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Psychological Factors that Interfere with Provider Use of Medication Assisted Treatment for Opioid Use Disorder

Courtney Spencer

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Psychological Factors that Interfere with Provider Use of Medication Assisted Treatment for
Opioid Use Disorder

by

Courtney Spencer

Presented to the Faculty of the
Graduate School of Clinical Psychology
George Fox University
in partial fulfillment
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in Clinical Psychology

Newberg, Oregon

April 1, 2022

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for Opioid Use Disorder

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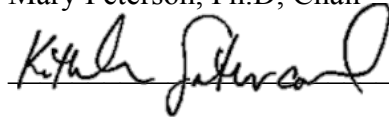
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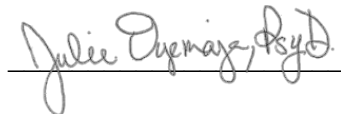
Signatures:



Mary Peterson, Ph.D, Chair



Kathleen Gathercoal, Ph.D, Member



Julie Oyemaja, Psy.D, Member

Date: April 1, 2022

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Courtney Spencer

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Abstract

Since the implementation of Medication Assisted Treatment (MAT) for treatment of Opioid Use Disorder (OUD), providers have struggled to obtain the necessary waiver (X-waiver) due to required federal applications, training, and guidelines around prescribing. Nevertheless, prescribers have gone through this arduous process to gain their X-waiver, but a unique phenomenon has occurred where some providers with an X-waiver are not utilizing their ability to prescribe MAT. The current study sought to uncover trends in providers prescribing practices while assessing possible factors involved including personality, compassion, compassion fatigue, personal connection, and confidence factors that may be associated with a willingness to prescribe. The study used an electronic survey including the following measures: The Professional Quality of Life (ProQOL), the Big 5 Inventory-10 (BFI-10), followed by a subset of additional questions to assess confidence, personal relatability to OUD, and the providers subjective experience treating patients with MAT. The survey was sent to providers in Oregon that included X-waivered physicians (Group 1), non-X-waivered nurse practitioners (Group 2),

and X-waivered physicians in leadership roles (Group 3). Results were analyzed with SPSS. Results showed moderate effect size correlations between number of patients treated and connections to colleagues ($r = .420$), connections to relatives ($r = .301$) and connection to friends ($r = .32$) respectively. Additionally, results showed large effect size correlations between burnout and confidence in Medication Assisted Treatment (MAT; $r = .653$), and large correlations between confidence in provider, patient, and clinic ability and providers' willingness to prescribe. Additionally, the study showed that providers working with MAT were likely to have a higher-level openness and experience a gratifying relationship with patients that drives their desire to work with this high-risk population.

Keywords: Medication Assisted Treatment (MAT), Opioid Use Disorder (OUD), X-waiver, DATA 2000 waiver, Compassion Fatigue, Personality, Provider, Confidence.

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Chapter 1

Introduction

Opioid Prescribing Practices

In the 1990s and early 2000s, standard protocol required primary care clinicians to treat non-cancer persistent pain with short and long-acting prescription opiates (Dineen & DuBois, 2016). In the 1990s, United States pharmaceutical companies assured primary care clinicians that using opioids to treat pain would not cause dependency (Abuse, 2020). In 1995, the American Pain Society began describing patient-reported pain as the ‘fifth vital sign’ (Jones et al., 2018). They strongly encouraged pain screening at every visit and the use of opiates when pain was reported (2018). Over the next few years, this viewpoint was supported by various organizations adopting these principles of less regulatory scrutiny over opioid prescriptions, such as Veterans Health Administrative, Joint Commission (JC), Institute of Medicine, the Federation of State Medical Boards, and the Federal Drug Enforcement Agency (FDEA). Medical clinicians were mandated by the JC to treat pain if it was reported. Federal regulation of medical facilities “mandated” these clinicians to prescribe opiates to those reporting persistent pain in order to maintain funding (Jones et al., 2018, “Brief Timeline” section). Medical clinicians were at risk for board complaints and even litigation by people with persistent pain if they did not prescribe opiates when pain was reported (Tucker, 2004). Pharmaceutical companies began strong marketing campaigns directly toward people with persistent pain and medical clinicians. This marketing was aimed at convincing both medical clinicians and people with persistent pain that opiates were an effective and non-addictive way to manage their pain (Weschler, 2013). As one

author put it: “The culture change, driven by intent to ensure access to pain relief, had opened the floodgates to the current opioid climate” (Jones et al., 2018, “Brief Timeline” section). This trend would later be referred to as the beginning of the *opioid epidemic* or *crisis* as it was characterized by the beginning of three distinct waves of opioid overdose deaths (Planalp et al., 2019).

Opioid Use Disorder

A cycle of dose escalation quickly emerged for patients who were prescribed opioids. This escalation contributed to the iatrogenic effects of opioids, or the negative effect of a medical intervention that was intended to help or treat the patient. In the case of opioids, the chronic use often led to increased tolerance, dependence, withdrawal symptoms, cravings, and opioid seeking behavior. Thus, a maladaptive cycle was reinforced: A patient reports some level of pain, they are prescribed a heavily addictive medication (opioids), and when that pain is still reported, they are prescribed more and more until the amount of opioids potentially put them at risk for respiratory depression. As doses of opioids increased so did the other risks associated with chronic opioid use: mortality, overdose morbidity, serious adverse side effects, dependence/addiction, lifelong disability, and loss of family/community (Hiscott, 2014). This cycle of prescribing practices ultimately contributed to a rapid increase of patients experiencing an opioid dependence and a subsequent diagnosis of an Opioid Use Disorder (OUD) characterized by brief relief in pain, tolerance, and significant time and effort spent obtaining more opioids.

Response to Opioid Use Disorder

As described in the previous section, high doses of opioids not only lead to addiction but also lose their effectiveness as the patient develops tolerance for the medication. Due to concerns about addiction and lack of efficacy, many providers opted for reducing the dose of the opioid or

tapering patients off opioids completely. Previously amidst the opioid crisis, providers had even attempted to cut patients' opiates completely without tapering which led to adverse outcomes. A precipitant withdrawal of the medication often caused trauma and rupture in the provider/patient relationship, anxiety around availability of treatment for pain, stigma for patients with OUD, animosity, depression and in some cases led to suicide (Rothstein, 2017). This historic tension between provider and patient has led to continued mistrust and lasting implications for future treatment modalities around persistent pain.

Current Status of Opioid Use

From 2000 to 2017, rates of overdose in the United States from opioids increased exponentially, from 1.0 to 4.4 per 100,000 people (Planalp et al., 2019). The specific cause of the high overdose rates were unclear, which obscured accountability and prioritization of interventions. Early data tracking did not identify the source of the opioids (prescriptions or illicit substances) leading to the overdose, but more recently, researchers have attempted to differentiate the sourcing (Planalp et al., 2019). Epidemiologists found that prescription opioid overdose deaths experienced no growth from 2016 to 2017, suggesting progress in limiting opioid prescriptions has reduced the impact of one cause of the opioid crisis. However, opioid overdose deaths from illicit opioids have increased from 6.2 to 9.0 per 100,000 people between 2016 and 2017. These numbers reveal that while the efforts to curtail the prescription opioid epidemic are affecting outcome, patients with OUD may have simply shifted to use of illicit opioids. The Center for Disease Control (CDC) recently broadly reported drug overdose deaths decreased 4% from 2017 to 2018, showing a downward trend. However, it remains the leading cause of injury-related death in the US with almost 70% involving a prescription or illicit opioid

(Centers for Disease Control and prevention, 2020). With this in mind, there is increased need to continue to respond to the use of opiates across both prescriptive and illicit use.

Turning of the Tides

While not every patient on chronic opioids has a diagnosis of OUD, the risks often outweigh the benefits and tapering can prove ineffective. Due to this, safer treatment options for helping patients reduce or even eliminate their use of opioids have been developed. One particularly efficacious treatment option became available with the introduction of Medication Assisted Treatment (MAT). In 2000, the Center for Substance Abuse and Mental Health Services Administration (SAMHSA) implemented the Drug Addiction Treatment Act of 2000 (DATA 2000), which allowed physicians to obtain a waiver (X-waiver or DATA waiver) to prescribe schedule III, IV, and V medications (drugs which contain small amounts of narcotic and non-narcotic drugs, anti-anxiety drugs, tranquilizers, sedatives, stimulants, and non-narcotic analgesics), commonly referred to as MAT.

