based on evidence, inferences that reasonably follow from a study or set of research papers, and speculation about concepts that have yet to be examined.

There have been a number of articles and book chapters that have appeared in the professional literature addressing the role of speculation in science. Several books published in the mid-1960s made an attempt to assess scientific speculation (Tricker, 1965; Lloyd, 1966). These works addressed the process of data generalization that can lead to an increase in probability and an enhancement of predictability in scientific research. Despite these issues, Tricker (1965) refers to scientific speculation as involving important fundamental reasoning, referring to it as the bedrock of scientific investigation and research. Similarly, Lave & March (1974) highlighted the issue of speculation as part of ordinary research, as opposed to the extraordinary type of research that has been conducted throughout the centuries. However, within the past decade, Swedberg (2021) raised the question of whether speculation can and should be used in social science and medical research at all or be completely discarded. The author concludes that speculation, when used thoughtfully, helps bridge gaps in knowledge and generate testable hypotheses, moving beyond pure deduction.

While this is not an exhaustive review of the literature on speculation, professional and academic debate to date renders the answer to the most appropriate role for speculation in scientific research nebulous at best. While many view speculative hypotheses as lacking epistemic support, the benefit is that they serve as the genesis of important research questions. Their specific role is to stimulate thought on empirical research topics where and when appropriate (Dattilio, 2010).

Expanding the Use of Speculation within the Fundamental Tenets of Sound Scientific Research

Even though some scientists / practitioners may believe that speculation can be adequately accommodated within the current scientific practice, there is still room for expanding its use without violating the fundamental tenets of sound scientific research. It is also crucial for science to distinguish itself from pseudoscience by upholding the principles of objectivity, which is espe-

cially important during this age of social media and trolling. Consequently, any questionable research practice poses a significant threat to the quality and integrity of scientific research (Nagy, Hergert, Elsherif, et al., 2025). But, speculation can and should play a limited important role in clinical scientific research.

Generating Hypothesis

Speculation can serve as a starting point for inquiry in generating hypotheses rather than as the basis for drawing conclusions. These can be based on clinical observations, unexpected findings, or theoretical insights.

Interpretation and the Development of Theory

Subsequent to data collection, researchers or clinicians may speculate cautiously about the mechanisms, implications, or relationships not directly supported by the study. Hence, speculation can serve as a guideline for future studies or even refine conceptual theories.

Innovation and Creativity

Many breakthroughs in the past have originated from creative forms of speculation by proposing unconventional explanations or therapeutic approaches that challenge basic understanding in the field. A classic example is Mendel's "Hereditary Factors" in modern genetics. Mendel speculated in the 1860s that inheritance was governed by discrete "factors" (genes) long before DNA was known and no specific chromosome had been linked to heredity (Miko, 2008).

The Appropriate Outlets for Speculation

Commentary and Viewpoint Sections of Periodicals

One avenue for speculation on various research topics is in commentaries or viewpoint articles. These sections appear to have become more visible in a number of the modern day periodicals (Dattilio, 2023). These forums offer a pathway for unbridled discussion and intellectual debate regarding the supposition of a myriad of scientific topics that can spawn ideas and concepts for future empirical study. Many viewpoint or opinion sections in scientific psychological journals allow for speculative thought and debate regarding new developments in research, innovations, and weakness in the scientific literature. Certain leeway is given to include opinions and reflections freely and with little scrutiny as long as it is clear that it constitutes speculation and is not being promoted as rigorous scientific research. Academicians, authors, and editors must be very clear in their own minds as well as on paper about the definitions of research and speculation to ensure that consumers of the professional literature do not think that they are reaching a conclusion that is evidence-based as opposed to being rooted in case examples or pure speculation.

Discussion Section of Empirical Articles

Another domain appropriate for speculation is the discussion section of empirical research articles in which the authors are more free to surmise about future research topics and upcoming areas of study using speculation.

Hence, if speculation is used to propose an additional empirical research study, it may be appropriate to be slated as such with license to hypothesize on a particular concept without restriction. If speculation appears at the end of an article on empirical research of a given topic, it may also serve as a springboard for further research ideas as long as it is clearly identified.

Areas of Questionable Appropriateness

Invited Essays

One area of questionable appropriateness is invited essays. It is here where thoughts and ideas may be exchanged in a professional forum for the purpose of generating new ideas. However, these invitations are often typically granted to luminaries and experts in the field. Due to the fact that many of the recipients of these invitations produce a "halo effect" that confer a level of assumed trust to their words, readers may struggle to discern speculation from scientifically grounded statements, unless they are specifically clarified. Depending on the publication, invited responses and rejoinders may make for an interesting dialogue exchange providing further clarification of the declarations made.

