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# Mental health service-seeking behavior in post-Soviet Ukraine

Amanda Jiang[a], Rachel Ulrich[b], Kristin Van De Griend[c,d], Nathan Tintle[e], Mark McCarthy[f], and Daniela A. Beckelhymer[g]

[a]Department of Psychology, Smith College, Northampton, Massachusetts, USA; [b]Department of Mathematical Sciences, Montana State University, Bozeman, Montana, USA; [c]Department of Social Work, Dordt University, Sioux Center, Iowa, USA; [d]Department of Community and Public Health, Idaho State University, Pocatello, USA; [e]Department of Population Health Nursing Science, College of Nursing, University of Illinois-Chicago, Chicago, Illinois, USA; [f]Department of History, Dordt University, Sioux Center, Iowa, USA; [g]Department of Mathematics, University of Minnesota, Minneapolis, Minnesota, USA

**ABSTRACT**

As the Ukrainian health care system undergoes reform, severe treatment gaps persist for those in need of mental health treatment. This study expands the limited knowledge of factors underlying treatment-seeking behavior. We sought to understand: What encourages or deters Ukrainians from seeking mental health treatment? In addition, among those who chose to seek treatment, what influences the type of treatment sought (conventional or alternative)? Alternative treatment is defined as treatment or counseling provided by spiritual advisers or healers, and conventional treatment is defined as formal treatment or counseling provided by mental health professionals or other health professionals. Using the 2002 Ukrainian version of the World Mental Health Composite International Diagnostic Interview—the only dataset of its kind available for a country that emerged from the former Soviet Union—this study explores the predictors of treatment-seeking behavior for mental health services. Results indicate that Ukrainians diagnosed with depressive, anxiety, or substance use related disorders are more likely to seek treatment, while those diagnosed with Intermittent Explosive Disorder are not. Current physical health issues are also associated with an increased likelihood of seeking treatment. Among treatment-seekers, individuals with stronger religious beliefs are more likely to seek alternatives than conventional forms of treatment. These findings contribute to the small body of research addressing treatment-seeking behavior and can further inform underlying patterns in treatment gaps in Ukraine.

**KEYWORDS**

Mental health; Ukraine; alternative treatment; conventional treatment; health disparity

**CONTACT** Kristin Van De Griend kristinvandegrien@isu.edu Department of Community and Public Health, Idaho State University, Pocatello, ID 83209, USA.

## Introduction

### *Mental health care during the late Soviet era*

After the collapse of the Soviet Union in 1991, Ukraine officially became an independent state. Like many other former Soviet Republics (FSR), the decade following independence was characterized by political and economic instability that impacted the availability of critical services (Cockerham et al., 2017). This included access to medical care of any type, from emergency services to the availability of general medications. In addition to the hardships borne from a state undergoing almost constant change, Soviet cultural stigmatizations of psychiatry and mental health-related treatment endured (Petrea, 2012). It is well-documented that growing socioeconomic disparity, collapsing infrastructure, and political uncertainty have contributed to high morbidity, lower life expectancy, and widespread psychological distress throughout Ukraine (Hankivsky et al., 2017). In addition, prior literature reported heavy alcohol use as another contributor to the decline in Ukrainian health, mental health, and occupational and social functioning (Bromet et al., 2005). Perhaps as a result, both population (51.8–45.3 million people) and life expectancy for men and women declined (by 5.4 and 0.9 years, respectively) between 1990 and the mid to late 2000s (Cockerham et al., 2017). Although no longer a part of the Soviet Union, there are important legacies of the socialist era that still inform and influence Ukraine's present-day health and disability policy. For instance, many Soviet-era structures and practices associated with disability rights and mental health care are still in place either de facto or de jure (Garman et al., 2020; Phillips, 2009; Quirke et al., 2021). Therefore, to understand Ukraine's current health care (and mental health care), it is imperative to examine the country's past.