MAT is a combination of medications that target the brain (FDA approved: methadone, buprenorphine, and naltrexone), and psychosocial interventions such as counseling and skill development. The premise of MAT is to safely treat dependence on opioids, while reducing the risks of overdose and chemical dependency. Buprenorphine (Suboxone) is a safe drug that relieves cravings, pain, and is less likely to result in an overdose (Rothstein, 2017). MAT is effective because it does not reinforce the cycle of chemical dependency; however, it does continue a physical dependence on medication as opposed to a safe taper plan. Obtaining a MAT waiver was possible for physicians, advanced practice registered nurses (NP, CNM, CNS, and CRNA), and physician assistants. These medical professionals comprise the traditional primary care team who would be able to provide this service outside of a specific MAT or pain clinic. In

order to obtain an x-waiver, physicians must complete an eight-hour training and submit an application form to SAMHSA Center for Substance Abuse Treatment (CSAT). Upon approval, physicians will be allowed to treat 30 patients with MAT. Advanced practice nurses and physician assistants are required to go through the same process but with 24 hours of training required (Substance Abuse, 2020).

Initially, providers with a waiver could only prescribe the medication regime to 30 patients. In 2006, the Reauthorization Act allowed for providers with a waiver to treat up to 100 patients. In 2016, the FDA updated their public policies regarding the use of opioids, access to treatment for chemical dependency to opioids, and numerous changes in the certification and production of opioids that would be approved. In 2017, the Joint Commission (JC) released new standards that focuses on “appropriate and effective” management of pain that included the consideration of psychosocial risks, goal setting with patients, better monitoring of opioid usage, and encouragement to seek out non-pharmaceutical options (Jones et al., 2018, “Reaction” section).

Current Status of MAT Use

Since the implementation of MAT, the use of buprenorphine has shown to be extremely successful in treating OUD (Knudsen et al, 2011); however, the requirements for a prescriber to have an X-waiver has limited the accessibility of MAT. Data in 2020 shows that fewer than 5% of eligible prescribers had a waiver to prescribe MAT. Overall, data from 2016 shows that only 10% of Americans in need of MAT have access to it. Americans specifically living in rural areas have increased mortality rates for opioid overdose (Andrilla et al., 2019) and yet they are the least likely to have access to a MAT prescriber. Recent studies have begun to analyze the barriers to MAT exploring why more prescribers are not seeking a waiver/prescribing with a

waiver to provide a research-based effective protocol for their patients with OUD (Knudsen et al, 2011; Logan et al., 2021).

Potential Barriers to Care

What are the causes for these barriers in accessibility and apparent reluctance to apply for the X waiver? Some of the potential logistical barriers to prescribing MAT were previously identified including the tedious and time-consuming process to obtain an X-waiver. In addition to the provider's training, their medical and support staff require extra training to provide the services according to the detailed protocol, (Knudsen et al, 2011; Lowenstein et al., 2019). Current research is investigating the logistical barriers for primary care providers to become MAT prescribers (Knudsen et al, 2011; Logan et al., 2021). In an attempt to reduce barriers, legislative efforts in 2021 sought to minimize the burden primary care providers experienced in attaining a waiver and prescribing MAT by allowing an exemption from the 8 hours of training for any physicians who were DEA registered. Unfortunately, this effort was rescinded days later when the presidential office changed leadership and the DATA 2000 requirements were re-established (Logan et al., 2021). The desire to provide this life-saving treatment led to the suggestion of removing the barrier of an X-waiver requirement altogether in an effort to increase provider engagement in MAT (Duncan et al., 2020).

Through surveys exploring the issue of provider reluctance, a few psychological themes have surfaced such as providers endorsing a lack of confidence in themselves to prescribe and treat OUD with MAT (Heesacker, 2019). Research by Kirane et al. (2019) assessed clinicians' attitudes toward treating opioid use disorder with MAT and found that while additional training on buprenorphine positively impacted attitudes and confidence, engagement in MAT remained limited. Of the sample (313 providers), only 19% of providers reported feeling confident in

treating opioid use disorders (Kirane et al., 2019). These results reflect the qualitative responses from Heesacker's (2019) survey from Jackson County, Oregon. Prescribers reported not feeling confident in using MAT, although the contributors to the reported lack of confidence was unclear; did the prescriber lack confidence in themselves, the patients, their system, or the MAT protocol?

Another psychological construct representing either a barrier or a facilitator to healthcare workers is compassion/compassion fatigue. Compassion is described as a multi-faceted and sometimes vague concept in the literature. Compassion can facilitate care as it involves acting proactively on virtues, seeking to understand, empathy, and action (Sinclair et al., 2016). However, compassion fatigue can occur as an overextension of this caregiving role. Compassion fatigue is described in nursing literature by Joinson (1992) as "disengagement, feelings of helplessness, anger and apathy among other symptoms." Figly (1995, 2002) described compassion fatigue similarly, but broadens the concept by highlighting the relationship between compassion fatigue and vicarious trauma. MAT providers are often working with patient populations having multiple co-occurring medical and mental health conditions including complex trauma, which not only increases the complexity of patient care, but may leave them vulnerable to experiencing vicarious trauma.

Prior research exploring psychological constructs looked at the provider's personality characteristics as a potential protective or risk factor for working in the medical field. For example, research examining personality factors using the Big Five model of personality (Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism) suggested that some personality factors may provide a protective role for providers implementing MAT and engaging in this work. Specifically, medical professionals scores on the personality factors of

“extraversion,” “agreeableness,” and “conscientiousness” were shown to be a protective factor against experiencing posttraumatic stress symptoms in one study (Chung et al., 2007), while clinicians with higher “neuroticism” were more vulnerable to experiencing posttraumatic stress (Campbell-Sills et al., 2006). Another study found that providers having higher scores in the personality factor representing “agreeableness” were more likely to experience burnout. (O’Mahony et al., 2018). The above studies didn’t find a relationship between the “openness” factor, which indicates how open-minded a person is, or how likely they are to enjoy learning new things and the likelihood to experience post-traumatic stress or burnout.

Current Research Purpose

While current research has investigated the barriers primary care providers face becoming MAT prescribers, there is little research on the factors impacting prescriber utilization of MAT. The aim of this exploratory study is to identify common factors among prescribers using the X-waiver in their patient care. Our goal was to understand the personal and professional variables associated with the use of the X-Waiver, including the factors that are negatively correlated with utilization. This research explored factors of compassion/compassion fatigue, burnout, secondary traumatic stress, and the differentiation of confidence (in self, MAT program, healthcare system, and the patient). Additional factors such as personal connection to OUD, time spent prescribing/working with OUD, perceived support/risk, and the relationship between personality and willingness to use their X-waiver were explored.

Hypotheses

- H1(a & b): It was predicted that higher compassion and higher personal connection to OUD would be positively correlated with use of their X-waiver (based upon number of patients treated).

- H2 (a): It was predicted that high levels of burnout would be correlated the number of patients treated (with providers experiencing burnout treating fewer number of patients).
- H2 (b) The first prediction was that confidence in MAT would be correlated with number of patients treated (with providers experiencing high confidence in MAT treating more patients). The second prediction was that confidence in MAT would be negatively correlated with burnout (with providers experiencing high confidence in MAT experiencing less burnout.)

Exploratory Analyses

- EA1: Are there differences across groups (those prescribing vs. not prescribing) in the *ProQOL* Compassion Satisfaction, Burnout, or Secondary Trauma Stress scales?
- EA2: Are there difference across groups in the personality characteristics of Openness, Continuousness, Extraversion, Agreeableness, or Neuroticism scales?
- EA3: Are there any patterns within or between groups in the extended themes: confidence, personal connection to OUD, barriers, additional training desires, and gratifying factors of this work.

Chapter 2

Methods

Participants

Study 1. The first study consisted of two volunteer physicians that currently have an X-waiver from a local hospital. Participants piloted the survey and concluded no additional measures or questions should be included. Given this result, these participants were included in the group for Study two.

Study 2. The second study was initially designed to include one group of providers with an X-waiver, but due to lack of responses, we added a second group aimed at providers without an X-waiver in hopes of attaining a matched sample. The second group was given the same survey but without questions directly related to the X-waiver (such as number of patients treated with X-waiver and confidence in Medication Assisted Treatment (MAT) questions. Both groups included participants who were selected through a snowball sample. Due to the snowball style of sampling for the second group, some participants completed the survey with an X-waiver; this set of participants will be called Group 3. All participants were provided an informed consent prior to involvement in this study. This study was approved by the Human Subjects Review Committee (HSRC) at George Fox University prior to data collection (IRB #2202001).

Group 1. There were 11 participants who completed the survey for Group 1. All participants in Group 1 carried an X-waiver. The typical respondent was white (100%), male (72.7%), physician (81.8%), working in a primary care clinic (63.6 %) in a role as a physician (63.6%), and in a rural setting (45.2 %). On average, the participants were 44 years of age ($SD =$

8.08), with 10 years of work in their profession ($SD = 5.61$), with their waiver for 6 years ($SD = 3.46$).

Group 2. There were four participants without an X-waiver who responded to the second survey. The typical respondent was white (75%), female (100%), a nurse practitioner (75%), working in primary care (100%), in a leadership role (75%), in a suburban setting (50%). On average, the participants were 44 years of age ($SD = 5.83$), with 11 years in the profession ($SD = 8.72$).