Materials Published from Professional Trainings and Seminars

An additional area of concern is with written materials generated from professional trainings and seminars. This has surfaced with several programs in cognitive behavior therapy (CBT) and dialectical behavior therapy (DBT). Speculation enters CBT in clinical practice, despite it being rooted in evidence based, structured methods. An example may be found in identifying cognitive distortions. Determining that a particular thought is "distorted" often involves subjective judgment. Cultural or personal differences can also make some interpretations less certain and rest on speculation. These aspects also find their way into treatment manuals and protocols in which standardized techniques apply similarly across individuals.

Most recently, DBT has promoted strong focus on antiracism, which has been integrated into routine practice as noted on the ISITDBT website (isitdbt.net). This website offers a list of resources for antiracist practice in the interest of promoting racial equity and anti-oppressive practices. While this resource is much needed and well-intended, it is nonetheless highly speculative and needs to be understood as a concept that is not always empirically grounded.

Conclusion

Speculation has long served as the bedrock of invention. While it potentially has a place in the scientific literature, it is with the condition that it be considered as a primer for new or further empirical thought and research studies as opposed to being offered as factually-derived content from empirical investigation. Speculation does not substitute for empirical evidence and should never be presented as fact or proof. The most useful application of speculation is to pave the way toward testable, falsifiable hypotheses. It should also be made clear that speculation is often based in part on conjecture. However, if discussed in the special sections recommended above, it may be very appropriate as a contribution to the scientific literature. The pri-

mary role is for speculation to stimulate innovative thinking that can later be potentially tested empirically and does not serve to replace data-driven outcomes. For this reason, its most appropriate role may be to augment further research as Gowers did with the development of his seizure theory more than a century ago.

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CLINICAL PRACTICE FORUM |

The Force of Psychological Flexibility: Conceptualizing Identity and Challenges in Anakin Skywalker

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ABSTRACT > *The aim of this article is to demonstrate how the psychological flexibility model from Acceptance and Commitment Therapy (ACT) can be applied to case conceptualization through the example of Anakin Skywalker from the popular film franchise,* Star Wars*. Case conceptualization involves understanding client difficulties from a theoretical perspective to guide effective treatment planning. ACT focuses on developing psychological flexibility, the capacity to act in line with personal values even when experiencing difficult thoughts and emotions. This model includes six core processes: acceptance, cognitive fusion, present-moment awareness, self as context, values, clarification, and committed action. Anakin Skywalker's experiences are explored through these processes, highlighting patterns of experiential avoidance, cognitive fusion, struggles with present awareness, rigid attachment to self-concept, conflicts between personal values and external rules, and inaction toward meaningful goals. His behavior reflects how psychological inflexibility can lead to distress and destructive choices. Using a fictional character provides and engaging, creative and accessible way to practice integrating theory with case formulation skills. This approach can help trainees strengthen their ability to identify key mechanisms of psychological functioning and apply therapeutic models to complex emotional and behavioral challenges.*

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CASE CONCEPTUALIZATION has been defined as an understanding of client difficulties from a theoretical perspective, considering factors contributing to the development of a problem and its maintenance (John & Segal, 2015). By helping clinicians formulate hypotheses about how distress arises, persists, and can be alleviated, case conceptualization guides the course of treatment (Eells, 2022; Raque & Meisels, 2025; Sanchez et al., 2022). Stronger therapist case conceptualization skills have been associated with improved care (Abel et al., 2016). Challenges in applying case formulation, on the other hand, can contribute to undesirable therapeutic outcomes (Kealy & Curtis, 2025). Case conceptualization integrates information about presenting concerns, client environment and background, and theoretical perspective to develop an understanding of difficulties (Gilboa-Schechtman, 2024). Understanding how to integrate theoretical perspectives underpinning empirically supported interventions and apply these models to client difficulties is a core clinical competency congruent with clinical training guidelines described by Division 12 of the American Psychological Association (APA, 2018)

Acceptance and Commitment Therapy (ACT) is a third-wave cognitive behavioral intervention, which has received empirical support in the treatment of depression, anxiety, substance use difficulties, chronic pain, and eating disorders (López-Pinar et al., 2025; Ii et al., 2019; Konstantinou et al., 2023; Di Sante et al., 2022). ACT aims to develop psychological flexibility, the ability to behave in a manner consistent with areas of living one finds meaningful and important, even when facing challenging thoughts, feelings, and memories (Levin et al., 2013). Psychological inflexibility, the converse of flexibility, has been defined by rigid, inflexible, and maladaptive responding (Hayes et al., 2012).

Psychological flexibility is conceptualized as comprised of six processes, with corresponding counterparts within psychological inflexibility; accept-

ance vs. experiential avoidance, defusion vs. fusion, flexible attention to the present moment vs. challenges in doing so, relation to self as context vs. attachment to a conceptualized self, values vs. lack of values clarity, and committed action vs. inaction towards one's values, described by Hayes and colleagues (2012). Acceptance can be thought of as willingness to experience unwanted thoughts and feelings, when doing so is adaptive and experiential avoidance as maladaptive efforts to avoid these. Defusion can be described as the ability to avoid getting caught up with difficult thoughts, while fusion describes the state of becoming caught or engaging in behaviors such as worry and rumination. Flexible attention to the present moment can be viewed as the ability to shift attention to one's experience in the here and now, whereas difficulties in doing so can involve focus on a conceptualized past or future and struggles in attending to current experience. Relation to self as context can be thought of as viewing oneself as able to encompass varied thoughts, feelings, and memories without being defined by them. Attachment to a conceptualized self has been described as being limited by ideas about who you are. Values can be thought of as a clear connection and understanding of areas of life that are meaningful and important, whereas lack of values clarity as an absence of this. Committed action has been described as behavior consistent with one's values (e.g., calling or spending time with loved ones if valuing family) and inaction as the lack thereof (Hayes et al., 2012).