During Soviet times there were significant differences in the understanding and practice of mental health services offered in the West and the USSR. Western studies and advancements in mental health practices were considered suspect and either largely ignored or overtly prohibited by early Soviet policy (Yakushko, 2005). In turn, Western doctors were skeptical of Soviet methods and practices, especially reports concerning psychobiological treatments of dissidence and the overuse of institutionalization (Daw, 2002; Petrea, 2012; Yakushko, 2005). In 1977 the Soviet Union was removed from the World Psychiatric Association (Petrea, 2012). For Soviet citizens suffering from less severe mental health conditions, almost no mental health counseling existed outside of an institutional setting (Roth, 1994; Yakushko, 2005). Mental health conditions also influenced one's position and reputation in the community. It has been documented that people with mental health conditions were stigmatized and intentionally made

invisible to the public (Phillips, 2009). Those who sought treatment were branded as mentally incompetent or unstable, rendering finding employment difficult or even impossible (Roth, 1994). As a result, conventional mental health services were feared and distrusted by the general population. Although Ukraine is now a member of the World Psychiatric Association, the stigma persists (Petrea, 2012). For instance, in the context of substance use among women in Ukraine, interpersonal and contextual factors may hinder utilization of services. Women who had histories of substance use were seen as deviant for their inability to adhere to norms of motherhood and womanhood, a perception that deterred health-seeking behaviors (Owczarzak et al., 2021).

Unsurprisingly, seeking treatment from non-formal and non-medical based healers was safer and more desirable than seeking state-approved treatment during the Soviet era (Yakushko, 2005). Alternative forms of treatment were rooted in spirituality and inextricably linked with community. Folk healers, known as babky, were (and still are) sought out predominantly by villagers to treat maladies that were considered untreatable by conventional Western medical practices. Common afflictions treated by babky included the evil eye, also recognized as "curses" or "spoiling" (Phillips, 2004). The victim of the evil eye may have had a wide range of mental and physical symptoms, including depression, weakness, headaches, and insomnia. Depending on the condition, the babky would have utilized alternative healing methods, such as rituals, herbal medicine, and massage, to cure ailments inflicted by the evil eye. Although many babky specialized in treating maladies not recognized by conventional medical practitioners (e.g. curses), some were adept at treating chronic, biomedical illnesses, such as problems of the spine, headaches, and stomach (Phillips, 2004). More than healers, babky were seen as confidants, listening and offering empathy to community members (Phillips, 2004). Like other religious practices, formal implementation of treatments based on energies and spirituality were strictly prohibited under Soviet control, and the majority of alternative healing was practiced in privacy (Yakushko, 2005). Unlike stigmas attached to "westernized" psychiatric treatment, however, traditional and religious healing—deeply rooted in rural life—withstood Soviet "revolutionary culture-making" with little alteration (Stites, 1988). Alternative treatments and many other rural practices persisted, albeit underground, despite Soviet attempts to re-fashion reality.[1]

### *Modern mental health care in Ukraine*

In the mid-1990s, general interest in mental health was rekindled as higher education programs started to offer formal training in mental health

counseling and medical psychiatry (Havenaar et al., 1998; Yakushko, 2005). Research and interest in more insight-oriented counseling methods, such as psychoanalytic, Jungian, transpersonal, Gestalt, humanistic, body-focused, art, and music therapies represented a movement away from more psychosomatic-based, authoritarian Soviet treatments (Havenaar et al., 1998; Sosland, 1997; Yakushko, 2005). As conventional treatment services expanded, Ukrainians continued to value traditional, alternative services, particularly those who lived in rural areas and had less access to conventional treatments (Yakushko, 2005) An epidemiological survey reported that among Ukrainians diagnosed with a severe mental disorder, 17.7% sought help from religious providers exclusively (Kovess-Masfety et al., 2017). In-depth observational studies conducted in Western Ukraine found that most interviewees reported seeking help from a babky (Phillips, 2004). In the context of widespread corruption and financial instability, traditional medicine has been—to this day—crucial in the post-Soviet country. Literature regards babky as an important part of the society, who "are taking up the slack of a failing system of state health care" (Phillips, 2004).