Group 3. Three participants responded to the second survey with an X-waiver. The typical respondent was white (66.7%), male (100%), a physician (66.7%), working in primary care (66.7%) in a leadership role (66.7%) in a suburban setting (66.7%). On average, the participants were 38 years of age ($SD = 5.86$) with nine years in the profession ($SD = 6.00$). The question regarding the number of years with an X-waiver was not included in the second survey administration. Information was not gathered on years with the X-waiver due to response difficulties mentioned above

Materials

A demographics questionnaire (see appendix C), as well as the *Professional Quality of Life Scale* (ProQOL version 5; Appendix D), *The Big 5 Inventory-10* (BFI-10; Appendix E) and additional questions developed to explore *Extended Themes* (Appendix F, G, and H).

Professional Quality of Life Scale

The Professional Quality of Life Scale (ProQOL; Stamm, 2010) is a 30-item questionnaire scored on a 5-point Likert scale with response options from *never* to *very often*. The ProQOL incorporates two aspects of responses: the positive (compassion satisfaction) and the negative (compassion fatigue). Compassion fatigue further breaks down into burnout or

secondary traumatic stress. The measure has good construct validity with over 200 published papers. The average score for compassion satisfaction is 50, with an internal validity (Cronbach alpha) of .88. Scores on this scale below 40 reflect dissatisfaction with participants' job. The average score for burnout is 50, with an internal validity (Cronbach alpha) of .75. Scores below 18 reflect a positive feeling of being effective at work, while scores above 57 reflect feelings of being ineffective at work. The average score for secondary traumatic stress is 50, with internal validity (Cronbach alpha) of .81. Scores above 57 reflect the possibility of feeling frightened at work (Stamm, 2010).

The Big 5 Inventory-10

The Big 5 Inventory-10 (BFI) is a 10-item scale measuring adapted from the 44-item Big Five Inventory (John et al., 1991). The BFI-10 accounts for 70% of the variance of the full scales and was created to be used in settings where time is limited. The BFI-10 measures the Big Five personality traits extraversion, agreeableness, conscientiousness, emotional stability, and openness on a 5-point Likert scale ranging from *Disagree Strongly* to *Agree Strongly*. The BFI demonstrates acceptable test-retest reliability for neuroticism (.74), extraversion (.84), openness (.72), compatibility (.58), and conscientiousness (.77) Part-whole correlations with the BFI-44 scales, structural validity, convergent validity with other personality inventories and external validity using peer ratings were demonstrated for the BFI-10 (Rammstedt & John, 2007).

Extended Themes and Open-Ended Questionnaire

An additional subset of questions (Appendix F) not related to an established measure was also utilized to explore possible themes. The first theme explored providers perceived confidence levels. Questions explored participants' confidence in their professional self, the MAT program, their patients, and the healthcare system. There were 4 questions on a 5-point Likert scale

ranging from *very untrue of me* to *very true of me*. The participants were told to expect to spend 3-5 minutes answering these questions. The second theme (Appendix G) explored participants' personal connection to themselves or to another person who has/is dealing with Opioid Use Disorder (OUD). These four questions were on a dichotomous scale and explored the nature of the relationship (self, friend, relative, colleague, etc.). The third theme (Appendix H) focused on the subjective experience of providers working with MAT including sense of barriers or challenges, any additional training they perceived would be helpful, and what the providers found gratifying in this work. The participants were told to expect to spend 7-10 minutes answering the entire survey.

Procedure

Study 1. This study functioned as a pilot study with 2-3 participants. Participants were asked to sign an informed consent. They were given the survey's followed by open-ended questions about their personal experience working within the opioid crisis and if there were any other factors, they felt impacted their ability to treat OUD.

Study 2. Participants in Study 2 were asked to sign an informed consent and then the survey was administered electronically. Data were analyzed using SPSS statistical package.

Data Analysis

Study 1. The data from Study 1 was used to determine if additional information needed to be gathered from Study 2 participants. The survey data from Study 1 was used in conjunction with Study 2.

Study 2. The data from Study 2 were analyzed using a Pearson product moment correlation to identify positively and negatively correlated factors associated with MAT use. A

regression analysis was used to determine the relative strength of the factors in predicting MAT use. All data analysis is descriptive in nature.

Chapter 3

Results

As described in Chapter 2, the initial study was meant to explore common themes among providers with an X-waiver engaging in work with patients with Opioid Use Disorder (OUD). However, due to a lack of responses from participants ($n = 11$ on the first administration), we sought to attain a matched sample of providers without an X-waiver. Unfortunately, we also had a very limited response to the request, which will be further explored in the limitations section of Chapter 4. In total, there were three separate groups; Group 1 ($n = 11$) consisted of X-waivered physicians, Group 2 ($n = 4$) consisted of non-waivered nurse practitioners, and Group 3 ($n = 3$) consisted of X-waivered physicians working in leadership positions.

Hypothesis 1 Results

Hypothesis 1a of this study predicted that higher levels of compassion satisfaction (*ProQOL; Compassion Satisfaction Scale*) would be correlated with a higher number of patients treated in group one only. Results failed to show statistically significant relationships between compassion satisfaction or personal connection to number of patients treated (see Table 1), therefore Hypothesis 1a was not supported.

Hypothesis 1b of this study predicted that personal connections (self, relative, friend, or colleague) to OUD would be correlated with higher number of patients treated. Results showed moderate effect size correlations between number of patients treated and connections to colleagues ($r = -.420$), connections to relatives ($r = -.301$) and connection to friends ($r = -.32$)

respectively (items were reversed scored). The effect sizes suggest that if the study had a larger number of participants, we may have reached statistical significance. Therefore, Hypothesis 1b was partially supported.

Table 1

Results of Correlation for Hypothesis 1

Correlations

		CompassionSatis faction	PtstreatedforOU D	ConnectionsSelf expOUD	ConnectionsRele xpOUD	ConnectionsFrie ndexpOUD	ConnectionsColl eagueexpOUD	
Spearman's rho	CompassionSatisfaction	Correlation Coefficient	1.000	.187	.	-.149	.043	-.356
		Sig. (2-tailed)	.	.582	.	.662	.900	.282
		N	18	11	11	11	11	11
PtstreatedforOUD	PtstreatedforOUD	Correlation Coefficient	.187	1.000	.	-.301	-.232	-.420
		Sig. (2-tailed)	.582	.	.	.368	.492	.198
		N	11	11	11	11	11	11
ConnectionsSelfexpOUD	ConnectionsSelfexpOUD	Correlation Coefficient	.	.	1.000	.	.	.
		Sig. (2-tailed)
		N	11	11	11	11	11	11
ConnectionsRelexpOUD	ConnectionsRelexpOUD	Correlation Coefficient	-.149	-.301	.	1.000	.346	-.239
		Sig. (2-tailed)	.662	.368	.	.	.297	.479
		N	11	11	11	11	11	11
ConnectionsFriendexpOUD	ConnectionsFriendexpOUD	Correlation Coefficient	.043	-.232	.	.346	1.000	.069
		Sig. (2-tailed)	.900	.492	.	.297	.	.840
		N	11	11	11	11	11	11
ConnectionsColleagueexpOUD	ConnectionsColleagueexpOUD	Correlation Coefficient	-.356	-.420	.	-.239	.069	1.000
		Sig. (2-tailed)	.282	.198	.	.479	.840	.
		N	11	11	11	11	11	11

Note. Pts treated for OUD were reverse scored.

Hypothesis 2 Results

Hypothesis 2a of this study predicted that higher levels of burnout (*ProQOL; Burnout Scale*) would be correlated with treating fewer patients. Results failed to show statistically significant relationships between burnout or confidence and the number of patients treated.

Hypothesis 2b had two predictions, first we predicted higher levels of confidence (self, patient, clinic, or Medication Assisted Treatment program) would be correlated with higher numbers of patients treated. This first prediction was not supported because there wasn't a

statistically significant correlation between confidence in MAT and number of patients treated (see Table 2). The second prediction in Hypothesis 2b predicted burnout would be negatively correlated with confidence in MAT. This second prediction was supported (see Table 2) because there was a statistically significant large effect size correlations between burnout and confidence in Medication Assisted Treatment (MAT) ($r = .653, p = .003$). Furthermore, there were three large inter-correlations between confidence in provider, patient, and clinic ability suggesting there may be mutual influence of confidence across these components.