Another core concept referenced in ACT is rule-governed behavior, which can be defined as a way of responding controlled by verbal stimuli or instruction rather than external contingencies (Hayes et al., 2013). Rule-governed behavior may be adaptive in helping us navigate the broader world (i.e., a response can be controlled by the statement "don't touch the stove, it will burn you," rather than a direct experience of being burned) but can also play a role in difficulties; rule-governed behavior can be maladaptive when rules are followed with excessive rigidity, ignoring direct contingencies (Tarbox et al., 2020). In contrast, responding influenced by experienced consequences can be thought of as contingency-shaped behavior (Hayes et al., 2012). Contingency-shaped behavior is more responsive to shifts in the environment, whereas rule-governed behavior may be rigidly followed, even when contingencies change (Tarbox et al., 2020).

Given growing empirical support for ACT, the psychological flexibility model serves as a promising theoretical framework to inform case conceptualization. However, although case conceptualization is a core clinical competency, it can be challenging for new therapists to master (Waltman et al., 2017). Further, trainees who have not yet begun to see clients may have limited opportunities to practice applying this skill. Instructors may use brief vignettes with clinical descriptions, but these can sometimes lack detail and focus more clearly on symptoms than might be apparent within a clinical interview. Scholars have noted a need to create methods that assist with more efficient and effective case conceptualization skills (Padesky, 2020). Use of a fictional character may provide a more in-depth and engaging opportunity for considering key mechanisms of psychological dysfunction and strategies for therapeutic change. The current paper describes an application of the psychological flexibility model to Anakin Skywalker, a character

within the *Star Wars* universe. *Star Wars* is a popular film series, and Anakin is a complex individual who experiences considerable psychological dysfunction (note the presence of spoilers ahead). We present plausible interpretations of Anakin's experiences; however, as he is a fictional character, some aspects of these may be subject to debate. Nonetheless, we believe that our framing illustrates key principles and supports the development of case conceptualization skills.

Case of Anakin Skywalker

Anakin Skywalker, 22, is a human living on Coruscant, the capital planet of the Republic Army. Once a slave on the desert planet Tatooine, he was freed at age 10 by Jedi Master Qui-Gon Jinn. Jedi are knights who use the Force to aid all under their protection. Qui-Gon believed Anakin was the Chosen One, who would restore balance to "the Force"—a mystic presence and power contained within all living beings across the galaxy. Qui-Gon desired to train Anakin, and for the short time they knew each other, served as a father figure for him, becoming one of the few to gain his trust and attachment. However, Qui-Gon was killed shortly after Anakin was freed, and Anakin's mother could not be freed along with him.

Anakin is thereafter trained as a Jedi by Obi-Wan Kenobi, Qui-Gon's former apprentice, who is committed to helping Anakin as the Chosen One. Although Obi-Wan provides training in Jedi skills, he does not meet Anakin's emotional need for a parental figure. Instead, Obi-Wan functions as an older brother figure to Anakin, resulting in a mixture of admiration, respect, and jealousy from Anakin and a somewhat frequent argumentative nature regarding their differing ideals about power, life, and the Jedi Order. Although their relationship is very complicated and they do not always see eye to eye, they have a deep-rooted respect for one another.

Obi-Wan's behavior can be understood within the broader values of the Jedi. Jedi aim to serve as peacekeepers and wield the light side of the Force. They believe that they must avoid unpleasant emotions, such as fear or anger, and attachments to others, as these are viewed as leading to the evil side of the Force—the dark side. Along with having limited support, Anakin faces pressure and criticism from other Jedi. Anakin is expected to fulfill the prophecy as the Chosen One, but the way he must do so is unclear, and he finds it hard to meet expectations. Anakin is also judged for his frequent tendency to act on his emotions, an attribute the Jedi view as a weakness due to their rigid belief in detachment from emotions, especially those tied to attachment to others, which he desperately seeks throughout his life. Additionally, he experiences several major conflicts related to interpersonal attachment and associated emotions. He meets and falls in love with the politician and eventual queen Padmé Amidala and secretly marries her, violating Jedi rules. Anakin also seeks to find his enslaved mother. Over the course of doing so, he finds that she had been kidnapped and tortured by the Tusken Raiders, a group of aggressive marauders. Anakin's mother dies in his arms, and he murders the entire of the clan of Tusken Raiders responsible for the kidnapping, including the women and children, in anger. Anakin continues to experience deep shame about being unable to save his mother, and this experience contributes to his worry about losing Padmé.