Despite growing interest in mental health, training and certification programs remain inconsistent, ethical regulations inadequate, and services are generally difficult and expensive to access (Daw, 2002; Petrea, 2012; Yakushko, 2005). While mental health financing in most Eastern European countries is supported by public or universal health insurance, plans often lack a separate budget for mental health services, implying that coverage may not exist at all (Dlouhy, 2014). Additionally, public health insurance often adheres to a reimbursement system, restricting access to those who can't afford up-front service costs (Dlouhy, 2014). The Ukrainian constitution states that free healthcare is available to all, but hospitals typically lack sufficient funding, necessitating that patients pay for all but the most basic services (Daw, 2002; Yakushko, 2005; Yankovskyy, 2016). World Mental Health Composite International Diagnostic Interview (WMH-CIDI) data reported that 76.3–85.4% of community adults living in less-developed countries (including Ukraine) diagnosed with a serious mental health disorder between 2001 and 2003 received no treatment in the 12 months before the interview (Demyttenaere et al., 2004). Of those respondents with major depression who admitted to suicidal thoughts, 75% had never sought formal care (Bromet et al., 2005). Another study found that within the minority receiving professional help, most Ukrainians preferred their general medical practitioner over mental health specialists (Bromet et al., 2005), which could be due in part to perceiving mental health conditions as physical health challenges (Aroian et al., 2001; Phillips & Murrell, 1994). By the mid-2000s, a formal mental health treatment system in Ukraine was still considered limited in scope and uncommon (Gluzman &

Kostyuchenko, 2006). As the Ukrainian health care system currently undergoes reform, severe treatment gaps persist for those in need of mental health treatment (Cockerham et al., 2017; Lekhan et al., 2015; Romaniuk & Semigina, 2018). This study expands the limited knowledge of factors underlying treatment-seeking behavior (Cockerham et al., 2017) by using a nationally representative sample of Ukraine—the only data set of its kind available for any FSR.

We sought to understand: What encourages or deters Ukrainians from seeking mental health treatment? In addition, among those who chose to seek treatment, what influences the type of treatment sought? We made the following hypotheses regarding general treatment-seeking behavior: Individuals with more community ties, higher socioeconomic status, stronger religious beliefs, suffering from mental health disorders or chronic physical conditions, or those with poor perceived health would be more likely to seek treatment. Amongst those who sought any treatment, we hypothesized that (1) Individuals with more community ties and support, lower socioeconomic status, or stronger religious beliefs would be more likely to visit a spiritual or traditional healer, and (2) Those residing in urban areas, suffering from mental health disorders or chronic physical conditions, or those with poor perceived health would be more likely to seek conventional forms of treatment. Considering the health care reformation in Ukraine, our findings could be used to inform a more culturally responsive mental health care, one that not only addresses mental health conditions but also a variety of health and social determinants that may impact specific service-seeking behaviors, thereby bridging the existing treatment gap and aiding in the de-stigmatization of help-seeking intentions and behaviors.

## Methods

### *Sample*

In 2002, as part of the World Health Organization (WHO) WMH Survey Initiative, a national field survey was conducted in Ukraine. The Ukrainian version of the World Mental Health Composite International Diagnostic Interview (WMH-CIDI) was a representative survey of adult residents aged 18 years and older from 24 oblasts (states) and the autonomous republic of Crimea. The population in 2003 was ∼48 million (World Health Organization Regional Office for Europe, 2006). In-person interviews were conducted by the professional field staff of the Kiev International Institute of Sociology (KIIS) after a weeklong training on CIDI administration, in collaboration with the Ukrainian Psychiatric Association (UPA). A total of 4725 adults aged 18 years and older participated, with a survey response

rate of 78.3%. All procedures were approved by the Human Subjects Committee of the University at Stony Brook, KIIS, and UPA (Bromet et al., 2005). The Ukrainian WMH-CIDI was divided into two sections: Part I was administered to all participants ($n = 4725$) while Part II was administered to respondents diagnosed with a mental health disorder using the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria, and a random subsample (16%) of those without a mental health diagnosis ($n = 1720$). The prevalence of different psychiatric and alcohol disorders from this survey was detailed in Bromet et al. (2005) epidemiologic study, which reported that approximately one-third of the sample experienced at least one DSM-IV disorder in their lifetime, 17.6% had an episode in the past year, while 10.6% had a current disorder at the time of the survey (Bromet et al., 2005).

