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Physician Training and Support in Managing Dilemmas Around Benzodiazepine Prescribing

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Physician Training and Support in Managing Dilemmas Around Benzodiazepine Prescribing

by

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DISSERTATION

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Abstract

Numerous concerns have emerged regarding the dangers of extended benzodiazepine use and abuse, as well as continued prescribing by medical professionals despite related contraindications. Primary care physicians (PCPs) may find decisions around benzodiazepine prescription and related patient encounters to be especially challenging. Little is known on the efficacy of routine medical training and supervision/consultation models in preparing emerging PCPs for managing the dilemmas that may ensue with regards to prescribing benzodiazepines. The present study sought to begin addressing this gap by conducting an initial qualitative inquiry into the training and supervision experiences and needs of a group of current family medicine residents. A 30-minute semi-structured focus group interview (consisting of four participants) was conducted via video. Two main themes, Variability in Resources and Supports and Patient–Provider Interactions, were identified through thematic analysis. Participants highlighted concerns that inconsistencies in resources and supervisory approaches to benzodiazepines might adversely impact their therapeutic relationship with patients, and an initial hypothesis regarding this possible association was presented for further research. Participants identified increased empathy from supervisors around this concern as a primary area of need for future support. Limitations of the study, implications for practice, and future directions for research were discussed. The present study found that a better understanding of the early training and supervision experiences of emerging primary care providers around benzodiazepines will be critical in supporting the next generation of providers, improving patient care, and shaping future prescribing practices related to this difficult class of medications.

Keywords: benzodiazepines, prescription, primary care, dilemmas, training, supervision

Physician Training and Support in Managing Dilemmas Around Benzodiazepine Prescribing

On September 23, 2020, the U.S. Food and Drug Administration (FDA) announced that it would require an update to the Boxed Warning label on benzodiazepine prescriptions to include the risks of misuse, abuse, physical dependence, addiction, and withdrawal (U.S. Food and Drug Administration, 2020). This reflected a number of growing concerns regarding this widely used class of psychotropic medication. In 2019, an estimated 92 million benzodiazepine prescriptions were dispensed from U.S. outpatient pharmacies (U.S. Food and Drug Administration, 2020). Around 5% of U.S. adults ages 18 through 80 (over 10 million individuals) were estimated to receive one or more benzodiazepine prescriptions in 2008 (Olfson, King, & Schoenbaum, 2015). A 2019 cross-sectional study, conducted using data from the National Survey on Drug Use and Health Data, revealed that recent numbers may be significantly higher than previous estimates, with over 30.6 million U.S. adults reporting (prescription and non-prescription) use of one or more benzodiazepines between 2015 and 2016 (Maust, Lin, & Blow, 2019). Additional longitudinal data collected between 2003 and 2015 support a steady increase in the number of benzodiazepine prescriptions issued in outpatient settings over the past decade, particularly by non-psychiatric providers (Agarwal & Landon, 2019).

Growing Concerns Around Benzodiazepines

Benzodiazepines are one of the most frequently misused and abused types of prescription medications. Maust et al. (2019) found that nearly 20% of reported cases of benzodiazepine use between 2015 and 2016 could be classified as misuse (e.g., using without a prescription, taking different doses than prescribed). These medications have a high potential for dependence and addiction due to their ability to produce almost immediate sedative and euphoric effects (Brett &

Murnion, 2015; Siriwardena, 2017). In 2011, over 500,000 (one half million) emergency department (ED) visits occurred in relation to benzodiazepine use (Substance Abuse and Mental Health Services Administration, 2013). Seventy-nine percent of these visits were related to non-medical use, and 24.2% of these visits involved co-occurring alcohol consumption (Olfson et al., 2015). These ED admission statistics represented an approximate 154% increase from 2004 numbers, illustrating a growing problem of benzodiazepine-related physical and mental health emergencies (Substance Abuse and Mental Health Services Administration, 2013).

A number of dangers have been linked to prolonged and/or excessive benzodiazepine use, including a) drowsiness, confusion, and motor impairments (Authier et al., 2009; Brett & Murnion, 2015; Landry, Smith, McDuff, & Baughman, 1992); (b) potentially enduring deficits in a number of cognitive abilities (Crowe & Stranks, 2017); and (c) an increase in psychiatric symptoms related to depression and anxiety (Brunette, Noordsy, Xie, & Drake, 2003; Jones, Nielsen, Bruno, Frei, & Lubman, 2011). Benzodiazepines are one of the most commonly encountered drugs in overdose-related deaths, frequently found in combination with opioids and alcohol (Olfson et al., 2015). A growing body of research supports that chronic benzodiazepine use may be especially dangerous in the elderly population, with psychomotor impairments resulting in an increased likelihood of falls (Pariente et al., 2008) and possible memory impairments. A possible link between benzodiazepine use in the elderly and dementia is currently under investigation (Billioti de Gage et al., 2012; Markota, Rummans, Bostwick, & Lapid, 2016; Opondo et al., 2012).

In addition to the number of potentially adverse side effects associated with long-term benzodiazepine use, the process of withdrawal (particularly when use is abruptly stopped) can induce many unpleasant and potentially life-threatening physical and psychological symptoms

including catatonia, seizures, extreme anxiety (Fixsen & Ridge, 2017), dysphoria (Baandrup, Fagerlund, & Glenthoj, 2017), and even psychotic experiences (Brett & Murnion, 2015; Morales et al., 2017). These symptoms can severely limit an individual's ability to function in a number of everyday situations (Fixsen & Ridge, 2017) and may also increase the likelihood of developing and/or acting on suicidal thoughts (Dodds, 2017), engaging in other impulsive or self-endangering behaviors (Authier et al., 2009), or directing aggression toward others (Jones et al., 2011).

Inappropriate Benzodiazepine Prescription Practices Persist

Given their relatively high potential for misuse, abuse, and psychological and physical dependence, and their host of dangerous side effects and withdrawal symptoms, benzodiazepines require close medical monitoring. The majority of benzodiazepine prescriptions appear to be managed by non-psychiatric practitioners (Olfson et al., 2015). Within recent years, many psychotropic medications, including benzodiazepines, have been increasingly prescribed and followed by primary care physicians (PCPs; Hedenrud, Svensson, & Wallerstedt, 2013). Concerns have arisen with regards to the abilities of PCPs to manage these medications, particularly in psychiatrically complex patients who may require a number of psychotropic medications (Ballester, Filippon, Braga, & Andreoli, 2005). Additionally, despite recent adjustments in recommended best practices around the use of benzodiazepines in the treatment of anxiety (Baldwin et al., 2005) and insomnia (Morgenthaler et al., 2007; Schutte-Rodin, Broch, Buysse, Dorsey, & Sateia, 2008), and cautions against their use in elderly patients, a considerable number of new prescriptions appear to be inappropriately issued on a regular basis (Cloos & Ferreira, 2009; Opondo et al., 2012; Siriwardena, 2017).

Providers Face Dilemmas Around Prescribing Benzodiazepines

Research suggests that medical providers face a number of ethical, personal, and interpersonal dilemmas when asked by a patient to begin a new benzodiazepine prescription or to continue benzodiazepine treatment initiated by another professional (Anthierens, Habraken, Petrovic, & Christiaens, 2007; Bradley, 1992a; Siriwardena, Qureshi, Gibson, Collier, & Latham, 2006). Face-to-face encounters around these medication requests may be rife with a number of difficult interactions on both patient (Fixsen & Ridge, 2017) and provider (Anthierens et al., 2007; Bendtsen, Hensing, McKenzie, & Stridsman, 1999; Bradley, 1992a) ends. Literature around both broad medication issues (Upshur, Bacigalupe, & Luckmann, 2010) as well as benzodiazepine medications in particular (Iliffe et al., 2004; Mah & Upshur, 2002) suggest that significant gaps frequently exist between patient and provider understanding, preferences, intentions, and concerns within these encounters.

In recent years there has been an increasing emphasis on building interpersonal and social communication competencies in medical trainees (Batalden, Leach, Swing, Dreyfus, & Dreyfus, 2002). However, training programs appear to be highly variable with regards to how they implement curricula around these competencies (Cape, Hannah, & Sellman, 2006; Kelleher, 2007). There does not appear to be any recent research on the firsthand experiences of medical practitioners regarding the effectiveness of their training in preparing them to manage challenging encounters around controlled psychotropic substances (such as benzodiazepines) in actual practice. The present study sought to begin filling this gap by investigating the subjective experiences of a group of emerging medical professionals (family medicine residents) with regards to training, supervision, and consultation around benzodiazepines.