Anakin's struggles come to a head after he is asked by Obi-Wan to spy on the political leader Chancellor Palpatine, due to concerns about a "disturbance in the Force" surrounding him. This assignment is challenging for Anakin because Chancellor Palpatine has been a mentor to him, which deepens his doubt about the Jedi and their role. However, Anakin finds that Jedi suspicions were correct, and Chancellor Palpatine is a dark side Force-user working to overthrow the Jedi. When Anakin confronts Chancellor Palpatine, he works to convince Anakin to turn against the Jedi, promising the ability to protect Padmé from the death Anakin foresaw in a prophetic dream. Having previously experienced a similar dream correctly predicting his mother's death, Anakin believes this one will prove true as well, leading to a great deal of anxiety related to controlling the potential negative outcome. Faced with growing emotional turmoil, imagining future harm to Padmé and ruminating over his mother's death, Anakin decides he must keep Padmé safe regardless of the cost. He turns to the dark side and kills many Jedi to prove his loyalty. Obi-Wan finds out about Anakin's actions and seeks to stop him, resulting in betrayal and further violence from Anakin. Although Anakin had hoped to gain the power to protect Padmé, his actions did not lead to his desired outcomes. Padmé is horrified by his behavior, and he loses the relationship entirely.

Anakin's Struggles Through a Psychological Inflexibility Lens

Experiential Avoidance

Anakin's experiences may be conceptualized using the psychological flexibility framework. Experiential avoidance features prominently in his struggles. Experiential avoidance can take many forms, including distraction, substance use, and behavioral avoidance, defined functionally by avoiding aversive thoughts, feelings, or memories (Hayes et al., 2012). Anakin struggles with difficult emotions related to his mother's death and anxiety about potential harm to Padmé. He experiences uncertainty about these possibilities as deeply distressing. To avoid uncertainty, guilt, grief, and anxiety in these domains, he engages in maladaptive control efforts by joining the dark side. Dark side users, also known as Sith, reject uncertainty and try to eliminate it, while the Jedi order emphasizes acceptance of uncertainty and trust in the Force to guide them through it. Although Anakin's behavior reduces his distress in the short-term, it is counter to his values as a protector of the galaxy and has harmful long-term consequences, contributing to suffering for Padmé, Anakin, and others. Experiential avoidance has been associated with psychological distress, demonstrating moderate to large effect sizes (Akbari et al., 2022), consistent with Anakin's experience.

Cognitive Fusion

Anakin's relation to his thoughts evidences cognitive fusion, rigidly treating thoughts as literal representations of the world, rather than private stimuli (Hayes et al., 2012). Anakin responds to thoughts about Padmé being harmed as if they are certain outcomes, rather than possibilities. This repertoire can be contextualized within the broader literature on rule-governed behavior. Anakin's behavior can be thought of as controlled by a rule that "All possible actions must be taken to protect loved ones or they will be

harmed." Cognitive fusion with thoughts related to harm to Padmé leads Anakin to act as if harm is certain and present, and his adherence to this rule becomes all-encompassing, leading him to turn to the dark side and kill Jedi. Interestingly, recognition of this rigidity is highlighted within the movie itself, with Obi-Wan stating "Only a Sith deals in absolutes" in an illustrative interaction with Anakin.

Difficulties Flexibly Attending to the Present Moment

Being able to respond effectively and adaptively requires an awareness of shifting environmental contingencies as they occur and difficulties in doing so reflect challenges with the ability flexibly attend to the present moment from an ACT perspective (Kelly & Kelly, 2021). Anakin's actions reflect challenges in this domain. He struggles with shifting his attention to the present and engaging with Padmé or fellow Jedi, negatively impacting these relationships. Instead, Anakin spends time engaged in worry about potential harm to Padmé in the future and rumination about his mother's death; it is these conceptualizations that have a larger influence on his behavior as a result.

Attachment to a conceptualized self can also be viewed as rule-governed behavior related to oneself, with the rule being more specific to the individual than might be seen in fusion.

Attachment to Conceptualized Self

Ideas about who we are and what is possible for us can shape behavior. Rigid or inflexible adherence to such ideas can be conceptualized as attachment to a conceptualized self, and may limit behavior to that which is congruent with ideas with said self (Noureen & Malik, 2021). Attachment to a conceptualized self can also be viewed as rule-governed behavior related to oneself, with the rule being more specific to the individual than might be seen in fusion (Kelly & Kelly, 2021). Anakin identifies strongly with being the "Chosen One" and the considerable responsibility for restoring balance to the Force, an identity which is further reiterated by others in his environment. In adherence to this identity, Anakin becomes attached to ideas about being perfect in order to fulfill his destiny, following a rule of "I am the Chosen One, and therefore cannot allow any mistakes or failure." Challenges to this self-concept (e.g., lack of recognition and potential inability to prevent all harm) result in distress and control-based strategies to keep his status as the Chosen One, destined to save the galaxy. For example, when Anakin is denied the rank of Jedi Master, which threatens his identity as the Chosen One, he responds in anger toward the council for their decision being "outrageous" and "unfair." Anakin aims to control distress associated with these threats to his self-concept by becoming as powerful as possible,

with rigid attachment to this identity driving his downfall and turn to the dark side.