Table 2*Results of Correlation for Hypothesis 2*

		Burnout	PtstreatedforOU D	ConfMyAbility	ConfPtAbility	ConfMyClinic	ConfMAT
Burnout	Pearson Correlation	1	.082	.338	.184	.164	.653**
	Sig. (2-tailed)		.811	.170	.464	.514	.003
	N	18	11	18	18	18	18
PtstreatedforOUD	Pearson Correlation	.082	1	.494	.178	.298	.281
	Sig. (2-tailed)	.811		.122	.601	.373	.402
	N	11	11	11	11	11	11
ConfMyAbility	Pearson Correlation	.338	.494	1	.791**	.814**	.314
	Sig. (2-tailed)	.170	.122		<.001	<.001	.204
	N	18	11	18	18	18	18
ConfPtAbility	Pearson Correlation	.184	.178	.791**	1	.632**	.209
	Sig. (2-tailed)	.464	.601	<.001		.005	.406
	N	18	11	18	18	18	18
ConfMyClinic	Pearson Correlation	.164	.298	.814**	.632**	1	.248
	Sig. (2-tailed)	.514	.373	<.001	.005		.322
	N	18	11	18	18	18	18
ConfMAT	Pearson Correlation	.653**	.281	.314	.209	.248	1
	Sig. (2-tailed)	.003	.402	.204	.406	.322	
	N	18	11	18	18	18	18

** Correlation is significant at the 0.01 level (2-tailed).

Note. The burnout measure is a reverse-score measure.

Exploratory Analysis

Professional Quality of Life Scale (ProQOL)

A nonparametric *t*-test (Kruskal-Wallis) was used to analyze ProQOL scores across all three groups in compassion satisfaction, burnout, and secondary traumatic stress. There was significance between groups in compassion satisfaction and burnout, but not secondary traumatic stress. See Table 3.

Table 3

Results of Exploratory Analysis ProQOL

Ranks			
	Group	N	Mean Rank
CompassionSatisfaction	1	11	9.14
	2	4	4.88
	Total	15	
Burnout	1	11	6.86
	2	4	11.13
	Total	15	
SecondaryTraumaticStres	1	11	7.68
	2	4	8.88
	Total	15	

A chi-square test of independence using the likelihood ratio was performed to examine the significance between groups with compassion satisfaction $X^2(2, N = 18) = 8.34, p = .02$.

Group One (X-waivered physicians) were more likely to report higher compassion satisfaction.

The significance was also explored further between groups and burnout $X^2(2, N = 18) = 6.11, p$

= .41. Results showed that Group One (X-waivered physicians) were less likely to experience burnout than either of the other Groups. and Group Two (non-waivered nurse practitioners) were more likely to report medium levels of burnout when compared to the other groups. See Table 4.

Table 4

Results of Kruskal-Wallis for ProQOL

	Test Statistics ^{a,b}		
	Compassion Satisfaction	Burnout	SecondaryTraumaticStress
Kruskal-Wallis H	3.977	3.977	.600
df	1	1	1
Asymp. Sig.	.046	.046	.439

Note. a = Kruskal Wallis Test. b = Grouping Variable: Group.

The Big 5 Inventory-10 (BFI)

An ANOVA was used to explore the BFI-1- themes across groups. Group was the independent variable with three levels, Group One (X-waivered physicians), Group Two (non-waivered nurse practitioners), and Group Three (X-waivered physicians in leadership). The dependent variables were openness, conscientiousness, extraversion, agreeableness, and neuroticism. Due to the data not meeting necessary assumptions, a Huynh-Feldt correction was used.

A one-way ANOVA revealed that there was a statistically significant difference in openness between groups ($F(2, 15) = [3.97], p = .04$). Bonferroni test revealed that the mean value of openness was significant different between Group 1 (X-waivered physicians) and Group

2 (non-waivered nurse practitioners), with Group 1 significantly more Open than Group 2. See Tables 5 and 6.

Table 5

Results of BFI-10 ANOVA

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Openness	Between Groups	18.846	2	9.423	3.971	.041
	Within Groups	35.598	15	2.373		
	Total	54.444	17			
Conscientiousness	Between Groups	4.763	2	2.381	1.330	.294
	Within Groups	26.848	15	1.790		
	Total	31.611	17			
Extraversion	Between Groups	17.975	2	8.987	2.577	.109
	Within Groups	52.303	15	3.487		
	Total	70.278	17			
Agreeableness	Between Groups	10.801	2	5.400	2.878	.088
	Within Groups	28.144	15	1.876		
	Total	38.944	17			
Neuroticism	Between Groups	16.705	2	8.352	1.979	.173
	Within Groups	63.295	15	4.220		
	Total	80.000	17			

Exploratory Analysis: Extended Themes

Barriers Across All Groups. The third extended theme (Appendix H) focused on the subjective experience of perceived barriers in the work with MAT and patients with OUD. These questions were given to all participants. Across Group 1, results identified the following barriers in reaching the X-waiver limit: clinic requiring more education on MAT, providers needing further consult, and behavioral health support. Alternatively, Group 2 endorsed the following barriers: lack of mentorship, stigma among clinic staff, and stigma among patients. Group 3 identified their primary barrier as needing more provider consultation. The lack of behavioral health partnerships was the only barrier endorsed by members of all three groups.

Table 6*Results of BFI-10 MANOVA**Multiple Comparisons*

Bonferroni

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Openness	1	2	2.523*	.899	.040	.10	4.95
		3	.939	1.003	1.000	-1.76	3.64
	2	1	-2.523*	.899	.040	-4.95	-.10
		3	-1.583	1.177	.595	-4.75	1.59
	3	1	-.939	1.003	1.000	-3.64	1.76
		2	1.583	1.177	.595	-1.59	4.75
Conscientiousness	1	2	-.727	.781	1.000	-2.83	1.38
		3	.939	.871	.894	-1.41	3.29
	2	1	.727	.781	1.000	-1.38	2.83
		3	1.667	1.022	.371	-1.09	4.42
	3	1	-.939	.871	.894	-3.29	1.41
		2	-1.667	1.022	.371	-4.42	1.09
Extraversion	1	2	-2.182	1.090	.191	-5.12	.76
		3	-1.848	1.216	.448	-5.12	1.43
	2	1	2.182	1.090	.191	-.76	5.12
		3	.333	1.426	1.000	-3.51	4.18
	3	1	1.848	1.216	.448	-1.43	5.12
		2	-.333	1.426	1.000	-4.18	3.51
Agreeableness	1	2	.705	.800	1.000	-1.45	2.86
		3	2.121	.892	.093	-.28	4.52
	2	1	-.705	.800	1.000	-2.86	1.45
		3	1.417	1.046	.587	-1.40	4.23
	3	1	-2.121	.892	.093	-4.52	.28
		2	-1.417	1.046	.587	-4.23	1.40
Neuroticism	1	2	-2.386	1.199	.196	-5.62	.84
		3	-.636	1.338	1.000	-4.24	2.97
	2	1	2.386	1.199	.196	-.84	5.62
		3	1.750	1.569	.847	-2.48	5.98
	3	1	.636	1.338	1.000	-2.97	4.24
		2	-1.750	1.569	.847	-5.98	2.48

* The mean difference is significant at the 0.05 level.

Qualitative Responses

An additional subset of qualitative questions (Appendix H) was asked of Group 1 (X-waivered physicians) including provider's interest in receiving additional relevant education, and the factors they found gratifying when working with MAT and treating patients with OUD.

Education

Of the 11 participants in Group 1, 55% participants ($N = 6$) reported wanting more education on Motivational Interviewing strategies, 36% ($N = 4$) reported wanting further education on the neurobiology and psychology of chronic pain, and 36% ($N = 4$) reported wanting further education on risk stratification for patients with OUD.

Gratifying Factors

Most participants in Group 1 (9 of 11) explained what they found gratifying in their work with MAT and patients with OUD. Participants cited the most gratifying part of their work is the relationships they build with patients: “Witnessing” their success, satisfaction with treatment, and growth with “compassion.” Additionally, providers reported they found it gratifying to provide support for this population where support is normally limited. For example, participants reported gratification in offering a “safe space,” providing “healthcare [patients] wouldn't be getting without coming to our clinic for MAT,” and “advocating for someone with limited support.”

Chapter 4

Discussion

Contributions to Current Research

While Medication Assisted Treatment (MAT) has been shown to treat Opioid Use Disorder (OUD) safely and effectively, patients and prescribers have reported barriers to accessing MAT. Current research is investigating possible barriers for primary care providers to prescribe MAT from a systemic lens (Knudsen et al, 2011; Logan et al., 2021). Despite this, there has been little research exploring facilitators or factors among providers of MAT. The purpose of this study was to conduct a preliminary investigation exploring common themes amongst providers already utilizing MAT with a goal of using this knowledge to mitigate barriers and emphasize facilitators that would encourage the practice of MAT. Psychological factors that were explored through a survey included: compassion/compassion fatigue, burnout, secondary traumatic stress, confidence (in self, MAT program, healthcare system, and the patient), personal connection to OUD (self, relative, college, friend), number of patients treated, time spent prescribing or working with OUD, and perceived support/risk.

Although not supported, Hypothesis 1a of this study predicted higher levels of compassion satisfaction (*ProQOL*; *Compassion Satisfaction Scale*) would be correlated with a higher number of patients treated in group one only. Across all groups, compassion satisfaction was high and did not differ between groups. This high compassion scores may be reflective of the high level of commitment and care for others inherent in healthcare professionals.