The weighted Part II sample consisted of 1720 respondents who provided a response to treatment-seeking behavior in the second portion of the WMH-CIDI survey. The dataset was weighted to ensure that this sample was representative of the census, a methodology detailed in prior literature (Bromet et al., 2005). Those defined as treatment-seeking identified past or current participation with one or more of the following services for emotional or mental health problems: psychiatrist or narcologist (specializing in the treatment of drug use and addiction), other mental health professionals (i.e. psychologist or psychotherapist), family doctor, other medical doctors (i.e. cardiologist, gynecologist, urologist), other health professional (i.e. feldshers, who are comparable to nurse-practitioners in the United States), religious or spiritual advisor (i.e. minister, priest, rabbi), or other healers (i.e. herbalist, chiropractors, acupuncturist, spiritualist, psychic healer, telepathic healer, faith healer) (Bromet et al., 2008). Conventional services were defined as formal treatment or counseling provided by mental health professionals, family doctors, medical doctors, or other health professionals. Alternative services were defined as treatment or counseling provided by spiritual advisors or healers.

### *Overview of the World Mental Health Composite International Diagnostic Interview*

The instrument utilized was the paper–pencil format of the WMH-CIDI version 3.0. The WMH-CIDI was based upon a structured interview designed to assess physical health and mental health functioning, and was widely considered a reliable diagnostic tool (Gelaye et al., 2013; Kessler & Üstün, 2004; Wittchen, 1994). Standard WHO forward and back translation protocol was followed in translating all materials into Russian and Ukrainian. The CIDI version 3.0 was designed to assess DSM-IV disorders

(Bromet et al., 2005) and had demonstrated agreement with Structured Clinical Interviews (SCID) in DSM-IV diagnoses (Haro et al., 2006). Findings from a small clinical reappraisal study supported the overall validity of the CIDI assessments (Bromet et al., 2005; 2008).

### Demographics, regions, mental health conditions, and poverty variables

Five variables from Part I were selected as baseline demographic controls: age, education, sex, employment status (unemployed/employed) (Tintle et al., 2011), region, and marital status. The region was categorized as either east or west of the Dnieper River (a river known as the dividing line between the east and west of Ukraine), and marital status as married (married or in a "marriage-like" relationship) or unmarried (single, widowed or divorced) (Kessler et al., 2003). Part I mental health condition variables included DSM-IV lifetime diagnoses for anxiety-related disorders (agoraphobia, generalized anxiety disorder, panic attack, panic disorder, post-traumatic stress disorder, and social phobia), depressive disorders (major depressive episode, minor depressive disorder, and dysthymia), substance use disorders (alcohol use with and without dependence, drug use with and without dependence, and nicotine dependence), and Intermittent Explosive Disorder (IED). Mental health condition variables were largely selected based on Bromet et al.'s study (2005) and data availability. Socio-demographic variables include urbanicity (areas with rural or township status were considered "rural") and poverty status (present if the family could not afford food and absent if the family could afford food) (Tintle et al., 2011).

### Health, religious beliefs, and perceived community standing variables

Socio-demographic risk factors from Part II included self-reported health, physical health issues, strength of religious/spiritual beliefs, and community standing. Those who rated their health as "poor" were categorized as having poor self-reported health, while those who rated their health as "excellent," "very good," "good," or "fair" were considered to have adequate self-reported health (Tintle et al., 2011). Physical health issues were determined by presence (yes/no) within the past 12 months of at least one of either pain (arthritis, rheumatism, chronic back/neck problems, frequent or severe headaches, or any other pain condition), cardiovascular (heart attack or stroke, or lifetime diagnosis of heart disease or high blood pressure), or other major health conditions (asthma, tuberculosis, chronic lung diseases, diabetes, ulcer, neurological disorders, epilepsy, and kidney, thyroid or liver disease). The strength of religious/spiritual beliefs were dichotomized as weak ("not at all" or "not very" important to daily life) or strong ("very" or

"somewhat" important to daily life). Community standing was measured by prompting respondents to rank perceived standing within their community from 1 to 10 (McLaughlin et al., 2012). Respondents were shown a ladder with the bottom rung labeled "one" to symbolize the lowest possible standing and the top rung labeled "10" to symbolize the highest possible standing. Rankings between rungs 1 and 5 were considered to have low perceived community standing, and rankings between rungs 6 and 10 were considered to have high perceived community standing.