Literature Review

The Rise of Benzodiazepines

Benzodiazepines are a group of sedative hypnotic medications typically prescribed for the treatment of acute anxiety and panic symptoms, as well as insomnia. In addition to offering anxiolytic benefits, benzodiazepines may also be used in medicine for their anticonvulsant, muscle relaxant, and anesthetic effects (Julien, 2013). Commonly prescribed benzodiazepines include short-acting agents, such as alprazolam (Xanax), triazolam (Halcion), and midazolam (Versed); intermediate-acting agents, such as lorazepam (Ativan) and clonazepam (Klonopin); and longer-acting agents, such as diazepam (Valium). Benzodiazepines first emerged in the 1960s as an alternative to the prevailing barbiturate drugs of the time, such as amobarbital (Wick, 2013). Due to their relative safety in comparison to these former drugs, benzodiazepines subsequently experienced a surge in popularity. In 2013, alprazolam was the number one most prescribed psychotropic medication in the United States; this represented a stable trend from previous years (Grohol, 2018). Another benzodiazepine, lorazepam, was similarly high on the list, ranking as the fifth most frequently prescribed psychotropic in 2013, with over 28 million prescriptions issued (Grohol, 2018). Per CDC estimates, benzodiazepines were prescribed at an overall national average of 37.6 prescriptions per 100 individuals in 2012 (Paulozzi, Mack, & Hockenberry, 2014). Frequency of benzodiazepine prescription appears to be highly variable across states, with Southern states such as Alabama, Tennessee, and West Virginia exhibiting higher prescribing rates than others (Paulozzi et al., 2014). Maust, Lin, Blow, and Marcus (2018) analyzed state and county-wide benzodiazepine prescription data across the U.S. from the 2015 Medicare Public Use Files (PUF). Counties with lower median income levels, lower levels of educational attainment, and higher rates of opioid prescriptions were associated with higher

numbers of benzodiazepine prescriptions, even after adjustments were made regarding availability of mental health resources (Maust et al., 2018).

Long-term benzodiazepine use appears to be more frequent in females than in males, though a considerable proportion of illicit use may be attributed to males (Olfson et al., 2015). Individuals with existing mental health and substance use histories may be more likely to develop dependence and/or engage in benzodiazepine misuse (Baandrup et al., 2017; Brunette et al., 2003). Additionally, socioeconomic factors have been implicated in long-term benzodiazepine use (Morales-Suarez-Varela, Jaen-Martinez, Llopis-Gonzalez, & Sobrecases, 1997), with users citing a desire to escape from overwhelming life stressors (Fixsen & Ridge, 2017).

Risks Associated with Prolonged Use

Benzodiazepines act by enhancing the binding capacity of gamma-aminobutyric acid (GABA), a key neurotransmitter involved in inhibitory responses of the central nervous system, to its cellular receptor (Campo-Soria, Chang, & Weiss, 2006; Julien, 2013). This can promote perceptions of physical relaxation and a sense of subjective wellbeing.

Despite their assumed safety in comparison to previous sedative hypnotic medications, and their seemingly therapeutic short-term effects, a growing body of research suggests that benzodiazepines may pose a number of unexpected risks with long-term use. High doses of benzodiazepines may cause paradoxical agitation in the forms of elevated anxiety, irritability, hostility, and aggression (Julien, 2013). Crowe and Stranks (2017) conducted a meta-analysis on the relationship between extended benzodiazepine use and various cognitive abilities and found statistically significant adverse effects on working memory, visuospatial construction, divided attention, and more general sustained attention in benzodiazepine users. Some of these cognitive

challenges appeared to persist even after withdrawal and sustained abstinence (Crowe & Stranks, 2017). These deficits may adversely impact learning and related school and work performance in children and adults (Julien, 2013).

Results from two large cohort studies in France and the United Kingdom found all-cause mortality to be significantly higher in benzodiazepine users (as well as those who used both benzodiazepines and antidepressants) than those who used neither medication across a 12-month time period (Palmaro, Dupouy, & Lapeyre-Mestre, 2015). Additional studies have observed a potential association between benzodiazepine use and risk of premature mortality, though more research is warranted regarding causality (Charlson, Degenhardt, McLaren, Hall, & Lynskey, 2009). Many mediating variables may play a role in mortality and overall health, including number of adverse childhood experiences (ACEs), which appears to be associated with a higher likelihood of being prescribed one or more psychotropic medications (Anda et al., 2007). It is therefore possible that patients with other risk factors for premature mortality may be more likely to be prescribed benzodiazepines and other medications. Research has also demonstrated that individuals who use benzodiazepines may be at an increased risk for suicidal ideation and attempts, particularly during withdrawal (Dodds, 2017; Jones et al., 2011).

Long-term use of benzodiazepines is prevalent (Neutel, 2005). Physical and psychological dependence may develop within less than one month of regular benzodiazepine use, even at established therapeutic doses (Authier et al., 2009; Julien, 2013). Unpleasant withdrawal symptoms may develop after only two weeks of regular use (Brett & Murnion, 2015). Individuals may endorse fear of withdrawal effects as a primary motivation for continued benzodiazepine use, even when the medications are only minimally helpful (Barter & Cormack, 1996). Physical symptoms of withdrawal may include tachycardia, hypertension, tremors, chest

pain, convulsions (Brett & Murnion, 2015; Schweizer & Rickels, 1998; Tyrer, Murphy, & Riley, 1990) and potentially life-threatening catatonia (Deuschle & Lederbogen, 2001). Psychological symptoms may include: (a) feelings of dread, overwhelming panic, exaggerated anxiety, paranoia (Aguiluz, Alvarez, Pimentel, Abarca, & Moore, 2018; Fixsen & Ridge, 2017); (b) intrusive thoughts (Baandrup, Fagerlund, & Glenthoj, 2017); (c) extreme sensitivity to various sensory stimuli (Authier et al., 2009); (d) depression (Baandrup et al., 2017); (e) insomnia (Tyrer, Murphy, & Riley, 1990); (f) nightmares, personality changes, irritability (Aguiluz et al., 2018; Schweizer & Rickels, 1998); (g) aggression (Jones et al., 2011); and (h) perceptual disturbances (Brett & Murnion, 2015; Martin-Kleisch & Zulfiqar, 2017). In severe cases, individuals may meet the full diagnostic criteria for mania and/or psychosis (Morales et al., 2017). Firsthand accounts from individuals struggling with withdrawal have also described extreme feelings of depersonalization, derealization, and feelings of alienation and isolation from the world (Brett & Murnion, 2015; Fixsen & Ridge, 2017). Medical decisions regarding whether to continue benzodiazepine prescriptions, even when discontinuation may be clinically appropriate, are complicated by the many potential dangers of withdrawal syndrome. Physicians are advised to discontinue benzodiazepine medications with caution, through a gradual tapering process (Aguiluz et al., 2018; Landry et al., 1992).

Changing Recommendations for Prescribing Benzodiazepines

Due to established concerns about various adverse health effects and the dangers of withdrawal, numerous guidelines have been issued advocating that benzodiazepine prescription be limited to a maximum of two to four weeks and to only the most severe circumstances (Benzodiazepine Committee, 2002; Janhsen, Roser, & Hoffmann, 2015; Salzman, 1991). Additionally, while benzodiazepines were formerly indicated in the treatment of anxiety and

insomnia, pharmacological recommendations around these conditions have shifted following extensive research on alternative best practices. For anxiety disorders, which are frequently chronic conditions, selective serotonin reuptake inhibitors (SSRIs) are now the recommended frontline psychotropic intervention (Baldwin et al., 2005). Though the therapeutic effects of SSRI medications tend to have a longer latency period (taking anywhere from two weeks to two months to take full effect) than benzodiazepines (which offer individuals immediate relief), they are believed to be a more efficacious treatment in the long term, and discontinuation of SSRIs appears to be associated with fewer adverse side effects (Offidani, Guidi, Tomba, & Fava, 2013). Additionally, psychotherapeutic or behavioral interventions (particularly in the form of cognitive behavioral therapy [CBT]) have been demonstrated to be as effective as pharmacological treatments for anxiety, and, in combination with medication, may offer an individual the most lasting reduction in symptoms (Roy-Byrne et al., 2010). For the treatment of insomnia, behavioral interventions are increasingly advocated as a first line of intervention before beginning treatment with medication (Morgenthaler et al., 2007; Schutte-Rodin et al., 2008). Alternative sleep medications known as "Z-drugs" (such as zolpidem) are being increasingly explored (Lieberman, 2007), though, similar to benzodiazepines, concerns have emerged regarding their tolerability and safety in cases of long-term use (Siriwardena et al., 2006).

Increasing Benzodiazepine Management in Primary Care

Despite established changes in best practices, new benzodiazepine prescriptions continue to be issued at an increasing rate (Anderson, Stowasser, Freeman, & Scott, 2014; Cloos & Ferreira, 2009; Siriwardena, 2017). Additionally, a number of prescriptions continue to be issued for elderly patients, despite the growing literature on this age group's particular vulnerability to adverse benzodiazepine-associated effects (Olfson et al., 2015; Opondo et al., 2012). Gerlach,

Maust, Leong, Mavandadi, and Oslin (2018) investigated the transition to long-term benzodiazepine use in a sample of 576 older adult patients who had been issued new prescriptions by non-psychiatric prescribers between 2008 and 2016; results showed that over 26% of these patients met criteria for long-term use. Medication decisions around extended prescriptions were not predicted by higher anxiety or depression levels as the researchers had anticipated (Gerlach et al., 2018).