Hypothesis 1b was partially supported showing that a provider's personal connection to someone who had experienced an OUD was associated with their willingness to provide MAT for a higher number of patients. If the survey had yielded a larger number of participants, it is probable that a stronger association would have been found here. Personal connection was broken down into four subcategories: self, colleague, relative, or friend that has experienced OUD. The only subcategory that did not have an association with higher amounts of patients treated with personal connection having experienced OUD as oneself. The connection between providers having a colleague, friend, or relative having experienced OUD explored whether personal relationships would impact the willingness to work with this high-risk population within a difficult system (MAT). Personal connection was thought to mitigate stigma and provide a higher level of willingness from providers due to relatability to their patients based on their personal connection to a friend, colleague, or relative that has or is experiencing OUD.

Hypothesis 2a of this study predicted that higher levels of burnout (*ProQOL; Burnout Scale*) would be correlated with treating fewer patients. This hypothesis was not supported as all groups showed low levels of burnout. This finding was surprising as there have been numerous health care fields impacted with burnout when there are barriers to providing efficacious care for patients. It is possible, that with a wider breadth of surveyed participants, this finding would have been different. It is also possible that providers feel uncomfortable sharing perceived barriers or difficulties in their work while there is a high need for the treatment they provide.

Hypothesis 2b of this study had two predictions, first we predicted lower levels of confidence (self, patient, clinic, or MAT program) would be correlated with lower numbers

of patients treated and higher levels of burnout which was not supported. None of the variables we assessed showed a relationship with the number of patients treated, which was a surprise to the researchers. The second prediction, that there would be a relationship prescriber's confidence in MAT and lower reported levels of burnout was supported.

The study also showed a three-way large effect correlation with confidence in provider ability and patient ability ($r = .791$), confidence in provider ability and clinic ability ($r = .814$), and confidence in patient ability and clinic ability ($r = .632$). This result suggests that confidence may have a contagion effect in that the provider's confidence in their ability and their confidence in the clinic's ability to support the entire process may influence a provider's confidence in the patient's ability to engage and vice versa.

When examining the results of the ProQOL across groups, results showed that Group One (X-waivered physicians) were more likely to report higher compassion satisfaction. Thus, this finding doesn't indicate that providers utilizing MAT are at an increased risk for compassion fatigue or burnout. Providers reporting higher levels of compassion satisfaction feel pleasure in the work they do, and that they make meaningful contributions in their work setting (Stamm, 2010). Group 1 likely reported higher levels as they are more involved in MAT (providing life-saving treatment for a high-risk population). This group was also less likely to experience burnout (feelings of hopelessness and difficulties) within their work. This finding suggests that while treating patients with MAT has numerous barriers for providers, the work is not increasing the likelihood of those providers burning out. In fact, this study suggests providers engaging in use of MAT, when compared to those not treating patients with MAT, are less likely to experience burnout.

Results from the BFI-10 on openness revealed that Group 1 was significantly more Open than Group 2. This finding is consistent with research showing that individuals with higher levels of openness are more likely to be willing to learn and engage in new experiences. Furthermore, people with higher scores in openness tend to be willing to take more risks than those lower in openness (John et al., 1991). Providers that wish to treat OUD patients with MAT must seek out additional training and federal certification, essentially, they have to be open and flexible enough to learn a new system, medication, and how to work with a highly stigmatized population.

All participants were given the option to answer an open-ended question exploring if there were specific factors or parts of their work with patients with OUD that they find gratifying. The overarching theme of relationships showed up in response to the aspect of providers work that is most gratifying. Providing a “safe space,” additional care, and destigmatized interactions in which providers “witnessed” significant change in patients. This data supports values-driven work from healthcare professionals in a service-oriented field.

Implications

The results of this study imply that personal connections, confidence in the systemic support, and a personality factor of openness are likely to be protective factors for prescribers of MAT. These factors may mitigate the difficulty of working with high-risk, stigmatized populations. This study also implies that providers engaging in gratifying, values-driven work may be more likely to contend with systemic barriers to provide this level of healthcare that requires providers to seek additional training and qualification. Higher levels of

satisfaction in work (providers feeling they can make a meaningful difference), equate to lower levels of burnout and likely facilitate more engagement, and enjoyment in their work.

This study suggests there is a contagion effect of confidence which may occur when a provider feels confident in their ability to treat patients, their clinic to support them, or their patient's ability to adhere to treatment, which may influence the provider's willingness to continue working with MAT. While rates of mortality from OUD remain high, this finding suggests that one way to mitigate the burnout that can occur with a patient population having both high acuity and high mortality is to build confidence through training, support, and buy-in from patients.

Since the implementation of Medication Assisted Treatment (MAT) for treatment of Opioid Use Disorder (OUD), rates of providers engaging in treating patients with MAT have remained low. Although the possible systemic barrier of obtaining additional training and certification (DATA 2000 waiver X-waiver), was reduced/ removed in 2021, the rates of providers engaging in this work have remained low. This study does not support previous research that indicated removing the barrier of an x-waiver would be sufficient to increase providers willingness to engage in MAT. This study instead highlights the facilitators (personal connection, confidence, and openness) that impact a provider's willingness to use MAT. Broadly speaking, this research showed insights into the personal factors of physicians that influence MAT treatment which sheds light on the multitude of factors that must be considered as we continue to respond to the historic opioid crisis.

Future Research

The lack of a geographically and demographically diverse population (including the number of years in practice) of providers was a significant limitation in this study. Future

research should have more representative sampling across rural, urban, and suburban areas. In addition to setting, future research should broaden the demographic sample. Across all three groups in this study, the average years spent in their profession was 10 years which translates to the sampled providers entering their role as providers around 2010. Given the beginning of the opioid crisis was around late 1990s, the healthcare system began to make strides toward combatting it around 2000, and a reduction in opioid related deaths began in 2017, it is possible the sampled providers represent a skewed perspective of this topic (Jones et al., 2018). Group One reported having their waiver for six years ($SD = 3.46$) and likely only began this difficult work after the healthcare system reduced systemic barriers, provided an effective treatment method, and began working to reduce damaging prescriptive practices.

While legislative efforts continue to move toward reducing the identified system barrier of requiring a DATA 2000 X-waiver, future research should explore the impact of additional barriers. Future research should not be limited to systemic barriers alone, but also consider personality, and emotional investment in treating this population. A sample comparison of providers with an X-waiver that are actively treating OUD patients with MAT and providers with an X-waiver that are not treating OUD patients with MAT would better capture psychosocial differences that could be used to mitigate barriers and increase willingness from providers to engage in this work.

Limitations

The COVID-19 pandemic has posed a unique limitation to this study as healthcare providers have been disproportionately impacted and were less available to complete a research survey. This limitation resulted in a small sample of participants and an inability to show statistical significance through the data collected. An additional limitation of the study

is an inability to highlight nuances due to recent changes in waiver requirements. Since providers previously reported the required training and application to obtain an X-waiver was the most significant barrier, it is possible that with this change providers may have been less motivated to complete a survey designed to look at barriers, possibly assuming that the largest barrier was already taken away.

Summary

The current study sought to uncover trends in providers prescribing practices while assessing possible factors involved including personality, compassion, compassion fatigue, personal connection, and confidence factors. Results show that a prescriber's personal connections with people who had experienced an opioid use disorder was the most salient variable associated with their willingness to prescribe MAT. This research also found that positive association between a prescriber's confidence in MAT and lower reported level of burnout. This finding suggests that provider's confidence in their team, the treatment and the patient may not only be a protective factor against burnout, but allow the providers to experience a gratifying relationship with patients.

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Appendix A

Informed Consent for Study 1

Informed Consent for Participation

I _____ understand that my participation in this research project is voluntary and that I can withdraw from the project at any time without penalty, up until the time that my responses are analyzed along with the other participants in the group. I understand that I will be allowed to review transcripts of my interviews and will be able to make corrections and clarifications as needed. I understand that this material will be used solely for Courtney Spencer's (investigator) Doctoral Dissertation and may be published in a scholarly journal. I further understand all data will be kept confidential with only the investigator of this research, a peer reviewer and a faculty advisor having access to my name and identifying information. The only demographic information that will be published will be my profession and county I work within. There will be no reference to my name on any of the research material or public indication that I participated in this project. I also understand that the investigator is required by State law to disclose any report of suicidality, homicidally or abuse of a child or elder. I understand that I may contact Dr. Mary Peterson at (503) 442-3237 if I have questions or concerns about my participation in, or any part of, the research project.

By signing, I agree to participate in the research project, under the terms noted above.

Signature of participant: _____ Date: _____

Signature of witness: _____ Date: _____

Appendix B

Informed Consent for Study 2

Medication Assisted Treatment for Opioid Use Disorder

Principal Investigator: Courtney B. Spencer, MA. Doctoral Student, Clinical Psychology, George Fox University, (813) 727-7541.

Study Purpose: The primary purpose of this study is to understand the factors affecting provider use of MAT.