Values Challenges

Values are a key component of the psychological flexibility framework and have been described as rule-governed behavior under appetitive control; that is verbal stimuli which bring desirable consequences into the present and influence repertoires (Sandoz et al., 2020). Anakin values being a caring romantic partner and friend (influencing interactions with both his wife, Padmé, and his mentor, Obi-Wan), as well as having a positive impact on the world through his role within the Jedi order. However, he also struggles with the conflict between his value of social connection and the Jedi prohibition of attachments. Anakin attempts to follow numerous Jedi rules, but while he values the broader mission of the Jedi, his adherence to these can be more accurately conceptualized as *pliance*. Pliance can be thought of as behavior controlled by social pressure, enacted to attempt to please others (Berkout, 2022). Pliance-congruent responding does not carry the same appetitive quality and vitality as behavior consistent with values, and contributes to Anakin's distress and struggle with enacting his values.

Inaction Towards Values

Psychological flexibility is ultimately defined by responding consistent with freely-chosen values (Hayes et al., 2012). Even prior to his turn towards the dark side, Anakin evidences struggles within this domain. He sets aside his valuing of close relationships to attempt to adhere to socially imposed Jedi rules requiring avoidance of attachment, limiting his engagement in connection with others. Over time, Anakin is drawn into the Sith organization. The Sith are obsessed with power, and draw on peoples' selfish needs for more of it in order to manipulate individuals to turn to the dark side. Palpatine uses this approach effectively, offering Anakin the illusion of certainty and the ability to control feared outcomes and protect those he loves, feeding into his struggles with cognitive fusion and experiential avoidance. In the short term, this approach helps Anakin reduce discomfort, though turning towards the Dark side causes him to move away from his values as a protector of the universe and caring friend. Seeking to avoid the discomfort associated with uncertainty and fears about harm to Padmé at any cost, Anakin even gives Obi-Wan an ultimatum: to align himself with Anakin, or to become his enemy. Repeatedly, rather than being flexible in considering other ways to keep Padmé safe, Anakin remains inflexible, going so far as choosing to kill numerous Jedi and betray his closest friend.

Closing Remarks

Anakin Skywalker is a widely-known character in a popular film franchise; thus, his story can provide an engaging means to present the psychological flexibility framework. Instructors interested in strengthening case conceptualization skills may ask students to view films within the *Star Wars* franchise and include the present manuscript as a reading. Instructors might also include other characters with diverse backgrounds, reflecting a range of experiences along racial / ethnic, ability, sexual orientation, gender identity,

and other facets, to help students consider the way psychological flexibility processes and identity may intersect to influence experience. Characters, such as Issa of *Insecure* (a Black woman), Mr. Glass of *Unbreakable* (disabled), *Split*, and *Glass* films, Oberyn Martell (bisexual) of *Game of Thrones*, Dr. Mel King (neurodiverse) of *The Pitt*, Veronica Lodge (Latina) of *Riverdale*, and Mikasa Ackerman (Biracial) of the anime *Attack on Titan*, can help inform these discussions. Early trainees may also be asked to consider a character from a favorite work of fiction through a theoretical framework to better support connection with the assignment, as some students may not relate to Anakin's story. Students can additionally generate a treatment plan to strengthen connections between case conceptualization and intervention.

Although case conceptualization is a core clinical skill (Eells, 2022; Raque & Meisels, 2025; Sanchez et al., 2022) more effective instruction strategies in this domain are needed (Padesky, 2020). Repeated practice and feedback in applying clinical skills supports their development (Vaz et al., 2025), but individuals might have limited opportunities to engage in case conceptualization early in training. Considering the behavior of fictional characters through the lens of established theoretical models can help trainees develop this skill. Using popular characters and considering how difficulties intersect with identity can support these competencies early in training.

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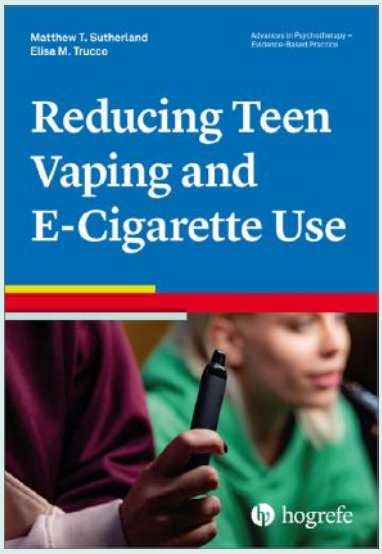

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Matthew T. Sutherland / Elisa M. Trucco

Reducing Teen Vaping and E-Cigarette Use

This evidence-based resource presents developmental, scientific, and clinical strategies to prevent and treat teen vaping. It offers practical, youth-focused tools that help adults support healthier decision-making and address vaping with clarity and effectiveness.