### *Data analysis*

A series of logistic regression analyses were performed to analyze the difference in mental and physiological disorders and other explanatory variables of interest between the (i) treatment and non-treatment seeking populations, and (ii) amongst the treatment-seeking population, those who sought either only alternative or only conventional treatments. To address our aims, we conducted simple logistic regression analyses, multiple logistic regression analyses controlling for socio-demographic variables, and multiple logistic regression analyses controlling for socio-demographic variables, social predictors and physical health, and grouped mental health diagnoses. Data processing and analyses were conducted in the R software environment version 4.0.3 (R Core Team, 2020) using the survey package (Lumley, 2019).

## Results

### *Participant characteristics*

Of those who provided a response to treatment-seeking behavior ($n = 1720$), 1,456 reported never seeking treatment (84.7%), while 264 reported having sought treatment (15.3%). Table 1 offers an overview of the socio-demographic characteristics associated with treatment *vs.* non-treatment seeking behaviors. The treatment-seeking group was older than the non-treatment-seeking group (mean: 48.96; mean: 45.56) [$t(37) = 2.2233$, $p = 0.032$] and the mean odds of seeking treatment were lower for males [0.54 (0.39, 0.76), $p = 0.001$] and higher for people who were unemployed [1.44 (1.02, 2.04), $p = 0.045$], unmarried [1.45 (1.02, 2.05), $p = 0.045$], and from Eastern Ukraine [1.51 (1.02, 2.22), $p = 0.044$].

Among the treatment-seeking sample, 161 reported seeking only conventional services (61%), 63 reported seeking only alternative services (23.9%), and 40 reported seeking both alternative and conventional service types (15.2%). Respondents seeking both types of treatment were excluded from the analysis. The conventional treatment-seeking and alternative treatment-

**Table 1.** Socio-demographic characteristics of those who sought treatment and those who did not, and within the treatment-seeking population, those who sought either only alternative or only conventional methods.

| | No treatment ($n = 1456$)% | Treatment ($n = 264$)% | Conventional ($n = 161$)% | Alternative ($n = 63$)% |
|---|---|---|---|---|
| Socio-demographic variables | | | | |
| Sex (male) | 47.2 | 32.6 | 38.5 | 19.1 |
| Marital status (not married) | 33.5 | 42.15 | 34.4 | 52.4 |
| Employment (unemployed) | 50.3 | 59.5 | 61.3 | 55.6 |
| Age (*M*) | 45.56 | 48.96 | 49.26 | 49.49 |
| Region (East) | 54.8 | 64.8 | 65.8 | 54.0 |
| Education (>high school) | 44.3 | 48.3 | 46.0 | 44.4 |

**Table 2.** Prevalence rates, simple logistic regression, and multiple logistic regression analyses for the treatment- and non-treatment-seeking populations.

| | Treatment-seeking ($n = 264$)% | OR (95% CI) | OR° (95% CI) | OR°° (95% CI) |
|---|---|---|---|---|
| Social predictors and physical health | | | | |
| Poverty (absent) | 64.9 | 0.89 (0.65, 1.21) | 0.99 (0.70, 1.41) | 1.09 (0.69, 1.72) |
| Urbanicity (urban) | 64.4 | 1.50 (1.02, 2.18)* | 1.33 (0.86, 2.05) | 1.59 (0.93, 2.71) |
| Self-reported health (poor) | 32.1 | 1.88 (1.31, 2.7)** | 1.74 (1.13, 2.67)* | 1.47 (0.93, 2.32) |
| Physical health issues (present) | 91.3 | 3.92 (2.48, 6.36)*** | 3.49 (2.11, 5.76)*** | 2.65 (1.35, 5.19)** |
| Strength of religious beliefs (weak) | 32.7 | 0.68 (0.47, 0.99) | 0.68 (0.70,1.41) | 0.76 (0.49, 1.17) |
| Community standing (lower) | 60.4 | 0.95 (0.68, 1.33) | 0.88 (0.63, 1.25) | 0.74 (0.50, 1.08) |
| Mental health conditions | | | | |
| Depressive | 39.4 | 2.94 (2.11, 4.10)*** | 2.63 (1.82, 3.79)*** | 2.01 (1.26, 3.20)** |
| Anxiety-related | 46.1 | 4.17 (2.87, 6.06)*** | 3.71 (2.54, 5.42)*** | 2.22 (1.41, 3.51)** |
| IED | 7.9 | 2.04 (1.29, 3.21)** | 2.39 (1.58, 3.61)*** | 0.82 (0.49, 1.38) |
| Substance use | 26.8 | 1.95 (1.27, 3.00)** | 3.73 (2.49, 5.59)*** | 3.80 (2.39, 6.04)*** |