In recent years, due to relative shortages of psychiatric professionals, benzodiazepine prescriptions have become increasingly managed by non-psychiatric providers, such as primary care providers (PCPs). This setting has been associated with some of the more problematic prescribing practices (Mugunthan, McGuire, & Glasziou, 2011; Rutkow, Turner, Lucas, Hwang, & Alexander, 2015; Siriwardena et al., 2010). PCPs are increasingly confronted with patient requests for new or continued benzodiazepine prescriptions. In some cases, they may be asked by patients to begin a new medication for experiences of overwhelming anxiety, panic, and/or insomnia (Johnson & Longo, 1998; Linden, Bär, & Geiselmann, 1998). Some patients may endorse previous benzodiazepine use (as prescribed or illicitly) and observed benefits. Additionally, patients may have been prescribed a benzodiazepine medication (either short term or long term) by another provider (in Primary Care, following an ED admission, following a stay in an inpatient psychiatric setting, etc.) and may require a refill. Though patients may have been issued an initial benzodiazepine prescription by one medical professional, they may not be followed by that provider long term. Therefore, the PCP is often the de facto provider expected to make further decisions regarding continuation or discontinuation of this prescription (Zandstra et al., 2004). This can place PCPs in a difficult position where they must weigh the costs and benefits of various treatment options and negotiate them with the patient.

Provider Dilemmas Around Prescribing Benzodiazepines

PCPs may endorse particular ambivalence and discomfort in making decisions around prescribing benzodiazepines, characterizing these experiences as dilemmas (Bradley, 1992a; Marienfeld, Tek, Diaz, Schottenfeld, & Chawarski, 2012; Wain, Khong, & Sim, 2007). The well-known dangers of both extended benzodiazepine use and discontinuation are apt to make decision-making around medication maintenance or adjustment particularly challenging for physicians. Bendtsen et al. (1999) conducted a phenomenological critical incident study on the quality of dilemmas encountered by 213 Swedish general practitioners (GPs) regarding patient requests for benzodiazepine prescriptions and found a number of salient themes. Dilemmas around concern for the wellbeing of patients, integrity of the physician being compromised during decision-making, limited time for individual visits, and difficulties trusting the patient to appropriately handle medications were reported. Major consequences of dilemmas included damage to the patient–provider relationship or prescribing benzodiazepines in haste due to time limitations. The authors made recommendations for increased training in communication and negotiation skills, as well as more time with individual patients (Bendtsen et al., 1999). These findings built upon the earlier work of Bradley (1992b) in English GPs, which explored more general themes related to provider discomfort around medications (psychotropic and non-psychotropic). Some of the most frequent themes included (a) concerns around drug toxicity, (b) failure to live up to own expectations, (c) concerns about the appropriateness of treatment, (d) ignorance/uncertainty about management, and (e) concerns about negative patient evaluation (Bradley, 1992b).

Numerous Variables Influence Prescribing Practices of Providers

A number of variables have been shown to influence the more general prescribing decisions of providers. Patient demographic variables such as (a) age (Bradley, 1992a; Hedenrud et al., 2013), (b) gender (Bradley, 1992b), (c) race and ethnicity (Burgess, Van Ryn, Crowley-Matoka, & Malat, 2006), (d) socioeconomic status (Bradley, 1992a), and (e) education level (Cook, Marshall, Masci, & Coyne, 2007) may play a role. Perceptions or assumptions regarding patient needs, abilities to function, and severity of social stressors may play a role in decision-making around prescribing psychotropic medications (Hedenrud et al., 2013; Rogers et al., 2007; Šubelj, Vidmar, & Švab, 2010). Evidence for previous or ongoing substance use or abuse serves as a common deterrent for prescribing benzodiazepines (Bendtsen et al., 1999; Marienfeld et al., 2012). Friends and family members may affect patient motivations and beliefs around benzodiazepines, as well as provider concerns about potential risks and benefits of prescribing (Hedenrud et al., 2013). Patient expectations of a medication (Hedenrud et al., 2013) and seeming responsibility (Dybwad, Kjølsrød, Eskerud, & Laerum, 1997) may also affect providers' prescribing decisions.

A number of provider variables have also been shown to play a role in guiding decisions around benzodiazepine prescription, including provider knowledge and comfort regarding psychotropic medications and mental health (Hedenrud et al., 2013; Sirdifield et al., 2013) and ability to manage uncertainty or complexity (Cook et al, 2007; Siriwardena et al., 2010). Additionally, provider feelings of self-efficacy, confidence, assertiveness, and comfort with negotiating (Anderson et al., 2014; Hedenrud et al., 2013) may impact his perceived ability to comply with or challenge patient requests. Specific to self-efficacy, additional variables related to provider skills, attitudes, influence, and overall support within an organization may be

relevant; providers who are lacking in knowledge and practice may still feel confident and effective within their role through the buffering influence of colleagues or other supports (Anderson et al., 2014). PCPs may experience concerns about boundaries between primary care and other prescribing contexts and may worry about how their behaviors will influence relations with colleagues (Anderson et al., 2014; Hedenrud et al., 2013). Ethically, providers may feel a sense of professional responsibility or obligation to make appropriate decisions regarding risk management and harm reduction (Rogers et al., 2007). PCPs may experience fewer concerns around addiction in older adults and may be more likely to associate continuation of benzodiazepines with compassionate treatment and discontinuation of these medications with harsh treatment (Cook et al., 2007). Personal use of benzodiazepines may also influence provider decisions around patient prescriptions (Linden & Gothe, 1998; Srisurapanont, Garner, Critchley, & Wongpakaran, 2005).

In addition to a number of individual patient and provider variables, several patient–provider relationship variables appear to factor into encounters surrounding benzodiazepine medication management. Familiarity with a patient and related trust (Dybwad et al., 1997; Marienfeld et al., 2012; Wain et al., 2007), desire to maintain a good patient–provider relationship (Wain et al., 2007), and fear of patient dissatisfaction and/or resistance (Bendtsen et al., 1999; Cook et al., 2007) may persuade providers to comply with patient requests for benzodiazepine prescriptions. Previous interpersonal experiences with other patients regarding benzodiazepine requests may also influence provider decision-making (Parr, Kavanagh, Young, & McCafferty, 2006). Psychiatrists identified feeling manipulated or deceived by a patient as a common reason for refusing benzodiazepine prescriptions (Marienfeld et al., 2012). These characteristics were associated with greater concern for potential misuse/abuse down the line or

diversion to other individuals within the household (Marienfeld et al., 2012). Additionally, overall ease of communication (which encompasses both provider and patient abilities) may play a substantial role in the outcomes of encounters regarding medication requests (Bradley, 1992b; Cook et al., 2007; Hedenrud et al., 2013). Gaps in knowledge, understanding, preferences, and communication between patients and providers are common and may create additional tensions (Iliffe et al., 2004; Mah & Upshur, 2002; Parr et al., 2006).

Finally, variables related to broader workplace context and additional societal and cultural concerns may emerge in benzodiazepine-related medical encounters. Workplace constraints such as time, money, technology (Anderson et al., 2014; Hedenrud et al., 2013), and workload (Šubelj et al., 2010) may affect providers' comfort, willingness, and abilities to prescribe a number of medications, including benzodiazepines. Media may impact patient knowledge and perceptions of certain medications (Hedenrud et al., 2013). Additionally, broader regional guidelines for prescribing practices, as well as pharmacological companies, may influence provider responsibilities and related decision-making (Hedenrud et al., 2013).

Research Gaps and Purpose of Current Study

Given the high incidence of benzodiazepine-related medical and mental health emergencies, growing research findings on the potential dangers that both extended use and withdrawal may pose, and continually high rates of inappropriate prescribing practices, there is a clear need for continued support of both patients and providers around these issues. The bulk of existing literature on provider difficulties around prescribing benzodiazepines appears to focus on the experiences of established medical providers. However, broader research suggests that emerging medical professionals (medical residents) frequently lack confidence in their clinical abilities to manage patient requests for possible drugs of dependence and may be particularly

vulnerable to stress and distress with regards to these issues (Ballester et al., 2005; Hedenrud et al., 2013; Taverner, Dodding, & White, 2000). With controlled substances, such as benzodiazepines, which have a high potential for misuse, abuse, and physical and psychological dependence and addiction, provider knowledge, confidence, and competency regarding these issues is critical. A longitudinal study conducted on medical students across four different training programs in New Zealand illustrated an increase in competence (knowledge and skills) as training progressed, but a notable decrease in students' subjective perceptions of adequacy and self-efficacy in managing issues related to substance abuse, with fewer medical students expressing an interest in working with patients with addiction as training progressed (Cape et al., 2006). The authors speculated that this may be related to increased awareness of the complexity of treating substance use disorders, or due to having more negative experiences and perceptions of substance users as "patients to be avoided" over time (Cape et al., 2006). General research on physician knowledge and attitudes around substance use and interacting with potential substance users suggests highly variable training on these issues, even in more experienced professionals (Kelleher, 2007). Education on mental health issues (Ballester et al., 2005) as well as interpersonal communication skills, also appears to be highly variable across training programs, despite recent attempts to expand these competencies (Berkhof, van Rijssen, Schellart, Anema, & van der Beek, 2011). Training interventions for improving psychotropic prescription practices in primary care have shown mixed results, with many of them demonstrating short-term improvements in provider knowledge, but minimal long-term gains with regards to provider confidence (Figueiras, Sastre, & Gestal-Otero, 2001; Midmer, Kahan, & Marlow, 2006).