Study Procedures: Participation in this study will require approximately 12 minutes. You will be asked to complete the online questionnaire that is linked to this consent form (*click on "I consent to participate" at the bottom of this page*). Upon pressing the "submit" button at the end of the questionnaire your responses will be submitted via the internet. This website and our server are secure sites and your data are sent in encrypted form. However, if you are concerned about submitting your data via the internet, you may print the survey and mail in a paper copy. The mailing address is available at the end of the survey. Surveys received by mail will be treated with the same protocol and confidentiality as surveys received via the internet.

Risks: There are no known risks of the study procedures.

Confidentiality: All information obtained is strictly confidential. Only the Principal Investigator (Courtney Spencer) and a faculty advisor will have access to the data.

Contact: If you have any questions or desire further information with respect to the study, you may contact Mary Peterson by phone at (503) 442-3237 or by email at mpeterso@georgefox.edu.

Consent: I am aware that I have the right to ask questions and receive answers on any questions related to this study. I am aware that I have the right to refuse to participate or may withdraw from the study up until the point that my data is analyzed with the other group participants. I understand that there are no foreseeable risks in my participation. I am aware that, if the questionnaire is completed, it will be assumed that consent has been given. I am also aware that by reading this cover page and by continuing on with the survey I am not waiving any of my legal rights.

Please print this page to keep for your records and reference.

I have read and understood the contents of this form.

I consent to participate

Appendix C**Personal and Professional Demographics**

Age in years: _____

Ethnicity/Race:

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic, Latino or Spanish Origin
- Native Hawaiian or Other Pacific Islander
- Native American
 - White
 - Multi-racial
- Member of another race, ethnicity, or origin, please specify: _____
 - Prefer not to answer.

Gender- with which of the following do you most strongly identify?:

- Female
- Male
- _____
- Prefer not to answer

Profession/qualifications:

Years in profession:

Years with x-waiver?

How many X-waiver patients are you cleared to see?

How many X-waiver patients do you see?

County in which you prescribe MAT?

Clinical setting in which you work?

Appendix D**Professional Quality of Life Scale (ProQOL) version 5 (Stamm, 2010)**

INSTRUCTIONS: When you [help] people you have direct contact with their lives. As you may have found, your compassion for those you [help] can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a [helper]. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the last 30 days.

1 = Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Very Often

- __1. I am happy.
- __2. I am preoccupied with more than one person I [help].
- __3. I get satisfaction from being able to [help] people.
- __4. I feel connected to others.
- __5. I jump or am startled by unexpected sounds.
- __6. I feel invigorated after working with those I [help].
- __7. I find it difficult to separate my personal life from my life as a [helper].
- __8. I am not as productive at work because I am losing sleep over traumatic experiences of
a person I [help].
- __9. I think that I might have been affected by the traumatic stress of those I [help].
- __10. I feel trapped by my job as a [helper].

- __ 11. Because of my [helping], I have felt "on edge" about various things.
- __ 12. I like my work as a [helper].
- __ 13. I feel depressed because of the traumatic experiences of the people I [help].
- __ 14. I feel as though I am experiencing the trauma of someone I have [helped].
- __ 15. I have beliefs that sustain me.
- __ 16. I am pleased with how I am able to keep up with [helping] techniques and protocols.
- __ 17. I am the person I always wanted to be.
- __ 18. My work makes me feel satisfied.
- __ 19. I feel worn out because of my work as a [helper].
- __ 20. I have happy thoughts and feelings about those I [help] and how I could help them.
- __ 21. I feel overwhelmed because my case [work] load seems endless.
- __ 22. I believe I can make a difference through my work.
- __ 23. I avoid certain activities or situations because they remind me of frightening experiences of the people I [help].
- __ 24. I am proud of what I can do to [help].
- __ 25. As a result of my [helping], I have intrusive, frightening thoughts.
- __ 26. I feel "bogged down" by the system.
- __ 27. I have thoughts that I am a "success" as a [helper].
- __ 28. I can't recall important parts of my work with trauma victims.
- __ 29. I am a very caring person.

__30. I am happy that I chose to do this work

Scoring the ProQOL

Compassion Satisfaction Scale:

3. ____

The sum of my Compassion Satisfaction questions	So My Score Equals	My Level of Compassion
22 or less	43 or less	Low
Between 23 and 41	Around 50	Average
42 or more	57 or more	High

6. ____

12. ____

16. ____

18. ____

20. ____

22. ____

24. ____

27. ____

30. ____

Total : ____

Burnout Scale:

The sum of my Burnout questions	So My Score Equals	My Level of Burnout
22 or less	43 or less	Low
Between 23 and 41	Around 50	Average
42 or more	57 or more	High

*1. ____ = ____

*4. ____ = ____

8. ____

10. ____

*15. ____ = ____

*17. ____ = ____

19. ____

21. ____

26. ____

*29. ____ = ____

Reverse the scores for those that are starred.

0=0, 1=5, 2=4, 3=3, 4=2, 5=1

Total : ____

Secondary Trauma Scale:

The sum of my Secondary Traumatic Stress questions	So My Score Equals	My Level of Secondary Traumatic Stress
22 or less	43 or less	Low
Between 23 and 41	Around 50	Average
42 or more	57 or more	High

2. ____

5. ____

7. ____

9. ____

11. ____

13. ____

14. ____

23. ____

25. ____

28. ____

Total : ____

Appendix E

The Big Five Inventory-10 (BFI-10) (Rammstedt & John, 2007).

INSTRUCTIONS: How well do the following statements describe your personality?

I see myself as someone who ...	Disa gree strongly	Disa gree a little	Neither agree nor disagree	A gree a little	Ag ree strongly
------------------------------------	-----------------------	-----------------------	----------------------------------	-----------------------	-----------------------

1. ... is reserved	1)	2)	3)	4)	5)
2. ... is generally trusting	1)	2)	3)	4)	5)
3. ... tends to be lazy	1)	2)	3)	4)	5)
4. ... is relaxed, handles stress well	1)	2)	3)	4)	5)

5. ... has few artistic interests	1)	2)	3)	4)	5)
6. ... is outgoing, sociable	1)	2)	3)	4)	5)
7. ... tends to find fault with others	1)	2)	3)	4)	5)
8. ... does a thorough job	1)	2)	3)	4)	5)
9. ... gets nervous easily	1)	2)	3)	4)	5)
10. ... has an active imagination	1)	2)	3)	4)	5)

Scoring the BFI-10 scales (R = item is reverse-scored):

Extraversion: 1R, 5

Agreeableness: 2, 7R

Conscientiousness: 3R, 8

Neuroticism: 4R, 9

Openness to Experience: 5R, 10

Appendix F
Confidence Questions

INSTRUCTIONS: How well do the following questions reflect your personal experience?

1=Very Untrue of Me 2=Untrue of Me 3=Neutral 4=True of Me 5=Very True of

Me

- __1. I feel confident in my ability to prescribe MAT for OUD?
- __2. I feel confident in my patients to engage in their MAT treatment?
- __3. I feel confident in my immediate system to support me in prescribing MAT?
- __4. I feel confident in MAT as an effective and safe treatment for OUD?

Appendix G

Personal Connection Questions

INSTRUCTIONS: Please take a moment to answer the following questions as they relate to you.

1. I myself have experienced OUD or Opioid dependency?

Yes/No/Prefer Not to Answer

2. I have a relative who has experienced OUD or Opioid dependency?

Yes/No/Prefer Not to Answer

3. I have a friend who has experienced OUD or Opioid dependency?

Yes/No/Prefer Not to Answer

4. I have a colleague who has experienced OUD or Opioid dependency?

Yes/No/Prefer Not to Answer

Appendix H

Subject Experience of Providers

INSTRUCTIONS: Please take a moment to answer the following questions as they relate to you.

1. Are you currently experiencing any barriers or challenges related to using your X-waiver? (check all that apply)
 - a. There is not enough demand in my clinic/community
 - b. Stigma among my clinic staff
 - c. Stigma among my patients
 - d. I have reached my X waiver limit
 - e. Clinic staff need more education around MAT treatment
 - f. Limited access to consultation or support to make clinical decisions with patients
 - g. Limited partnership with behavioral health for referrals or consultation
 - h. I don't know enough about this topic
 - i. I worry that if word gets out that I have a waiver, my patient panel will end up filled primarily with patients with OUD.
 - j. Other (please specify)
2. I would benefit from more education on: (check all that apply)
 - a. Neurobiology and psychology of persistent pain
 - b. When opioids are an appropriate treatment for persistent pain
 - c. How to initiate a taper plan for opioid treatment
 - d. when/how to cross-taper a patient from opioids to MAT

- e. The difference between opioid dependence and OUD
 - f. Risk stratification for patients with OUD
 - g. Current evidence for effectiveness of MAT
 - h. Motivational interviewing for clients with OUD
 - i. Other (please specify)
2. Are there any aspects there you find gratifying related to treating patients with MAT?