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.
°Adjusted for sex, employment status, marital status, age cohort, region, and education level.
^^Adjusted for all outcome variables, mental disorders, and demographic variables.

seeking groups were similar in age (mean: 49.26; mean: 49.49) [$t(31) = -0.0598$, $p = 0.95$]. Simple logistic regression analyses indicate that the odds of seeking alternative types of treatment were 0.37 (0.15, 0.87, $p = 0.02$) times lower for males than for females (Table 1).

### *Treatment and non-treatment: logistic regression models*

In simple logistic regression analyses (second column of Table 2), both poor self-reported health and poor physical health increased the mean odds of seeking treatment. In multiple logistic regression analyses adjusting for the demographic variables listed in Table 1 (third column of Table 2), the mean odds of seeking treatment decreased for those with poor self-reported health [from an OR of 1.88 (1.31, 2.70) to an OR of 1.74 (1.13, 2.67)]. No difference in the odds of seeking treatment existed between the two groups in the final multiple logistic regression analysis (last column of Table 2) adjusting for all demographic variables, social predictors and physical

health, and mental disorders listed in Table 2. Poor physical health increased the mean odds of seeking treatment in both multiple logistic regression analyses and was the only explanatory variable in the final model associated with treatment-seeking behavior.

The presence of any of the mental health conditions of interest increased the mean odds of seeking treatment in simple logistic regression analyses. From simple logistic regression analyses to the final multiple logistic regression analysis, the odds of treatment-seeking increased for a substance use disorder diagnosis [from an OR of 1.95 (1.27, 3.00) to an OR of 3.80 (2.39, 6.04)]. A diagnosis of IED increased the mean odds of seeking treatment in the simple logistic regression analysis and first multiple logistic regression analysis, but not in the full model. The presence of either anxiety-related or depressive disorders increased the mean odds of seeking treatment in all analyses.

### *Alternative and conventional: logistic regression models*

In both simple logistic regression analyses (column 2 of Table 3) the mean odds of seeking alternative treatment were lower for those with weak religious beliefs and poor self-reported health. In multiple logistic regression analyses adjusting for socio-demographic variables (column 3 of Table 3), the mean odds of seeking treatment were lower for those with lower community standing and weak religious beliefs. By the final model (column 4 of Table 3), self-reported health and community standing no longer influenced the odds of seeking alternative types of treatment, but the mean odds of seeking treatment remained lower for those with weak religious beliefs. None of the mental disorders of interest were associated with the

**Table 3.** Prevalence rates, simple logistic regression, and multiple logistic regression analyses for the alternative and conventional treatment-seeking populations.