Efforts are continually underway to develop and improve training in psychotropic medication management in primary care, particularly as guidelines for best prescribing practices

continue to shift, and more psychotropic medications are being managed in this setting. However, there are few studies to date detailing the firsthand experiences and subjective accounts of emerging medical trainees on handling difficult patient encounters around psychotropic/controlled substance issues, such as those encountered with benzodiazepines. This information will be particularly valuable in understanding how to continue improving training and practice models to best inform and support upcoming generations of medical providers who will likely face many new challenges and demands regarding benzodiazepines. The present study sought to begin filling this gap by answering the following research question:

> *What are the experiences of medical residents with regards to training, supervision, and consultation around managing benzodiazepine prescribing dilemmas?*

The primary goal of this research was to identify, through direct accounts from residents, preliminary areas where they may require additional training and support.

Method

Participants

Family medicine residents at a medical training program in New England were recruited via email to participate in a 30-minute focus group interview (held virtually via Zoom video conferencing). Permission was given by the medical institution to contact residents and conduct the interview during a portion of regularly scheduled didactic trainings in order to minimize additional time demands on residents. Efforts were made to emphasize the voluntary nature of participation, and to ensure that training directors (who are in a position of authority/power relative to residents) were not aware of who chose to participate, in order to minimize possible coercion.

In order to be included in the study, participants were required to have provided direct care (face-to-face or telehealth) to patients for at least three months, and to have had at least one experience in which they were asked to begin, discontinue, or adjust a benzodiazepine prescription for a patient. Of the 16 residents contacted, four chose to participate in the focus group. Due to the small sample size and the potential for participants to be easily identified by training directors (who, as previously discussed, hold relative power over trainees) detailed demographic information was not reported for this study. However, variability was observed in certain sociodemographic areas (e.g., gender identity, race/ethnicity, prior medical training programs). Participants were similar in terms of age and ranged from first-to second-year residents. The medical residency program served a number of children and adults across the lifespan in traditionally underserved suburban and rural communities. Integrated behavioral health services had been established within this program for a number of years, though they were in the earlier stages of implementation at certain training sites. The patient population served by the participants in this study consisted of predominantly low-income adults of varying racial and ethnic backgrounds. High rates of co-occurring mental health and substance use disorders as well as co-occurring chronic illnesses (i.e., medically complex cases) were noted.

Design

This qualitative study was guided by a phenomenological approach to research (Moustakas, 1994), as it sought to understand the lived experiences of medical residents with regards to managing patient encounters related to benzodiazepines. This theoretical approach emphasizes the gathering of in-depth firsthand accounts as a means of better understanding human experiences (Van Manen, 2016). Phenomenological research methods are flexible and include participant interviews, narratives, and/or ethnographies (Creswell, 2013).

A focus group interview format was selected for data collection due to the efficiency it offered with regards to scheduling and engaging multiple participants (Krueger & Casey, 2014). In recent decades, focus groups have become a popular tool for collecting data on consumer opinions and preferences in the field of marketing research (Morgan, 1998). However, their use in social science research dates back to the early 1940s, when Paul Lazarsfeld and Robert Merton developed this method as a means of identifying "salient dimensions of complex social stimuli as a precursor to further quantitative tests" (Onwuegbuzie, Dickinson, Leech, & Zoran, 2009, p. 2). Focus groups may appear less intimidating to many participants than individual interviews (Krueger & Casey, 2014), and the social component is believed to increase feelings of connectedness (Peters, 1993) and encourage more sharing from each participant (Vaughn, Schumm, & Sinagub, 1996), producing a somewhat synergistic effect (Dilshad & Latif, 2013). Rich data may also emerge from the patterns of social interactions that ensue within the group (Onwuegbuzie et al., 2009) and participants may be more apt to offer suggestions for improvements in programs and services via group format (Duggleby, 2005). The optimal number of participants in a focus group varies. Krueger and Casey assert that five to eight participants is ideal for non-marketing research topics, and caution against more than 10 individuals, as this tends to limit each person's contributions to the discussion. However, the authors also discuss the increasing popularity of mini focus groups consisting of three to four participants, which increase the probability of in-depth contributions from all members, though the overall range of experiences represented in the group can be somewhat limited in a smaller sample (Krueger & Casey, 2014).

Measures

A semi-structured interview protocol that I developed was reviewed by medical training directors for clarity and appropriateness of wording. Questions were primarily open-ended in order to encourage participants to speak broadly of their experiences and engage in group discussion, and I provided more specific probes as needed when moderating the focus group discussion.

Interview Questions. The following open-ended interview questions and probes were used with focus group participants:

1. Research suggests that decision making around benzodiazepines can be especially difficult for primary care providers (PCPs), particularly when providers and patients do not agree. Tell me about a time you were asked to begin, end, or adjust a benzodiazepine prescription by a patient. You can focus on one memorable incident or provide general details observed across multiple encounters if that's easier.
    a. What was your ultimate decision (e.g., prescribing, not prescribing, etc.)?
    b. How comfortable/confident did you feel about your decision?
    c. What made the decision difficult/easy?
    d. Did you have any previous experience navigating these interactions?
    e. What potential communication difficulties (if any) did you sense between you and the patient?
2. Were you able to seek supervision/consultation as needed? If so, how beneficial/influential was it in supporting you and your decision-making process?
3. In what ways do you feel your medical training prepared (or didn't prepare) you to navigate this interaction?

4. What recommendations (if any) would you give to training programs in order to better support the needs of trainees?
5. In what ways do you think behavioral health clinicians (BHCs) may be able to better help with these dilemmas moving forward (if at all)?

Procedure

The steps of the process I used for conducting the focus group interview were as follows. Participants were emailed a copy of the informed consent form, and it was reviewed in detail at the beginning of the scheduled video meeting. Informed consent was obtained orally from all participants before officially beginning the focus group interview. Participants were encouraged to find a private location within their respective meeting spaces to ensure the confidentiality of everyone in the group. In order to ensure maximum information security over video, a HIPAA-compliant Zoom account was used to host the meeting. Though no protected health information (PHI), as defined under the Health Insurance Portability and Accountability Act (HIPAA), was shared during the focus group, this type of Zoom account offers higher overall security and encryption standards. The interview was audio-recorded using a handheld digital voice recorder. Raw data was transcribed directly from the device and reviewed for accuracy immediately following the interview, and it was deleted from the device following my written transcription. The written transcript was stored as a password protected document on a password protected computer and was deleted following final data analysis. All possible individual identifying information (e.g., names) were excluded from the written transcript. I had previously engaged in a training experience at the medical institution from which the data was collected. Though I had no previous relationship or interactions with any of the participants prior to the study, efforts were made to mitigate possible bias by using a separate independent rater (another

clinical psychological doctoral student) to analyze data. This rater was given access to the written transcript of the focus group interview.

Results

Analysis

Interview data was analyzed in accordance with Braun and Clarke's (2006) six-step thematic analysis framework which provides an atheoretical multiphasic system for analyzing qualitative data. Phases One through Three were performed independently by each of the two raters and Phases Four through Six were performed as a group. During Phase One, raters became familiar with the data set in its entirety. This was done through transcribing the original audio recording (in the case of the primary researcher), as well as reading through the written interview transcript multiple times until all content was clearly comprehended (by both raters). During Phase Two, raters divided the content into discrete data extracts based on distinct ideas or topics and began hypothesizing initial codes. A data extract is defined by Braun and Clarke (2006) as: "an individual coded chunk of data, which has been identified within, and extracted from, a data item" (p. 6). For the purposes of the current study, extracts were drawn from the written focus group dialogue and consisted of individual sentences, phrases, or groups of sentences spoken by a single participant that introduced new ideas or concepts. During Phase Three, raters began searching the list of codes for possible themes. Singular or possibly irrelevant codes (e.g., codes that were noted on only one occasion or clear asides that appeared unrelated to interview topics) were set aside during this phase. During Phases Four through Six, raters met to review and compare candidate themes, discuss and rework any possible discrepancies, and map out and refine the final list of themes. A total of 87 data extracts were identified and reviewed for themes. By the final stage of analysis, a total of two main themes and six sub-themes had been

identified by raters. A visual representation of the final themes, sub-themes, codes, and number of data extracts used for each is presented in Table 1. A sample data extract from each sub-theme is presented in Table 2. Additionally, each theme is described in detail below.