Please describe: _____

Appendix I

Curriculum Vitae

COURTNEY B. SPENCER

APPIC ID: 1306050060
 14555 SE 1ST ST., MCMINNVILLE OR 97128
 (813) 727-7541
 CSPENCER18@GEORGEFOX.EDU

Education

- Psy.D. Doctoral Candidate in Clinical Psychology** August 2018-Present
 Graduate School of Clinical Psychology (APA Accredited)
George Fox University Newberg, Oregon
- Track Specialty: Primary Care Psychology
 - Health Resources and Services Administration (HRSA) Grant Student Recipient
 - Engaged in specialized training with rural hospital patients with chemical dependency, chronic pain, and other medical complexities.
 - Participated in increased clinical hour requirements with hospital consultation, primary care psychology and interprofessional trainings
 - Academic chair: Mary Peterson, PhD, ABPP/CL
 - Dissertation: “Psychological Factors that Interfere with Provider Use of Medication Assisted Treatment for Opioid Use Disorder”
 - Final Defense anticipated December 2021
 - Expected graduation: May 2023.
- M.A. Master of Arts, Clinical Psychology** May 2020
 Graduate School of Clinical Psychology (APA Accredited)
George Fox University Newberg, Oregon
- Academic chair: Mary Peterson, PhD
 - Successful completion of SFE and CIAE competency exams
 - Dissertation: Preliminary defense completed December 2020
- B.S. Bachelor of Science, Psychology** May 2017
University of Maryland University College

- Completed while in the U.S, Navy

A.S. Associates of Science, General Studies
University of Maryland University College

August 2015

- Completed while in the U.S, Navy

Clinical Experience

Practicum III: Behavioral Health Intern

August 2021-Present

Providence Medical Center, Sherwood, OR

- Supervisor: Annelise, Manns, PsyD and Kiersten Kelly, Doctoral Intern
- Population:
 - Suburban medical clinic patients ranging from child to geriatric and varying in sexual, gender, ability, and religious identities
- Provided risk assessments/safety plans, warm handoffs, intakes, interdisciplinary consultation, psychotherapy, psychiatric evaluations, ADHD evaluations, MOCA memory assessments, and psychodiagnostics test administration
- Provided short-term, trauma informed therapy from a Focused Action and Commitment Therapy model for brief care

Behavioral Health Crisis Consultation Team Coordinator

June 2021-Present

Providence Hospital, Newberg, OR

Willamette Valley Medical Center, McMinnville, OR

- Supervisors: Luann Foster, PsyD
- Attended bi-weekly meetings to coordinate and represent team members concerns
- Attended weekly meetings with Yamhill County Assessment Team as the George Fox Crisis Team representative to support coordination between teams
- Coordinated with the supervisors to create shift schedules, holiday schedules, manage shift complications, and organize trainings for the team

Practicum II: Behavioral Health Intern

June 2020-June 2021

Providence Medical Center, Newberg, OR

- Supervisor: Jeri Turgesen, PsyD, ABPP, MSCP
- Population:
 - Rural medical clinic patients ranging from child to geriatric and varying in sexual, gender, ability, and religious identities
- Provided risk assessments/safety plans, warm handoffs, intakes, interdisciplinary consultation, psychiatric evaluations, ADHD evaluations, MoCA memory assessments, and psychodiagnostics test administration

- Provided short-term psychotherapy with 80% of patients, and long-term therapy with 20% of patients to include both in-person and virtual telehealth during the COVID-19 pandemic
- Provided trauma informed therapy from a Focused Action and Commitment Therapy model for brief care, and Person-Centered therapy
- Engaged in clinical training rotation in family medicine providing on site consultation for patients struggling with chemical dependency
- Participated in group trainings with chemical dependency psychiatrist and individual supervision
- Completed five integrative assessment reports with patients ranging in diagnoses: ADHD, PTSD, Persistent Depression, and a Language Disorder

Behavioral Health Crisis Consultation (BHCC) Team

May 2020-June 2021

Providence Hospital, Newberg, OR

Willamette Valley Medical Center, McMinnville, OR

- Supervisors: Luann Foster, PsyD; Mary Peterson, PhD, ABPP/CL; Bill Buhrow, PsyD
- Population:
 - Community members accessing the rural hospital emergency department in Newberg and McMinnville varying in age and their sexual, gender, and religious identities
- Provided after-hour crisis intervention assessments for patients presenting with suicidal ideation, homicidal ideation, or psychosis
- Collaborated inter-professionally with attending physicians, nursing staff, supervising psychologists and county mental health services towards recommending inpatient hospitalization, outpatient treatment (with community resources) and/or approved discharge
- Managed cases, patients' families, and triaged connection to inpatient hospital care within interdisciplinary hospital settings
- Attended weekly supervision to staff cases and collaborate on diagnosis and treatment plan

Practicum I: Behavioral Health Clinician

June 2019-June 2020

Willamette Valley Internal Medicine, McMinnville, Oregon

- Supervisor: Dr. Luann Foster, PsyD
- Population:
 - Adults with chronic medical conditions from rural communities with low SES
- Developed the position of BHC within the medical clinic providing co-located therapy for a variety of mental and medical health conditions
- Worked collaboratively with the medical staff to address barriers to care for patients for long term chronic health conditions to help improve treatment adherence

- Provided telephone-based services to this population, due to COVID-19 limitations
- Provided for long-term and short-term evidence-based therapy, including ACT, interpersonal and person-centered therapy
- Maintained clinical notes in patient's electronic health records and engaged in professional communication with other interdisciplinary team members for holistic care

Pre-Practicum: Supervised Psychotherapy

September 2018-April

George Fox University, Oregon

Supervisor: Glenna Andrews, PhD, MSCP, ABPP & Christabel Leonce, PsyD

- Conducted Person-Centered Psychotherapy with two volunteer undergraduate students who each received weekly individual one-hour sessions for ten weeks total
- Completed five prior training sessions with Doctor of Psychology students to build foundational person-centered skills

Pre-Doctoral: Drug and Alcohol Prevention Advisor

January 2016-June 2018

U.S. Navy

Special Boat Team 20

Joint Expeditionary Base. Little Creek, Virginia

- Provided comprehensive alcohol and other drug abuse prevention and control policy and procedures for all Navy military personnel at the command
- Promoted and trained Navy personnel on the "zero tolerance" policy on drug abuse and discourage alcohol-related misconduct
- Assessed, built rapport, and coordinated care for all Navy personnel at the command that volunteer for or ordered to attend treatment (inpatient and outpatient) for alcohol or substance abuse and dependency
- Reported directly to the Commanding Officer and Executive Officer on all matters covered under my responsibilities

Pre-Doctoral: President of CSADD

May 2013-May 2015

Coalition of Sailors Against Destructive Decisions

U.S. Navy

USS Mount Whitney. Gaeta, Italy

- President of the USS Mount Whitney chapter of CSADD, leading 150 sailors in command functions including monthly training self-help/team skills, and mentorship to promote responsible decisions under direct supervision of the Commanding Officer
- Created monthly training or activities on the following topics: Sexual assault prevention and response, suicide awareness, driving safety, off-duty recreation, domestic violence, and more
- Developed operational stress control activities during deployments to boost morale including game nights, talent shows, and CSADD bingo

Supervision, Teaching & Program Evaluation Experience

Supervisor to Practicum I Students

August 2021-Present

Graduate School of Clinical Psychology
George Fox University, Newberg, OR

Supervisor: Roger Bufford, PhD; Aundrea Paxton, PsyD

- Provided supervision to two doctoral students in their first clinical training sites under the structure of the Supervision & Management PSYD course curriculum (taught by Dr. Bufford, supervised by Dr. Paxton)
- Provided individual supervision, 2 hours/bi-weekly, and group supervision 1 hour/ bi-weekly around areas of personal and professional development: supporting theoretical orientation development, offering evidence-based treatment recommendations, and exploring their growth in the client/therapist relationship
- Provided formative and summative feedback to supervisees after clinical presentations in alignment competency-based evaluation measures (supervised by Dr. Paxton)

Teaching Assistant (TA): Advanced Primary Care Psychology August 2021-Present

Graduate School of Clinical Psychology
George Fox University, Newberg, OR

- Course Educator: Amber Nelson, PsyD
- Fostered course curriculum for advanced training in Primary Care Behavioral Health model including consultation and evaluation projects
- Offered support and indirect supervision to students as they inquire about evidence-based approaches for patients within the primary care settings
- Conducted bi-weekly group clinical lab, lead discussion around topics covered in class or patient cases
- Managed logistics of course curriculum and announcements to enrolled students

Research Experience, Posters, & Related Experience

Research Vertical Team (RVT)

January 2019-Present

Graduate School of Clinical Psychology
George Fox University, Newberg, OR

Supervisor: Mary Peterson, PhD, ABPP/CL

- Dissertation research: Psychological Factors that Interfere with Provider Use of Medication Assisted Treatment for Opioid Use Disorder
 - Pre-liminary defense: December 2020
 - Expected final defense: December 2021