| | Alternative treatment ($n = 63$)% | OR (95% CI) | OR° (95% CI) | OR°° (95% CI) |
|---|---|---|---|---|
| Social predictors and physical health | | | | |
| Poverty (absent) | 71.9 | 1.57 (0.83, 2.97) | 1.81 (0.89, 3.70) | 1.05 (0.59, 1.89) |
| Urbanicity (urban) | 71.4 | 1.85 (0.66, 5.16) | 2.14 (0.77, 5.92) | 2.72 (0.96, 7.69) |
| Self-reported health (poor) | 19.0 | 0.46 (0.23, 0.89)* | 0.54 (0.28, 1.03) | 1.03 (0.51, 2.09) |
| Physical health issues (present) | 90.5 | 0.72 (0.25, 2.09) | 0.75 (0.20, 2.77) | 0.54 (0.13, 2.28) |
| Strength of religious beliefs (weak) | 14.3 | 0.21 (0.07, 0.68)* | 0.27 (0.10, 0.73)* | 0.37 (0.18, 0.72)* |
| Community standing (lower) | 41.7 | 0.41 (0.16, 1.11) | 0.26 (0.11, 0.63)** | 0.64 (0.29, 1.41) |
| Mental health conditions | | | | |
| Depressive | 42.9 | 1.44 (0.73, 2.83) | 1.15 (0.56, 2.37) | 1.62 (0.92, 2.87) |
| Anxiety-related | 44.4 | 0.96 (0.48, 1.91) | 0.87 (0.42, 1.81) | 0.89 (0.48, 1.67) |
| Substance use | 14.1 | 0.40 (0.14, 1.09) | 0.58 (0.18, 1.86) | 0.92 (0.39, 2.15) |

*$p < 0.05$, **$p < 0.01$.
°Adjusted for sex, employment status, marital status, age cohort, region, and education level.
^^Adjusted for all outcome variables, mental disorders and demographic variables.

type of treatment sought in any of the analyses. Intermittent Explosive Disorder was not analyzed due to an inadequate sample size.

## Discussion

The primary aim of this paper was to investigate the correlates of mental health treatment-seeking behaviors in Ukrainians. In our sample, 15.3% sought either conventional or alternative treatment at least once. Aligned with our hypotheses, we found that, among those who sought treatment, physical health issues and diagnoses of mental health conditions were significant correlates of treatment-seeking behavior. Specifically, our findings indicated that the odds of seeking treatment for those with physical health issues were 2.65 times higher than for those without. This is consistent with prior research, indicating that mental health and physical health are inextricably linked (Kessler et al., 2009) and that physical health issues and chronic illnesses are often the primary impetus for seeking mental health treatment (Aroian et al., 2001; Phillips & Murrell, 1994).

We also found that a diagnosis of either depressive or anxiety-related condition was correlated with a 2-fold increase in treatment-seeking behavior, and a diagnosis of substance use condition was associated with a 3-fold increase in seeking treatment. The psychological pain and decreased quality of life that accompany these conditions may serve as the primary motivator to actively seek treatment. Moreover, the inclusion of more humanistic approaches to treating mental health conditions could also encourage treatment-seeking behavior (Yakushko, 2005). Although there remains a strong stigma against mental health diagnoses, the increased utilization of services in Ukraine may be due to the intervention of non-governmental organizations (NGOs), such as the Human Rights for Psychiatric Patients (Yankovskyy, 2016). This is echoed by other researchers, who have found a growing number of NGOs to be the center of support for individuals with mental illness, providing individual and group counseling and active hotlines, while protecting the rights of those with mental health diagnoses (Yakushko, 2005).

Our secondary aim was to examine factors that would influence the type of treatment sought (alternative or conventional treatment). In the current study, only the strength of religious beliefs emerged as a significant determinant of the type of treatment sought, such that the odds of seeking alternative treatment were 2.7 times higher for those with strong religious beliefs. This finding is consistent with prior literature. For example, in a study assessing the popularity of religious advising in Eastern Europe, residents who were affiliated with the Christian religion usually sought social and religious support before seeking professional medical help (Ellens et al., 2000). In Ukraine, babky folk healers are regarded as “wise women”

and are seen as God's "chosen healers" (Phillips, 2004). As such, Babky healers are particularly favored among rural religious communities. Another motive for seeking alternative-based service could be due to a longstanding mistrust toward conventional services among those with strong religious beliefs (Ellens et al., 2000), echoing post-Soviet Ukrainian attitudes of suspicion toward conventional practices (Yakushko, 2005).