Vaping and the reemergence of adolescent nicotine use is one of the more pressing US public health challenges of the past decade. This book compiles, in one accessible resource, a menu of intervention options and strategies for adults looking to promote teens' optimal health-related decision making. Written for clinicians, researchers, and educators, while also remaining accessible to concerned families, this volume integrates the latest scientific findings, developmental perspectives, and clinical recommendations focused on preventing and treating teen vaping. By appreciating the broad biopsychosocial context in which vaping behaviors arise and persist, this guide advocates for the tailoring of interventions to individual needs and preferences, highlighting youth-oriented practical tools for vaping education, prevention, and treatment. A primary goal is to inspire collaborative, multilevel efforts to protect the health and well-being of the next generation. Teen vaping is a preventable and treatable health challenge when addressed with urgency, scientific evidence, and empathy.

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ABCT fellows
ASSOCIATION for BEHAVIORAL and COGNITIVE THERAPIES

Spotlight on a Fellow
Melanie Harned

To spotlight the extraordinary work of our ABCT membership, we are highlighting the work of recently admitted ABCT Fellows. Fellow status is the highest level of membership in ABCT, and we hope that many members aspire to demonstrate their outstanding and sustained accomplishments in at least one of the areas of eligibility: clinical practice; education and training; advocacy / policy / public education; dissemination and implementation; research; and diversity, equity and inclusion. Below is an interview conducted with Dr. Melanie Harned, Coordinator of the Dialectical Behavior Therapy Program in Seattle, Washington and an Associate Professor in the Departments of Psychology and Psychiatry and Behavioral Science at the University of Washington. She became a Fellow within ABCT in 2025.

Can you tell us about what made you apply for Fellow status at ABCT?
To be honest, I was not familiar with the ABCT Fellow status until shortly before I applied. I saw "ABCT Fellow" in the email signature of someone I respect, which sent me down a rabbit hole to figure out what that meant. As I read about it, I realized I might be eligible and the application seemed straightforward. Although I am not someone who typically applies for such things, I thought why not give it a shot? Plus, I'm going up for promotion this year and thought it might help me in that process.

Becoming a Fellow means that you have distinguished yourself in a variety of areas that can include dissemination, clinical service, research, training, program development, policy / advocacy and advancing diversity, equity and inclusion. If you had to identify two professional accomplishments of which you are most proud, what would they be?
My work is dedicated to making high-quality, evidence-based psychotherapy available to individuals at high risk of suicide with complex trauma-related problems. Within this body of work, I am most proud of the accomplishments that have had the widest impact on clinical practice. First, I am the developer of the Dialectical Behavior Therapy Prolonged Exposure protocol (DBT PE), the first therapy designed specifically for individuals with PTSD at elevated acute risk for suicide. Since 2009, I have received three federal grants to develop, test, and implement this treatment in various settings. This research has provided the first evidence that PTSD can be safely and effectively treated among individuals at high risk for suicide, particularly those with recent and repeated self-directed violence. I have also worked extensively to disseminate DBT PE by training therapists around the world to deliver this treatment. The opt-in directory of intensively trained DBT PE therapists on the DBT PE website currently includes nearly 900 therapists from 37 countries (www.dbtpe.org).

Second, I have also conducted research to improve our understanding of and ability to measure DBT therapist adherence and program fidelity. This work included establishing that greater therapist adherence to DBT significantly reduces

subsequent suicide attempts, psychiatric hospitalizations, and treatment dropout. To promote high-quality DBT, my research team developed the DBT Adherence Checklist for Individual Therapy (DBT AC-I) and the DBT Program Fidelity Checklist (DBT PFC) using rigorous methods that included extensive feedback and psychometric testing with DBT therapists in routine practice. To facilitate widespread use, these measures and training materials are freely available on the DBT Adherence & Fidelity website (www.dbtadherence.com). The DBT AC-I is now available in 10 languages and is widely used as a quality improvement tool in clinical practice. This measure has also been adopted by the DBT-Linehan Board of Certification and is being used in large-scale implementation projects such as the national roll-out of DBT in the Veterans Affairs (VA) system.

Can you tell us a bit about your pathway to becoming a professional – who were your greatest influences during your training and in the early stages of your career?

Earlier in my career, I had the honor of working closely with Dr. Marsha Linehan, the developer of DBT, first as a postdoctoral fellow and then as the Director of Research at her clinic at the University of Washington for 13 years. Marsha was instrumental in helping me obtain my first grant to develop DBT PE (which took 5 years and six submissions!). I was also fortunate to have Dr. Edna Foa, the developer of PE, as a consultant on that first grant. I am truly privileged to have been able to stand on the shoulders of such giants and to have had their support as I worked to create DBT PE.