Variability in Resources and Supports

Variability in Resources and Supports was identified as a main overarching theme. This theme captured inconsistencies in quantity, quality, and types of resources and supports offered to medical residents. Data extracts and codes encompassed training experiences in medical school and residency, as well as general institutional and systemic variables (e.g., related to insurance companies, the broader field of medicine). Some of these major content areas were undoubtedly informed by the structure of the interview questions, which were targeted toward training and supports. Sub-themes are discussed below.

Medical School. Participants all agreed that initiating new benzodiazepine prescriptions had been strongly discouraged in their prior medical school training. Exposure to specific coursework in substance use and controlled substances (including psychotropic medications) appeared to vary across individual programs, though all focus group participants agreed that more emphasis was placed on opioids than benzodiazepines in their training. Exposure to benzodiazepines was noted to primarily occur during psychiatric rotations and in optional/elective courses. When sharing about a specialized substance use course, one participant emphasized: “Not every single medical student in my program took it. I think I was the only one there, so it’s not like the medical curriculum put me there.” Participants also highlighted differences in recommendations across professors with regards to prescribing benzodiazepines and opioids. Participants expressed doubt that examples of “success stories” around controlled substances shared in academic settings could be easily applied or translated into real-world

clinical practice. One participant reported: “I remember thinking, oh that’s great, I’m glad you’ve had success stories, but there was only one of those stories for every ten of my failures.” Participants agreed that the general cautionary approach to initiating new prescriptions of both benzodiazepines and opioids had been a valuable takeaway of their medical training. However, they noted a general lack of coursework on “what to do if someone is already on them,” which they identified as a repeated area of clinical difficulty throughout the interview.

Supervision/Consultation. Inconsistencies were also highlighted by the group in the areas of supervision (by more experienced medical professionals) and consultation (with professionals at similar levels of training). Participants reported frequent opportunities for supervision and consultation around prescribing decisions and the ability to seek them out whenever needed. However, they emphasized variability in the approaches of supervising (attending) physicians with regards to managing benzodiazepines. Intentional efforts to ensure that “all providers were on the same page” were identified as areas of need by participants, though they also communicated concerns that forcing everyone to adhere to the same guidelines could be viewed as “unethical.” The group discussed discrepancies between their relationships with patients and those of attending physicians. One participant shared, with regards to communicating decisions that may result in patients becoming angry: “It’s a lot easier for the person supervising, because they don’t have to deal with it firsthand, and they don’t have any kind of emotional attachment or desire to continue maintaining a relationship with the patient.” The group identified a desire for increased “empathy” and understanding from supervisors with regards to the way benzodiazepine-related decisions may impact the “patient–provider relationship.”

Institutional/Systemic Protocols. Lack of cohesiveness and uniformity were also discussed with regards to larger institutional and systemic resources and protocols. This included types of medications approved by insurance companies, logistical challenges related to tracking prescriptions in the electronic health record (EHR) system, and broader "differences of opinion on this class of medications" spanning the entire medical profession. One participant shared, with regards to more general classes of controlled substances, "I feel like there are other alternatives that exist, which are better for patients, but because of the financial burden around them, hospitals, and I guess the healthcare system itself, discourage them." Participants acknowledged a general inability to change many of these variables, but concrete improvements were suggested with regards to tracking and calculating medication doses. Participants reported spending a considerable amount of time and effort performing calculations, checking calendars, and cross-comparing records to ensure accuracy of patient reports and appropriate pill count when responding to refill requests. Logistical fixes around sorting medications differently in the EHR system and receiving automated notifications of when refills should be due were recommended by the group.

Patient–Provider Interactions

Patient–Provider Interactions was also identified as a main theme. This theme captured patient and provider emotions, provider decision-making processes, and other relationship variables that were coded from the case examples provided by residents. Several sub-themes emerged under the Patient–Provider Interactions theme. The ones determined to be most salient through final analysis are discussed below.

Ambivalence. Consistent with previous research around prescribing dilemmas,

ambivalence, tension, and inner conflict were apparent in the participants' descriptions of interactions with patients around benzodiazepines. Interactions were labeled as "challenges" on more than one occasion. Emotions such as "dread" and "discomfort" were mentioned in multiple examples. A decision was made to include codes related to these emotions under Ambivalence, due to their seeming relation to uncertainty around best patient and provider practices. One participant shared: "I dread these patients and I wish I didn't, though sometimes maybe I should." Ambivalence was also coded in the context of balancing risks and benefits of prolonged use versus withdrawal. One participant summarized: "Not only are they addictive, but if you stop taking them acutely, you can actually die. With opiates [patients] can have very unpleasant symptoms…But if you cut someone cold turkey off a benzodiazepine, you can kill them." Ambiguity or uncertainty in case examples with regards to "making the best decision," and phrases such as, "there is no good solution" were also included under this sub-theme.

Therapeutic Relationship. Another major content area discussed throughout the focus group interview related to the "therapeutic relationship" between patient and provider. "Negotiation" and "bargaining" were used to describe typical interactions with patients around benzodiazepines. Additional variables related to "intent" and "motivation" of both patients and providers were discussed throughout. Consistent with previous literature, concerns around being "manipulated" by patients with regards to benzodiazepines (e.g., when being asked to refill prescriptions early) were also shared by participants. This was discussed at both an individual patient–provider level, and in the context of interactions between patients and multiple providers. Participants discussed both real and hypothetical scenarios involving patients becoming aware of inconsistencies between providers and "playing them off one another," or "playing the system," in order to get their needs met. Language associated with behavior management, such as

"reinforcement," specifically concerns around "reinforcing that a pill will solve all their problems," were also discussed in the context of provider decisions around whether to comply with patient requests for benzodiazepines.

Additionally, the therapeutic relationship was also emphasized in the context of treatment priorities. Participants reported delaying decisions and discussions with patients around tapering or switching medications for fear of "damaging" the patient–provider relationship. One participant shared their thought process with more complex patients: "Maybe it would be better to keep a good therapeutic relationship, so I can keep working on these other issues they have, and maybe one day they'll be more open to the other stuff." Concerns around possible ruptures or threats to the patient–provider relationship were also discussed extensively in the context of supervision and other resources and supports. More specifically, participants appeared concerned that inconsistencies in the approaches of attending physicians may "confuse" the patient or prompt them to "question the judgment" of medical residents (as their primary providers). Concerns were also shared by the group around being placed in a position of acting or appearing "ingenuine" toward patients when relaying treatment decisions made by supervisors.

Empathy. Empathy was identified by the raters as an additional substantive content area to be included under the Patient–Provider Interactions theme. Phrases such as, "I empathize with," "I understand why," or "If I were in the patient's shoes" were coded under this category. Participants acknowledged an overall understanding of why benzodiazepines were helpful to and desired by patients with regards to managing anxiety, particularly when other behavioral health resources may not be accessible. One participant shared: "I understand why some of these patients want the benzos. I don't have anxiety. But from what some of these people describe, if I were experiencing these things every day…trying to live my life and do my job, I would be like,

'Please give me these medications, because this is the only way that I'm going to survive.'" With regards to potential "manipulation" by patients, one participant acknowledged: "Patients have their ways, and it's understandable. It's human nature."

Participants acknowledged the benefits of behavioral health services over benzodiazepines while explaining how this is not always realistic for their patient population. "Yes, it's as effective, if not more effective, than actually taking the pill, because you're actually working through the problem rather than just pushing it down. But I think it's difficult for them time-wise." Barriers related to time, transportation, and availability of appointments with mental health providers were repeatedly described in the context of understanding patient motivations and behaviors: "Sometimes it's just more time efficient on the patient's end to take a pill versus going to a behavioral health appointment that will take them 45 minutes of traveling, an hour. They're busy, and it's hard for them to take that much time out." One participant noted: "There aren't that many behavioral health specialists in the area that we can reach out to when that appointment need is there, who are actually available." Comparisons were made with regards to other medications in the context of wanting to "hear patients out." "With most other medical illnesses, if there's a medicine that works, do we take it away from them? What if we say, 'this diabetes medication works great, but we're taking it away from you now, because you should actually be losing weight and eating healthier and exercising?'"

Discussion

The purpose of this qualitative study was to gain a preliminary sense of the experiences of emerging primary care providers with regards to training, supervision, and consultation around prescribing benzodiazepines (and navigating related patient encounters). A small sample of current family medicine residents were recruited to participate in a semi-structured focus

group interview. Two main themes, Variability in Resources and Supports and Patient–Provider Interactions, were identified through thematic analysis.