- Actively engaged in vertical research team comprised of 1st through 4th year doctoral level trainees
- Assisted in collaboration and development of dissertation and supplemental research projects. Support includes direct feedback, collaborative support in developing areas of interest, development of methods and completion of individual projects
- Team-based areas of research interest include integrated care, opioid-use disorders and MAT treatment providers, co-regulation and biofeedback, anti-stigma training around HIV in health care settings, and trauma-informed resiliency training for pregnant mothers

Interprofessional Primary Care Institute (IPCI)

March 2019-Present

Director: Julie Oyemaja, PsyD, Oregon

Roles: Director of Research Assistant, and Student Outreach and Engagement

- Conducted literature reviews across multiple disciplines and documenting a research critique for all members of the institute to access
- Managed and assisted in creating the IPCI website
- Assisted with multiple trainings and intensives to include a major focus assisting Patti Robinson, PhD with developing training videos, reviewing her publications, and providing FACT training to fellow students on behalf of Dr. Robinson and IPCI

American Psychological Association Posters

- Ramirez, S., **Spencer, C.**, Drake, G., Wilbur, J., & Peterson, M. (2020, August). *Longitudinal Multi-disciplinary Chronic Pain Treatment in Rural Behavioral Health*. Poster presented at the American Psychological Association 2020 Virtual Conference
- Hamilton, S., **Spencer, C.**, Harberts, J., Reinhart, K., Peterson, M., & Logan, K. (2020, August). *Suicide Risk Assessment: An Evaluation of Graduate Students with the Columbia-Suicide Severity Rating Scale (C-SSRS)*. Poster presented at the American Psychological Association 2020 Virtual Conference

Primary Care Track & HRSA Grant Recipient

April 2019-Present

George Fox University, Newberg, Oregon

Supervisors: Kristie Knows His Gun, PsyD; Jeri Turgesen, PsyD; Mary Peterson, PhD,

ABPP

- Specific training to increase depth and breadth of behavioral health skills in a primary care or general healthcare setting
- Completed the foundations of primary care & advanced primary care courses in the PsyD program, as well as primary care elective courses such as neuropsychological assessment and substance use treatment
- Trainings for Focused Acceptance and Commitment Therapy (FACT) in order to provide brief primary care assessment and intervention that promotes radical change for patients

- Behavioral health intervention/treatment trainings and interprofessional primary care trainings provided for HRSA primary care students
- Received specific foundational training to treat and assess patients from any age across the lifespan, presenting with a range of conditions from adjustment disorders to complex medical conditions

Assessment

Completed five integrative assessment reports with patients (4 adults, 1 child) ranging in diagnoses: ADHD, PTSD, Persistent Depression, and a Language Disorder

Have met program-wide competency and trained with the following assessment materials:

WAIS-IV	16PF	Booklet
WISC-V	Conners-3	Categories
WIAT-III	MMSE	DKEFS
WMS-IV	MoCA	Grooved
MMPI-2	C-TONI	Pegboard
MMPI-2RF	CVLT-II	TPT
MMPI-A	CVLT-C	Rey-Osterrieth
MCMI-IV	TOMM	(RCFT)
PAI	WCST	Boston Naming

Certifications, Awards, & Affiliations

Trauma Certificate- George Fox University December 2021
 Courses: Trauma Work in Clinical Practice & Trauma Work Consultation Group
 Professor: Kenneth Logan, PsyD

- Formal training and course work on trauma-informed treatment processes, including polyvagal theory and complex PTSD related diagnoses
- Direct training and practice with advanced trauma treatment skills, including Stress-response model, Primary nervous system functioning, Personality considerations for treatment, and Process response evaluation of patients
- Case conceptualization work with complex trauma patients, to consider essential treatment aspects, such as: Client activation (emotions, memories, sensory experiences, or cognitions), Avoidance responses (numbing, dissociation, suppression, denial, and substance use), Emotional dysregulation (mood swings, depression episodes, acting out, substance use, sudden dissociation events), and Relational disturbance (transference & relationship history)

- At least twenty hours of supervised clinical practice at a program approved practicum site treating clients for conditions caused by exposure to traumatic stress

Basic Life Support Provider- American Heart Association December 2018-Present

- Successfully completed the cognitive and skills evaluations in accordance with the curriculum of the American Heart Association Basic Life Support Program (CPR and AED)

HRSA Scholarship Recipient

2020-Present

George Fox University, Newberg, OR

- Recipient of competitive health services grant amidst engagement in Providence Medical Group/ Primary Care Psychology Track
- This project seeks to expand services to underserved, vulnerable populations through simultaneous training for graduate psychology students in treatment for OUD/SUD and establishment of tele behavioral health services (TBS)

American Psychological Association

2018-Present

Graduate Student Affiliate

Professional Trainings

May it be Well with Your Soul

November 2021

George Fox University

Dr. Brandy Liebscher & Pastor Liz Vaiz

Erotic Transcendence: Integrating Faith With

What's New In Sex Research

October 2021

George Fox University

Elisabeth Esmiol Wilson, PhD, LMFT

Telehealth Training for Behavioral Health Providers

May 2021

George Fox University, HRSA Training

Dr. Jeff Sordahl

Scaffolded Training in Culturally Specific Trauma-Informed Care

May 2021

George Fox University, HRSA Training

Dr. Gil-Kashiwabara & Dr. Knows His Gun

ODU/MAT Clinical Work & Tools George Fox University, HRSA Training Dr. Brett Kaylor	May 2021
Native Culture and Individuals George Fox University, HRSA Training Pilar Peltier	May 2021
Gender Diversity/ Transgender Healthcare George Fox University, Oregon Cloe Ackerman, PsyD	March 2021
Removing Barriers to Integrated Behavioral Health in Primary Care: Research, Practices & Implementation George Fox University, Newberg, Oregon via Zoom Patti Robinson, PhD; Bhavesh Rajani, MD, MBA; Julie Oyemaja, PsyD	March 2021
Embodiment/ Integration of Self George Fox University, Newberg, Oregon via Zoom Janelle Kwee, PhD	February 2021
Complex PTSD: Advanced Case Conceptualization, Assessment, and Treatment Approaches in Trauma Populations George Fox University, Newberg, Oregon Jason Steward, PhD	November 2020
Pediatric Cancer and Epilepsy George Fox University, Newberg, Oregon via Zoom Justin Lee, PhD	October 2020
Behavioral Health Clinician Essentials: BHC & FACT Training George Fox University, Newberg, Oregon via Zoom Patti Robinson, PhD; Julie Oyemaja, PsyD; Bhavesh Rajani, MD, MBA; Jeri Turgesen, PsyD, ABPP, MCP; Amber Nelson, PsyD; Sarah Rahcola, MD	August 2020
FACT Training & Skills Workshop George Fox University, Newberg, Oregon via Zoom Patti Robinson, PhD; Kirk Strohsal, PhD	August 2020

- Interprofessional Solutions for High-Impact Chronic Pain** July 2020
George Fox University, Newberg, Oregon via Zoom
Bhavesh Rajani, MD, MBA; Paul Coelho, MD; Kathleen Gathercoal, PhD; Jeff Houck, PhD, PT; Julie Oyemaja, PsyD
- Child Adverse Events to Adults with Substance Use Problems** February 2020
George Fox University, Newberg, Oregon
Amy Stober, PhD
- Interprofessional Solutions for Depression in Primary Care** January 2020
George Fox University, Newberg, Oregon
Bruce Arroll, MBChB, PhD; Patti Robinson, PhD; Florence Gerber, MBA; Bhavesh Rajani, MD; Valorie Orton, RN, DNP; Jeri Turgesen, PsyD, ABPP, MCP; Celeste Jones, PsyD, ABCCAP
- Foundations of Focused Acceptance and Commitment Therapy (FACT)** December 2019
George Fox University, Newberg, Oregon
Kirk Strohsal, PhD
- Intercultural Empathy & Cultural Intelligence** October 2019
George Fox University, Newberg, Oregon
Cheryl Forster, PsyD
- REACH Forgiveness** September 2019
George Fox University, Newberg, Oregon
Everett Worthington, PhD
- Non-Violent Communication** August 2019
George Fox University, Newberg, Oregon
Marshall Rosenberg, PhD
- Foundations of Relationships Therapy-The Gottman Model** March 2019
George Fox University, Newberg, Oregon
Douglas Marlow, PhD
- Suicidality Risk Assessment and Treatment** February 2019
George Fox University, Newberg, Oregon
Luann Foster, PsyD

Domestic Violence: A Science Based Approach

February 2019

George Fox University, Newberg, Oregon

Patricia Warford, PsyD

Opportunities in Forensic Psychology

February 2019

George Fox University, Newberg, Oregon

Diomaris E. Safi, PsyD & Alexander Millkey, PsyD

Working with Clients with Chronic Pain

October 2018

George Fox University, Newberg, Oregon

Scott Pengally, PhD

Spiritual Formation and the Life of Psychologist

September 2018

George Fox University, Newberg, Oregon

Lisa McMinn, PhD; Mark McMinn, PhD, ABPP