What advice would you give to someone who may be considering a similar career trajectory to your own?

For those interested in careers in research, I think a lot of what it takes to succeed comes down to perseverance and strategy. It often takes many submissions to get a grant funded, and this has gotten even harder in the current funding climate. A critical strategy for me has been to figure out how to make my research align with the priorities of the funding agency, and to consult with program officers and other researchers with similar grants about the best ways to do this. For example, I designed my current VA Merit award to clearly fit within the area of suicide prevention—a high priority within the VA—and it was funded on the first submission. I also recommend finding ways to conduct research that do not require traditional grant funding. For example, I am currently involved in an evaluation of the VA's national clinician training program for DBT that is supported by funding from the VA Office of Suicide Prevention. There may also be opportunities to partner with private industry to conduct research. For example, I recently joined a startup called Therassist.AI that is focused on developing and evaluating an AI-powered DBT adherence feedback tool for therapists. Perhaps most importantly, it is critical to develop strategies to keep yourself moralized when research funding is difficult to obtain. Getting support from colleagues and friends, being in nature, and daydreaming about career back-up plans (travel writer? trail guide?) have all helped me!

Hindsight being 20 / 20, are there things that you would do differently during your career if you had the opportunity for a "do over?"

I had a "soft money" job (funded largely by external grants) in academia for most of my career, which was often quite stressful due to the constant need to obtain funding to support myself and my team. For the past 8 years, I have had a "hard money" position (with a permanent, guaranteed salary) at the Seattle VA where I do the same kinds of work but without the fear of losing my job if I have a gap in funding. While working for the federal government poses its own set of challenges, I really appreciate the security and emphasis on maintaining a 40-hour work week. If I could have a "do over," I would have shifted to a hard money position earlier in my career for better work-life balance!

Finally, as an esteemed Fellow, we would welcome your opinions about ABCT.

I have been a member of ABCT for more than 20 years and have found attending the annual conference to be the most valuable part of the organization. The conference has been a fantastic way to hear the luminaries in our field talk about their work, learn about innovative new research being done by people at all stages of their career, and build connections and friendships with many people I otherwise may not have met.

Volunteer Me | abct.org

Volunteer Me is a year-round portal that allows members to indicate interest in serving on an ABCT committee. ABCT members looking to volunteer within the organization should consider joining one or more of our very active and vibrant committees. Learn more about each committee.*

Visit the Volunteer Me portal here!

** Please note that your indication of interest does not automatically add you to a committee.*

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- Clinical Directory & Referral Committee
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- Student Membership Committee
- Technology Committee
- Web Committee
- Workshops Committee
- World Congress Scientific Program Committee

A Selection of Clinical Resources

available on abct.org

ABCT's Academic Training & Education Standards Committee has curated the following materials and resources, to highlight the ABCT website's expansive collection available online!

VIDEO DEMONSTRATIONS

Behavioral Activation:

www.abct.org/for-professionals/clinical-demonstrations-and-resources

Dr. Christopher Martell demonstrates components of treatment:

- Case conceptualization
- Assigning homework
- roubleshooting barriers to behavioral activation

Exposure Therapy:

www.abct.org/for-professionals/exposure-therapy-teaching-resources

A collection of exposure videos, from OCD to selective mutism to panic to social phobia

HANDOUTS, WORKSHEETS, SYLLABI, & ASSIGNMENTS

Cognitive Restructuring:

www.abct.org/for-professionals/cognitive-restructuring-teaching-resources

Handouts and worksheets on working with cognitive coping, negative thoughts, automatic thoughts, cognitive distortions.

Course Syllabi:

www.abct.org/for-professionals/teaching-resources/syllabi

Catalogue of psychology course syllabi in various curriculum areas: adult intervention, adult psychology & psychopathology, assessment & measurement, child & adolescent psychotherapy, developmental psychology, ethics, health psychology & behavioral medicine, medical education, multicultural/diversity, practice, research methodology, supervision

Course Exercises, Demonstrations, and Assignments:

www.abct.org/for-professionals/teaching-resources/cbt-teaching-exercises-demonstrations-and-assignments

Catalogue of psychology course exercises, demonstrations, and assignments related to the teaching of CBT.

Career Center

ABCT JOB BANK is the premier electronic recruitment resource for the industry. Here, employers and recruiters can access the most qualified talent pool with relevant work experience to fulfill staffing needs.

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Professional Development in Research
Selected tBT Articles Related to Professional Development in Research.