Variability in Resources and Supports captured inconsistencies highlighted by participants in the domains (sub-themes) of Medical School, Supervision/Consultation, and Institutional/Systemic Protocols. With regards to Medical School, participants reported a "hands-off" approach to prescribing benzodiazepines and a relative emphasis on opioids in course content across all training programs. However, inconsistencies were noted in the availability of and requirements for specific coursework in psychotropic medications and controlled substances across programs, as well as the specific stances on benzodiazepines held by professors within the same teaching institutions. Gaps and inconsistencies between theory and practice were also discussed. Specific to Supervision/Consultation, participants noted that supervision around benzodiazepines was always available, but that the approaches of supervising (attending) physicians varied substantially with regards to benzodiazepines. With regards to larger Institutional/Systemic Protocols, participants highlighted irregularities related to insurance companies, technology for calculating and tracking medications, and differences in opinion on benzodiazepines spanning the entire medical profession.

The second main theme, Patient–Provider Interactions, captured the range of thoughts, feelings, motivations, decisions, and interpersonal exchanges between patients and providers reported by participants. Three sub-themes (Ambivalence, Therapeutic Relationship, and Empathy) were identified under this overarching category. Ambivalence (including tension, dread, inner conflict, and difficulties balancing risks and benefits) was apparent in participants' descriptions of patient interactions, which was consistent with previous research findings. Descriptions of patient interactions in terms of "negotiation" and "manipulation" also resembled

findings from previous qualitative studies on prescribing dilemmas around benzodiazepines. However, a somewhat unexpected emphasis on the Therapeutic Relationship and Empathy were identified in participants' descriptions of patient interactions and concerns around benzodiazepines.

A possible causal relationship between the two main thematic areas (Variability in Resources and Supports and Patient–Provider Interactions) began to emerge from participants' accounts and is mapped out in Figure 1 (using an arrow) as a preliminary hypothesis for further research. Specifically, an overarching concern was highlighted by participants regarding the ways inconsistencies in resources and supports (particularly in the area of supervision) may manifest in patient–provider interactions. Parallels between the patient–provider and resident–supervisor relationship were also apparent with regards to empathy. Participants identified a desire for increased empathy from attending physicians toward their own empathy and efforts to maintain a therapeutic relationship with patients as a primary need.

Implications for Practice

Though it was not surprising, in light of previous research findings, that participants experienced ambivalence and discomfort in response to prescribing benzodiazepines, it was somewhat unexpected that this discomfort was primarily attributed to concern for the "therapeutic relationship" between patients and providers (as opposed to ethical, legal, substance abuse, and other concerns mentioned in the previous literature). Concern for the therapeutic relationship may be more generally pronounced in earlier stages of training and professional development and may not be unique to benzodiazepine-related patient encounters. More research is warranted in this area. However, findings of this study suggest that, at least with regards to the difficult topic of benzodiazepines, emerging medical residents will likely benefit from increased

empathy from supervisors and other supports around the ways inconsistent treatment decisions may impact the patient–provider relationship. Participants also discussed the logistical importance of developing uniform treatment approaches across supervisors and providers and increasing the consistency of resources and protocols around managing benzodiazepines. However, their accounts suggested that increased understanding and support from supervisors may be the most salient (and easiest to address) need at their current level of training. An appreciation of the particularly difficult crossroads medical residents occupy with regards to benzodiazepines, due to their status as a trainee in a seemingly divided medical field, and their concern for providing quality care to patients, will be useful in understanding how to best support them during prescribing dilemmas. This may inform the types of supports offered by both supervising/attending physicians and behavioral health consultants (BHCs) in integrated primary care settings.

Limitations

The small sample size represented by the mini focus group (four participants total) is an obvious limitation of the present study. Though the small size of the group appeared to encourage more in-depth contributions from each participant, it is unclear whether the experiences shared by participants would apply to other family medicine residents and emerging primary care providers. A larger and more representative sample (spanning several different medical schools and residency programs) would be necessary in order to determine whether the themes found within this study could be generalized to the broader population of emerging medical professionals. Though the focus group interview questions were primarily open-ended, the overall research sought to understand training and supervision experiences. This inevitably informed some of the codes and final themes determined to be most prevalent and relevant by

myself and the additional rater, as a considerable amount of content fell within these areas. Nevertheless, more content regarding the patient–provider relationship than anticipated was identified in the data, and determined by raters to be a significant theme, regardless of specific interview questions. Finally, though a focus group methodology may cultivate more depth within a data set (through its discussion format), it may limit the overall range of experiences represented across participants as it pulls for more consensus.

Future Research

Findings of this initial qualitative study highlighted a number of inconsistencies encountered by a group of emerging primary care providers (family medicine residents) with regards to medical school coursework, supervision/consultation, and broader systemic resources and protocols for managing benzodiazepine prescriptions. Further research (with a much larger and representative sample) is warranted in order to assess whether these inconsistencies are present in other training settings. Restructuring of existing training models and programs in order to increase the uniformity of coursework, supervision approaches, and general treatment protocols may be warranted. Additional research into the developmental level of medical trainees and related supervision needs and approaches may also be useful, as it is possible that the accounts provided by residents in this study (all within their first two years of residency) were not unique to the topic of benzodiazepines and represent a more general professional development need. Further exploration and development of general models of supervision within the field of medicine may be especially helpful. An emphasis on building frameworks for conceptualizing the supervisor–supervisee relationship and possible parallel processes between this relationship and the patient–provider relationship may be particularly apt. These concepts have already been researched and discussed in other disciplines, such as psychology, and may be

adapted as useful. Additionally, a larger scale inquiry into the systemic variables that continue to divide the field of medicine with regards to benzodiazepines (in terms of pedagogy, practice, and opinions) appears critical to understanding why so many seemingly inappropriate prescribing practices persist, despite established changes in guidelines.

Conclusion

Though this preliminary qualitative study was inherently limited due to its small sample size, a potentially salient hypothesis emerged with regards to the experiences of emerging primary care professionals (family medicine residents) around managing benzodiazepines. Focus group participants began to highlight a possible relationship between inconsistencies in coursework, supervision, and larger systemic and institutional protocols, and the nature of patient–provider interactions around benzodiazepines. Concerns that inconsistencies in these areas (often beyond the control of medical residents) might adversely impact the therapeutic relationship, as well as a desire for more empathy from supervisors regarding this concern were highlighted. Further research is recommended in order to see if these concerns are shared by other emerging professionals. General developmental levels are apt to play a role in how providers experience and navigate difficult prescribing decisions and patient interactions (e.g., emerging professionals may experience more stress and ambivalence than experienced professionals). However, better understanding the concerns of emerging professionals and intervening at these earlier stages of training (e.g., medical school and residency) will be a critical first step in increasing confidence and cohesion in the next generation of professionals, who will be responsible for shaping the future course of benzodiazepine prescribing in primary care.

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Table 1

Final Themes Identified by Raters Through Thematic Analysis

Main Theme	Sub-Theme	Codes	Number of Extracts
Variability in Resources/Supports			
	Medical School	Coursework, Hands-off, Optional/Required, Theory/Practice	8
	Supervision/ Consultation	Clinical/Treatment Approaches, Autonomy, Understanding, Responsibility/Role, Attending-Resident Relationship	14
	Institutional/Systemic Protocols	Ethics, Financial, Time, Organizational, Treatment Protocols, Medical Field	9
Patient–Provider Interactions			
	Ambivalence	Clinical Feeling/Thinking, Difficult/Conflict, Lacking Solution, Patient Outcomes/Decision-Making	12
	Therapeutic Relationship	Therapeutic Relationship/Attachment, Trust/Manipulation, Conversation, Patient Motivation/Needs, Negotiation/Bargaining, Reinforcement	21
	Empathy	Empathy, Understanding, Patient Feelings, Treatment Barriers	13

Table 2

Sample Data Extracts for Each Sub-Theme

Main Theme	Sub-Theme	Sample Data Extract
Variability in Resources/Supports		
	Medical School	But not every single medical student in my program took it. I think I was the only one there, so it's not like the medical curriculum put me there.
	Supervision/ Consultation	I think it's very subjective. Because every time we're supervised, we're not supervised by the same attendee. So their approaches are quite different.
	Institutional/Systemic Protocols	I feel like there are other alternatives that exist, which are better for patients, but because of the financial burden around them, hospitals, and I guess the healthcare system itself, discourage them.
Patient–Provider Interactions		
	Ambivalence	Something that is also very challenging about benzodiazepines, is that, not only are they addictive, but if you stop taking them acutely, you can actually die.
	Therapeutic Relationship	You kind of end up in this constant negotiation with the patient.