### Limitations

Although the Ukrainian version of the WHO WMH-CIDI survey represents the best available data set, the analysis, and data are not without flaws. Particularly, the sample size was an ongoing problem, at times limiting analyses. Among those who sought treatment, both substance abuse and community standing had low sample sizes, indicating results should be interpreted with caution. As with all self-reported surveys, data may suffer from response bias. To mitigate these effects, researchers incorporated strategic, motivational instructions and commitment questions in the screening section of the CIDI to encourage participants to respond completely and accurately (Kessler & Üstün, 2004).

Not trivially, this data was collected in 2002, and now describes the state of Ukraine almost twenty years ago. Much has transpired both politically and economically, most notably the War in Donbass and Russia's seizure of Crimea. In a 2011 study on barriers to health care access (also in collaboration with KIIS), researchers maintained that although data was collected before these events, due to a paucity of existing new health care data, historical baseline measures remain relevant (Cockerham et al., 2017). Although the current medical reformation is gradually changing the healthcare system in Ukraine, health-seeking determinants may be lasting and can potentially inform the implementation of a new healthcare system. Moreover, our study survey uses DSM-IV diagnostic criteria, as opposed to the state of the science, the DSM-V. For various reasons, the survey did not attempt to diagnose certain types of mental health disorders, including, but not limited to, personality and learning disorders. Although not accounted for, these disorders could represent concurrent and possibly confounding diagnoses, which might influence results. Finally, due to the cross-sectional nature of the data, we are not able to draw any causal conclusions.

### Conclusion

This study contributes to the small body of research addressing treatment-seeking behavior and underlying patterns in treatment gaps throughout Ukraine. Ukraine remains a culturally, ethnically, and linguistically diverse

nation seeking a unifying national identity. Providing inclusive and appealing mental health treatment services to all citizens is a step toward instilling a sense of unity. Health care reform is a priority in Ukraine, as evidenced by recent attempts by both the government and NGOs to make services more available and affordable (Romaniuk & Semigina, 2018). Results from this study could aid in curriculum development for public health education, as they highlight the importance of religion and community in determining treatment type, as well as the need to bridge conventional and alternative services to reach the high percentage of people who would otherwise choose to seek no treatment. Importantly, our findings could be used to inform future research. We recommend updating the study and encourage future researchers to conduct qualitative and more quantitative research that examines service-seeking behavior in Ukraine. Future studies could also use the current study as a starting point to rigorously evaluate the role of alternative-based treatments in Ukraine's health service system, as well as to investigate the potential integration of alternative-based and conventional treatments, along with factors that may mediate the bridging of these two types of treatments in post-Soviet Ukraine. Currently, one of the projected scopes of the healthcare reformation is putting the field of family medicine at the forefront of patient's healthcare process (Romaniuk & Semigina, 2018). Given our study findings and prior literature, however, a more well-rounded reformation should consider the integration of both alternative and conventional forms of treatments. This involves a stronger inclusion of alternative-based providers, such as religious and spiritual healers, in the nation-wide system. Alternative-based providers have a long history of serving individuals with mental health needs and often perform a secondary role as bridges to conventional care through referrals (Bohnert et al., 2010; John & Williams, 2013; Weaver et al., 2003). Integrating alternative and conventional forms of treatment has the potential to reduce health disparities for patients less likely to seek more formal care, integrate into already present and culturally accepted coping mechanisms, and aid in destigmatizing mental illness.

## Note

1. Richard Stites explores the "spiritual, mental, and expressive forms" of the Russian Revolution in *Revolutionary Dreams: Utopian Vision and Experimental Life in the Russian Revolution* (New York: Oxford University Press, 1989). Although discussed in much greater detail and scope, the effect of culture-making on the peasant class is summarized in the following: "It was in a sense a national performance of that great metaphor of Russian nineteenth century literature wherein the master talks, smiles, offers, and urges and the peasant nods mutely and then proceeds to wreck his lofty plans."

## Ethical approval

All procedures were approved by the Human Subjects Committee of the University at Stony Brook, Kiev International Institute of Sociology, and Ukrainian Psychiatric Association.

## Consent to participate

Informed consent was obtained from all individual participants included in the study.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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## ORCID

Kristin Van De Griend http://orcid.org/0000-0002-9714-3715

## Data availability statement

Data and material are available on request from the corresponding author.

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