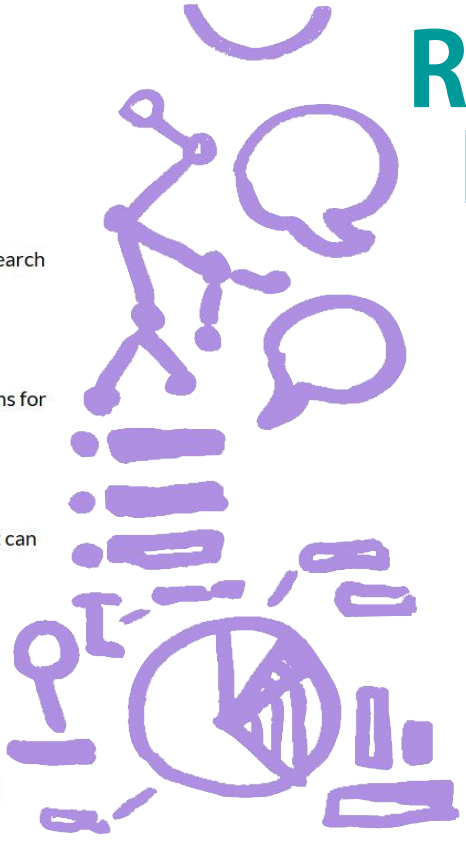
Research Method Spotlights
A curated collection of resources on different research methods relevant to the ABCT community.

Statistical Software & Resources
A list of third party statistical tools and applications for those doing CBT research.

Data Collection Tools
A list of data collection tools and applications that can be helpful for those doing CBT research.

Government Funding Agencies
Links to Government Funding Agencies

Grant Resources
The process of grant writing can be daunting for a professional at any stage of their career.



Resources for Researchers

ABCT is constantly evaluating how to best serve the research community.

Please take advantage of the growing number of helpful resources for researchers available at:

abct.org/for-professionals/research-resources

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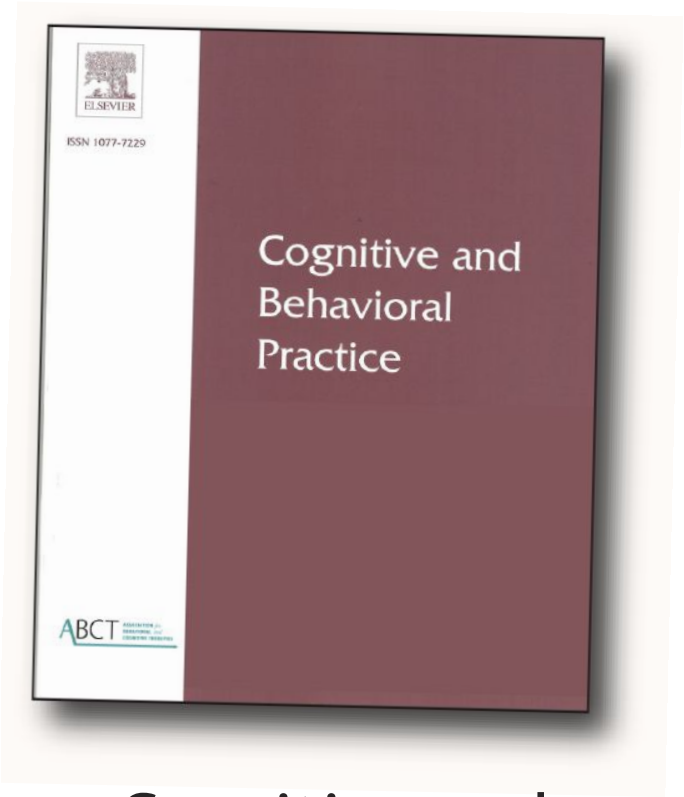
To Review for *Cognitive and Behavioral Practice*

We are looking to expand our reviewer pool for our journal.

Please click the link below to access the volunteer form!

Here is a chance to **give back** to the field, **be involved** in our community of editors, **engage with authors** about topics on which you are an expert, and help to **maintain the integrity of science and advance the field!**



Cognitive and Behavioral Practice

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Update Your Clinical Directory Profile!

Let potential clients and your ABCT colleagues reach you.
A complete and accurate Clinical Directory profile listing will help ensure robust connections among you, the help-seeking public, and colleagues seeking referrals.

The best—and only—way is to ***update your Clinical Directory listing*** now, in ***4 easy steps***:

1. Log in at services.abct.org/i4a/ams/profile
2. Click "Edit Your Profile"
3. Click "Contact Info" to update important details of your listing[SS1]
4. Navigate to the "Addresses" section and click the "Clinical Directory 1" tab, then input your address. Even if your address is the same as your mailing address, it still needs to be entered with the Clinical Directory 1 type.

Tips to maximize your listing:

- Add demographics/population served: Listing demographics of the population you work with helps define your practice and prevents having to redirect potential clients.
- Add specialties/languages: Pinpoint the distinctive features of what your practice offers.
- Practice Philosophy: Use clear, jargon-free language that resonates with clients.
- Add your photo (for expanded listings only—see below): Foster a sense of interest and connection.

For an annual fee of $50, you can ***enhance your Find a Therapist Directory listing***. With this expanded option, not only will your name come first in any searches that capture your listing, but it will include these features:

- Expanded Clinical Directory features:
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- Your headshot appears with your listing
- Multiple practice locations can be included
- Potential clients can view the insurance(s) you accept
- Your listing includes a link to your website

Questions about updating your listing?
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