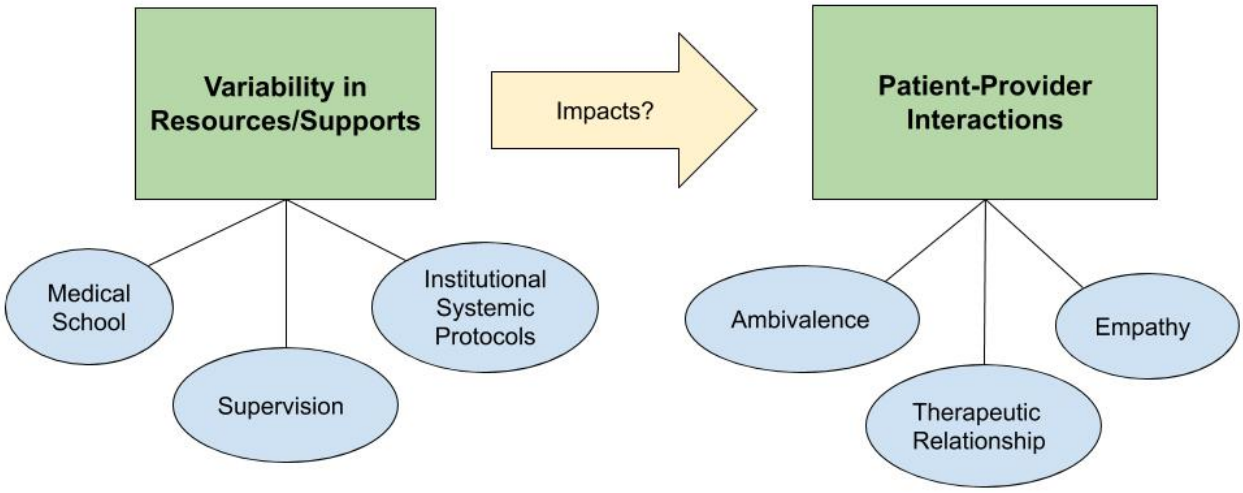

Figure 1: Final thematic map and hypothesized relationship between themes.

Appendix A: Application for IRB Approval

1. Name and mailing address of Principal Investigator(s): **Elizabeth Corley**

2. Academic Department: Clinical Psychology

3. Departmental Status: Student

4. Phone Number: X

5. Name & email address of research advisor: X

6. Name & email address(es) of other researcher(s) involved in this project: X

7. Project Title: **Physician Training and Support in Managing Dilemmas around Benzodiazepine Prescribing**

8. Is this project federally funded: No

9. Expected starting date for data collection: **07/27/2020**

10. Expected completion date for data collection: **07/27/2021**

11. Project Purpose(s): (Up to 500 words)

This study will investigate the training, supervision, and consultation experiences and needs of medical residents with regards to managing difficult patient encounters around benzodiazepine prescriptions. Numerous concerns have emerged regarding the potential dangers of extended benzodiazepine use and abuse, the dangers of sudden withdrawal, and continued prescribing by medical doctors despite related contraindications. Prescribing professionals, such as primary care physicians (PCPs), may find their decisions further complicated by challenging interpersonal encounters with patients. Little is known on the efficacy of routine medical training in preparing general practitioners for managing the potential ethical dilemmas that may ensue in relation to prescribing these controlled substances. The proposed study seeks to fill this gap by identifying potentially useful areas for further provider training and support. Findings may help inform future medical training models and illuminate opportunities for behavioral health clinicians (BHCs) in primary care settings to further support medical doctors (and transitively, patients) in these complex encounters. Results will be disseminated via upload to Antioch University's digital repository and will be shared with the participating medical institution. The primary researcher will be responsible for collecting the data.

12. Describe the proposed participants- age, number, sex, race, or other special characteristics. Describe criteria for inclusion and exclusion of participants. Please provide brief justification for these criteria. (Up to 500 words)

Participants will include current family medicine residents from two of X's medical training

sites. Five to eight residents from each site (ten to sixteen participants total) will be recruited to participate in one of two separate focus group interviews. Participants will be eighteen years of age or older and may vary on the basis of sex, gender identity, race, ethnicity, socioeconomic status, and prior medical school training. Efforts will be made to sample residents across a range of training levels (first, second, and third year). Inclusion criteria for the focus groups will entail: 1) At least three months of experience providing direct contact to patients through a supervised medical residency program, 2) At least one memorable patient encounter related to benzodiazepine prescription (e.g., being asked to adjust, begin, or discontinue a benzodiazepine medication), 3) A willingness to participate in a group interview/discussion regarding their experiences related to this encounter, and 4) A willingness to be video/audio recorded for the purpose of the study. Participation will be entirely voluntary and training directors (who hold a position of authority/power over trainees) will not be told who does or does not choose to participate.

13. Describe how the participants are to be selected and recruited. (Up to 500 words)

Participants will be selected based on their status as a current family medicine resident within the X training system. They will be recruited via email. A contact list of current medical residents will be obtained from medical/behavioral health training directors (with the institution's permission; see appended document). Recruitment emails will contain a brief description of the proposed research, inclusion criteria, and requirements for participation (see appended document). Antioch and X site IRB approval confirmation will also be acknowledged in the email. Participants will be invited to opt into a focus group interview/discussion during the final forty-five minutes of one of their regularly scheduled didactic trainings, which are currently held virtually via Zoom. The date of each focus group will be specified at least two weeks in advance, and any supervisors/training directors will be asked to leave the video call before the focus groups begin so as not!
to see (or unduly influence) who does or does not choose to participate.

14. Do you have a prior or current relationship, either personal, professional, and/or financial, with any person, organization, business, or entity who will be involved in your research?

Yes

14a. If yes, describe the situation that presents a potential personal, professional, and/or financial conflict of interest in the proposed research study, (e.g., if you are or have been employed at the research site, have received compensation from a participating organization, have a personal or professional relationship with any participants).

I was a psychology practicum student at one of the X medical residency sites (X Family Practice) from August 2017 to August 2018 and had a professional relationship with some of the medical residents and training directors at this specific site. I received compensation for my training experience at this site through a federal Graduate Psychology Education (GPE) grant (though I was not compensated by X directly).

14b. Describe how you will mitigate the bias caused by any conflicts of interest in your study

and how you will protect the participants against real or potential bias (e.g., you will not recruit anyone who works directly for you or in your direct team, results will be reported in the aggregate so that participants will remain anonymous, any compensation received is independent of the study and its results).

There are multiple training sites within the X medical system, and the three-year nature of this residency program ensures that the residents with whom I directly worked will have already completed their training at the time of this research. I will also have another psychology doctoral peer help review qualitative data in order to minimize possible bias related to my personal experiences in this setting.

15. Describe the process you will follow to attain informed consent.

Participants will be emailed a copy of the informed consent form for their reference in the initial recruitment email. At the beginning of each scheduled focus group interview, the researcher will remind participants that the discussion will be video recorded (though participants can choose to have their camera turned off if they so desire) and will encourage anyone who is uncomfortable with this to leave the call if needed (no questions asked). The researcher will then begin recording. The researcher will proceed to go over the informed consent form in detail, providing ample space for questions. Those who do not consent will be allowed to leave the call, and oral consent from each remaining participant will then be obtained.

16. Describe the proposed procedures, (e.g., interview surveys, questionnaires, experiments, etc). in the project. Any proposed experimental activities that are included in evaluation, research, development, demonstration, instruction, study, treatments, debriefing, questionnaires, and similar projects must be described. USE SIMPLE LANGUAGE, AVOID JARGON, AND IDENTIFY ACRONYMS. Please do not insert a copy of your methodology section from your proposal. State briefly and concisely the procedures for the project. (500 words)

Focus group participants will be asked about their experiences related to prescribing benzodiazepines, potential dilemmas that have emerged, and training, supervision, and consultation experiences and needs through a semi-structured qualitative interview developed by the researcher (see appended document). Discussion between participants will be encouraged, and the researcher will moderate/redirect the group back to main interview questions and probes as needed. Focus group interviews will last approximately forty-five minutes total (including time allocated to informed consent at the beginning) and will be conducted via Zoom video conferencing technology. Discussions will be recorded for later transcription. Interview data will be analyzed in accordance with Braun and Clarke's (2006) six-step thematic analysis approach. Interviews will be coded by two independent raters (one of whom will be the primary researcher and interviewer, the other of whom will be a peer from the psychology doctoral program).

17. Participants in research may be exposed to the possibility of harm - physiological, psychological, and/or social - please provide the following information: (Up to 500 words)
a. Identify and describe potential risks of harm to participants (including physical, emotional, financial, or social harm).

Participants might find the process of discussing potentially challenging patient encounters around controlled substances (and their own responses as providers) with a researcher from another discipline to be a somewhat vulnerable experience. There is a potential risk of emotional distress in the form of frustration, embarrassment, shame, regret, or fear of negative judgment. Prior experiences, individual personality and coping styles, and previous opportunities to process these experiences with trusted supports or supervisors may influence the extent to which participants feel equipped to share openly and/or effectively cope with content discussed during group interviews, and the researcher should be sensitive to these variables.

b. Identify and describe the anticipated benefits of this research (including direct benefits to participants and to society-at-large or others)

This research seeks to identify ways in which medical training models might better support emerging primary care providers in addressing a difficult clinical issue. This has implications for both provider and patient wellbeing. Participants might also gain some direct benefit from being allowed to process and communicate their challenges and concerns around prescribing benzodiazepines through a supportive interaction with peers and the researcher.

c. Explain why you believe the risks are so outweighed by the benefits described above as to warrant asking participants to accept these risks. Include a discussion of why the research method you propose is superior to alternative methods that may entail less risk.

Decision-making around prescribing benzodiazepines is associated with a number of risks, complications, and legal concerns. Research suggests that patient encounters around controlled substances are particularly stressful and challenging for primary care providers. However, little research has been done to delineate how to best support them in navigating the potential ethical dilemmas that may ensue. Though participants in this study may be required to display some vulnerability in sharing about their difficulties, the data collected will be critical to informing future interventions that may improve provider training and support.

d. Explain fully how the rights and welfare of participants at risk will be protected (e.g., screening out particularly vulnerable participants, follow-up contact with participants, list of referrals, etc.) and what provisions will be made for the case of an adverse incident occurring during the study.

Participants will be made aware during informed consent that they can decline to respond to any questions (without additional probing by the researcher) if doing so would cause undue emotional distress. They will be free to contribute as much or as little as they desire to the group discussion. Participants will be free to withdraw from the study at any point without negative repercussions (in which case their individual contributions to the discussion will not be included in data analysis or reported). Data will be reported in aggregate form so as to protect the identities of individual participants. At the end of the group interview, participants will be invited to contact the researcher privately to schedule additional individual debriefing time if needed to process difficult emotions that may have come up during the discussion.

18. Explain how participants' privacy is addressed by your proposed research. Specify any steps

taken to safeguard the anonymity of participants and/or confidentiality of their responses. Indicate what personal identifying information will be kept, and procedures for storage and ultimate disposal of personal information. Describe how you will de-identify the data or attach the signed confidentiality agreement on the attachments tab (scan, if necessary). (Up to 500 words)

The researcher will conduct virtual focus group interviews in private meeting spaces using appropriate accommodations, such as headsets and/or white noise machines if needed to ensure individual participant and group confidentiality. Participants will be encouraged to find similarly private meeting spaces at their discretion. Participants will be reminded not to share patient protected health information (PHI) as specified under the Health Insurance Portability and Accountability Act (HIPAA). They will be encouraged to respect the privacy of other group members with regards to content shared during the discussion. Interview recordings will be transferred to a secure cloud-based storage program (DropBox) on a password protected computer directly following interviews. Verbal dialogue from recordings will be transcribed for thematic analysis; during this process any major identifying information (and video footage) will be removed from interviews. Digital recordings and transcriptions will be kept until final research analysis is complete and will be destroyed after this period. For additional confidentiality and security purposes, each participant will be assigned a number code. Files and data spreadsheets will be labeled using this code only. Any documents linking participant name and number codes will be password protected and stored on an additional password protected computer.

19. Will audio-visual devices be used for recording participants? Will electrical, mechanical (e.g., biofeedback, electroencephalogram, etc.) devices be used?

Yes

If YES, describe the devices and how they will be used:

Zoom interviews will be recorded using the built-in video recording feature. However, individual participants may choose to be recorded on an audio-only basis by turning off their video feature during the interview. Though residents will be familiar with Zoom prior to the meeting, technological assistance will be provided as needed.

20. Type of Review:

Please provide your reasons/justification for the level of review you are requesting.
Expedited. The proposed research involves the use of interview procedures. Participants are not considered a vulnerable population. The research presents no more than minimal risk (some possible emotional discomfort) to participants. Additional risk-mitigation and support protocols will be enacted to minimize emotional distress. Protocols will be followed to ensure that participants cannot be individually identified from interview data and authorities within the organization will not be told which individuals choose to participate in the study (to ensure no risks related to professional reputation, employment, etc.). My proposal has been approved by my committee. The organization from which the research will be collected is in full support of

the study and is eager to use findings to improve future training and support programs.

This research has been approved for submission by my advisor and by others as required by my program (e.g., my departmental IRB representative, thesis or dissertation committee or course instructor as applicable).

Yes

21. Informed consent and/or assent statements, if any are used, are to be included with this application. If information other than that provided on the informed consent form is provided (e.g. a cover letter), attach a copy of such information. If a consent form is not used, or if consent is to be presented orally, state your reason for this modification below. *Oral consent is not allowed when participants are under age 18.

See appended recruitment email and appended informed consent form

22. If questionnaires, tests, or related research instruments are to be used, then you must attach a copy of the instrument at the bottom of this form (unless the instrument is copyrighted material), or submit a detailed description (with examples of items) of the research instruments, questionnaires, or tests that are to be used in the project. Copies will be retained in the permanent IRB files. If you intend to use a copyrighted instrument, please consult with your research advisor and your IRB chair. Please clearly name and identify all attached documents when you add them on the attachments tab.

See appended document for interview protocol/questions

I have agreed to conduct this project in accordance with Antioch University's policies and requirements involving research as outlined in the IRB Manual and supplemental materials.
I certify that I have attached documentation confirming completion of the CITI Modules.

Yes

Appendix B: Redacted Letter of Support from Medical Training Site

June 23, 2020

[redacted]
Department of Clinical Psychology
Antioch University New England
40 Avon Street
Keene, NH 03431

Dear Professor [redacted],

I am writing at the request of Elizabeth Corley, a student in the psychology doctoral program at Antioch University New England. Ms. Corley, under the supervision of [redacted] expressed interest in conducting research at the [redacted] Family Medicine Program. Ms. Corley met with me to discuss the nature and scope of the research she hopes to conduct at our institution. We are supportive of this research opportunity and believe it could be of benefit our medical training programs. Please feel free to contact me with any questions or concerns.

Best Regards,

[redacted]

[redacted]

Appendix C: Informed Consent Form

Study Title: Physician Training and Support in Managing Dilemmas around Benzodiazepine Prescribing
Investigator: Elizabeth Corley, M.S., Clinical Psychology Doctoral Candidate
Dissertation Chair: X

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1. The purpose of this study is to investigate the training, supervision, and consultation experiences and needs of medical residents with regards to managing difficult patient encounters around benzodiazepine prescriptions.

2. Should I choose to participate, I will be asked to engage in an audio recorded thirty-minute virtual focus group interview. Interview questions will inquire about clinical experiences related to benzodiazepine prescription and related supervision, consultation, and training. I may decline to answer any questions if doing so would cause undue distress.

3. Participation in this study is entirely voluntary. I may refuse to participate or withdraw at any time without creating any harmful consequences to myself. My data will not be used if I choose to withdraw. I realize that, due to the focus group nature of the study, it may be difficult to guarantee that all of my individual contributions to the group are removed should I choose to withdraw, but the investigator will make all reasonable efforts to do so.

4. Possible risks of this study include: emotional discomfort when discussing difficult patient encounters. I may schedule additional debriefing time with the investigator (which will not be recorded or included in research data) if needed.

5. I may find the opportunity to communicate and reflect on my experiences to be of some direct benefit to my clinical practice. Information I share in the group may directly benefit other group members, or indirectly benefit other providers and patients by helping to improve medical training models.

6. Personal identifiers will be removed from the final data set, and my de-identified information will not be used or distributed for future research. Results will be reported in aggregate form, and direct quotes will not be shared unless they are illustrative of general themes observed within the larger group and present no risk of individual identification.

7. The investigator may include the data and results of the study in future scholarly publications and presentations. The confidentiality agreement, as articulated above, will be effective in all cases of data sharing.

If you have any questions about the study, you may contact the principal investigator, Elizabeth Corley, M.S. at: X or X or the research supervisor, X, at: X or X.

If you have any questions about your rights as a research participant, you may contact Antioch University New England's IRB Chair, X at: X or X or Provost, X at: X or X.

I have reviewed this form in its entirety with the investigator, understand the information discussed, and consent to participate in this study.

_____ _____

SIGNATURE DATE

Appendix D: Recruitment Email

Dear Resident,

I am a clinical psychology doctoral candidate at Antioch University New England. I am seeking participants for my dissertation research. My IRB-approved study will examine the training, supervision, and consultation experiences and needs of medical residents with regards to managing difficult patient encounters around benzodiazepine prescriptions.

To participate in this research:

1. You must have at least three months of experience providing direct contact to patients (telehealth counts).
2. You must have experienced at least one patient encounter related to benzodiazepine prescription (e.g., being asked to adjust, begin, or discontinue medication).

Participation involves:

1. A one-time commitment of thirty minutes (which will begin during regularly scheduled didactics time) for a Zoom focus group interview.
2. A willingness to have the interview audio recorded.
3. Group discussion of clinical experiences related to benzodiazepine prescription and related supervision, consultation, and training.

The focus group will be held during the final portion of didactics on X between X and X. To participate, all you need to do is stay on the Zoom call as usual (though you are welcome to leave if you are not qualified or do not wish to participate). Training directors will end normal didactics 15 minutes early and will leave the call so as not to see who chooses to participate. All individual identifying information will be kept confidential.

Participants will have an opportunity to provide valuable data that may inform future training models. More information can be viewed in the informed consent form attached below.

If you plan on attending, please send me a quick email so we know how many people to expect.

Thank you for your consideration!
Elizabeth Corley, M.S.